

# PORTS *and* HARBORS

February, 1978 Vol. 23, No. 2

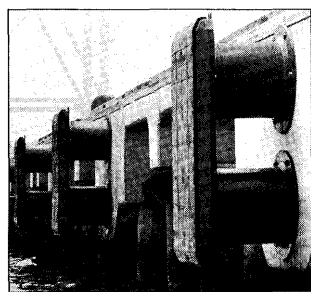


## IAPH Conference Le Havre May 1979

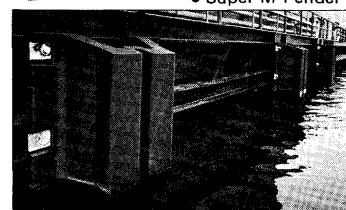
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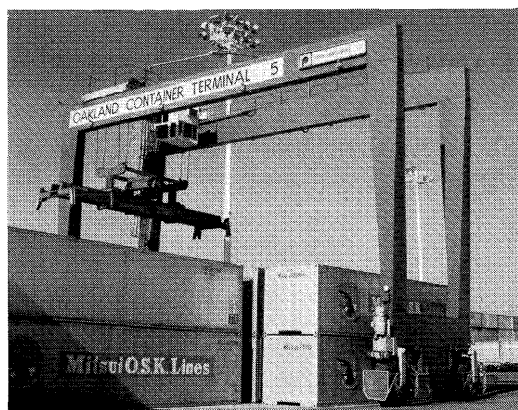
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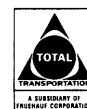
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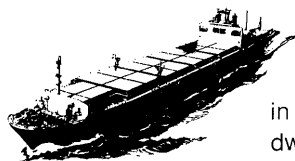


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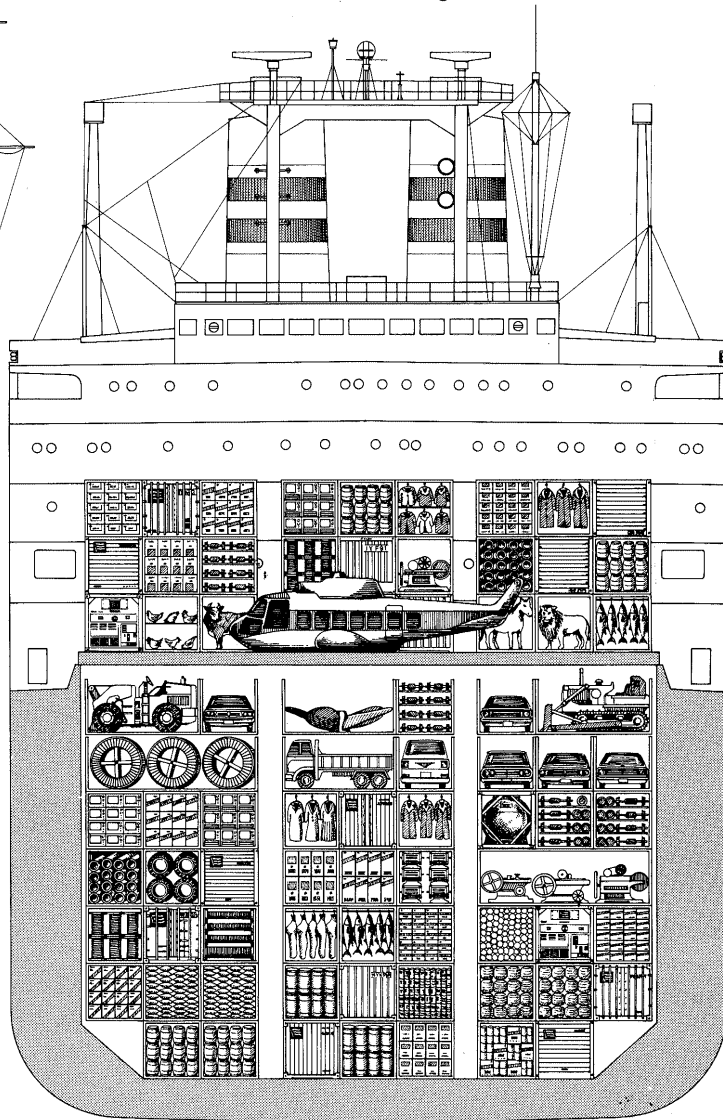
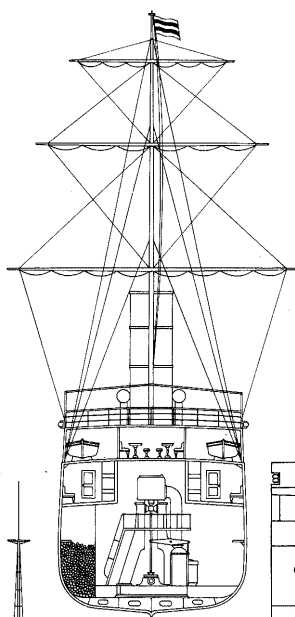
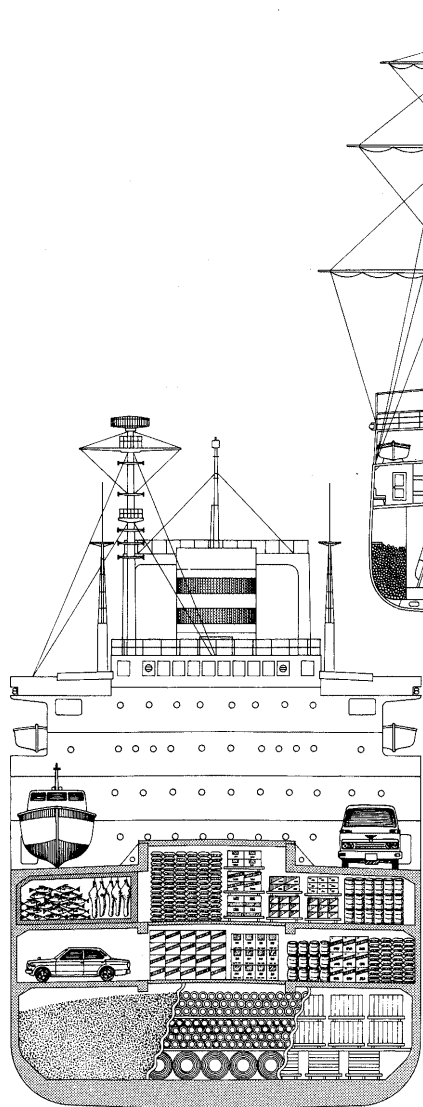
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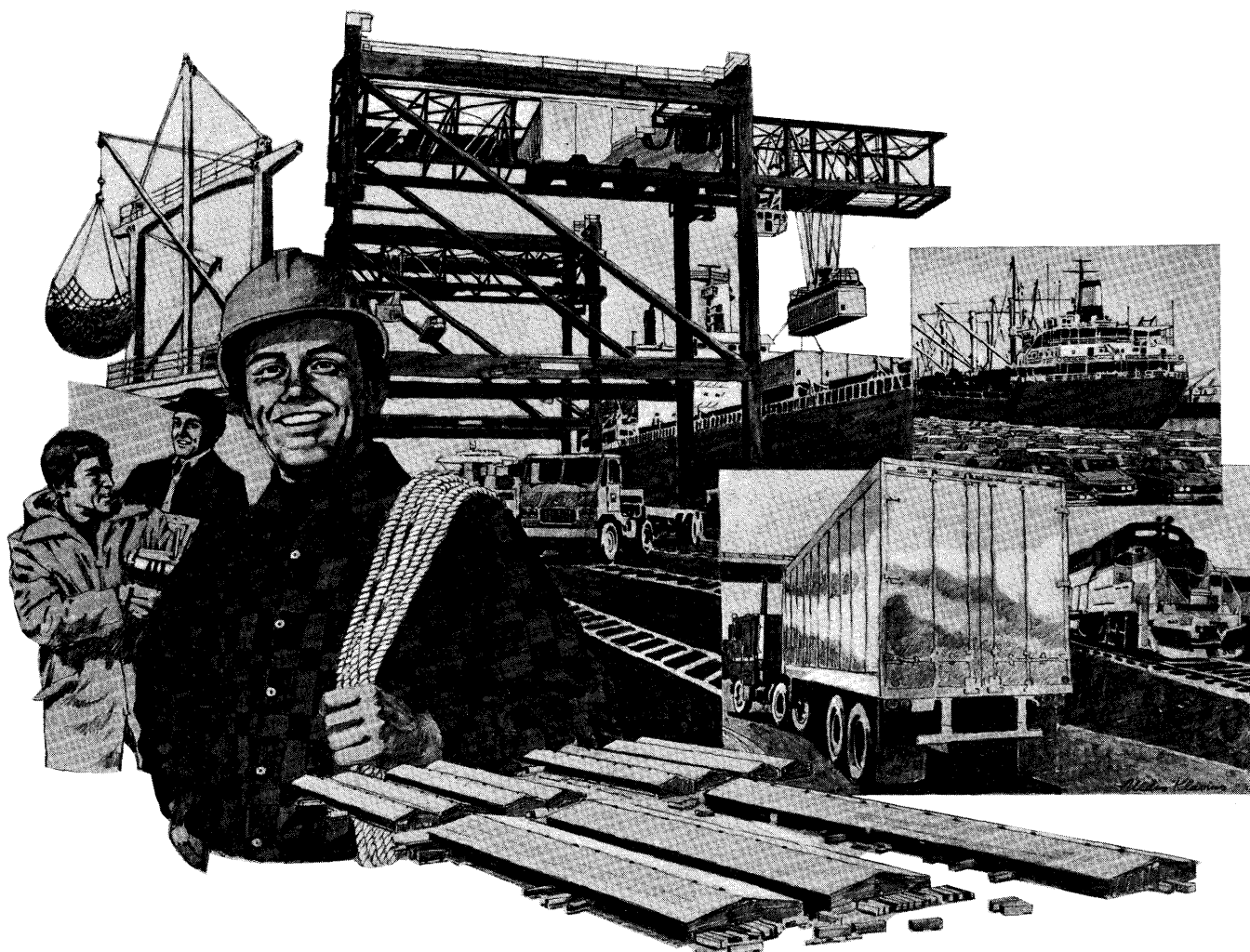
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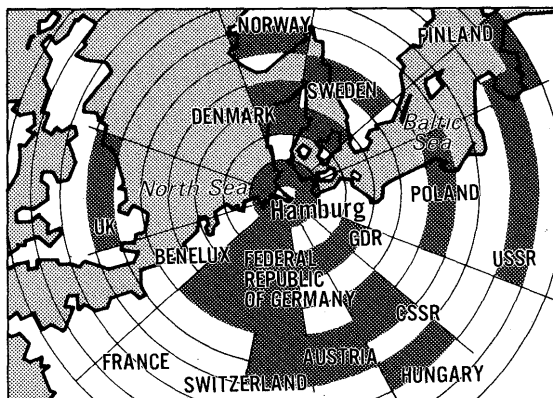


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Editor: Yoshio Hayashi

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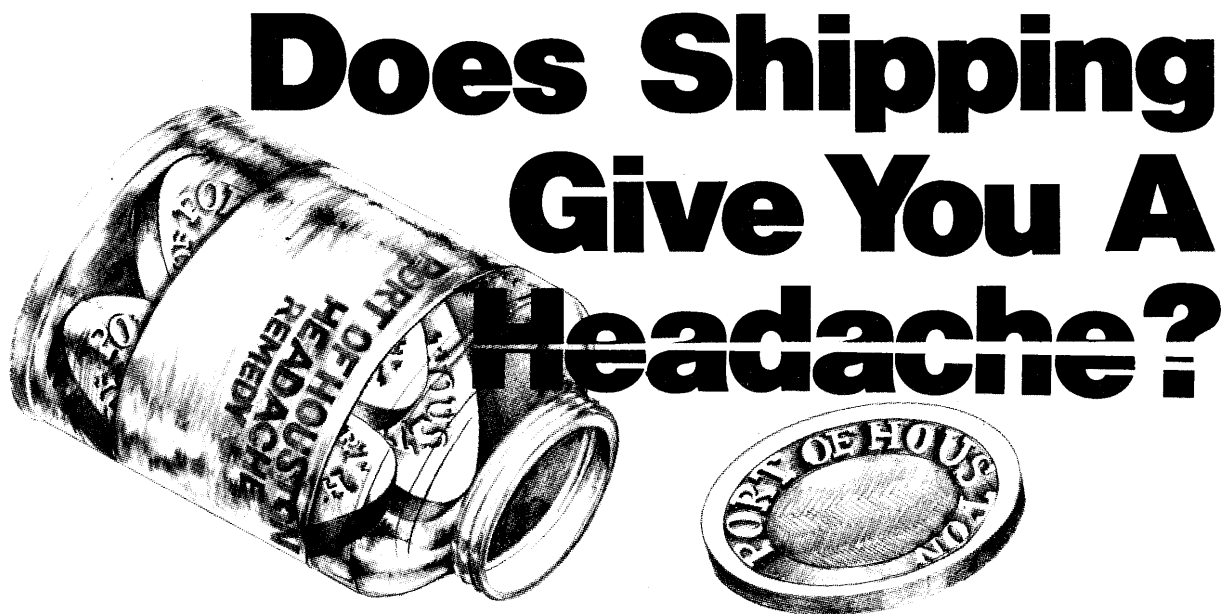
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# PORTS *and* HARBORS

**IAPH Head Office Announcements :** Pages 7 ~ 18

## IAPH Meetings in Mombasa April 1978

The Secretary-General announced on behalf of the President Altwater that the meeting of the Executive Committee would take place on April 7 and April 8, 1978, at Nyali Beach Hotel, Mombasa, Kenya, under the hostship of Mr. P.K. Kinyanjui and his Kenya Ports Authority, in his letter of December 16, 1977 addressed to members of the Executive Committee, chairmen and members of Special & Standing Committees, chairman & members of Legal Counselors and Mr. J. Dubois of Port of Le Havre.

In accordance with the past practices, the Secretary-General said in his letter, the meetings of Special and Standing Committees would also be held just prior to the meeting of the Executive Committee, at the same venue in Mombasa. He asked those gentlemen involved for their active participation and attendance to the Mombasa Meetings.

According to his disclosure, the items of discussion of the Executive Committee would include (a) reports on activity, (b) financial matters, (c) Special & Standing Committee matters, and (d) 11th Conference matters, while the subjects should have to be finalized in due course.

Overall organization of the Mombasa Meetings are as follows:

### Schedule

April 03, 1978 (Monday)

Finance Committee  
Membership Committee

April 04, 1978 (Tuesday)

Constitution & By-Laws Standing Committee  
Containerization, Barge Carriers and Ro/Ro Vessels  
International Port Development

April 05, 1978 (Wednesday)

Trade Facilitation  
Community Relations

April 06, 1978 (Thursday)

Executive Committee

April 07, 1978 (Friday)

Executive Committee

### Venue and contacts

Nyali Beach Hotel  
P.O. Box 90581, Mombasa, Kenya  
Telex: 21241, Cable: Naylotel—Mombasa  
Telephone: 471551 (Mombasa)

### Hosting Port and contacts

Kenya Ports Authority (Attention: Mr. J.S. Kyandih,  
Commercial Officer)  
P.O. Box 95009, Mombasa, Kenya  
Telex: 21243 Bandari

## We need your action

Dr. Jack Bax, Chairman of IAPH Special Committee on Community Relations and Director of External Affairs Department of Port of Rotterdam, in his communication of December 16, 1977, asked IAPH port members for their contribution and cooperation with the questionnaire on port's roles in the regional community.

He is the author of the paper entitled "Needed: Action groups for our Ports" which was carried in the February issue of the journal and was elected to serve on the Committee on Community Relations which was newly established at the 10th Conference in Houston in recognition of the significance contained in the paper.

In his letter to port members, he says that ports today lack the general support of the communities of which they are part and which they serve, yet to function properly, ports need the taking of large segments of the population. And, he continues that one of the means to tighten or re-establish the relationship is better communication directed towards creating a new understanding of the important role that port plays.

He stipulates the actions of the Committee as follows:

A: The Committee does research and makes clear to the public, the vital functions ports fulfill with regard to world trade and their contribution (economical and social) to the communities of which they are part.

B: The Committee mobilizes the large amount of communication skills and expertise already present within the IAPH membership.

C: The Committee puts before the Association, action plans, on a worldwide scale, to clarify the essential functions of the ports. It will not try to disregard the claims of "anti"-port groups, but will point out compromises so that ports and cities both may develop and support each other.

He discloses that the following suggestions have already been made for the furtherance of the activity of the Committee:

- An international annual "Port Week" which could include "open house" in the port to familiarize the public with developments in port operation. A number of ports have staged such events with considerable success. Combined efforts could maximize results.
- Propose the issuing of (a series of) special stamps through the proper national and international organizations to set out the importance of ports to trade and local, regional and national prosperity and development.

- Activate reporting on activities especially directed toward people's involvement in port matters. Such reports could be distributed through the I.A.P.H. Head Office and appear in our own port publications under a common accepted heading. It would focus the readers' attention on our shared problem and stimulate thoughts on how to solve them.
- Plan educational programmes directed towards the younger generation which shows an inclination to become active members in our communities.
- Institute a commemorative plaque to be presented by the I.A.P.H. to a port or to ports which have been very active in fulfilling their social role in community life.
- Make requests to national legislative bodies to preserve ships which are of historic interest.

The followings are items of the questionnaire of the Committee. Members who are not responded to the questionnaire are most ardently requested to contribute their replies to him by February 28, 1978 so that he can report the results of the survey to the Mombasa Meeting in April.

Dr. Jack Bax, Head, External Affairs Department  
Port of Rotterdam, P.O. Box 6622, Rotterdam, the Netherlands

#### Questionnaire 1.1

We are still important. But how important?

If people do no longer or do not sufficiently realize the importance of ports to communities of which they are part we may try a rational approach in supplying them with basic facts and figures. They will clearly show what we represent in jobs, wages, revenues and activities.

Name of port: .

Address: .

Labor force (local and regional)

local .

regional .

total .

What does the port provide in JOBS ?

number

% of labor force

Locally:

a) number of people directly working in the port .

b) number of people working in jobs associated with port activities: ship construction and repair, metal working, transportation, insurance, services, banking, etc. .

Total number of jobs directly

and indirectly port supported

Regionally:  
(incl. local labor force)

- a) number of people directly working in the port
- b) number of people working in jobs associated with port activities: ship construction and repair, metal working, transportation, insurance, services, banking etc. .

#### Questionnaire 1.2

TOTAL number of jobs directly and indirectly port supported

number

% of labor force

(A)

HOW MANY people are dependent (workers and dependents) on the port and affiliated activities

$A \times (\text{average number of dependents})$

What does the port mean in wage earnings ?

local currency

% of total pay roll

Locally

Regionally (including local pay roll)

What does the port mean in

local currency

% of total pay roll

generating payroll

taxes

in national, regional,

local, customs and

other taxes

How much does the port (port and port associated activities) contribute to the GNP

If possible in money

US \$ .

or . percent

Can we substantiate the claim that port cities provide an added value compared to non-port cities? Think of education, arts, tourism, shopping.

Can you give an estimate of the added value expressed in terms of money?

How much cargo was handled through the port (1976)

in metric tons

valued at

### Questionnaire 2.1

We represent important ports

We are aware of technical developments and changing socio-political attitudes which sometimes seem to hamper the flexibility our ports require. What did we do about it?

In this section we would like to uncover information on the planning/implementation process and methods to include constructive participation of people in port decision making.

Name of port: .

address: .

Governing body (national, state, city, port authority, etc.):

Describe shortly policy deciding process:

Indicate whether implementation of plans is now more difficult than ten years ago.

Yes/No

if yes enumerate reasons:

Do citizens participate directly in policy making process?

How?

### Questionnaire 2.2

Did you initiate public participation or did you react to outside request?

Do you feel the need to broaden or diminish participation? Why?

Do you use communication processes? Describe programs or projects.

Particular groups? General public? Broadcast? Brochures? Advertising?

Exhibits? Open Houses?

Do you think you reach a sufficient number of people? How many?

What is your budget involved in any particular year?

How many people of your organization are involved? Professional communicators?

### Questionnaire 2.3

Describe instance where communication helped in making plans and have them accepted (100–150 words). Keep in mind that case histories may be of great value to member ports.

### Questionnaire 2.4

Person to contact for more information:

Name:

Title:

Address:

Information may be used in part or in its entirety for publication in IAPH report.

Signature:

## IAPH submits to IMCO the paper on Safe Practices of Dangerous Goods in Ports

Mr. A.J. Smith, IAPH Liaison Officer with IMCO in his letter of November 4, 1977, submitted the paper "An Addendum Paper to the Notes for Guidance of Port Authorities on the Conveyance and Handling of Dangerous Goods in Harbour Areas" to Captain H. Warderlmann, Cargo Section of IMCO as the discussion paper by the IMCO Sub-Committee on the Carriage of Dangerous Goods at its next meeting in January 1978.

This addendum paper prepared by the North European Harbour Masters was to supplement the British Ports Association's document on the matter which was carried in the May 1977 issue of the journal.

Mr. Ullman, General Manager of Port of Gothenburg and Chairman of Working Group No. 2 of the Committee on Large Ships in his November 2 letter to Mr. Smith, endorsed and recommended to submit the paper for the 28th session of IMCO's sub-Committee on the Carriage of Dangerous Goods. (rin)

# Le Havre Conference Organizing Committee Starts Functioning



The members of the Organizing Committee for the 11th IAPH Conference was announced at Le Havre on October 17, 1977, by Mr. J. Dubois, Director-General of Port of Le Havre Authority, the host of the conference.

The committee consisting of 16 members is already in action preparing for the May, 1979, Conference in Deauville, a world-famous summer resort lying 110 miles west of Paris and 10 miles from Le Havre. The city is surrounded by countless attractions and scenic spots worth visiting as shown in the following pictures supplied by "Office Intercommunal de Tourisme de Deauville et sa région".

The members of the Organizing Committee visited Deauville on the afternoon of November 22, 1977 to inspect the conference site, Casino where Opening Ceremony, Plenary and Working Sessions and other major assemblies including some of the evening functions will be held, and the two hotels sandwiching Casino wherein delegates are to stay during the Conference.

The above photograph was taken at a lobby of Hotel Normandy during the inspection tour.

Front row: from left Mrs. Dubois, wife of the Director-General of the Port Authority and is a key member of the Ladies Program Committee, Miss V. Samson, a port hostess and a member of the Secretariat of the Organizing Committee, Miss Kimiko Takeda, IAPH Under Secretary who was visiting Port of Le Havre Authority from the

Tokyo Head Office in this particular period to collaborate with the Organizing Committee, Miss M.C. Trouplin, a port hostess and a member of the Ladies Program Committee.

The Second row: from left, Mr. J.P. Lannou, Assistant Secretary General, and a key member of the Organizing Committee, Mr. J.J. Vernon, Chief of the Public Relations Department and another pillar of the Committee and Mr. J.C. Duteurtre, Chief of the Administrative Office and a member of the Committee (extreme right). The third row: from left, Mr. P. Cahierre, Engineer in the electronic department, Mr. B. Fidon, Chief of the Planning Bureau and Mrs. G. Raoul, Secretary to Mr. Dubois and a member of the Ladies Program Committee. (TKD)



Members of the Organizing Committee in Session

# Deauville—Close to Le Havre



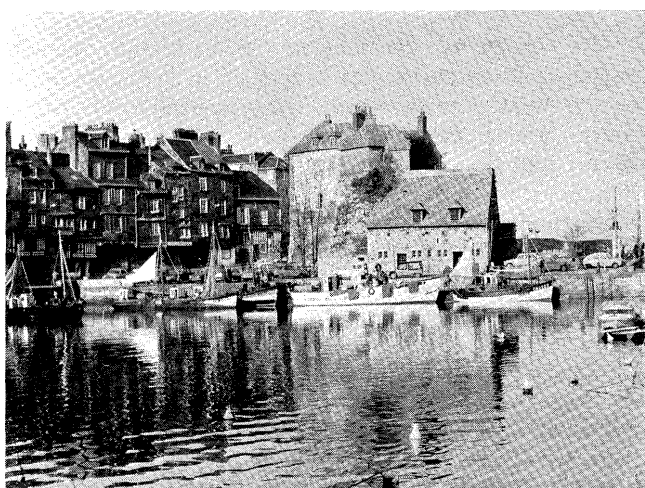
No. 1. An aerial view of City of Deauville



No. 4. A golf course in Deauville



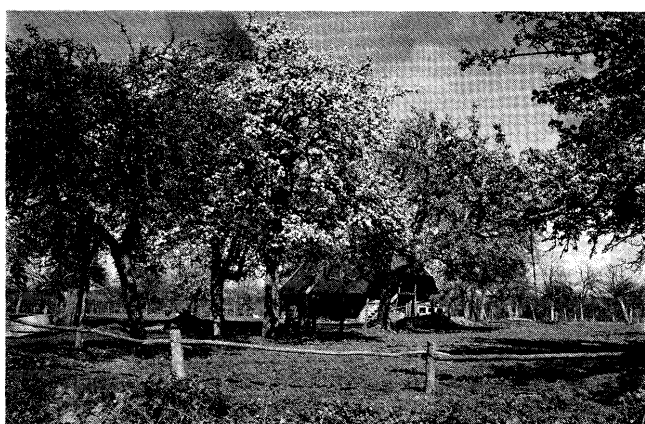
No. 2. Casino of Deauville



No. 5. Hon Fleur—one of satellite resorts near Deauville



No. 3. Deauville—the beach



No. 6. Chaumière Normande— a typical Normandy style cottage in apple blossom season. It is also famous for Calvados (apple wine).

# IAPH Bursary Scheme for Port Training

In accordance with a decision at the 9th IAPH Conference in Singapore, the Special Committee on International Port Development has the disposal of a Bursary Scheme, supplied out of means of the Technical Assistance Fund of the Association. The total sum of the Bursary, now amounting to \$8,000, is designed to be a financial assistance to persons employed in the following member ports of IAPH for training on a junior or a middle management level.

**Angola, Argentina, Bangladesh, Brazil, Burma, Cameroon, Colombia, Fiji, Ghana, India, Kenya, Korea, Mozambique, Pakistan, Papua New Guinea, Senegal, Tanzania, Zaire.**

The Committee, therefore, invites applicants of the category mentioned to apply for a Bursary under the conditions stated below. Applications to be addressed to the Chairman of the Special Committee on International Port Development, Mr. Sven Ullman, c/o Port of Gothenburg, Box 2553, S 403 17 Gothenburg, Sweden, shall be made before the end of the month of March, 1978.

## Bursary conditions

1. The object of the bursaries is to provide financial assistance towards the cost of sending selected applicants on approved training courses overseas. Approved training courses are for instance those available in developed ports as set out in the Survey of Training Facilities and Requirements published by the Special Committee on International Port Development in November 1974 and distributed to all IAPH Members.
2. Up to three bursaries not exceeding US\$2,500 each will be awarded to an approved applicant from the selected member countries.
3. Applicants, who must have been employed in an IAPH member port for at least five years, must already be employed in a junior or middle management capacity and their application form, which may be obtained from the Secretary-General, IAPH, must be sent to the Chairman of the Special Committee on International Port Development. The form must include a statement by the Chief Executive of the applicant's Port Authority confirming the suitability of the applicant for the course he wishes to attend and indicating the benefit both the port and the applicant seek to achieve from the course. The statement should also indicate the applicant's potential for future promotion.
4. The application form must be accompanied by a letter from the developed port confirming its willingness to provide the required training and specifying the date of commencement and duration of the course.
5. All applications for 1976 must be received by 31st March, 1978 and will be considered by the Chairman of the Special Committee on International Port Development whose decision will be final. The decision will be notified to the applicant, his Chief Executive, the Chief Executive of the developed port in which the training is to take place and the President of IAPH, who will authorize the Secretary-General of IAPH to disburse the necessary funds from the Technical Assistance Fund to the applicant's Port Authority. The applicant's Port Authority will be required to reimburse the Technical Assistance Fund any money not

spent out of the bursary award.

6. After completion of the course, successful applicants will be required to prepare a brief report indicating how they propose to apply the training to their present employment. The report, which must be sent to the Chairman of the Special Committee on International Port Development within one month of the completion of the course, will be published at the discretion of the Chairman of the Special Committee on International Port Development, in "Ports & Harbors" magazine. Successful applicants will also be required to obtain and forward with their own report a letter from the developed port giving their opinion of how he has carried out the course and the benefits he has derived from it.

## Application Form for International Association of Ports & Harbors

### Bursary

Part I—for completion by applicant personally

- |  |                             |
|--|-----------------------------|
| 1. Name of applicant   | Age                         |
| 2. Port Authority  |                             |
| 3. Present Appointment   | Date of present appointment |
| 4. Educational Qualifications (Please also indicate whether applicant is fluent in the English language)   |                             |
| 5. Professional/Technical Qualifications   |                             |
| 6. Career History  |                             |
| 7. Previous Overseas Courses attended  |                             |
| 8. Course for which application being made (Specify developed port, nature of course and duration of course)   |                             |
| 9. Applicant's reasons for selecting required course   |                             |
| 10. Amount of bursary for which application now made. (Particulars of travel and other costs, including any fees payable to receiving port should be given in support of the application)  |                             |
| 11. State any other source from which finance for undertaking course will also be obtained and the amount of finance already obtained.<br>(e.g. Employing Port Authority, Government, International Aid Organisations, such as UNCTAD, etc.) |                             |

Applicant's Signature

Date

# COLS meeting in New York

Mr. F.L. Dixon, Jr., Chairman of Special Committee on Large Ships (Senior Analyst, Logistic Dept., Exxon Corporation) in his communication of November 22, 1977 contributed to the journal the minutes of its recent meeting held in New York from September 13 to September 15, 1977. According to his address to the members of the Committee, the meeting was a very spirited one and did not lack for vigorous participation of all members, and further commented that they had a very harmonious meeting and agreement was reached on the intensity of the work effort that would be taking place over the next year and a half.

He also contributed a very significant paper on crude oil washing/segregated ballast retrofitting which was prepared by Mr. George Thebaud of Societe Maritime Shell. The paper will be carried in the next issue of the journal.

According to the communication from the chairman, the COLS will meet in Glasgow from 16 to 18 May, 1978, under the hostship of Mr. A.T. Young, Harbour Master of Clyde Port Authority, U.K. (rin)

## Minutes of the New York Meeting

### International Association of Ports and Harbors Special Committee on Large Ships (COLS)

September 13-15, 1977

Chairman—F.L. Dixon

## Working Groups

### I—Vessel Movement

T. Lannou (for J. Dubois—Chairman)  
G.C. Moulard  
L.R. Dumas  
N.F. Matthews

#### Absentees

G.T. Monks  
C. Van Krimpen  
J. Coune

### II—Vessels at Berth/Anchorage

Chairman A. Bohlen  
(for S. Ullman—Chairman)  
A.T. Young  
G. Thebaud

#### Absentees

G. Beaudet  
P.M. Fraenkel

### III—Environmental Protection and Crisis Management

Chairman—Captain Bauman

J. Ligtermoet  
G.E. Mulholland (for F. Spoke)

#### Absentees

D. Orr  
K.L. Monkemeier  
G.P. Horscroft

## Guests

E. Clothier—International Maritime Pilot Association  
C. Storer—New York Port Authority  
Mr. J.M. Wallace, Vice Chairman, was unable to attend.

## Terms of Reference

The terms of reference were reviewed in detail. The three Work Groups' assignments were accepted as outlined in the Agenda. All members recognized that the intensity of effort will be primarily associated with their work group, but there should be no inhibition whatsoever to contribute to each of the work groups as is seen fit. The Chairman of each of the work groups will assemble and edit the various

sections keeping members advised as necessary.

All organizations that are working in similar areas, for example, IALA, PIANC, OCIMF, and IMPA, will be kept fully informed of activities, and where necessary, coordination meetings will be held with them. Observers will be invited to each of the meetings.

## Guidelines for Port Safety and Environmental Protection

It was agreed that the primary effort of COLS will be devoted to developing a permanent and renewable reference book. This will be prepared by COLS for approval by the Executive Committee of IAPH. This book will reflect to the degree possible the latest in technology and techniques for organizing safe and environmentally acceptable port activities. The COLS will take as a permanent remit the updating of each of the sections reflecting not only its own views, but those of the IAPH membership. The format would be along the following lines:

### I—Vessel Characteristics and Behavior

This chapter would cover the various classes of ships and other vessels that would enter harbors. The intent is to reflect the wide variations that exist in typical classes of vessels. It could include but not be limited to the following:

- Length
- Breadth
- Depth
- Horsepower
- Type of engine
- Percent of power astern
- Rudder angle and Rudder behavior generally
- Delay from ahead to astern
- Stopping characteristics at various speeds
- Effect of low underkeel clearance
- Influence of channel configuration on vessel movement
- The recommended zone of safety, that is, how far away from other shipping the vessel should be during various phases of port activity
- Typical navigation equipment
- Height for bridge clearance

Other items that could be included but not necessarily associated with a particular ship class are the influences of having VHF duplicate receivers, doppler sonar, rudder indicators, Fathometers, Loran, decca, and other electronic navigation systems.

This section would be covered by Working Group No. 1.

### II—Preport Entry Vessel Appraisal

The purpose of this section is to assure that the vessel which enters the port will be understood in all of its limitations by those in the port who control traffic, tugs, and pilots, so that the port passage of the vessel and its cargo transfer within the port will be as safe as possible.

Items to be checked prior to a vessel entering a port may be accomplished by a system of advance notices of deficiency that will affect either the navigation or mooring or cargo transfer of the vessel. This would

include systematic reporting revealing of various types of malfunctions or inoperative equipment. It could also be desirable to include the record of failures during the previous period, for example, two years.

Based upon the known malfunctions and inoperative equipment, the Port Community can take the countermeasures that will further reduce the probability of collisions, groundings, or other incidents by use of appropriate countermeasures, such as additional tug power, restricting traffic, etc.

This section will be written by Working Group I for Vessel Movement and by Working Group II for the Berth and Anchorage situations.

### **III—Port/Harbor Appraisal**

This section is meant to identify means to assess the physical characteristics of the harbor, including such items as tidal flows, currents, visibility, so that management of traffic can respond to the environmental/weather problems. Work Groups I and II would share the responsibility to write this section, again splitting the ship movement vs the ship at rest.

### **IV—Navigation Aids (Passive)**

This section would cover the criteria for the various navigation aids that would be appropriate both night and day and during limited visibility. It will also cover the setting up of traffic separation zones, if appropriate.

The influence of background glare and other disturbances on the effectiveness of ranges, buoys, and beacons would also be covered. Group No. I would have primary involvement in assembling this section. However, Work Group II would cover aspects associated with secure anchorages.

### **V—Vessel/Harbor Navigation Rules**

The purpose of this section would be to outline the types of rules and regulations that will help to assure orderly handling of vessels by substantially mitigating risks through appropriate discipline. It would include such things as the use of the deficiency reporting mechanism of ships (Section II above) so that a safe passage can be planned for a vessel which has a deficiency or may be its nature be one that needs special handling, for example, gas ships. Some things that can be included would be the testing procedure required of the vessel prior to port entry, that is, checking rudder, engine and the like. It would also include tests prior to departure. All of this is to assure that there will be less likelihood of failure in port passage. Other items that could require attention are:

- Speed rules when navigating in traffic situations, near berths or anchorages. The "passing ship effect" on moored vessels and the effect of wash are most important considerations.
- Underkeel clearance requirements in channel passage may be desirable with special consideration of gradual buildup of silt.
- Communication protocols on use of VHF so that it is orderly.
- Regulation of pleasure craft.

### **VI—Pilots and Pilotage**

This section is to deal with the Port Policies as reflected in the practices used by the Pilots. It will bring

out the type of liaison that is desirable between those who operate the port and the people who relay that type of information to those on ships. Also covered will be:

- The training assessment of the pilot organizations and the means to enrich their skills.
- Means to prevent one-man-error by assuring that there is an effective pilot/master interchange.
- Development of a "situation" report by the pilots on traffic and weather, so that there will not be surprises. This requires port community coordination, so that appropriate information is available to in the pilot.
- The definition of the pilot's role in the control tugs and other craft to assure that there is no mistaking of the role of the pilot.
- Finally, consideration should be given to the developing a set of specific rules developed in concert with all users of the port, so that the margins of safety are developed jointly by all concerned. It is not fair to thrust all of the risk appraisal to the pilot.

Working Group I and II, would develop these sections, however, significant input is expected from the International Maritime Pilots Association to reflect the special needs of pilots.

### **VII—Tugs and Mooring Boats**

This section would include guidelines on means to assess the adequacy of tugs and other mooring craft. OCIMF is doing some work in this area. The British National Ports Council has done work as has the Japanese Small Craft Association. These studies would be reviewed and pertinent points abstracted. The role of tugs in fire fighting would also be covered, as well as, the tugs role in standby during critical weather, oil spills, or other emergencies.

This section would be prepared by sections Working Groups I and II.

### **VIII—Traffic Management (Active)**

This section would cover the means to organize traffic flow. It would include the types of communication and coordination that would be required together with surveillance techniques through radar, television, or simply through voice communication.

This section would be written by Work Group No. I.

### **IX—Civil Work**

Harbors and channels many times have to be modified to better handle traffic needs. The means of identifying deficiencies in terms of channel widths, bends, depths, and the like would be outlined. The methods to be used to develop improvement would be outlined. Much of the guidance in this area would come from the work of PIANC.

This section would be written primarily by Working Groups I and II.

### **X—Terminal Appraisal**

A harbor is only as safe and clean as the terminals that participate in its usage. There has to be a conscious method to review the adequacy of the equipment at the terminal, that is, the mooring, cargo transfer, firefighting, containment of spill, fendering, etc. In addition, the procedures that assure safe operations have to be

examined periodically—in terms of the skills of the people involved, their use of the latest techniques in their particular industry and the monitoring intensity as to whether it is considered appropriate to the risks involved.

Many of the procedures have been published by concerned industry groups in oil and gas operations, as well as, dry cargo operators.

These will be researched and reflected in a compendium of safe practices by Working Group No. II.

#### **XI—Harbor/Terminal Operators Forum**

This section would cover a proposed format for periodic routine self examination by the Port Authority and all participants and safe and efficient operations in the Port. The means of keeping up with the latest techniques and technology would be outlined.

This section write-ups would be shared by Work Groups I and II.

#### **XII—International Law(s), Rules etc.**

This section would cover IMCO, Law of the Sea, Ship Classification Society activities, etc.

It would be written by Work Group No. III.

#### **XIII—Technical Audit (Confidential)**

In order to keep up-to-date with objective appraisal from the outside, a system for creating a Technical Audit Team that can be made available for the Port Manager, it would involve the means to develop a constructive critique by a panel of experts who will be able to diagnose the ports problems according to the latest acceptable criteria. IAPH through the COLS may keep a list of available experts that can be used by Port Managers to choose experts. This section would be written-up by Section I and II, with special help from Mr. Guy Beaudet.

#### **XIV—Security**

This section would cover some of the methods to be used to assure that the ports and terminals are secure. It would cover some of the means to combat, thwart or redirect sabotage and mischief.

#### **XV—Waste Handling**

This section would cover the latest technology and acceptable techniques in handling slop and sludge from tankers or bilges of all ships. It would also include the other types of waste handling from ships and terminals. This would be handled by Working Group No. III.

#### **Crude Oil Washing Study**

Mr. George Thebaud presented the results of an extensive Crude Oil Washing Study prepared specially for IAPH.

Mr. Thebaud and his associates were complimented on having performed a very thorough review of the subject, it was agreed that the entire report would be sent to the Head of Office and Tokyo with the suggestion that it be printed up in the next issue of the "Ports and Harbors" magazine.

#### **Failure Mode Analysis**

The results of the questionnaires sent to various ports were reviewed. There were 72 answers received, but only 30 had been completed out of the 400 requested. Further analysis is required to determine the use of the data. The

final completion and report is deferred to the next meeting.

#### **IMCO Meeting—Marine Environmental Protection Committee**

A review was made of IMCO's Intersessional Working Group on tankers safety pollution held in July. Mr. A.J. Smith of the British Ports Association had attended on behalf of IAPH and had graciously supplied all of the papers.

The next session scheduled in mid October to further review and update some of the activities of the Tankers Safety and Pollution (Work Group) were reviewed by the Group, it was agreed that Mr. Arthur Young of the Clyde Port Authority would attend and participate as appropriate.

#### **Visit to New York Port Authority Facility**

Upon completion of the work of the COLS the group had lunch at the World Trade Center and a grand view of New York harbor from the observation deck on the roof of the Trade Center. There followed an inspection review of the container terminal at Port Newark which is run by the Port Authority. Mr. Tony Tozzoli graciously arranged this tour.

#### **Schedule of Meetings**

The next meeting of the Committee on Large Ships will be in Glasgow, Tuesday through Thursday, May 16–18, 1978. Arthur Young has been very gracious in arranging this meeting which, I am sure, will be a fruitful one for all of us. The December meeting of 1978 will be scheduled for Sydney, Australia, say tentatively the first week in December for three days pending agreement with Mr. J.M. Wallace.

### **PSA Introduces Training Courses 1978**

The followings are outline of the training courses by the Port of Singapore Authority during 1978. According to the information from Mr. Goon Kok-Loon, Deputy Director (Staff & Training), the PSA has been encouraged by the numerous enquiries and response to the courses in 1977 and has decided to repeat the courses by adding up some new courses for 1978.

He emphatically pointed out that these courses were particularly suitable for ports in South East Asia, the Pacific Islands and other developing countries.

Those who are interested in the PSA Training Courses 1978 are requested to write to:

Mr. Goon Kok-Loon, Dy. Director (Staff & Training)  
Port of Singapore Authority  
P.O. Box 300, Singapore, Republic of Singapore

#### **Outline of Training Courses**

The PSA offers to share its experience in certain areas of port management and operations through a number of formalised courses which fall into the following categories:

- A Port Operations
- B Management and Administration
- C Accident Prevention

These courses are characterised by lectures, discussions, and programmed visits to operational departments. They are scheduled to run consecutively permitting trainees to participate in more than one course if necessary, during their stay in Singapore. The courses serve as a viable forum for the mutual exchange of ideas and experiences among

# World Maritime Day

(IMCO circular No. 436)

The tenth IMCO Assembly held in November 1977 unanimously decided to inaugurate 17 March 1978 as World Maritime Day, which will henceforth be an annual event. The intention of this day is to focus world attention on IMCO's work in relation to shipping and the sea. In 1978, World Maritime Day will be dedicated to mariners, the men and women engaged in what is still one of the world's most hazardous professions.

The Assembly's decision has already attracted considerable interest, and it is likely that several newspapers and magazines will run special supplements or articles to commemorate this event.

These efforts would be greatly facilitated if non-governmental organizations in consultative status could inform their members of the plans for World Maritime Day and ask them to assist in promoting it. Most newspapers and magazines will depend upon advertising to finance the issue of any special supplements. They will also need editorial and photographic material concerning the various aspects of maritime safety and prevention of pollution of the sea from ships. It would be most helpful, therefore, if members of non-governmental organizations, when contacted by the journals which are planning special issues to coincide with World Maritime Day, would arrange to purchase advertising space or to assist in any other way such as the provision of editorial and photographic material.

It is hoped that non-governmental organizations will be able to help in this matter.

(This office finds that the matter is in many aspects related with the activity of our Special Committee on Community Relations and therefore it will be highly appreciated if any member could write to him or this office about the events or new developments on the matter so that we could contribute to the activity of the IMCO as well as IAPH. (D.S.G.)

trainees from various countries.

The medium of instruction is English. As such, all applicants for these courses are expected to have a good working knowledge of the English language.

## Titles and dates of courses

### Port Operations

1. Training for operational instructors: Apr. 3—Jun. 2
2. Safety in cargo handling: Jun. 5—Jun. 16, Sep. 4—Sep. 15
3. Conventional cargo handling: Sep. 18—Oct. 6
4. Containerised cargo handling: Oct. 9—Oct. 27
5. Ships' rigging: Oct. 9—Oct. 27

### Management and Administration

1. Port administration & operations: Apr. 3—Apr. 21, Oct. 9—Oct. 27
2. Warehousing management & operations: Apr. 24—Apr. 28
3. Planning & Management of a container terminal: Oct. 30—Nov. 10

4. Principles & practices of supervision: Oct. 30—Nov. 10
5. Port technical services: Sep. 18—Oct. 6

## Accident Prevention

1. Fire administration and prevention: Apr. 3—Apr. 14, Aug. 21—Sep. 1
2. Ship inspection: Apr. 3—Apr. 7, Aug. 14—Aug. 18
3. Dangerous goods: Apr. 10—Apr. 14, Aug. 21—Aug. 25
4. Command course on oil spill control: Apr. 17—Apr. 28, Sep. 4—Sep. 15
5. Navigational safety: Aug. 21—Aug. 25

## Fees and closing dates

Dependent upon the length and nature of courses, the fees are set at Singapore Dollar 150, 300, 450 and 900. The closing date for application is set at two months before the respective course dates.

## Mr. Lorimer asks for your attention and cooperation

Mr. R.T. Lorimer, Chairman of IAPH Special Committee on Containerization, Barge Carriers and Ro-Ro Vessels (General Manager, Auckland Harbour Board) disclosed the following two items of undertakings were carried on by the Committee.

The first one is the up-dating of the Committee's Survey of Container and Special Terminal Facilities, which was presented to the Singapore Conference in 1975. According to his information, the Committee decided to renew the survey in consideration that there have been a sizable development in the world situation.

The survey form was dispatched to all port members together with a tear-off sheet of the previous survey. The form is as follows:

IAPH SURVEY OF CONTAINER AND SPECIAL TERMINAL FACILITIES	PORT _____
	ADDRESS _____
	DIRECTOR _____

## Berths

	NUMBER	LENGTH	DEPTH ALONGSIDE
C			
L			
R			
Cranes and Facilities			

## 1977 Volume

	C	L	R
NUMBER OF TEUs			
MANIFEST TONS / Tonnes			
Remarks			

## Expansion in Process of Development

Members are cordially requested to return the form by the date specified in the form. Also, those members whose port did not receive the survey form are requested to contribute their replies to enrich the result of the survey.

The second one is that the Committee decided to undertake the production of a "Safety Code of Practice on Container Terminals" due to the interest shown in matters concerning safety within Terminals, according to his communication of November 16.

He advised that Mr. William Bowey, Vice-Chairman of the Committee (Managing Director of the Port of London Authority) was initiating the study and seeking comments and information on existing Safety Codes and the collection of information sufficient for the Committee's consideration.

As the matter is not always, because of the nature and characteristics of the port, directly connected with the concerns of port authority, it is hoped that members would be prepared to process the matter to a proper organization/s involved on the matter, should the full scaled survey was initiated by Mr. Bowey. (rin)

## Conference Proceedings Published

The records of the proceedings of the 10th Biennial Conference at Houston, Texas, April 1977, were compiled and printed by the Head Office, and sent to the members of the Association on December 5, 1977. Volume I covers 233 pages and carries various records of the Conference, while Volume II carries papers for the panel sessions as well as papers contributed by individuals to the conference. (rin)

## A Bibliography — Trade Facilitation Published by PANYNJ

The Port Authority of NY & NJ published "A Bibliography—International Trade Documentation, Simplification, Standardization, and Automation" in June 1977, according to the Port Authority's media "Via Port of NY & NJ". This 19 page (including supplement sheets) bibliography carries 116 names of publications concerning the subject matter, being compiled by the Port Authority's bibliographer Edith C. Wise.

Thanks to the good cooperation of Ms. Jane M. Janiak, Chief Librarian of the Authority, the publication was distributed to members of IAPH Special Committee on Trade Facilitation, from this office.

The publication can be obtainable by writing to:

The Librarian

The Port Authority of New York and New Jersey  
One World Trade Center, New York  
N.Y. 10048, U.S.A. (rin)

## Training Programme 1978 by PLACON, London

Mr. Peter D. Kenward, General Manager of PLACON Limited, a wholly-owned subsidiary of the Port of London Authority, announced in his letter of December 9, 1977 the PLACON Training Programme 1978.

According to his disclosures, the Programme covers a wide range of port related subjects, including security, management and operations, ship loading, seamanship and many other. In addition, he says, subject to sufficient demand, PLACON are able to structure special courses

covering aspects of port work not dealt with in the standard syllabus.

### Titles and dates of courses

1. Port Policing & Security  
Senior: Oct. 2—Oct. 13  
Unit Loads: Oct. 16—Oct. 27  
Intermediate: Mar. 6—Apr. 28, Oct. 30—Dec. 21  
Induction: Oct. 2—Dec. 21
2. Command Management and Techniques: May 29—Jun. 9
3. Seamanship: Apr. 3—Apr. 14, May 15—May 26, Oct. 2—Oct. 13, Nov. 20—Dec. 1
4. Chartwork and Radar: Feb. 30—Mar. 23, Apr. 17—May 12, Sep. 4—Sep. 29, Oct. 23—Nov. 17
5. Instructor Training: Available on application
6. First Aid: Available on application
7. Port Management and Operations: June 1978. Available on application
8. Ship Loading: Available on application  
Managers  
Foremen  
Cargo Superintendents
9. Plant Operation (Appreciation): Available on application

### Fees and closing dates

Fees are from £100 per week per person according to the nature of the attachment. Reservations should be made no less than four weeks notice in advance.

Those who are interested in this PLACON Training Programme 1978, please write to:

The General Manager

PLACON Limited

Fifth Floor, World Trade Center, London, E.1. U.K.

Telex: 897477, Cable: POLA London E.1.

## Congresswoman Mikulski (Maryland) Studied Port of Tokyo

As a member of the U.S. Congressional Mission to Japan, Congresswoman Barbara A. Mikulski (Maryland) visited this country to discuss the US-Japan Trade issues, during the second week of December 1977, with the Japanese leaders of the political, governmental and business circle.

She is the congressional representative of the Third District of Maryland where the Port of Baltimore is located, and carries as one of her major concerns the problems of the removal and disposal of the bottom sediments of rivers which may contain toxic substances as well as the environmental effects thereof, in connection with the future development works in the areas.

On December 7, at World Trade Center Club of Tokyo, being attended by Mr. T. Watanabe, Director of the Maryland Port Administration Office in Tokyo, Mr. Fukazawa, Director of Public Relations Division of the Port and Harbour Bureau of the Tokyo Metropolitan Government and Mr. Yamaguchi, Executive Director of the World Trade Center of Japan, she met Mr. Fumihiko Ohshima, Director of Business Planning Division of the Port and Harbour Bureau of the Tokyo Metropolitan Government and received the lectures on the process of the development of 2,240 hectares of land in Port of Tokyo during the last 20 years as well as the systems of disposal of garbage, earth from construction sites and industrial exhausts which

amount as much as 16,000 tons per day.

She is serving on various congressional committees, including Committee on Interstate and Foreign Commerce, Sub-Committee on Transportation and Commerce, Communications, Sub-Committee on Merchant Marine and Fisheries, and Sub-Committee on Merchant Marine, Coast Guard, Oceanography. (rin)

## Chairman of Gothenburg Harbour Board in Japan

Mr. Bengt Tengroth, Chairman, Gothenburg Harbour Board and Executive Vice-President of the Götaverken Group, accompanied by Mr. Harry Gabrielson, Financial Manager of Port of Gothenburg and Mr. Åke Blomgren, Managing Director of Gothenburg Stevedoring Company, visited Japan from December 9 to December 14, 1977 to inspect the development of the major commercial ports of this country.

On December 10, the party visited the Head Office and met Dr. Hajime Sato and his staff, followed by the inspection of Port of Tokyo by boat, being accompanied by Mr. Fukazawa, P.R. Director of Port of Tokyo. In the afternoon, the delegates visited Ohi Container Terminal to be met by Mr. Nishimura, Director of Planning, Mr. Maeda, Chief of Finance of Keihin (Tokyo Bay) Port Development Authority for lecture on the container terminal operations.

On December 12, the party visited the Port of Kobe and were received by Mr. Yukio Torii, Director-General of the Port and Harbour Bureau of City of Kobe for lecture about the Port, followed by the inspection of port facilities by boat. (rin)

## Delegates of K.M.P.A. in Japan

On December 12, 1977, Mr. Chang, Young-Woo, Director-General, Planning & Management Office, Korea Maritime and Port Administration, Mr. Khang, Hyung-Choon, Director of Ulsan Port Authority and Mr. Kang, Suk-Chon, Dy. Director of Incheon Port Authority, visited the Head Office on their homing coming trip from the U.S.

On December 13, the visitors visited Port of Yokohama and were received by Mr. Toshikatsu Tsurumi, Director-General of Bureau of Port and Harbour, City of Yokohama for lectures about the present status of the Yokohama Port. After the discussions, the delegates inspected the port and work site of the reclamation works at Daikoku Pier.

On December 15, the delegates visited the Port of Kobe and met Mr. Yukio Torii, Director-General, Bureau of Port and Harbour of the City. The party also inspected the Port of Kobe by boat.

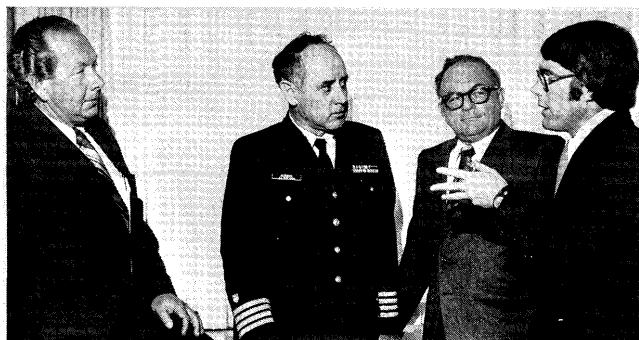
According to their information, they were visiting Port of New Orleans and Port of Oakland to conclude the sisterport affiliation between Ports of New Orleans and Incheon and Ports of Oakland and Ulsan. (rin)

## Engineers from India

On December 14, 1977, Mr. P.C. Saxena, Director, and Mr. Z.S. Tarapore, Chief Research Officer of Central Water & Power Research Station, Pune, India, visited the Head-Office and were received by Dr. Hajime Sato, Secretary-General and his staff, and given with lectures on the administrative systems of port in this country. Visitors were old acquaintances of Dr. Sato since Dr. Sato visited India during his office in the Ministry of Transport of Japan as

the leader of the technical assistance mission to India.

The Central Water and Power Research Station, being founded in 1916 and presently belonging to Central Water Commission of the Ministry of Agriculture & Irrigation, carries among seven principal research areas the studies and researches on the coastal engineering including Ports and Harbours, Tidal Hydraulics, Maritime Structures and Coastal Processes. And, presently the CWPRS conducts research works for ten major ports and some 170 minor ports of India. (rin)



San Francisco, Calif., 12/9/77 (Marine Exchange of the San Francisco Bay Region):—SHIPS AND SHOES AND SEALING WAX—and tankermen and oil, with the latter in majority at a recent San Francisco meeting of the Marine Exchange's tanker and terminals task force, seeking safer navigation and oil transfer operations. Chairman A.C. "Tony" Horton (left), Chevron Shipping Co. port superintendent, was joined by Capt. E.L. Murdock, Coast Guard Captain of the Port, and Exxon Co. USA's S.E. Hargrave, in hearing comments by Michael Bennett (right), coastal development analyst working on the California Interagency Tanker Task Force, through the San Francisco Bay Conservation and Development Commission.



San Francisco, Calif., 12/9/77 (Marine Exchange of the San Francisco Bay Region):—A warm welcome was recently extended to the final new ship in Columbus Line's \$90 million building program, upon the inaugural arrival of the MV COLUMBUS WELLINGTON at pier 96. The 16,000 DWT class containership was entering the company's Pacific Coast/Australia-New Zealand service. Making the maiden voyage presentation was Marine Exchange director Harlan B. Copsey, vice president of Crescent Wharf and Warehouse Co. Columbus Line assistant general manager Jan Stolzenburg admired the traditional engraved tray.

# Design and Construction of The First Variable Orientation Offshore Bulk Terminal

by Paul Soros and  
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Engineers

Paper Presented at  
The Oceans '77, October 16-19, 1977  
Los Angeles, Calif., U.S.A.

Construction was completed in 1977 on an offshore shiploading terminal at Punta Colorada, Patagonia, Argentina. This opensea terminal is a key link in the transportation system developed to supply high grade iron ore pellets to steel mills located in the vicinity of Buenos Aires (Figure 1). The Punta Colorada Shiploading Terminal is also a significant advance in the state of the art of offshore terminals.

Strong winds from different directions would render a conventional field offshore berth inoperative during large portions of the year at this location. Soros Associates developed a variable orientation design which achieves increased berth availability for bulk loading, as single point moorings do for liquid handling. Arriving and departing ships can head into the wind and loading can proceed regardless of wind direction.

The terminal receives and stockpiles iron ore pellets produced in the adjacent plant. From the onshore stockpiles a 4,600 ft. (1,400 m.) long conveyor with a capacity of 2,200 tons (2,000 metric tons) per hour carries material to the variable orientation offshore berth which utilizes a slewing shiploader to fully load 25,000 DWT vessels at all stages of the tide.

## Planning of the Terminal

Studies were carried out to determine whether conditions prevailing in the area would allow construction and operation of an open sea shiploading berth. This question was of vital importance, as the high cost of the alternative solution, a breakwater protected harbor, would have adversely influenced the economic feasibility of the entire mining project.

## Wind and Wave Analysis

The prevailing wind direction is westerly, but strong winds frequently blow parallel to the coast from the north or from the south and onshore winds, mainly from the southeast, also occur (Fig. 2). Mean wind velocity is 14 knots (7 m/sec.). The yearly wind frequency curve (Fig. 3) shows that the velocity exceeds 20 knots (10 m/sec.) approximately 10% of the time.

Prevailing waves are from the north and from the south, generated by local winds (Fig. 4). Waves from easterly directions represent mainly swells originating in the South Atlantic Ocean. A wave height of 5 ft. (1.5 m.) is exceeded 8% of the time (Fig. 5).

The wind and wave data was evaluated with the help of criteria established on the basis of operating experience with open-sea shiploading facilities at other locations and

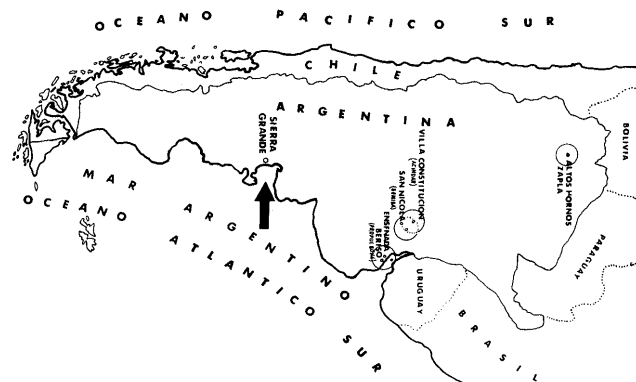
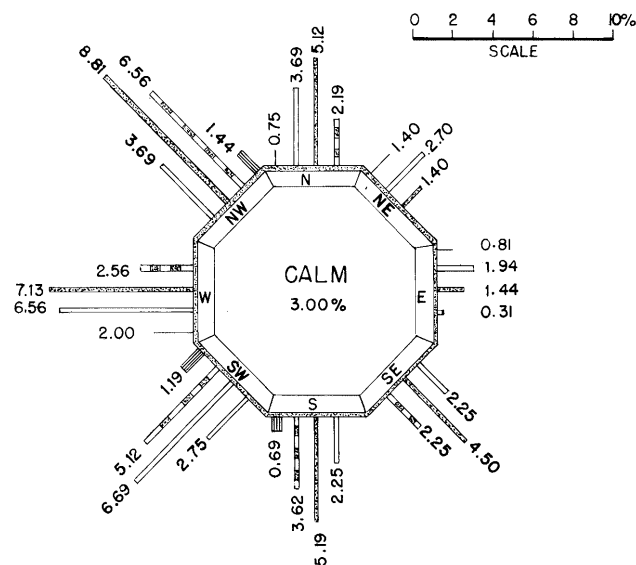


Figure 1—Location of the Punta Colorada Terminal



LEGEND	BEAUFORT FORCE	WIND VELOCITY KNOTS
—	2	4 — 6
—	3	7 — 10
—	4	11 — 16
—	5	17 — 21
—	6	22 — 27

Figure 2—Direction and Velocity of Winds

the SEABERTH computer program.<sup>(1)</sup>

## Multiple Berth Orientation

Applying the berth availability criteria to the wind and wave statistics reveals that a north-south orientation berth would have an availability of 70%. Thus in a year of average weather conditions the berth could be used during 255 days. An east-west orientation berth would have an availability of 55%, providing 200 operational days per year.

Since it was highly desirable to increase the berth availability over the 70% achievable with a fixed orientation berth, Soros Associates developed a variable orientation design (Fig. 6). In this solution, the ship can be positioned

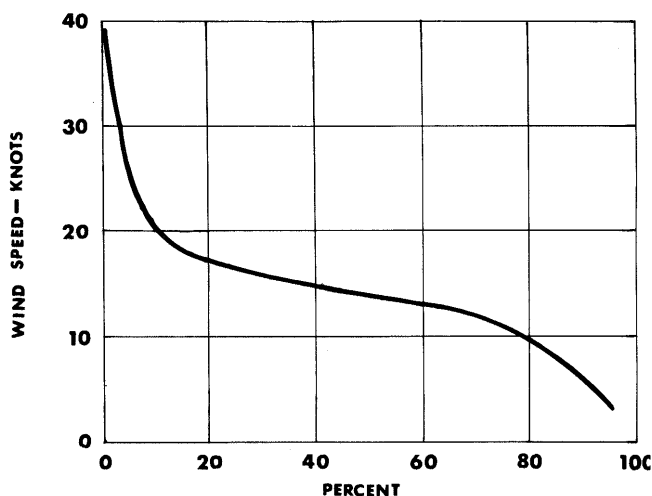


Figure 3—Frequency of Wind Velocities

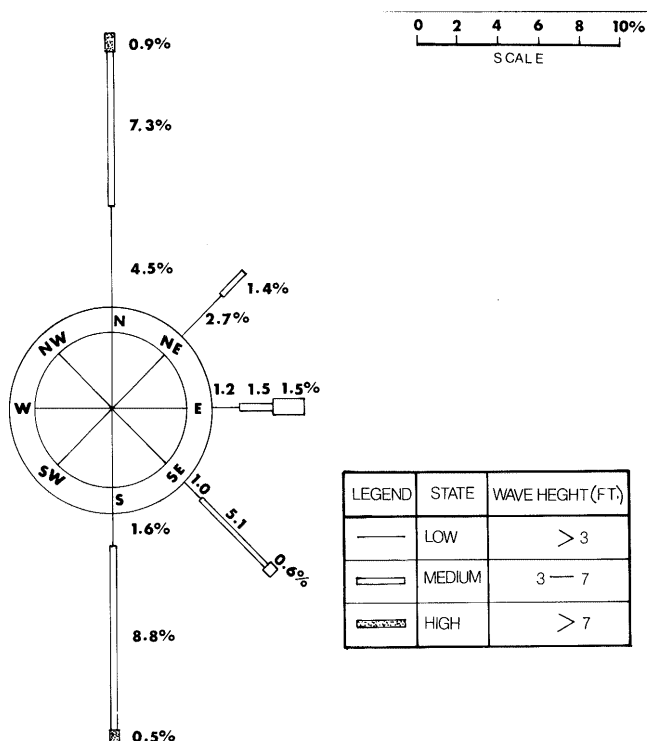


Figure 4—Direction and Height of Waves

along three different dockfaces, giving freedom of choice between six headings: west, northwest, north, east, southeast and south. The variable orientation layout provides a berth availability of 90%. Thus, ships can use the terminal 330 days per year.

#### Shiploading Arrangement

The multiple orientation berth (Fig. 7) utilizes a slewing bridge shiploader which rests on a turntable pivot at one end and is supported at the other (seaward) end on a curved rail forming a half circle of 131 ft. (40 m.) radius. The shiploader can pivot in a 173° arc. It is equipped with a retractable boom carrying a belt conveyor to load the iron ore pellets into the ore carriers. The shiploader is fed by a 40 inch (100 cm.) wide conveyor belt 4,600 ft. (1,400 m.) long which connects with the onshore stockpiles.

Four breasting dolphins, with fender systems capable of accommodating a tidal variation of 30 ft. (9 m.), together

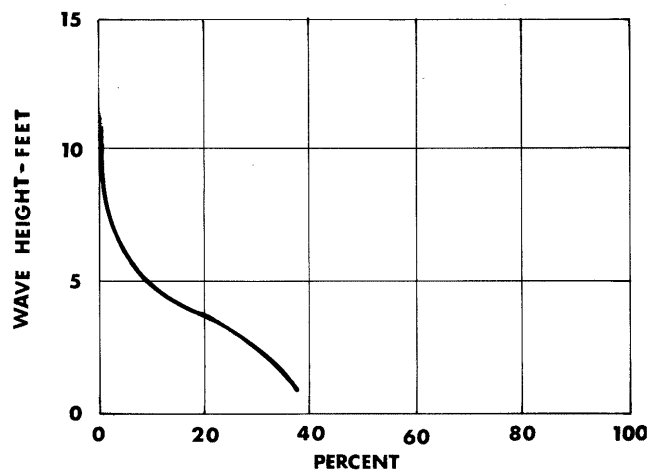


Figure 5—Frequency of Wave Heights

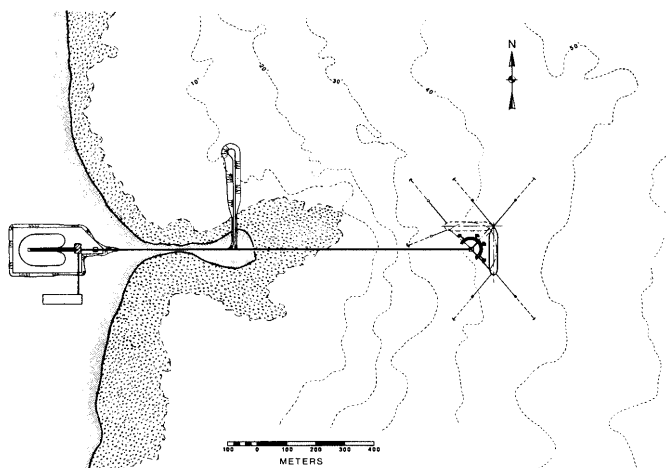


Figure 6—General Plan of the Shiploading Terminal

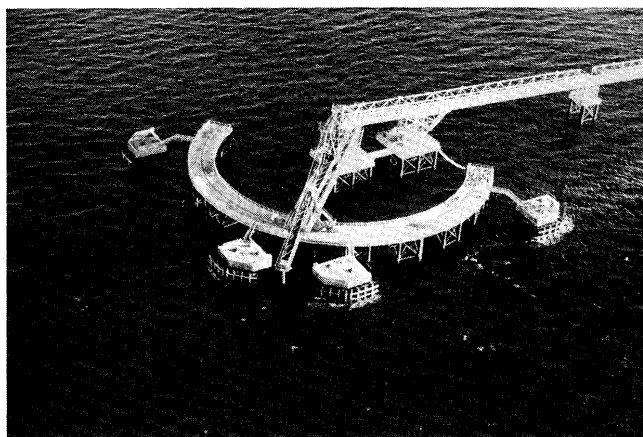


Figure 7—Multiple Orientation Shiploading Berth

with six mooring buoys enable the ship to be held off the dock face or pulled tight against it to suit the weather conditions. Once a ship is moored in a selected orientation, it can remain in that position during the entire loading operation.

#### Onshore Facilities

The shiploading berth forms part of an integrated system designed to receive, stockpile, reclaim and load bulk cargo (Fig. 8). Material is received from the pellet plant by conveyor at the rate of 550 tons (500 metric tons) per hour and is stockpiled by a rail-mounted travelling stacker. Up to



Figure 8—Aerial View of Ore Handling System

165,000 tons (150,000 metric tons) of iron ore pellets can be stored.

Two crawler mounted bucketwheel reclaimers, each with a nominal capacity of 1,100 tons (1,000 metric tons) per hour, reclaim the material and drop it into rail-mounted receiving hoppers which in turn feed a conveyor leading to a transfer house. There, the material is transferred to the 4,600 ft. (1,400 m.) long approach conveyor connecting the onshore installations with the offshore shiploading berth.

The ore handling installation is controlled from a central control room in the transfer house, as well as from the shiploader operator's cab. Auxilliary installations include a small craft harbor to provide protection for line boats, pilot's launches and maintenance barges.

#### Engineering of the Terminal

Soros Associates engineered the complete terminal to achieve minimum capital cost through practical designs, specially suitable for open-sea marine construction. Care was taken to provide the safety, flexibility and simplicity demanded by the remote location and by the difficult site conditions. The engineering was also planned for lump-sum type contracting on a competitive basis, fast placing of contracts, simplified construction management and no extras due to design changes during construction.

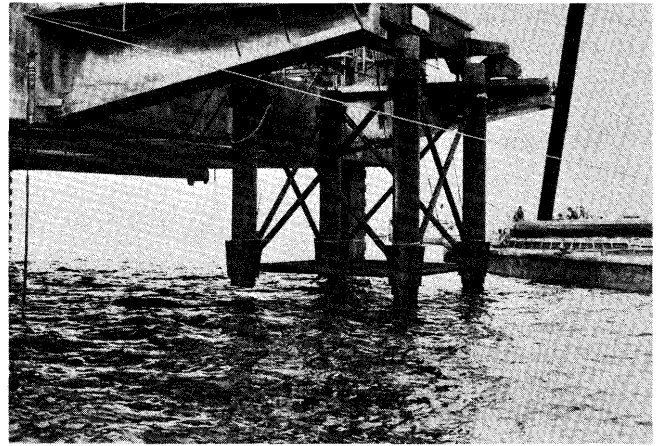


Figure 9—Jacket in Position for Pile Driving

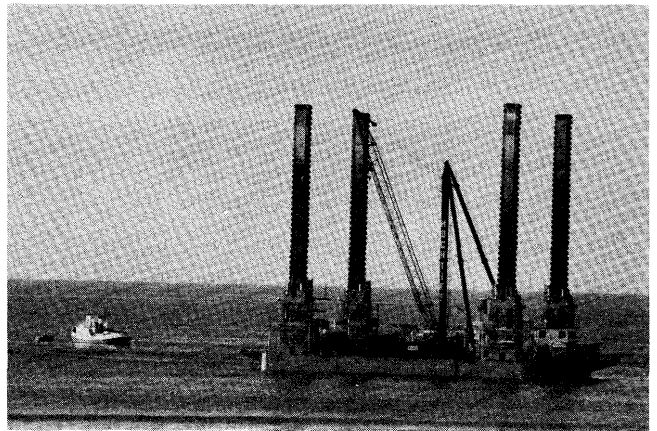


Figure 10—Self-Elevating Platform

#### Contracting Procedure

Because of the remote location, the project was engineered to be bid on a lump-sum single contract basis. To obtain competitive prices and to preclude extra payments and design changes during construction, a completely integrated system was designed. Engineering the material handling system, including the shiploader, in advance made it possible to complete construction designs of all marine structures and other civil works prior to bidding.

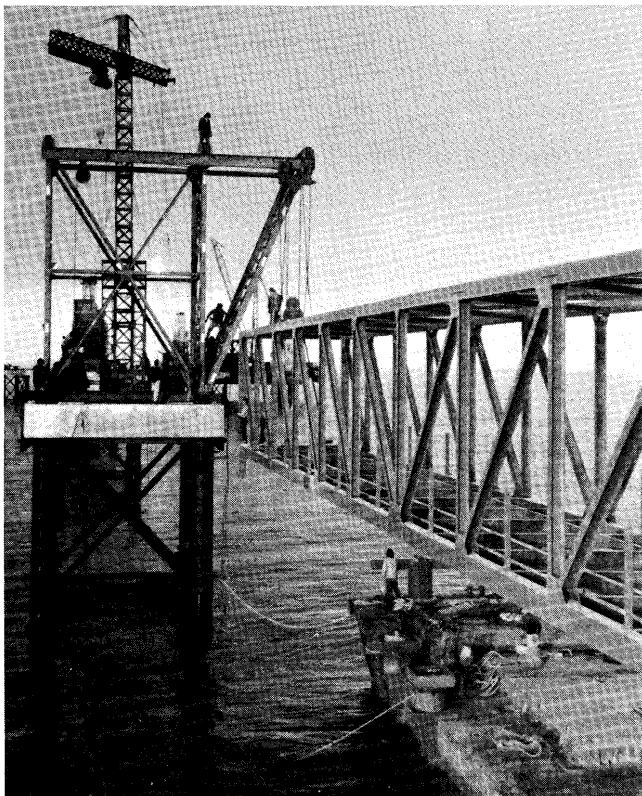
The feasibility studies, preliminary and final engineering were completed in eight months. The complete engineering made it possible to obtain lump-sum bids in three months from five international consortiums. The three lowest bids were within two percent of the engineering estimates. The successful bidder was a consortium consisting of Hochtief Aktiengesellschaft, Essen, West Germany, Fried Krupp G.m.b.H., Rheinhausen, West Germany, and Sade SACCIFIM, Buenos Aires, Argentina. Construction was completed in May, 1977.

The design incorporated the benefits of wide experience in the engineering, construction and operation of offshore terminals, as indicated by the fact that there were no design changes during construction.

The owner of the shiploader terminal is Hierro Patagonico de Sierra Grande S.A.M. The contract plans and specifications were prepared by Soros Associates, the project's consulting engineers, who also evaluated the construction tenders, checked the contractor's shop drawings and provided resident engineering and inspection services at the site, in Buenos Aires and in Europe.



**Figure 11—Erection of Slewing Shiploader**



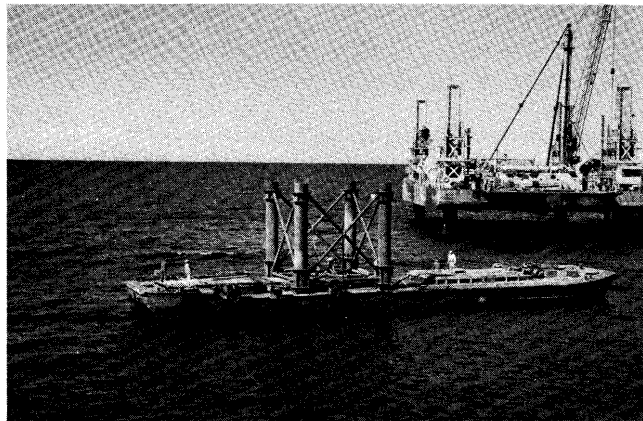
**Figure 12—Lifting of Conveyor Bridge Span**

### **Modular Construction**

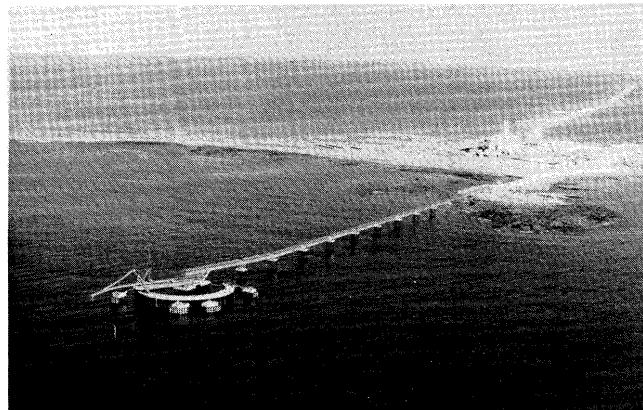
All offshore structures were designed around a basic module of four vertical steel piles capped with a concrete slab forming a 23 ft. (7 m.) square base. Such bases were used to support the approach bridge spans and the curved runway of the shiploader. Clusters of four modules forming a 46 ft. (14 m.) square base were used to support the shiploader pivot and head end of the conveyor.

### **Jack-Up Rig Construction**

It was evident that the same winds that were expected to interfere with the operation of the completed terminal would present difficulties for any floating equipment used during construction. Additional difficulties of similar nature were expected from the 30 ft. (9 m.) high tide range and from the prevailing seas which, while not sufficiently high to prevent the maneuvering of ships, would severely restrict the operation of floating equipment.



**Figure 13—Towing of Jacket to Site**



**Figure 14—Aerial View of Shiploading Terminal**

Because of these limitations, the structures were designed for convenient erection by a jack-up rig.

### **Sequence of Construction**

The offshore installations were engineered to allow the contractor to select a construction sequence suitable for his equipment and methods of construction and even to change the sequence during construction. The contractor could concentrate his activities at one location, or divide his forces between two or more fronts of construction. For instance: he could first build all foundations and follow with the erection of the superstructures, he could build together the foundations and superstructure proceeding from shore, or he could simultaneously start building the access bridge from shore and the shiploading berth offshore.

### **Stability During Construction**

The structures were designed to be stable during all stages of construction. Each foundation can stand alone and resist the largest waves. Bridge spans are simply supported and do not have to rely on adjacent spans to resist horizontal forces. The offshore berth was designed to support the shiploader on the partially completed runway. These measures served to minimize storm damage and to prevent possible disaster during construction.

### **Prefabricated Jackets**

To place the marine foundation, prefabricated jackets were designed (Fig. 9). Consisting of vertical pipe sleeves braced together to form a space truss, the jackets speeded

(Continued on next page bottom)

# Panama Canal Governor Testifies Before The U.S. Senate Foreign Relations Committee

From "The Panama Canal Spillway"  
Friday, October 7, 1977  
Balboa Heights, C.Z.

Gov. H.R. Parfitt was invited by the Chairman of the Foreign Relations Committee of the Senate to give his opinions, during committee hearings on September 29, 1977, on how the Panama Canal organization will operate under the new Canal treaty.

The Governor's testimony, read by James E. Pattison, Chief of the Panama Canal Graphics Branch, and U.S. Ambassador William J. Jordan's statement, read by a member of the U.S. Embassy staff, were broadcast on Southern Command Radio preceding the Senate hearings on September 30.

The complete text of the Governor's statement furnished to the Committee is being printed in the SPILLWAY to keep employees informed of activities involved in the treaty ratification process.

The Governor's testimony follows:

Mr. Chairman and members of the Foreign Relations Committee, you have asked that I outline to you my impressions on how the Panama Canal organization will

operate under the new treaty, and I will attempt to do so.

First, however, I should note that my remarks are based on an initial review of the recently signed treaty documents. Considerable further analysis must be made before precise implementation plans can be developed. This effort is underway.

A prime consideration in the determination of method of operation under a new treaty should be an assessment of how well the existing organization has functioned. On that score, one need have no reservations. From the completion of the Canal in 1914, and continuing today, the Canal has been operated efficiently, safely, and has provided excellent service at reasonable cost.

## Current Situation

At this point it might be helpful to briefly review the current situation. The agencies known as the Panama Canal Company and the Canal Zone Government have existed since July 1, 1951, when Public Law 811 became effective. Business operations, including operation of the waterway, are separated from the functions associated with civil government, but both organizations function as an integrated enterprise. By law, the Panama Canal Company is

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(Continued from page 22)

up the placing of the steel pipe piles and facilitated rock drilling inside the piles. After socketing the piles in rock, the jackets were grouted to the piles to become part of the permanent structure. Precast reinforced concrete slabs were designed to fit on top of the jackets. Slabs forming the top of the breasting dolphins were designed with slanted holes to serve as guides for batter piles.

## Lifting Weights

The offshore installations were so designed that none of the members to be handled would have to weigh more than 55 tons (50 metric tons). Even the shiploader with a total weight of 286 tons (260 metric tons) was designed to be lifted into position in sections not exceeding the above weight limit.

## Construction of the Terminal

The construction basically followed the design concept. A seagoing self-elevating platform (Fig. 10) equipped with a 66 ton (to metric ton) capacity stiffleg derrick was used to build the foundations and to erect the shiploader (Fig. 11).

Three methods were used to erect the 216 ft. (66 m) long bridge spans. In the tidal zone near the shore a mobile crane lifted in the fully assembled spans at low tide. Farthest offshore near the shiploading berth the spans were placed by the derrick on the self-elevating platform. The rest of the spans were placed by two temporary crane towers (Fig. 12) erected on top of the bridge foundations and relocated with the help of a seagoing barge equipped with a truck crane. The same barge was used to transport the jackets, piles, bridge spans, and shiploader sections to the offshore locations (Fig. 13).

During construction the area was hit by several storms. The most severe of these occurred on February 18, 1976 when waves up to 18 ft. (5.5 m) and sustained onshore winds of 40 knots (20 m/sec.) were observed. Considerable damage was caused to a temporary causeway used in the construction, but no damage was suffered either by the permanent structures or the erection equipment moored offshore. Equipment in the partially completed small-craft harbor likewise survived without damage. The completed terminal is shown in Fig. 14.

## Conclusions

The Punta Colorada terminal is a pioneering project, the first variable orientation open-sea bulk terminal in the world. Integrated engineering was the key to a fast, economical and technically sound solution of the shiploading problem and to economical contracting and efficient construction at this difficult location. Experience gained in the engineering and construction of similar offshore bulk terminals was of great value in assuring that, in spite of difficult environment, remote location and devastating storms, the project was successfully completed.

## References

- (1) Sugin, L. and Seidl, L.H.: "SEABERTH—A Program for the Calculation of Motions and Mooring Forces", **Third Ocean Engineering Specialty Conference**, Newark, Delaware (June, 1975).
- (2) Soros, P. and Koman, B.: "Offshore Terminals for 250,000 DWT Ore Carriers", **Offshore Technology Conference**, Houston, Texas - OTC 1645 (May, 1972).
- (3) Koman, B.: "The Design and Construction of Offshore Shipping Terminals", **Second International Ocean Development Conference**, Tokyo, Japan (October, 1972).

required to finance its operating costs, and in addition to pay annually to the U.S. Treasury the following: (1) interest on the net direct investment of the U.S. Government in the Company; (2) the net cost of the Canal Zone Government; and (3) a portion of the annuity to Panama. Thus, the Company is required to be self-sustaining. Although appropriations are authorized to cover operating losses, this has not been necessary to date. However, under current fiscal arrangements it is likely that appropriations will be required to cover capital improvements in the near future.

Major contributing factors toward this success have been: (1) a stable and well qualified work force; (2) sound preventive maintenance practices; and (3) the financial and operational flexibility of this Government corporation.

Some measure of the success of the Panama Canal Company since its formation in 1952 can be gleaned from the few highlights of FY 1952 through FY 1976 results which follow:

- a. Although transits increased 70 percent and Panama Canal tonnage increased 274 percent during the period, the full-time work force was reduced 35 percent.
- b. Net revenues of \$90 million were generated.
- c. Capital investment of \$284 million was made from internally generated funds.
- d. Although general inflation indexes increased 230 percent over the period, tolls were in effect raised only 50 percent. It should be noted, however, that this increase has been required in the last 3 years.

Operating losses during past 4 years due to rampant inflation, worldwide recession, and the reopening of the Suez Canal have been overcome by management improvements, cost cutting, and the recent adjustments to tolls. As a result we are again in the black in FY 1977.

Traffic growth is expected to continue, but at a moderate rate; and even without treaty impacts, periodic increases in tolls may be necessary to absorb the increase in costs resulting from inflation. In the short run, North Slope oil movements through the Canal could temporarily alter our growth pattern and need for tolls increases. However, these movements are not expected to last more than a few years, as pipeline alternatives appear to be more economical.

Given the success of the present agency, it seems logical to model the Canal Commission after it, making adjustments consistent with the requirements imposed by the new treaty, but avoiding unnecessary change in the interest of operating stability.

### Treaty Provisions

With this in mind, I will now briefly review the most significant provisions of the treaty likely to influence the structure of the new organizational entity and its ability to perform the basic mission of transiting ships safely and efficiently through the Canal.

The dominant and all encompassing change under the treaty is immediate recognition of Panamanian sovereignty and general territorial jurisdiction over the present Canal Zone. This provides a backdrop against which all other changes must be viewed.

Given this basic change, the status of the new Canal Commission takes on the semblance of a business enterprise operating in a foreign country. Obviously, it is somewhat more than that since the new operating agency, the Panama Canal Commission, will be a United States Government

agency and will be granted extensive rights, particularly as they pertain to the management, operation and maintenance of the Panama Canal.

More specifically, the treaty would eliminate the Canal Zone Government and the Panama Canal Company and substitute therefor the Panama Canal Commission. This agency will have no authority to perform most governmental or commercial functions. Many of these functions will be performed after the effective date of the treaty by Panamanian government agencies or private interests in Panama. These include: the operation of the ports of Balboa and Cristobal; the operation of the railroad; provision of bunkering services; licensing of vehicles, vessels, and aircraft; customs and immigration services; and partial police and fire protection; street maintenance; and garbage collection. The total police function, the operation of the prison system, and the provision of postal, commissary and post exchange services (available initially from the U.S. military) will likewise be provided by Panamanian sources after prescribed phase-out periods. Other functions—the operation of schools and hospitals—will be transferred immediately to the U.S. military forces.

Aside from these changes in functional authority and responsibility, there are major changes in areas and facilities made available to the Commission. These are identified in great detail on maps and in descriptive language in the agreement in implementation of the treaty. Briefly they fall into three categories: the Canal operating area, consisting of a continuous area following the Panama Canal and generally contiguous to it, plus certain limited non-contiguous areas; specific installations and facilities; and housing areas for U.S. citizens.

The housing areas are to be administered in accordance with a regime of civil coordination, that is, a set of rules established in the implementing agreement. This regime provides that title to this housing will pass to Panama with the Commission having rights, without cost, to use, manage, maintain, improve, and rent such housing. Houses not required for U.S.-citizen employees will pass exclusively to Panama and must, as a minimum, be relinquished in accord with a prescribed schedule.

The reduction in functions, activities, and area of responsibility of the Commission will have a significant financial impact. There will be substantial reduction in expenses, although this will be offset in part by a reduction in revenues from transferred activities. It is also anticipated that the Commission will be relieved of the requirement to pay interest on the net direct investment of the United States in the Canal.

On the other hand, the Commission will be obliged to pay \$10 million per annum to Panama as reimbursement for certain specified public services to be provided in Canal operating areas and housing areas. At the same time, the treaty imposes obligations to pay Panama the following out of revenues: 30 cents per Panama Canal net ton transiting the Canal, to be adjusted periodically for inflation; a fixed sum of \$10 million annually; and an additional \$10 million per year to the extent revenues exceed expenditures. The latter \$10 million has a provision that in the event Canal operating revenues in any year do not produce a surplus sufficient to cover this payment, the unpaid balance shall be paid from operating surpluses in future years in a manner to be mutually agreed. The resulting difficulty in accumulating surpluses for application in lean years would appear to significantly restrict the flexibility of the new

organization.

In net, these additional obligations are certain to necessitate an immediate toll increase of an as-yet-uncertain amount. A new study of toll economics is now underway, with results due by mid-January. This study will update traffic projections, including the likely extent and duration of North Slope oil movement, and will provide an analysis of the sensitivity of Canal traffic to various levels of toll increase. The initial toll increase might range from 25 percent to 40 percent depending on several variables, key among which is the amount of revenue realized from transits of North Slope oil through the Canal. If no such oil were to materialize—the worst case—the toll increase required to cover costs could be about 40 percent. If \$25 million in annual revenue materialized from North Slope oil—the most optimistic current projection—then tolls might only have to be raised by about 25 percent.

The treaty provides that the Panama Canal Commission will be supervised by a Board of Directors comprised of five United States nationals and four Panamanian nationals. Until 1990 the Canal Administrator (the Chief Executive Officer) will be a United States national and the Deputy Administrator will be a Panamanian national. There will be a Consultative Committee comprised of an equal number of representatives from the United States and Panama which will advise the two governments on such questions as general tolls policy and on employment policies aimed at increasing Panamanian participation in Canal operation. There will also be a Coordinating Committee which will establish rules and procedures necessary to implement a number of provisions of the treaty and their related agreements.

The conditions of employment are of paramount importance, and in recognition of this, the Treaty and Implementing Agreements contain considerable detail on this subject. Unfortunately, there is no way that a change as major as the one contemplated can be accomplished without some adverse impact on employees and their families. Thus, efforts are being made to ameliorate any hardships. Those individuals displaced from employment will be placed, to the maximum extent feasible, in other appropriate jobs. Those employees continuing with the Commission will have, in general, terms and conditions no less favorable than those existing just prior to the treaty effective date. Furthermore, an early-optional retirement program will be provided for all persons employed by the Company-Government immediately prior to the entry into force of the treaty.

As a final point, the treaty enters into force 6 calendar months after exchange of instruments of ratification and terminates at noon, December 31, 1999. The major effects are felt on the effective date of the treaty; however, there will be changes through the life of the treaty with the most important taking place during the 30-month transition period. At the end of this period the limited jurisdictional authority granted to the United States will cease.

#### **Enabling Legislation**

The impact discussed so far has been limited to that which would result from the treaty terms themselves. In addition, enactment by Congress of implementing legislation will be necessary. Such legislation will also have a definite impact on our operations, and we have been assisting in its preparation. In my view, the legislation should incorporate changes in the Canal Zone Code, so as

to:

- Establish the Panama Canal Commission as the successor to the Panama Canal Company and the Canal Zone Government with respect to whatever property and functions of the government are retained;

- Generally conform the toll provisions and other fiscal provisions of present law to the new treaty;

- Conform present personnel laws to the treaty and provide special benefits to those affected by the treaty, including liberalized retirement; and

- Amend provisions concerning court jurisdiction and related law enforcement matters to conform to the treaty provisions that would govern the 30-month transition period following the effective date of the treaty.

#### **Planning for the Future**

Thus far our participation in the treaty process has primarily been in the area of providing to our negotiators detailed technical and financial information as well as our views on treaty initiatives. Now that the treaties have been made available, our first task, which we are well into, is to review and analyze the lengthy and complicated treaty documents. We have briefed the employees and the general public in the Canal Zone on the treaties; are identifying areas that need clarification and problems that will require resolution; and have begun detailed planning to position ourselves to implement provisions of the treaty at the appropriate time.

More specifically, we are identifying activities which must be shed on a specific timetable and estimating their cost and revenue impacts; further identifying in the same terms the secondary impacts of shedding functions and facilities; considering required organization changes; and planning for the myriad of personnel actions that will ensue to include establishment of reduction-in-force and bumping rights and procedures, extra efforts to aid displaced employees and their families, and development of plans and programs for priority placement and training of Panamanians; planning for modification of capital programs consistent with changed responsibilities; and planning for financial changes with major emphasis on the extent to which toll rate increases are required and projected traffic sensitivity to any such increases. We are planning to pattern the new organization as closely as possible after the existing one. We are, of course, very mindful of the fact that all of this work must be done without adversely impacting on current mission accomplishment.

I want to emphasize that these essential planning efforts are only that, and no preimplementation is involved. Finalization of plans would follow Senate approval of the treaties. Implementation of such plans will proceed in accord with the treaties and the related implementing legislation.

#### **Future Outlook**

As indicated previously, we have not yet had adequate opportunity to identify and fully address the myriad of matters involved in implementing the treaty. We have, however, accomplished much and have a good start on the job at hand. Based on our evaluation to date, the tentative conclusions are as follows. Minimum change needs to be made in staffing and operation of activities involved directly in the operation of the waterway. There are some potential problems here stemming from interface with port

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# Present Position of Brazil's Special Terminals

From "Portos e Navios"  
July 1977  
by Adelina Capper

While the economists are trying to find the answers to the problems of inflation, shipping companies and port authorities have found a means of reducing costs on goods handled, by the design and installation of improved loading and unloading terminals.

Liquid cargoes such as petroleum products may have opened the eyes of those responsible to the advantages of these special terminals, but means of handling the solid bulk cargoes in a similar way have led to the use of these fast terminals for every conceivable product. In Brazil apart from the Petrobrás petroleum terminals, there are the modern loading facilities for iron ore and manganese, sugar, wheat, soya and a number of others.

Integration is the name of the game with these port installations, since, if they are to work efficiently, there must be adequate storage and an effective road and rail system able to feed the goods to the ships that will be coming and going in greater numbers and at shorter intervals.

When Brazil first joined the soya club, the lines of 30-ton trucks queuing up for several miles along the access roads leading to the port of Porto Alegre were painful for all concerned. The building of silos, loading facilities and other installations were essential for Brazil to retain its position as a regular soya source.

From among the many terminals installed or planned for this country, it is difficult to know which must fire the imagination. Perhaps the staggering figures of the iron

loading facilities impress the most, while the beauty of the Termisa salt terminal brings out the poet in even the most hardened businessman or statistician.

Apart from the Petrobrás oil terminals, to be discussed in a future issue, there has been a tendency in this country to concentrate the special terminals facilities on loading rather than unloading. This is obviously due to the urgent need to increase exports and to keep the costs of these foreign sales within bounds, Praia Mole and Sepetiba are exceptions as will be seen below.

The efficiency of these terminals may be causing problems with the officers and men on the ships who barely have time to look at the port over the warehouse roofs, but that question in another chapter altogether.

## The Need for Special Terminals

Despite the fact that the control of imports may have slightly reduced incoming cargoes to Brazil, the volume handled in the ports of Brazil in the first 8 months of 1976 showed increase of 9% over the same period of the previous year, with a total of 98,800,000 tonnes, presumably due to increased exports.

Not surprisingly the port of Vitória, Espírito Santo, leads by weight with 39,500,000 tonnes, a figure that includes the iron ore shipped from the Tubarão terminal.

Rio de Janeiro State accounted for 24,500,000 tonnes in the same months, though the figure for year (1976) was 37,633,537 tonnes, a record since the port was first operated and 12% up over the 33,742,850 shipped in 1975. This also covered iron ore from MBR—Minerações Brasileiras Reunidas, loaded at Sepetiba.

Paranaguá showed an increase of 36%, higher than any

(Continued from page 25)

operations and certain general support activities transferred to others. Some erosion in efficiency can be expected, particularly in the early days, but this can be minimized by close coordination and the whole-hearted cooperation of Panama. There is no doubt, however, that transfer of support services from the direct control of the Canal administration will create some problems in obtaining services at the same level that we enjoy now.

On the basis of force projections, it appears that the shedding of activities is likely to reduce the size of the work force by between 5,000 and 6,000 employees on the effective date of the treaty, of which between 2,100 and 2,400 will be transferred to the Department of Defense. A further reduction of approximately 500 will occur by the end of the 30-month transition period.

### Summary

To summarize, the treaty eliminates the Canal Zone and recognizes sovereignty and jurisdiction of Panama. The new agency (Panama Canal Commission) will operate within a reduced area, with reduced assets and functions, but with extensive rights related to the movement of ships through the Panama Canal. The transitional period will be especially challenging. The key to success, especially at that time, but as well throughout the treaty period, will be the ability to

maintain a technically qualified and highly motivated work force, as well as successful efforts to establish and nurture a spirit of cooperation with Panamanian officials. Legislation consistent with the spirit of commitments made to employees will be critically important. Equally important will be the ability to provide for the financial needs of the Commission, including capital requirements whose cost is apt to increase continuously due to inflation.

Mr. Chairman, in the short time available, I have only been able to touch generally on those major areas where I feel there will be a significant impact on the way the Canal would be run under the treaty. As we proceed with our large task of planning to discharge major responsibilities for the operation of the Canal until the year 2000, we are mindful of the extraordinary strength of the existing Canal organization—of its sound, flexible financial structure and, most importantly, its personnel. We are blessed with employees who feel a deep relationship to the Canal; their dedication to keeping it well maintained and smartly run, and their willingness to go the extra mile in any emergency are truly extraordinary. To the extent these strengths can be retained, our ability to meet the challenges in the months and years ahead will be enhanced. We shall lend our every effort to insure that our performance will not falter and that we shall conclude that chapter of history of U.S. presence on the Isthmus of Panama on a high note.

other port in Brazil. This was, no doubt, the result of the increased exports of soya from this port and the importation of the heavy equipment for the Itaipú dam project. The Cotriguaçu Regional Cooperative, inaugurated earlier this year by President Ernesto Geisel, brings the loading capacity for cereals at the Paranaguá port to 1,500 t/h. The cost of this installation was 80 million cruzeiros.

Santos handled 19 million tons of cargo in 1976, up 1.6% over 1975. Of this tonnage, 11 million tonnes were imports. The figure includes coastal shipping which accounted for 32% of the cargoes handled.

The coastal shipping, apart from the movement of petroleum, covers principally general cargoes, there has been a marked increase in the movement in this area. The companies that previously had the most to complain about in the case of the port facilities, are finding their business much improved, on account of the better facilities and handling equipment for cereals.

As mentioned the iron ore shipped out through Tubarão and Sepetiba is responsible for the significance of the total shipments through the ports of Vitória and Rio de Janeiro.

Dr. Arno Markus, president of Portobrás has announced investments for this year at 4 billion cruzeiros, to be earmarked for priority terminals of projects already under way. The ports improvements tax has been upped from 2% to 3% to compensate for any fall off in imports.

### **TUBARÃO FACILITIES**

At Tubarão terminal in the port Vitória, there are 3 automatic loaders with a capacity of 6,000, 8,000 and 16,000 tonnes respectively per hour. While in the port of Vitória itself, pig iron can be loaded at the rate of 800 t/h. (The State of Minas Gerais exported a total of 800,000 tonnes of pig iron in 1976, which figure is expected to rise to about 1 million tonnes for the current year).

Some 47 million tonnes of iron ore per year now go out through the Tubarão special terminal. The Companhia Vale do Rio Doce has announced that there will be no increase in the tonnage of iron ore to be shipped out in 1977, over 1976. The figure has been quoted as 48 million tonnes to be exported this year, of which 7 million tonnes will be pellets. The average price is US\$15 per tonne for the ore and US\$30 for the pellets, bringing in US\$825 million. In 1976, this company exported 47 million tonnes of which 4.6 million were pellets. The average price in 1976 was US\$15.15. Though the price of the ore is down this year, the fact that the pellets tonnage is up will mean an extra US\$72 million.

In order to achieve this degree of efficiency, the Companhia Vale do Rio Doce S/A invested not only money but thought and research in the support service required to keep the ore coming.

Recordbreaking ore trains run on specially strengthened rails and railbeds from the interior of Minas Gerais where the ore is mined to Vitória. Here it is added to the stockpiles of up to 4 million t/m, which ensure the ships are not held up for lack of cargoes. The ore loading area covers 170,000 square metres.

In addition, pelletizing plants installed at the port, transform many tonnes of the fines into a saleable product that can also be handled with greater ease and loaded into the ships.

The Tubarão terminal made history and there can be very few people in the world connected with the sea and maritime activities who do not know almost as much about

the port as the Brazilians themselves, who organize and work in it.

Iron ore in Brazil however, comes in mountains, literally. And iron translates as steel. But steel demands coal, and though coal is unloaded in the port of Vitória as well as in Rio and elsewhere, it has been decided to build a new port to the north of Vitória, known as Praia Mole, which is, in effect, another specialized terminal.

### **THE THREE PRIORITIES**

Praia Mole, together with the port of Sepetiba and the cereals terminal in Rio Grande superport have all been retained as priority projects within the II National Development Plan, although, as economy measures, a number of port installations previously planned have been delayed.

The importance of the Praia Mole project is related to the steel industry, the expansion of which has been planned so that supplies will be made available as needed for Brazil's various development programmes. Despite the planning, demand continues to be ahead of supply.

As is well known, Brazil imports some 80% of the coal required for the making of steel, the remainder coming from national mines. But even the latter requires to be shipped from the south of the country where the only mines are located, to be delivered to the steel mills.

### **COAL AND CHEMICAL PIER IN SANTA CATARINA**

In this connexion mention should be made of the port of Imbituba, in Santa Catarina, which was one of the few privately operated ports in the country. Exporting principally coal from the local mines (97% of the total) and sporadic shipments of sugar, expansion is planned to handle the raw material required by the newly installed Indústria Carboquímica Catarinense, for their phosphoric acid plant, now being imported, making use of temporary facilities.

Santa Catarina coal is bought by the various steel mills in Brazil to mix with the imported coal, usually on a ratio of 20% national coal to 80% imported. Since the loading facilities have not been renewed, a 20,000 tonne ship is said to take 48 hours loading. The plans for the expansion of the port call for a 230 metre pier which will enable ships to tie up on either side. In this case, one side will be used as a special terminal for the unloading of the raw material mentioned above, and the other side is to be equipped for the fast loading of coal at the rate of 2,000 t/h, for which installations 80 million cruzeiros have been earmarked by Portobrás. Special studies have been ordered by Portobrás to evaluate the real possibilities of this expansion.

### **PRAIA MOLE AND THE STEEL MILLS**

Apart from the expansion planned for the other Brazilian steel mills, the Usiminas installation in Minas Gerais is to have its capacity increased, while a new mill is expected to be built at the coast.

To feed these two projects, the Praia Mole special port has been projected as a three-way terminal. It will be able to unload 4.384 million tonnes of coal per annum, 2.8 million tonnes per annum of crude and refined petroleum products, while also loading 2.5 million tonnes per annum of steel slabs and rolled steel products of up to 35 tonnes, the finished products from the steel mills.

The financing and carrying out of this Praia Mole project is under the responsibility of Portobrás and Siderbrás (the Brazilian Steel Holding Company) on a 51%-49% basis.

Praia Mole, being dredged to a depth of 17 metres, will have an access channel 20 metres in depth, while allowing vessels up to 270 metres in length and 44 metres beam to use the facilities and manoeuvre in the 580 metre wide basin, where depths will also be 20 metres.

The harbour will be protected by a 4,200 metre mole. A coal unloading pier will allow for 80,000 dwt bulk coal carriers to tie up, two berths for loading steel slabs will accommodate 120,000 dwt vessels and a tanker jetty has been projected for 60,000 dwt tankers.

Every effort is being made to purchase the required equipment in Brazil, and it is calculated that no more than 40% of the US\$62 million estimated for this part of the project will be imported. This sum breaks down as US\$44 million for coal unloading equipment and US\$18 million for steel handling equipment. In addition, US\$62 million is being allowed for dredging and rock preparation and US\$76 million for construction. This total of US\$200 million covers the initial stage of this plan which is expected to be completed by 1979.

#### **AT SEPETIBA MORE COAL**

Portobrás, the ports holding company which came into being at the beginning of 1976 to take the place of the previous National Department of Ports and Navigable Waterways (DNPVN) is in charge of the majority of the construction and operation of ports and special terminals in the country, though there are exceptions. Sepetiba is one of the Portobrás projects.

Within the Rio de Janeiro metropolitan area, 60 kilometres down the coast and to the west of Guanabara Bay in which the original Rio harbour is located, the new port of Sepetiba is being installed. This new installation is to be some 3 kilometres out in the bay of Sepetiba at Itaguaí, and will operate with special bulk cargoes including coal and iron ore, steel products and petroleum.

In the first stage of the Sepetiba project 380 million cruzeiros will be spent and not the previously announced 500 million cruzeiros, with the accent being on the building of the coal unloading terminal, the capacity of which it to be 8.6 million tonnes/year of coal. This coal will take care of the National Steel Expansion Plan, within the 1980 target period. The coal in question will be imported from Canada, the United States, Germany and Poland. It was recently announced that a sum of 300 million cruzeiros has already been spent on this work which, as a result of the economy measures adopted, has suffered a 12-month delay. It is now expected to be terminated at the end of 1978, or beginning of 1979.

The 2 million-tonne loading capacity of liquid bulk cargoes to have also been undertaken in the first stage of this project will presumably be included in the second stage together with the loading installations to handle 18 million tonnes per annum of iron ore, among other products.

This Sepetiba project has been designed to be built in stages. Conversely some of these projects depend on the termination of the Sepetiba terminal, or some of it. Among these attendant industries are the Companhia Siderúrgica Nacional bination with other installations on plant No. 2 with 12 million tonnes per annum steelmaking capacity; the Nuclebrás heavy industry plant; Cosigua expansion project to above 3 million tonnes; Companhia Vale do Rio Doce aluminium plant; and the 1 million tonne capacity central coking plant.

#### **IRON ORE AND MANGANESE PRIVATELY**

In the meantime the MBR—Minerações Brasileiras Reunidas S/A is loading iron ore on a regular basis from the company's own terminal in the bay of Sepetiba. Exports through this terminal between November 1973 and March 1976 totalled 18 million tonnes of iron ore from the Aguas Claras mine in Minas Gerais. This project is still in the process of growing, though the ore trains feeding the terminal can already be loaded at 4,000 tonnes per hour. In 1976, MBR (through Sepetiba) and PMC (through Rio itself) shipped 10,873,051 tonnes, up 1,304,790 tonnes over 1975.

Another specialized ore terminal is in operation in the port of Santana, in the federal territory of Amapá, loading manganese. It is also here that the first manganese pelletizing plant in the world is in operation. Two manganese fines concentration plants, one at the Serra do Navio mines and the second at the port itself, prepare the material for use in the pelletizing plant, from which it is loaded on to the ore carriers. Manganese has been exported from Amapá for the last 18 years and has brought in a total of some US\$481 million.

#### **CEREALS FOR BRAZIL AND THE WORLD**

Rio Grande do Sul is the land of the Brazilian gaucho, of wide open spaces and huge cattle herds. It is also the land of soya and wheat. Wheat, in fact, can only be grown in the southern part of Brazil where the longer summer daylight hours enable the wheat to mature. This is part of the Southern wheat belt.

Until recently the principal port of Rio Grande do Sul was Porto Alegre, also the capital of the State. Porto Alegre is however, located on the Lagoa dos Patos and is consequently a relatively shallow fresh water port without direct access to the ocean. As a result, it was decided to build the superport of Rio Grande, in the extreme south of the State in an excellent location, with direct access to the Atlantic, serving both agriculture and the expanding industrial centres.

The third top priority special terminal being built by Portobrás under the II National Development Plan is the soya and wheat loading terminal in the port of Rio Grande, with an annual capacity of 11 million tonnes of grain, meal and cake. To cost and estimated US\$150 million, this terminal is programmed to be ready in three years from this year. Of this sum, 80% is to be supplied by long-term financing. Equipment is expected to cost US\$30 million of which approximately US\$6 million will be imported from foreign sources.

Facilities will include a 412.5 metre quay, allowing for the simultaneous berthing of one 60,000 dwt and one 40,000 dwt bulk carrier; a fully equipped 611.72 metre barge quay to accommodate six 1,250 tonne barges, of which half will handle grain at 400 t/h capacity and the other half meal and cake at 500 t/h capacity; one vertical 4,400 square metre wheat and soya grain 130,000 tonne silo; two horizontal warehouses each covering 1,960 square metres, holding 65,000 tonnes; road and rail connexions, as also road truck and rail wagon unloading bays; in addition to the necessary administration and other buildings.

Six million tonnes of soya are to be exported by Brazil this year of which 2,300,000 are from Rio Grande do Sul.

## OTHER PRODUCTS AT RIO GRANDE

In addition to the grain terminal mentioned, private companies have installed their own loading facilities in the Rio Grande superport which, though on a very much smaller scale, do also speed up the loading of the vessels using the port. Fish and meat, for instance, have their own refrigerated storage and loading facilities, and several of the Rio Grande do Sul cooperatives, Cotrigui, for instance, also have fast loading installations and storage at this port.

The Portobrás meat terminal in Rio Grande, which went into operation early in 1976, has a 10,000 tonne capacity. The 300-metre quay has a depth of 14 metres for ships of up to 70,000 dwt.

Portobrás has other plans for adding other terminals to the Rio Grande port installations, but some of these have been delayed due to measures of economy adopted by the Government.

## An Island Terminal

To most people the idea of a terminal is a quay, berth, pier, jetty or some other similar projection alongside the shore or jutting out into the ocean, but certainly connected with the land. This is not the case with the Termisa — Terminais Salineiros do Rio Grande do Norte S/A terminal. It is most definitely an island, and a man made island at that.

For the marine it's important to know that this island is located 5° south of the equator, 14 nautical miles off the Northeast coast of Brazil on which 100,000 tonnes of salt can be stored and loaded into his ship.

The salt is carried to the island by a continuous barge service at the rate of 300 t/h from the onshore evaporating lagoons in which the salt is produced by the heat of the tropical sun.

Two travelling grab gantries unload the salt from the barges into the stockpile from which the salt is loaded on to the ships via a 400-metre 36-inch continuous conveyor belt bridge, 12 to 21 metres above sea level, at 1,500 t/h direct into the vessels tied up at dolphins in the ocean water. A radial shiploader with a 34-metre retractable extension arm distributes this salt cargo evenly inside the vessel. Control of the loading operation is from the conveyor drive house located on the shiploader.

Bulk carriers of up to 35,000 dwt can use this terminal. They are moored against the dolphins and secured to 3 buoys capable of taking a strain of 75 tonnes in 16 metres of water in the open sea.

In 1976, the target of 1 million tonnes of salt shipped through the Termisa terminal was exceeded, since the final figure reached 1,113,000 tonnes. For 1977, the target is 1,200,000 tonnes. In January, 76,000 tonnes were shipped, in February, 82,000 and in March, 138,980 tonnes. As can be seen this would appear to be a rising scale and there should be no difficulty in, once again, going well beyond the target.

Investment in this terminal which has an area of 15,500 square metres, is US\$35 million. The capital is 300 million cruzeiros of which 253 million are paid up. In 1976, the cruzeiro value of the turnover was 44 million, while for 1977, this is estimated to reach 60 million cruzeiros. Termisa employs 330 staff with another 250 employed indirectly as contract labour.

## A Variety of Terminals

Calling them by the name of export corridors, Brazil

was, in effect, designating the country's principal integrated ports for the shipment of both agricultural and manufactured products, as also ores. These ports, principal among them being Vitória, Santos, Paranaguá and Rio Grande, have been backed up by re-equipped rail and road transport and, in the case of Rio Grande, with river transport as well. Since they will be handling bulk cargoes, in most cases, they are also provided with special terminals.

Santos and Paranaguá are the two leading, coffee exporting outlets, and warehousing and facilities exist for Brazil's main source of income. Vitória is, of course, the iron ore exporter, with cellulose being added. Both through special facilities.

Paranaguá and Rio Grande are big soya exporters. Special installations already exist or are being installed. Meat goes out through its own terminal in Rio Grande.

It is also in these ports, in addition to the ports of Rio de Janeiro (Rio itself, Niterói, Angra dos Reis, Forno and the new port of Sepetiba) that the specialized terminals will be installed, where the volume justifies the cost.

However, it should also be remembered that other areas of the country are coming into their own, with products to be loaded from local output. Sugar in Recife, the State of Rio and Santos, cocoa in Bahia, salt in the Northeast—not only in Rio Grande do Norte. The State of Ceará is increasing its cashew cultivation and may require a terminal one of these days. There are so many pockets of this or that product, for which loading speed is of the essence if they are to reach their markets fast and at a lower cost.

## FERTILIZERS TOO

In spite of the fact that there are no specific terminals yet installed for handling fertilizers, an installation of this type is under construction in Recife. This will consist principally of warehousing capacity, provided with 3 overhead travelling cranes, unloading conveyor belts that can take care of the cargo unloaded by the ship's own derricks at the rate of 1,000 t/h.

Since Brazil's imports of fertilizers are in the millions of tonnes, it would seem likely that additional terminals will be planned at other ports.

## SUGAR TERMINAL

Also in Recife is the Sugar and Molasses terminal, under the auspices of the Sugar and Alcohol Institute. This is already in operation. Expansion now under way includes an 80-metre extension to the molasses quay, dredging of the basin, and an increase in the molasses pumping capacity to 263.00 m<sup>3</sup>/h and 5,000 m<sup>3</sup> of storage capacity, representing an increase of 50% of the present capacity of the terminal.

This improvement will make it possible to load a 20,000 dwt ship in 48 hours.

## ANOTHER RECIFE PROJECT

Though not specifically related to specialized terminals, the construction of the port of Suape, in Pernambuco, has got beyond the first talking stage. In 1972, the land had been set aside by the Government for the building of this new Pernambuco port, 30 kilometres to the south of Recife. Last year the president of Portobrás, Dr. Arno Markus, signed up with the Governor of the State for the studies covering Suape.

While it is fully realized that many other projects are given priority over this particular one, it is worthy of note that it is visualized handling ships up to 400,000 dwt, with

existing lagoons and rivers being used as much as possible to provide the depths. Products to be handled include fertilizers, chemical and petroleum products, as also the mechanical engineering products to be made in the region in which it is hoped that new factories will be built. In addition to its importance as a port on its own account, it is located at the end of the projected Transamazonian Highway, when the latter is terminated.

### CONTAINERS

With know-how supplied by the French firm Luchaise, Metaltainer S/A Equipamentos de Transporte, a member firm of the Metalflex Group is to manufacture twenty 6-metre steel containers per day or ten in the 12-metre size. The viability of this project depends on the international price of containers reaching US\$2,100 per unit, since the firm intends to begin selling for export.

According to Carlos Oswaldo Bezerra de Miranda, manager of the new firm there are 10,000 containers now rented in Brazil, at an average price of US\$2 per day, equivalent to US\$7,300,000 per annum. In addition, many of Brazil's exports of consumer and capital goods are not being shipped in containers, he states, since they are not available in the country. "The 3 or 4 companies making them are not producing containers in sufficient numbers or of a quality good enough to satisfy the market", he adds.

The Metalflex project requires an investment of US\$4 million covering an assembly plant, since the components for the containers will be supplied by the Metalflex Service Centre. It is hoped that this sum will come from the National Bank of Economic Development and if it is not forthcoming in the form of financing, a joint venture with a foreign company will be arranged.

The use of containers is increasingly coming into favour in Brazil among those connected with shipping, but the high cost of installing container terminals—they require large areas not to mention special handling equipment, has been something of a deterrent.

According to the Portobrás calculations, a container terminal is uneconomical loading less than 50,000 units per annum, and though these figures have not been reached in any one of the Brazilian ports to date, it was decided to go ahead with the building of a container terminal in Santos.

Led by Santos and Rio de Janeiro, both of which handle the greater number, seven Brazilian ports load and unload containers. The other five are Rio Grande, Paranaguá, Salvador, Recife and Manaus, all of which have special areas set aside for the purpose, with leased container handling equipment.

Rio de Janeiro has a container terminal planned to cost 650,000 cruzeiros.

The increase in Brazil's container traffic in the first 8 months of 1976, over the same period in 1975, was 40%, with a total of 363,000 tonnes handled. The port of Santos was in the lead with 233,300 tonnes, while the port of Manaus showed the greatest increase with a 448% jump over the same period.

### OTHER MARITIME OUTLETS GAIN IN IMPORTANCE

São Francisco do Sul, the port nearest Joinville, in Santa Catarina, is to be expanded and improved. Among the items planned is a grain terminal to be installed in various stages, beginning with the warehousing and dredging.

This terminal when finished will provide a horizontal 10,000 square metre silo for 60,000 tonnes capacity, with

unloading from rail and road transport at 500 t/h and loading into the ships at the same 500 t/h. Dredging of the access channel of some 2.5 kilometres in length, 150 metres width and 10 metres depth is to be undertaken.

Until these faster loading facilities are installed, a smaller installation is to be ready by September next, for loading grain on to vessels at 300 t/h.

Since this port is well served by road and rail transport and due to its situation at the south of the State of Paraná, it can be used as an alternative or additional facility to Paranaguá. This is important at such times as when the soya is harvested or when there is an increased tonnage being shipped above the capacity of the port of Paranaguá.

This project is being backed by the Companhia Catarinense de Armazenamento—Cocar, which will be adding its own warehousing installations to the Portobrás premises and building in increase in its grain loading and unloading capacity, possibly to double the 500 t/h already mentioned.

### A TERMINAL FOR CELLULOSE

Portobrás, the National Bank of Economic Development—BNDE, the Vale do Rio Doce and Aracruz Celulose are all involved in the Barra do Riacho port installation agreement signed last year. Sixty percent of the investment is being financed by the BNDE with the remaining 40% to come from a new firm formed by Portobrás with 60% of the capital, Aracruz with 30% and Vale do Rio Doce, 10%.

The new firm is to build a special cellulose terminal at Barra do Riacho in the State of Espírito Santo, Aracruz will be exporting some 400,000 tonnes of cellulose per annum as from next year. In the meantime exports are being arranged by Portobrás for Aracruz and Cenibra through Vitória—Capuaba, where, in addition to the handling of cellulose, steel products, cereals and ores, and meat, are all to be shipped.



San Francisco, Calif., 12/7/77 (Marine Exchange of the San Francisco Bay Region):—COMPARING the beauty of San Francisco Bay—depicted on the commemorative tray he had just received—with the South American river and waterfall for which his vessel is named, was Capt. O. Corso, master of the MV RIO IGUAZU. Welcoming the new Argentine vessel to the Port of San Francisco were Marine Exchange executive director Robert Langner and Maritime Queen Susan Newman. Joining in the event was first officer Renato de la Rosa (right). The Elma Line vessel's agents are Transpacific Transportation Co.

# News From Maryland Port Administration

## 1. Waterfront Crane Seminar Scheduled

Baltimore, Md., November 22, 1977:—A day-long seminar on the operation, inspection and maintenance of waterfront cranes, will be held on December 15, 1977 at Councill's Restaurant, 1110 East Patapsco Avenue, Baltimore, Maryland. The seminar is jointly sponsored by the Safety Council of Maryland, the Steamship Trade Association of Baltimore and the Maryland Port Administration.

Among the topics for discussion will be the concept and execution of the Maryland Port Administration crane philosophy; waterfront crane inspection and federal certification procedures; wire rope standards, care and problems; practical problems in using shipyard cranes; and federal safety standards.

Seminar speakers include Edward C. March, Director of Maritime Standards for the Occupational Safety and Health Administration/(OSHA); Robert DeBenedictis of the Crane Inspection and Certification Bureau, Orlando, Florida; William Swanke, Assistant Chief Engineer, Wire Rope Division, Bethlehem Steel Corporation; Frederick Huber, of Bethlehem Steel's Baltimore Ship Yard; Theodore Sanderson, Operations Planning and Research, and Jim Schuyler, Crane Safety Officer, both of Maryland Port Administration.

According to Thomas W. Powers, occupational safety and health officer for the Maryland Port Administration, who is acting as seminar coordinator, "It is especially important that those of us in the waterfront community who have a common interest in and responsibility for the safe operation of cranes meet to discuss our mutual problems. We all are looking for ways to increase our efficiency and safety."

Mr. Powers, who also is chairman of the Marine Section, Industrial Division, Safety Council of Maryland, cited the "ever expanding cargo flow through the Port of Baltimore" and "the expected in-rush of cargo at the conclusion of the dock strike" as major factors in scheduling the seminar at this time.

More than fifty members of the Baltimore maritime community involved in crane operations are expected to attend the seminar.

## 2. New Sales Brochure Published

Baltimore, Md., December 13, 1977:—The Maryland Port Administration has published a new 20-page four-color illustrated sales brochure. The promotional publication describes the port of Baltimore's cargo-handling capabilities, its marine terminals and other facilities, a new 300-ton capacity heavy-lift crane, the recently-opened World Trade Center Baltimore, and the port's connections through truck and rail lines with America's industrial midwest.

The brochure is illustrated in detail with some 40 full-color photographs, offering customers and potential customers a quick but complete view of the port of Baltimore.

Titled "The Port", the publication is designed to tell the story of the port of Baltimore to those who may not be aware of all the specific benefits of shipping through

Baltimore. For instance, the brochure states the port of Baltimore is the world's most convenient link to the industrial midwest. Cargo traffic is two-way here, with both import and export trade moving at a balance level better than in any other U.S. Atlantic port.

Concept for the publication and its direction was the responsibility of the MPA's Port Promotion Department. Art design was provided by Eucalyptus Tree Studio, Baltimore and Art Litho, Baltimore, printed the brochure.

"The Port" is being distributed through the MPA Trade Development Department which operates regional offices in Baltimore, New York, Chicago, Pittsburgh, the United Kingdom, Continental Europe, the Far East and Southeast Asia.

For further information, contact Port Promotion Department, Maryland Port Administration, The World Trade Center Baltimore, Baltimore, Md. 21202.

## 3. WTCB Deputy Director Appointed

Baltimore, Md., December 13, 1977:—Alice L. Glen has been named deputy director of the World Trade Center Baltimore, a newly-created position.

Miss Glen comes to the Maryland Port Administration from the Social Security Administration. She is participating in a program which is the result of the Intergovernmental Personnel Act providing for the exchange of state, federal and local employees. Under the program, employees may spend up to two years at a different level of government in order to broaden their own career experience and bring the experience of one level of government to another.

Miss Glen joined the Social Security Administration in 1965. Among the positions she held in her 12 years with that federal agency were assistant executive director of the Bureau of Hearings and Appeals, member of the Litigation Staff in the Office of Policy and Regulation and member of the staff which wrote the procedures for claims under the Supplementary Security Income Program.

In her new position, Miss Glen will work with Richard C. Anderson, director of the World Trade Center Baltimore, coordinating new programs and services which will be offered at the trade center. Initially, her primary area of emphasis will be developing World Trade Center Institute programs consisting of trade seminars and conferences to be held at the World Trade Center Baltimore. The trade center to date has co-sponsored a variety of trade seminars with different colleges and institutions, but currently is not offering these programs independently.

Another area of emphasis for Miss Glen will be the development of information services for the Baltimore-Washington commerce community. These include Interfile, a computerized system offering information on rates, regulations and data pertinent to foreign trade, and Market-Match, a system matching specific products to markets around the world.

A resident of Annapolis and Philadelphia native, Miss Glen received her college degree in International Economic Development from Washington College, Chestertown, Md.

# British Transport Docks Board News

## 1. Extension of Roll-on/Roll-off Terminal at Plymouth

London, 24 November 1977:—The British Transport Docks Board revealed today (Thursday, 24 November) that it is to seek Parliamentary powers to fill in part of the Inner Basin adjacent to its Ferryport at Plymouth's Millbay Docks in order to provide additional land for possible future extension of the roll-on/roll-off terminal area.

Welcoming today's announcement by Brittany Ferries that they are to introduce a new twice-weekly ferry service between Plymouth and the port of Santander in northern Spain next April, Mr. Peter Murdoch, BTDB director of small ports and operational services said, "The company's decision is a further sign of their faith in Plymouth's tremendous potential for ferry operations, and for its part the Docks Board is asking Parliament to agree to land reclamation so that the future development of ferry traffic will not be hindered by lack of available space. The popularity of Plymouth as a ferry port is demonstrated by the growth in traffic, to 190,000 passengers, 38,000 passenger vehicles, and 11,000 freight units last year."

Plymouth Ferryport was constructed by BTDB following an agreement signed with Breton interests in 1972 which established the roll-on/roll-off ferry link between Plymouth and Roscoff in Brittany. The first stage of the development was commissioned in January, 1973, for freight-only operations between the two ports, and in 1974 a modern passenger terminal was completed, bringing the Docks Board's investment to nearly £1 million Brittany. Ferries subsequently extended their services to include St. Malo.

BTDB's docks manager at Plymouth, Mr. Edward Chapman, said that he was delighted at the news of the Spanish service. "We have maintained for several years that this was a logical step in the development of Plymouth's ferry operations," he said. "No British port is better placed for a Spanish service in terms of voyage time, and we now have the added advantage of the M5 motorway virtually on our doorstep. Add to this the fact that the workforce here at Millbay have clearly demonstrated their ability to operate efficiently and with flexibility, and you can clearly see why we are confident that the new service will be an enormous success. We will certainly do all we can to help Brittany Ferries make it so."

Plymouth Ferryport passenger-freight complex covers a total area of approximately two and a half hectares (six acres) within Millbay Docks.

There is a four-lane passenger vehicle area for marshalling and Customs processing, and an RAC port office.

The passenger terminal building, which covers about 1,200 square metres, has a spacious embarkation lounge with seating for up to 200 people, refreshment facilities, a booking hall, and Customs and Immigration offices.

For freight, a fenced security compound for vehicle marshalling includes two Customs examination sheds. Sites are available for haulage company offices and an axle weighbridge is provided.

## 2. Chinese Delegation Inspects British Port Facilities

London, 2 December 1977:—A high level delegation

from the People's Republic of China, led by the Vice-Minister of Communications, Mr. Tseng Sheng, last week visited three major ports, all of which are owned by the British Transport Docks Board.

The delegation members spent last Friday (2nd December) visiting Hull and Immingham, on opposite sides of the Humber, where they inspected modern conventional general cargo facilities, as well as specialised berths for unit load traffic. They were accompanied on their tour of both ports by the Docks Board's managing director, Keith Stuart, and the port director, Humber, Kenneth Bantock. On the previous Monday, they toured the Port of Southampton where they saw various types of cargo traffic being dealt with, including roll-on/roll-off and containers.

During their visits to all three ports, the members of the delegation were accompanied by the Docks Board's marketing manager, Eric Pollock.

Commenting on the significance of the delegation's visit to Britain, Mr. Pollock said: "I am very glad that the delegation has visited our ports at a time when we are looking to a large increase in trade between China and the UK in general, and the Board's ports in particular, during the next few years. The Board is keen to meet the needs of the trade, and in fact we already handle substantial tonnages of cargo from and to China."

## 3. Docks Board Appoint Engineers

London, 7 December 1977:—The British Transport Docks Board have appointed Mr. Roger Wilson, B.Sc.Eng. (Civil) as Docks Engineer at Fleetwood, and Mr. William Dunn, C.Eng. as Docks Engineer at Barrow & Silloth, to replace Mr. Trevor Bailey, MICE, C.Eng., Docks Engineer, Fleetwood, Barrow & Silloth, who has taken up an appointment as Assistant Docks Engineer at Grimsby & Immingham.

Mr. Wilson, who is a Member of the Institute of Chartered Engineers, is 37 years old, and has been Mr. Bailey's assistant at Fleetwood for the past nine years. Prior to that he worked at Hull in various engineering capacities since 1962, which is when he first entered the Board's service.

Mr. Dunn, who is a Member of the Institute of Marine Engineers, started his service with the Board in 1961 as a Marine Engineer at Barrow & Silloth, becoming Assistant Docks Engineer in 1968.

## 4. New Coal Shipping Terminal for Port of Ayr

London, 8 December 1977:—The British Transport Docks Board are to go ahead with a scheme to construct a new high-capacity coal shipping terminal at the port of Ayr. Part of the cost of the associated rail facility will be met by a grant from the Scottish Development Department under Section 8 of the Railways Act 1974.

The new terminal, which will be situated on the north-west side of Ayr's dock basin, will employ a conveyor system to load coal brought to the port by rail and road. It will replace existing heavy lift coaling cranes which have been in use for as much as forty years and are nearing the end of their operational life.

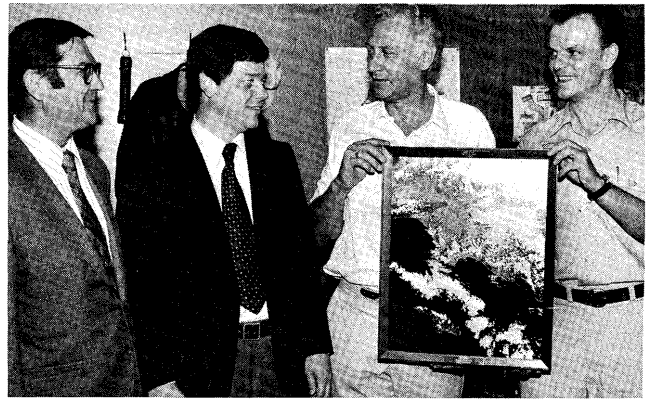
Announcing the scheme Mr. Keith Stuart, BTDB managing director, said: "The scheme will provide a modern coal shipping terminal at the port of Ayr, which will be a major asset to the port and the region. It will replace existing heavy lift coaling cranes which have been in use for as much as forty years and are nearing the end of their operational life."

(Continued on page 51)

# Port of Long Beach Photos



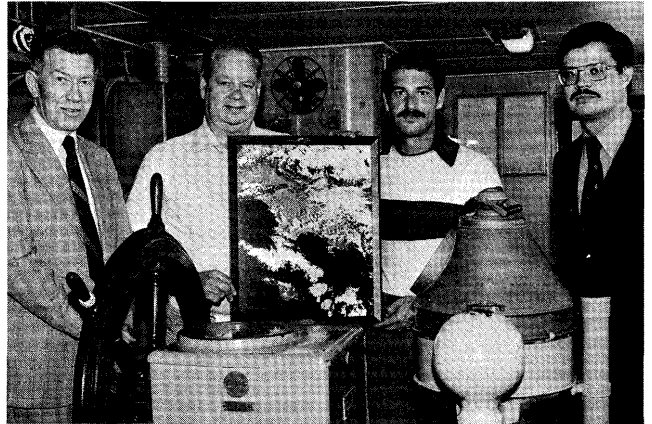
Long Beach, Calif., 112877 (Port of Long Beach News):—**FOURTH STATES LINE RO/RO SHIP ARRIVES AT PORT OF LONG BEACH:** Recent first-time call of States Line's fourth Roll On/Roll Off ship Illinois at the States Line Omni Terminal at the Port of Long Beach found Captain T.D. Douglas being presented with Apollo-photo of Southern California by Adolph Zetterberg, Port Operations representative for the Long Beach Harbor Department. Besides the four Ro/Ro's, States operates a fleet of State-class vessels in the transpacific trade.



Long Beach, Calif., 112977 (Port of Long Beach News):—**MAIDEN ARRIVAL OF ZEPHAWK:** The maiden arrival at the Port of Long Beach of the Ace Lines' containership Zephawk was marked by the Port's traditional presentation ceremony on the Singapore-flag vessel. On hand for the event were, from left, George H. Stein, Director of Port Real Property, who presented the two captains aboard with an aerial photo of the Port of Long Beach; Glenn W. Scheckenbach, president of American Container Express Inc.; and Captains Glen S. Eberel and John Amwege. The Zephawk was built in 1975, operates under German management and will be calling regularly at the Port of Long Beach.



Long Beach, Calif., 112977 (Port of Long Beach News):—Members of the recent Container Technical Research Mission were among recent visitors to the Port of Long Beach, where they toured various container facilities including International Transportation Service's ultra-modern terminal on Pier J. Pictured during their call at the Harbor Administration Building are, from left, Tadashi Yoneda, technical manager, Maintenance Control Dept., Nippon International Container Service Co., Ltd.; Capt. Tadashi Kobayashi, asst. general manager, New Japan Surveyors & Sworn Measurers' Association; James H. McJunkin, general manager Port of Long Beach; Akira Yamashita, expert advisor, containerization, Japan Surveyors & Sworn Measurers' Association; Ryoichi Nakajima, manager, Engineering Department, Kanto Auto Works, Ltd.; Lee Sellers, asst. general manager Port of Long Beach; "Mike" Masao Kamijo, executive director & secretary general, Japan Container Association and Captain Shinta Asami, ITS president.



Long Beach, Calif., 112977 (Port of Long Beach News):—**MAIDEN ARRIVAL OF JOHN B. WATERMAN:** The 14,850 deadweight ton John B. Waterman made its maiden call recently at the Port of Long Beach to load heavy electrical generators bound for Yokohama. The ship, which was named after Waterman Steamship Company's founder, John B. Waterman, is equipped with four heavy duty cranes. Pictured at the welcoming ceremonies, from left, are Captain M.O. Vinson, operations manager for the Waterman Steamship Corporation; Captain T. Spradlin; Port Traffic Manager Steven Resnick, who presented an aerial photograph of the Port of Long Beach to the captain, and Michael T. Gordon, sales representative for the Waterman Steamship Corporation.

(Continued on page 40)

# Loan and Technical Assistance Grant to Indonesia for Expansion of Surabaya Port Facilities

Asian Development Bank  
News Release No. 67/77  
17 November 1977

The Asian Development Bank today approved a \$17.5 million loan and a \$150,000 technical assistance grant to Indonesia for the expansion of port facilities at Surabaya, one of the country's main transshipment points for both overseas and domestic inter-island trade.

The Project also includes a feasibility study for Phase II development of the port, which is the country's second largest and is situated in northeastern Java on the Straits of Madura.

Designed to expand capacity to keep pace with the growth in cargo traffic up to the early 1980s, the Project includes: (1) construction of eight inter-island berths, four transit sheds and suitable workshop, storage and related facilities; (2) dredging alongside the new berths; (3) construction and/or improvement of access roads within the port area and ancillary installations such as open storage areas, customs and port administration offices, drainage and sewerage facilities, and electrical, water supply and communication services.

Under the Project, experts will be recruited to help supervise construction; to assist the Indonesian Directorate General of Sea Communications in project implementation; to review the present tariff structure and provide assistance to authorities in the establishment of a rational and cost-related tariff structure; and to provide on-the-job training to Indonesian staff members.

Because the increased capacity to be developed under the Project will be sufficient to meet growth in traffic only until 1982, technical assistance has been provided by the Bank to help finance a feasibility study for the next stage of expansion at the port, with particular emphasis on the need for special handling facilities for containerized cargo.

During 1973–1975, the Bank was the Executing Agency for technical assistance financed by the United Nations Development Programme to prepare master plans and feasibility studies for the first-phase development of the ports of Surabaya, Belawan and Panjang. In 1975, the Bank provided a technical assistance loan for the requisite engineering designs for Belawan and Surabaya ports; the present Project has resulted from the earlier technical assistance and the subsequent loan from the Bank.

The Project is an important part of Indonesia's overall program for development and expansion of port facilities and related maritime services to meet growing requirements in both international and domestic trade. Once completed, it is expected to make a significant contribution to the economic development of East Java.

The Bank has previously financed 38 projects in Indonesia through 41 loans totalling \$442.05 million, including 21 loans amounting to \$113.28 million from its Special Funds and 20 from ordinary capital resources totalling \$328.77 million. Technical assistance amounting to \$5.08 million has been extended for 32 projects, 14 of which have resulted in Bank loans.

Drawn from ordinary capital resources, this loan is for a term of 25 years, with a five-year grace period and interest of 8.3 per cent per annum. It is the Bank's fourth loan to Indonesia in the ports sector, and the second for Surabaya Port; the earlier loan, amounting to \$5.5 million, was approved in 1972, and was aimed at the rehabilitation and modernization of port facilities.

## PROJECT INFORMATION

The information given hereunder is intended to provide prospective consultants and other interested persons with general information concerning the Project. Detailed information may be obtained from the Executing Agency indicated below. The particulars given with respect to "Consultants" are based on present project planning and may change in course of project implementation as the circumstances require.

Project: Fourth Port Project (Phase I development of Surabaya Port).

Country & Location: Indonesia, Surabaya.

Project Description: The Project involves (1) construction of inter-island berths and transit sheds; (2) dredging alongside new berths; (3) construction of ancillary buildings and installations; (4) provision of other facilities and services; and (5) preparation of a feasibility study for Phase II development of Surabaya Port. The Project includes consultant services for construction supervision, project implementation, review and design of tariffs, and feasibility study.

Total Cost: Total cost of the Project is \$30.55 million consisting of \$16.55 million in foreign currency and \$14.00 million in local currency.

Bank Assistance: The equivalent in various currencies of \$17.65 million composed (1) Loan—(a) \$16.40 million from the ordinary capital resources of the Bank to meet the foreign exchange cost of the Project and (b) \$1.1 million which represents the refinancing of the presently estimated foreign exchange cost of engineering design for Surabaya Port originally financed under the Bank's ongoing technical assistance loan and (2) Technical Assistance Grant—\$150,000.

Date of Approval: 17 November 1977.

Other Sources of Finance: Government of Indonesia.

Borrower: Republic of Indonesia.

Executing Agency: Port Administration of Surabaya under the Directorate General of Sea Communications.

Procurement Agency: Port Administration of Surabaya under the Directorate General of Sea Communications.

Consultants: Consultants will be recruited in accordance with the Bank's guidelines on Uses of Consultants for (1) Construction Supervision—Borrower would negotiate contract with consultants already engaged for engineering

(Continued on next page bottom)

# The Bay of Plenty Harbour Board Chairman's Statement, Port of Tauranga, N.Z.

**For the 11 months ending  
31 August 1977**

27 September 1977

The Members,  
BAY OF PLENTY HARBOUR BOARD

Gentlemen,

It is my privilege and pleasure to present this interim annual report which, because of the approaching Local Body Triennial Elections and my impending retirement from the Board, I am tabling earlier than usual. Statistical and financial information for the full year ending 30 September will be incorporated in the printed report to be published in due course.

## TRADE

The level of annual cargo tonnage throughput is one of the major factors by which a Port measures its role as the focal point in the development of regional and national planning schemes. Since 1966, our Port has been New Zealand's largest export tonnage outlet, and it has maintained that position during the year we are completing.

Based on the past 11 months figures, throughput for the year ending 30 September 1977 will be approximately 2,900,000 tonnes of cargo—15% greater than for the same period last year.

It is anticipated the Kaimai Tunnel will be open in August 1978 and we are confident that this will generate additional traffic from the major central North Island production regions.

## SHIPPING

Shipping arrivals and departures of 1,000 vessels totalled a record of 5,000,000 net registered tonnes. It is of interest that the average net registered tonnes per ship has steadily increased from 2,750 tonnes 10 years ago, to 4,950 this

designs for Surabaya Port under Bank's ongoing technical assistance loan; (2) Project Implementation—Borrower would extend services of the consultant (Port Engineer) already engaged for the implementation of the ongoing technical assistance project at Surabaya Port; (3) Review and Design of Tariffs; and (4) Feasibility Study.

Procurement: (1) The two main civil works contracts under the Project involving (a) construction of wharves and (b) construction of transit sheds, ancillary buildings and miscellaneous services will be awarded in accordance with the Bank's Guidelines for Procurement; (2) Civil works contracts estimated to cost the equivalent of \$200,000 or more will be awarded on the basis of international competitive bidding and those estimated to cost less than this amount, on the basis of international shopping; (3) As the civil works contractors will be responsible for providing necessary equipment and plants needed for construction, there will be no separate procurement under the Project.

Estimated Date of Completion: 30 June 1982.

year, which indicates the greater number of larger vessels taking advantage of the Port's increased draught. High utilisation of berths is reflected in the 64% net average occupancy of the present 1,830 metre quay.

## FINANCE

The annual accounts for our financial year ending 30 September 1977 will be formally presented to the Board in due course, but in order to give you some indication of the situation I set out the results for the 11 months to date.

\$5,600,000 gross income was received in the 11 months, of which operating expenditure accounted for \$2,170,000, and although gross income has increased, operating expenditure continues to keep pace due to escalation in wages and material costs with which we are all so familiar. The Board has done well to complete the 11 months by holding all its Port charges at levels established in August 1976 or earlier.

Payments to sinking funds and loan repayments decreased by about 8%—\$455,000 and loan interest payments totalled \$700,000. Capital expenditure from revenue increased substantially to \$946,000, compared with \$306,000 last year, in accordance with Board policy of financing a larger proportion of capital works from revenue than from public loans. Of this sum, \$830,000 was expended on major dredging works and acquisition of land for Port oriented purposes.

During the past 11 months, \$1,770,000 was raised on the public loan market to finance in whole or in part:

- Construction of a terminal to handle unitised forest industry exports, adjacent to the Board's linkspan presently servicing Trans Tasman Roll-on/Roll-off shipping \$963,000
- Continuing construction of the 91 metre southwards extension (No. 9) to the Mount Maunganui Wharf, together with associated dredging works, reclamation and hardstanding \$266,000
- Construction of a more powerful tug \$506,000
- Repayment of a redemption loan \$ 35,000

## DEVELOPMENT

### No. 9 Wharf Extension

This 91 metre extension, constructed by the Board's staff, is now almost completed. The reclamation between the extension and the woodchips stockpile has been paved, and with fenders now being fitted, we expect the extension to be operational by mid-October.

The use of the extension will give greater flexibility in berthing the increasingly larger vessels using the Port and will provide nominally 11 berths on the 1,830 metre quay.

### Forest Industry Terminal

Costing over \$2,000,000, the Forest Industry Terminal was primarily designed in conjunction with the Union Steam Ship Company for the high speed handling of unitised woodpulp, sawn timber, newsprint, kraft paper and other forestry and general exports. Its development marks

the beginning of a new phase in our Port activities. It is operated by the Union Steam Ship Company, under a lease-back arrangement with the Board, to service Roll-on/Roll-off vessels in the Trans Tasman trade using the adjacent common user linkspan berth. Introduced in December and July respectively, and specially geared for the Port of Tauranga, the Company's new 14,400 dead-weight Roll-on/Roll-off vessels "Union Rotorua" and "Union Rotoiti" now maintain a fortnightly 20 knot service between Tauranga, Auckland, Sydney and Melbourne. Using both the bow and stern loading ramps at Tauranga these vessels have achieved average loading rates in excess of 550 tonnes per hour compared with an average of 300 tonnes per hour in the smaller Roll-on/Roll-off vessels, and 1,200 tonnes per day in the Company's earlier conventional crane ships.

The first of the Tasman Pulp and Paper Company's two specially designed pulp and newsprint carriers, the "Tasman Enterprise" arrived at the Port of Tauranga on 4 September to inaugurate the Company's own shipping service between Tauranga and Australian ports. These vessels are the only ones of their type operating in Australasia, loading and discharging operations being carried out by a highly sophisticated mechanical means through two large sideport openings.

Following these developments, the Board's 24 hour duty Watch Office has been re-established in the Mount Drury Signal Station, which has been re-equipped with the latest radio and radar aids for extended navigational surveillance.

#### **New Tug "Kaimai"**

The Board's new 29.8 tonne bollard pull tug "Kaimai" was launched on 17 September at the Whangarei Engineering Company's shipyard. As with the "Rotorua" and "Teremoana", I am impressed with the high standard of workmanship. The vessel is undergoing final fitting out, painting and trials, and we expect to take delivery at the end of October.

#### **Dredging Works**

During the year, the Board chartered the Timaru Harbour Board's dredger "W.H. Orbell" which has just completed the first stage of deepening the entrance and harbour channels to provide for an eventual high water ships draught of 10.7 metres. It is the Board's intention to charter this dredge for further dredging in order to attain its objective as soon as possible.

#### **Cement and Tanker Berth**

With the primary objectives of relocating the cement import industry and also isolating tanker discharging from other Port operations, the Board is planning the early development of a cement and tanker berth.

#### **Multi-Purpose Crane**

In what it considered to be the national interest, the Board in March 1977 applied to the New Zealand Ports Authority for approval to purchase and install its first permanent quayside crane. Planned several years ago and now considered essential because of changing ship design and cargo handling technology, this multi-purpose gantry type crane is required to handle increasing volumes of unitised, dry bulk and break bulk cargoes entering and leaving the Port in larger deeper draught vessels.

Subsequent to this presentation, the Ports Authority

further examined the Board's proposals at a Public Hearing on 24 May when we were supported by a substantial cross section of major shippers, shipping companies, Port unions and others associated with the Port and its hinterland. The application was opposed only by the Auckland Harbour Board on the basis of protecting that Board's investment in container handling facilities.

On 9 July, the Ports Authority declined the application, deciding that the Board had not established a case for a multi-purpose crane and ancillary works.

We continue to emphasise that Tauranga is New Zealand's largest export tonnage Port and, with Government economic strategy aimed to increase exports, it is our view that every effort should be made to reduce total producer-consumer costs. Port efficiency and ship turnaround are vital components in the distribution chain and there is no doubt that the installation of a multi-purpose crane at Tauranga would achieve significant cost savings to shipper and ship owner alike. The Authority's decision has aroused considerable controversy throughout the whole of the Port's service area, and on 21 September the Board exercised its right of appeal to the Minister of Transport against the decision of the New Zealand Ports Authority. We now await the Minister's decision.

#### **FACILITIES FOR SMALL BOATS**

Conscious of the increasing recreational use of the harbour waters by small boats, the Board has given much thought to upgrading and expanding launching and jetty facilities.

The Board is carrying out a feasibility study of proposals for a 10 hectare, 500 boat marina on the north west side of the Sulphur Point reclamation. The proposals include parking for up to 720 vehicles and yacht and power boat club rooms, and other facilities.

Substantial expenditure has been incurred in upgrading the launching ramps at Tanners Point and the north end of Pilot Bay, both of which are subject to heavy boating traffic during the summer months, and on various other ramps and jetties around the 275 kilometres of foreshore.

During the next financial year, provision has been made for the construction of new launching ramps at Park Road, Katikati and, subject to appropriate approvals, at the Salisbury Jetty end of Pilot Bay, Mount Maunganui. Repairs and maintenance work on several ramps and jetties will also be undertaken, including the ramp on the Southern Reclamation, Tauranga.

Proposals are being actively considered for a recreational area on Matakana Island; additional boating facilities at the northern end of the harbour; a major launching ramp and parking area on the western side of Sulphur Point; and the development of small boat facilities in Waipu Bay. I believe that this last project should have a high priority.

#### **WHARF SECURITY**

The perimeter fence around the main wharf should be completed by the end of December 1977, and the Board will then be able to introduce better security arrangements.

#### **ACKNOWLEDGEMENTS**

I would like to record the Board's thanks to each of the Members of Parliament in our Harbour District, in particular to Mr. K.R. Allen, M.P., for Tauranga and Under-Secretary for Trade and Industry, and to Mr. P.B. Reweti, (Continued on next page bottom)

# Port of Houston Annual Report 1976

## Extracted from "Port of Houston Authority Annual Report 1976"

The Port of Houston had a banner year in 1976 with all-time records set for overall tonnage handled and for tonnage and dollar value of foreign trade. There also were more containers handled at the Port and more automobiles imported over the wharves than in any previous year.

For the first time in history, total tonnage through the Port topped the 90 million ton mark at 90,001,400 tons. This figure reflects a 7.5 per cent increase over the 1975 total.

Construction of Phase II of the Port of Houston Authority's terminal at Barbours Cut, 25 miles from the Gulf of Mexico, neared completion during 1976. Two 1,000-foot container wharves, each with an amenities building, were completed and contracts were let for the terminal entry building and installation of a computer system to facilitate container handling. The Authority took delivery of two Paceco container cranes and three Marathon Le Tourneau yard cranes, and in December the Commission approved advertising for bids for construction of a Roll-on/Roll-off platform and marshalling area at the facility.

At the Port Authority's Bulk Materials Handling Plant on Greens Bayou, work was begun on a dust control system to meet Texas Air Control Board regulations. A dry bulk storage building was completed during the year by Intercontinental Bulk Systems, Inc. The domed structure, built on land leased from the P.H.A., has a storage capacity for 26,000 tons of ammonium sulfate or similar products.

In mid-1976, the Texas Water Quality Board issued a report on marine life in the Houston Ship Channel and commented on the dramatic improvement in the quality of Channel water. The report noted that several species of fish, shrimp and crab had been found in areas previously considered devoid of life.

(Continued from page 36)

M.P., for Eastern Maori, both of whom have worked so hard for the Board and the area.

The Board's thanks are also extended to the many local and national organisations, Local Authorities and Government Departments from whom we have continued to receive advice, assistance and co-operation during the year and also to representatives of the Press, Radio and Television for the coverage given to the Board's affairs.

As this is my last report, I take the opportunity of thanking the people of Rotorua for their constant support, it has been a pleasure to serve on this Board as their representative. Two other Members of the Board will not be seeking re-election—the Hon. R. Boord, Q.S.O., Mayor of Rotorua, and Mr. R.H. Martin, representing the electors of Rotorua City and Rotorua County respectively, and who both joined the Board in 1968. During their nine years on the Board, the Port has become internationally recognised as one of New Zealand's most efficient Ports. These two gentlemen must feel proud to have contributed to this success, and I am sure that they take with them your best wishes and thanks.

Industries along the Houston Ship Channel announced or completed expansion of many facilities during the year.

Among the major expansions were:

U.S. Steel—constructed the nation's first mill capable of manufacturing 48-inch diameter line pipe at its Baytown plant.

Steel Enterprises, Inc.—opened a 160,000 square foot steel products distribution center with a barge facility.

Atlantic Richfield—completed modernization and expansion of its Houston refinery to reduce air and water pollution and increase crude oil capacity from 213,000 to 306,000 barrels per day.

Warren Petroleum Company, Division of Gulf Oil Corp.—began work on an expansion of its LPG unloading facility which involves construction of a third dock capable of unloading 80,000 cubic meter ships.

Gulf Coast Waste Disposal Authority—opened its Washburn Tunnel plant which uses an activated sludge process to handle waste from five Channel industries.

Anchortank, Inc.—began construction of a liquid petroleum and chemical storage facility on the Bayport Channel to have an eventual capacity of 6.5 million barrels.

Shell Oil Co.—continued a five year expansion program to include a 1.5 billion pound per year olefins facility; a multi-unit resins complex; a new central power station and a crude oil dock.

Exxon USA's Baytown refinery—moved toward completion of a \$475 million fuel expansion program which will make the 650,000 barrel per day refinery the largest in the United States.

Another member was added to the growing list of foreign consulates in Houston in 1976 when Paraguay opened a consular office here. Three countries, Argentina, Bolivia and Colombia, upgraded their local offices to consulates general during the year.

Houston now boasts 45 foreign consulates, more than

To those Members who have been returned unopposed I offer my congratulations—to those who have yet to face election my best wishes—to all of you.

We have been fortunate that although Members are elected from constituent parts of the Harbour District, local interests have not intruded into the Board Room to any great extent, if at all.

My thanks are due to past and present Members of the Board for their interest and support—the team spirit which epitomises this Board and its staff will continue to prevail and together with those involved in and associated with the Port, will ensure its greater impact on the local and national scene.

Members of this Board have always given of their best and each of you has readily responded many times at short notice, to a call for extra meetings or some other duty. Mr. Syme as Deputy Chairman and the Chairmen of Committees have been of great assistance in the running of the Board's affairs. Mr. Williams and the Board's staff have given the Board and myself the best of co-operation and support. Once again—thank you all!

K.S. Calder  
CHAIRMAN

any other city in the Southwest. Foreign business interest in Houston also is reflected in the local offices of seven foreign trade organizations or chambers of commerce; 20 foreign bank field representatives; six Edge Act banks, and eight local banks with international departments.

### PORT OF HOUSTON STATISTICS

A breakdown of the total tonnage figure of 90,001,400 tons shows that general cargo movement marked a three per cent increase at 6,686,493 tons, while bulk shipments and receipts were up five per cent at 83,314,907 tons.

Automobile imports jumped to 179,886 units, an increase of 28.6 per cent over the 1975 total.

Containers handled at the Port of Houston numbered 183,273 TEU's carrying 1,631,886 tons of cargo, up from 145,593 TEU's carrying 1,276,565 tons the previous year.

The Port's record foreign trade tonnage came to 41,896,905 tons valued at \$9,562,962,615. The total includes 26,933,845 import tons worth \$4,058,961,446. Export foreign trade tonnage came to 14,963,060 tons valued at \$5,504,001,169.

On the basis of tonnage, the leading commodities imported from overseas were: crude petroleum, 21,065,655 tons; iron and steel, 1,817,571 tons; crude minerals, 634,089 tons; molasses, 545,205 tons, and organic chemicals, 365,929 tons.

On the basis of value, the leading commodities imported from overseas were: crude petroleum, \$1.7 billion; iron and steel, \$502 million; automobiles, \$455 million; coffee \$171 million and organic chemicals \$103 million.

In export commodities moving in foreign trade, the tonnage leaders were: wheat, 4,889,885 tons; corn, 1,983,746 tons; organic chemicals, 1,015,830 tons; oil field and construction machinery, 176,845 tons, and iron and steel, 175,454 tons.

Top export commodities in foreign trade on the basis of value were: oilfield and construction machinery, \$786,264,278; wheat, \$674,745,627; iron and steel, \$221,266,670; corn \$214,361,309; and cereals, \$172,205,952.

On the Port of Houston's list of foreign trading partners for 1976, Japan remained first with \$1.1 billion worth of trade moving through the Port. However, increases in crude petroleum imports moved Saudi Arabia to the second spot for the first time with \$1 billion worth of trade moved to and from that country.

The others in the top ten list in descending order were: West Germany, \$645 million; Brazil, \$500 million; Nigeria, \$421 million; Great Britain, \$373 million; Mexico, \$371 million; The Netherlands, \$354 million; Iran, \$328 million, and Algeria, \$294 million.

Despite the increase in tonnage, 67 fewer ships called at the Port of Houston in 1976 than in 1975 with 4,524 ship arrivals in 1976 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.

U.S. Customs collections at the Port of Houston continued to rise with the \$164,301,305 received in 1976 showing a 35 per cent increase over the 1975 figure. Since 1920, more than \$1.2 billion has been collected by Customs in Houston.

### PORT OF HOUSTON AUTHORITY FACILITIES

The publicly owned and operated facilities of the Port of Houston Authority also showed increases in tonnage movements in 1976.

Tonnage moved across the public wharves in 1976 equaled 11,367,893 tons, a seven per cent increase over 1975's total.

In 1976, 84 ships carrying 328,961 tons of cargo were loaded and unloaded at Barbours Cut.

At the Port Authority's Bayport Division, serving the multi-million dollar Bayport Industrial Complex, 111 ships and 264 barges were handled during 1976.

In the upper reaches of the Houston Ship Channel, the Public Grain Elevator served 113 ships and 63 barges, loading 1,435,110 tons of grain.

The Port Authority's Bulk Materials Handling Plant on Greens Bayou handled 20 different commodities during 1976, loading and unloading 140 ships and 228 barges. Total tonnage handled was up nine per cent at 1,663,016 tons. The leading export commodity was fertilizer at 1,370,973 tons while the top import commodity handled was barite ore at 105,018 tons.

Twenty-one ships and 97 barges were loaded or unloaded at the Sims Bayou Tanker Dock. At the San Jacinto Barge Terminal 217 barges were handled.

The Port Authority's inspection vessel SAM HOUSTON made 555 trips up and down the Channel during 1976, logging 8,490 miles and carrying 46,559 passengers.

General cargo handled at the public wharves was down 1.4 per cent at 4,193,880 tons.

The two Port Authority fireboats assisted at 40 fires and responded to 22 additional alarms during the year. The boats also checked on oil spills, assisted stranded vessels and participated in training sessions. The one major fire on the Channel during the year required the simultaneous assistance of both vessels for approximately 140 hours.

### SPECIAL EVENTS

Several events took place during the year in honor of the Bicentennial of the United States. The U.S. Army Corps of Engineer's Bicentennial Barge, SGT. FLOYD, made a two-day visit to the Port and the Navy's newest destroyer, the USS HEWITT, made Houston her first port of call after being launched in Louisiana. More than 15,000 Houstonians came to the Port to tour the HEWITT during her visit.

The Port Authority continued featuring paintings from the Port's Bicentennial Series on covers of the Port of Houston Magazine, a project begun in October, 1975. Artist Judy Saks had been commissioned by the Port Authority to execute the series on major events in the Port's history. At year's end, all six paintings had appeared in the Magazine and the Authority was preparing to distribute lithographs of the covers to the public.

In the Spring, Houston Port Commission Chairman Fentress Bracewell and Port Commissioners W.D. Haden II and Paul Drozak were re-appointed to two year terms.

In October, the Trade Development Department sponsored an intermodal seminar at Stouffer's Hotel. Close to 200 delegates attended the "Shipper's Dialogue-West Gulf" to hear speeches and panel discussions on subjects ranging from The Commodity Approach to Intermodalism to Minibridge Pros and Cons.

(Continued on next page bottom)

# Orbiter Probe

## New Executive Director

Halifax, Nova Scotia, Canada (The Halifax-Dartmouth Port Commission):—The appointment of Gary H. Blaikie as Executive-Director is announced by J. Wm. E. Mingo, Chairman of The Halifax-Dartmouth Port Commission. Mr. Blaikie has been with the Commission since September 1974 and formerly held the position of Assistant Executive-Director with responsibility for Marketing and Special Projects.

## New Chairman Appointed

Toronto, Ontario, Canada, December 12, 1977 (The Toronto Harbour Commissioners):—Anthony U. Ormsby, 50, a partner in Johnson, Ricard and Company, today was elected chairman of the Board of Toronto Harbour Commissioners.

He succeeds Dr. H. Roy Merrens who resigned from that position last month (November 7, 1977).

Commissioner Ormsby is now serving his second three-year term as a member of the board. He was reappointed by the Federal Government on the recommendation of the Board of Trade of Metropolitan Toronto last March 28.

Mr. Ormsby is chairman of the Board of Dover Corp. (Canada) Ltd. and holds directorships with Ivy Corporation (Atlanta), Dover Corp. (N.Y.), and a number of Canadian companies.

## Toronto Closes Overseas Season

Toronto, Ontario, Canada, December 16, 1977 (The Toronto Harbour Commissioners):—The departure of the Singapore-registered Bolina December 16 marked the official end of the Port of Toronto's 1977 overseas shipping season.

The foreign shipping season opened April 6 and lasted 255 days, five short of the record 260-day season in 1975.

Before sailing for Montreal, the Bolina had discharged nearly 6,000 tons of Cuban sugar.

(Continued from page 38)

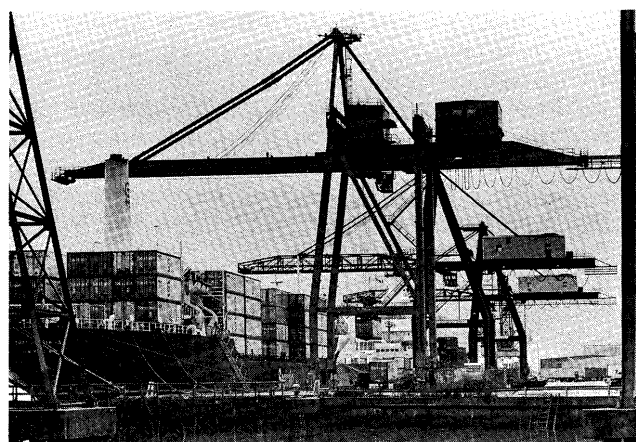
Port of Houston Commissioners and staff executives made several foreign trade development trips during the year visiting the Far East, Europe, New Zealand, Australia and South America.

In November, several Houston City Councilmen and Harris County Commissioners accompanied Port Commissioners and staff executives on a trip to New York for the National Foreign Trade Conference. The Port sponsored a series of luncheons and a reception for Conference delegates where slides of the Port of Houston's facilities were shown.

The Houston International Seamen's Center, located on Port Authority property, sponsored a two-day conference in 1976 attended by 27 representatives from seamen's agencies on the Gulf Coast. The Center was visited by more than 63,000 seamen during the year.



Charleston, South Carolina (Trade News from South Carolina State Ports Authority):—When does a "truck crane" become a "bus crane"? At the Port of Charleston, it's whenever the occasion demands. The South Carolina State Ports Authority's 125-ton mobile crane became a "bus" crane recently, loading 40 school buses aboard Gulf Ocean Lines' Greek flag vessel, "Finix". The vehicles, each weighing 11,200 pounds, were built in High Point, N.C., and were enroute to Abu Dhabi, Saudi Arabia. East Coast Agencies, Charleston representative for Gulf Ocean Lines, was the shipping agent. Gaynar Shipping Corp. was the forwarder.



Charleston, South Carolina (South Carolina State Ports Authority):—MAKING UP FOR LOST TIME: After the 60 day Longshore Strike, Container Ships at the Port of Charleston are making up for lost time. Here three container ships are being worked by three container cranes at the State Ports Authority's North Charleston terminal. At the same time a fourth container ship was working at the SPA's Columbus Street terminal's container facilities. Five more container vessels are expected by Monday, although it will take some time to straighten out schedules and routes (SPA Photo).

## Onshore Deepdraft Oil Terminal a Reality

Galveston, Texas, December 14, 1977 (Port of Galveston News Release):—The Galveston Wharves announced to the Galveston City Council that a project to construct an onshore deepdraft terminal (or Superport) would very shortly begin the permitting process.

The council was told that an oil terminal operator had obtained an option on a large parcel of land inside Galveston City Council that a project to construct an onshore deepdraft terminal (or Superport) would very shortly begin the permitting process. the Galvez Hotel beginning at 7 p.m.

## New Efficient Coal Terminal

Houston, Texas, December 7, 1977 (Port of Houston News Release):—A high capacity coal terminal which could bring more than \$179 million per year into the Houston economy will be developed at the Port of Houston.

Port of Houston Commissioners have authorized a long-term lease agreement with Soros Associates of New York for the development of the facility adjacent to the Port of Houston Authority's bulk materials handling plant on the Houston Ship Channel.

Soros Associates, an international engineering firm specializing in the design and operation of bulk terminals, will make an initial investment of \$20 million for construction of the facility to be called Energy Terminals of Houston, Inc. Ultimate total cost could go as high as \$40 million.

Plans for the first phase of the project call for a handling capacity of up to 8 million tons of coal per year. Indicators show that each ton of such a dry bulk commodity brought into a port generates approximately \$22.50 worth of economic activity in the local area.

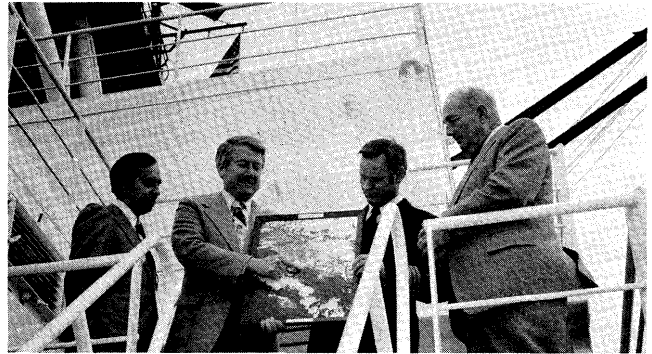
Eventual expansion at the site could raise the handling capacity to 20 million tons per year.

Soros Associates selected the site on the Houston Ship Channel as the best coal terminal location in the Southwest area for several reasons:

- The major support facilities, services, and skills required for the operation and construction of the terminal already are available.
- The site is directly adjacent to rail service provided by six major railroads: Burlington Northern, Missouri Pacific, Southern Pacific, Santa Fe, Rock Island and Missouri-Kansas-Texas. There currently are unit train movements on the adjacent tracks and the site is serviced by the six railroads without additional shipping charge.
- The site provides the shortest and most efficient haul for western coal into the Southwestern Gulf area.
- The site is located in the heart of the Houston energy market facilitating low cost coal distribution and export from the terminal.
- The site is on an inland Channel protected from the sea.
- The site provides the closest access to proposed coal slurry pipeline connections.

Comprised of 114 acres, the lease site has 1,600 feet of Ship Channel frontage with a water depth of 40 feet, making it well suited for the loading and unloading of unit trains, barges and ocean going vessels. Terminal operations will include coal storage and blending.

Long Beach—(Continued from page 33)



Long Beach, Calif., 113077 (Port of Long Beach News):—PEOPLES REPUBLIC OF CHINA DELEGATION VISITS LONG BEACH HARBOR: The highest ranking trade delegation from the Peoples Republic of China ever to visit the United States recently toured through the Port of Los Angeles and the Port of Long Beach to inspect modern methods of cargo handling first hand. Wang Yao-Ting, chairman of the China Council for the Promotion of International Trade (CCPIT) and leader of the 15-member delegation, is seen at right as he was presented with flags of China, the U.S. and Port of Long Beach by Harbor Commissioner Reed M. Williams.



Long Beach, Calif., 112977 (Port of Long Beach News):—COLUMBUS LINE ADDS NEW VESSEL TO DOWN

(Continued on next page bottom)

Western coal will be received by unit train and will be redistributed by barge, rail or truck. Midwestern or imported coal, received by barge or ship, will be redistributed along the Ship Channel by barge, or throughout the Southwestern area by train or truck. The water frontage provides berthing space for two ships.

The terminal will incorporate advanced concepts in design and environmental control developed by Soros Associates. Soros Associates also owns and operates Clean-coal Terminals on the Ohio River at Ghent, Kentucky. They also are developing a bulk coal terminal in San Francisco.

# Port of Los Angeles News

## Buying up tenant's leasehold

November 23, 1977:—The Los Angeles Board of Harbor Commissioners today (Wed., 11/23), approved the purchase of the remaining portion of a Harbor tenant's leasehold for total acquisition and control of certain Terminal Island property.

The Board voted to pay Continental Can Company, Inc., \$293,000 for the final 32 months of the company's 30-year lease.

While the land is owned by the Los Angeles Harbor Department, the site is improved with a company-owned 224,261 sq. foot structure containing a warehouse, office and loading facilities. These improvements would be valued at \$2-3 million, estimated Steve Dillenbeck, Supervisor of the Harbor Department's Property Management Section, were the leasehold to permit long term usage. However, it expires August, 1980, substantially reducing the effective value of the improvements.

"The property, located behind Berth 232," explained Dillenbeck, "could facilitate expansion of the operation of one or more of the fish canneries, and the expansion of the Seaside Container Terminal complex, since it lies between the two.

"By acquiring full control of the property now, the Harbor Department will be better able to plan and develop that area.

"Also, acquisition of the building will provide the Department with a valuable asset," Dillenbeck added. "Until future plans are fully developed the building can be leased to Port tenants, including canneries that have expressed interest in renting portions of it."

The purchase price agreed upon by the Board was based on anticipated rentals from the facilities.

## New container wharf

December 7, 1977:—Container receiving and handling facilities for one of the Port of Los Angeles' oldest tenants will be expanded shortly as the result of action today (Wednesday, December 7) by the Los Angeles Board of Harbor Commissioners.

The Board approved a \$4.7 million contract for construction of a 630-foot all-concrete wharf at Berth 206, Terminal Island. The project will provide a third ship berth for the Matson Container Terminal, and will require, among numerous project details, removal of old, abandoned shipyard facilities and the dredging and disposal of 76,000 cu. yards of bottom materials.

**UNDER SERVICE:** Columbus Line has added yet another new containership to its fleet of German-flag vessels serving the West Coast to Australia-New Zealand trade with the maiden voyage arrival of the Columbus Wellington at the Port of Long Beach. Taking part in traditional welcome ceremonies aboard are, from left, Phil Pass, assistant traffic manager for the line's agent, Bakke Steamship Corp.; Lee Sellers, asst. general manager of Long Beach Harbor; Captain Joachim Toellner and Edward F. Holzer, Bakke vice president.



Los Angeles, Calif. (Port of Los Angeles):—Traditional First Arrival plaque is presented by Los Angeles Harbor Commissioner Nate DiBiasi to Capt. Akira Hidai, Master of the auto carrier M.V. Neptune Diamond, on the vessel's recent initial call at the Port of Los Angeles while on its maiden voyage.

The ship, which carries 2,900 imported cars and trucks on its eleven decks, delivered 700 Japanese-made Chrysler cars to Koppel Inc., Berth 200A, Los Angeles Harbor.

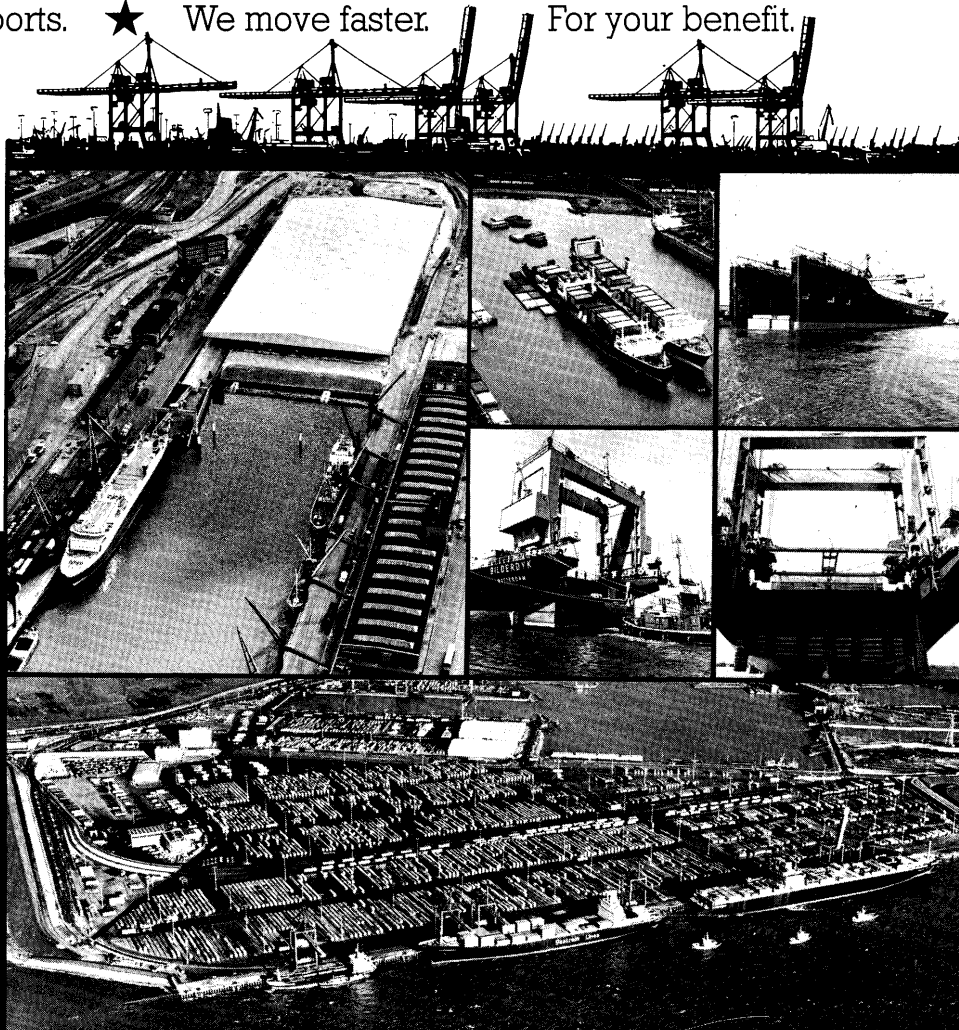
The construction, by Guy F. Atkinson Company, is expected to require 320 days. It will result in a container wharf designed through computer assistance and engineered to withstand horizontal forces resulting from earthquake activity, as required by new government regulation.

Some of the design innovations incorporated to accomplish this and expected to be included in the design of future container wharves are the use of numerous square rather than octagonal concrete pilings for added strength, and the driving of additional piles at various angles to provide for lateral support against seismic forces. The design of a wider than ordinary wharf was also required to accommodate dredging of the Main Channel in that vicinity to —45 feet elevation.

The new 70-foot-wide berth will tie in with 14 acres of backland improved by the Harbor Department over the past three years and already in use by Matson for container storage. Construction of the new wharf will provide contiguous access to the waterfront and space for a fourth Matson Container Terminal crane, planned for erection late next year or early in 1979.

# ***Container Ro/ro-Lash***

Intermodal traffic needs speed, efficiency, and flexibility. ★ We've got the facilities and the know-how. ★ That's why more and more lines are calling at our ports. ★ We move faster. For your benefit.



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# Port of New Orleans Is Affiliated With Port of Ulsan, Korea

## Port of New Orleans News Release

New Orleans, December 5, 1977:—The Port of Ulsan, Korea, and the Port of New Orleans, USA, became Sister Ports in brief ceremonies today in the offices of the Board of Commissioners of the Port of New Orleans;

Signing exchange resolutions designating their respective ports joined for exchange of information and mutual support were Hyoung Chun Kang, Director of Ulsan District Maritime and Port Authority, and Edward S. Reed, Executive Port Director and General Manager of the Board of Commissioners of the Port of New Orleans,

Calling the day a historic one for both countries, John Meghrian, Commissioner of the Port of New Orleans, observed that both port families are richer for having gained a sister. "The reason is that we gain not a dependent infant, but a full-grown valuable professional adult—one we hope to gain from as much as we give," he said.

Also participating in the ceremony were also His Excellency Yong Shik Kim, Ambassador of the Republic of Korea in the United States; Hyung Kun Kim, Consul General of Houston; Jong Soon Lee, Consul from the Korean Consulate General in New York; Young Woo Chang, Director General, Planning and Management Office, Korea Maritime and Port Authority; Suk Chon Kang, Deputy Director, Inchon District Maritime and Port Authority; Suk Kyu Kim, Consular Aide; James E. Coleman, Honorary Consul General of the Republic of Korea in New Orleans; Thomas Coleman, Honorary Consul of the Republic of Korea in New Orleans; and port and community representatives of Korean-American interests.

Ulsan and New Orleans have similar shipbuilding and ship repair facilities, petrochemical complexes, sugar refineries and aluminum smelters. Both ports are expanding their facilities to handle additional cargoes with new modes of transportation.

### RESOLUTION

*WHEREAS, the Port of New Orleans, a unit of local government of the State of Louisiana, United States of America, and the Port of Ulsan, Republic of Korea, have established a mutual friendship and a desire to achieve a higher standard of professionalism in port administration and operation through closer ties and the exchange of valuable information and experiences on port affairs; and*

*WHEREAS, the Port of New Orleans and the Port Ulsan have mutually expressed an interest in the further development of trade opportunities and a desire to encourage economic cooperation between the said two ports; and*

*WHEREAS, the Port of New Orleans and the Port Ulsan have taken the initiative in the development of new and modern marine terminal facilities, especially those for the handling of containerized cargo, and there is great potential for the development of trade and commerce between the two ports; and*

*WHEREAS, better international understanding will be promoted and long-range benefits in international trade will*



Executive Port Director and General Manager of the Port of New Orleans Edward S. Reed, left, and Hyoung Chun Kang, Director of the Ulsan District Maritime and Port Authority, congratulate each on the occasion of their ports becoming Sister Ports. His Excellency Yong Shik Kim, Ambassador of the Republic of Korea in the United States and John Meghrian, Commissioner of the Port of New Orleans, smile their approval. The ceremony took place in the Board Room of the Board of Commissioners of the Port of New Orleans.

*be realized as the result of each port designating the other port its affiliated Sister Port; now, therefore, be it and it is hereby*

*RESOLVED by Board of Commissioners of the Port of New Orleans that it does hereby designate the Port of Ulsan, Korea, as its Sister Port on this 5th day of December, 1977, and, be it further*

*RESOLVED that Edward S. Reed, Executive Port Director and General Manager of the Port of New Orleans, is directed to present a certified copy of this resolution to the Director of the Ulsan District Maritime and Port Authority, Ulsan, Korea.*

*Witness our hand and seal of said BOARD OF COMMISSIONERS OF THE PORT OF NEW ORLEANS at the City of New Orleans, Louisiana, on this 5th day of December, 1977.*

Executive Port Director	President
BOARD OF	BOARD OF
COMMISSIONERS OF THE	COMMISSIONERS OF THE
PORT OF NEW ORLEANS	PORT OF NEW ORLEANS

# Port of New Orleans Replacing Old Wharves For Better Service

## Port of New Orleans News Release

New Orleans, La., December 1, 1977:—Demolition of the Harmony Street Wharf, officially observed today with brief informal ceremonies at the site, marked the first major replacement project in the Board of Commissioners of the Port of New Orleans' \$91.5 million five-year capital improvement program begun this year.

Participating in the ceremony were Dock Board president John P. Laborde, Executive Port Director and General Manager Edward S. Reed, Associate Port Director Henry G. Joffray, and Port Chief Engineer Samuel D. Wilder.

The demolition of the old wharf, which was built in 1906, will be followed by a modern replacement facility to better serve changing cargo handling methods.

The Harmony Street Wharf project will be followed by a similar program for the adjacent downstream Seventh Street Wharf. Cost of the two projects is estimated at \$23.8 million, with the Harmony Street portion claiming some \$11.8 million of that total.

Demolition is expected to be completed by the end of April, 1978, with the reconstruction to follow immediately. February of 1979 is the target date for completion of the new Harmony Street replacement facility. The entire Harmony-Seventh Complex is scheduled for completion by April, 1980.

"We are enthusiastic about this new construction," said Laborde, "not only because it will help keep our port successfully competitive, but also because it emphasizes the river, which is, after all, our port's lifeblood. By funding this project with money made available by our State Legislature, we also once more focus on the economic value to the whole state of the New Orleans port."

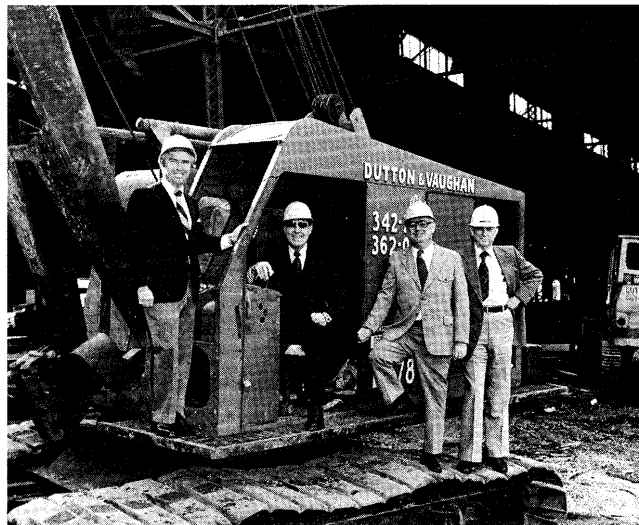
The new wharf will have a 50-foot front apron with marginal track, as contrasted with the present 13-foot width. Rail facilities will serve both front and rear aprons. Length of the new construction will be 953 feet.

The 148,000-square foot shedded area 190' wide will have a single center row of columns on 48-foot centers, providing improved maneuverability and storage of cargoes, as contrasted with the old structure, with columns on 20' centers. New doors will be 40' by 16', in contrast to the old 20' by 14' openings.

A new feature incorporated into the design will be the two truck loading areas, each with loading-unloading spaces for eight trucks.

Harmony Street Wharf will also be the first riverside facility that does not include a floodwall within its structure, as the Corps of Engineers plans to construct the floodwall along Tchoupitoulas Street. This change will save the Board funds and provide greater flexibility in the design of the facility.

Another new feature at Harmony will be the 93,545-square foot open area at the downstream end of the wharf. This will allow the handling of containers, heavy machinery and other goods that do not require covered storage. The



At the controls of a demolition crane during Port of New Orleans ceremonies beginning a two-phase \$23.8 million wharf replacement project was John P. Laborde, President of the Board of Commissioners of the Port of New Orleans, with, from left, Henry G. Joffray, Associate Port Director; Edward S. Reed, Executive Port Director and General Manager; and Samuel D. Wilder, Port Chief Engineer. The new Harmony Street-Seventh Street Terminal is planned for completion in April of 1980.

increase of such cargoes has set the closed-open configuration for new general cargo wharves.

Dutton and Vaughn Dismantling Company are demolition contractors for the Harmony Street Wharf project.

## Sister Ports, Oakland-Incheon

Oakland, Calif., November 30, 1977 (Port of Oakland):—Ranking Korean maritime and diplomatic officials began a three-day visit to the Port of Oakland yesterday with the formal signing of a Sister Port pact between Oakland and the Port of Incheon, Korea.

Heading the Korean delegation were Young Woo Chang, Director General & Management Officer, Korea Maritime & Port Administration; Hyoung Chun Kang, Director, Ulsan District Maritime & Port Authority; and Suk Chon Kang, Deputy Director, Incheon District Maritime & Port Authority. They were accompanied by Dong Won Shin, Consul General of Korea in San Francisco, and Jong Soon Lee, Maritime Attache, Korean Consulate General, New York.

The Sister Port pact pledges mutual efforts to promote the flow of trade goods between the two ports, explained Y. Charles Soda, president of the Oakland Board of Port Commissioners. It grew out of a visit to Korea last June by a Port of Oakland trade delegation.

In 1976, through the Bay Area—and primarily through the Port of Oakland—the Republic of Korea exported nearly \$200 million-worth of trade goods and imported U.S. products valued at some \$300 million, noted Consul



New York, December 19, 1977 (News from The Port Authority of NY & NJ):—Port Authority Chairman Alan Sagner (left) presents framed Bicentennial photograph of the Statue of Liberty to Dr. Younes Amin Omar, Chairman of the Alexandria, Egypt Port Authority during visit to World Trade Center on Monday, December 19. The two Port leaders discussed container developments and trade facilities in their respective ports.

Dr. Omar was escorted by Nicholas Kondas, Vice President for Development of Seatrain Lines, Inc., operator of Port Seatrain in Weehawken, New Jersey. He met also with Port Authority staff members Clifford B. O'Hara, Director of Port Commerce; Walter J. Cogan, General Manager of Marine Development and Rentals; and Thomas J. Kearney, Deputy Director of Trade Education and Information Services.

Exports from the New York-New Jersey Port to Egypt last year grew faster than New York's exports to any other mideast country. Egypt now ranks second to Saudi Arabia among the 19 mideast Arab countries, in tonnages received from New York, with 62,533 long tons of general cargo in 1976, more than double that of 1975 shipments. The value of all commodities shipped to Egypt by ocean totaled \$85.6 million. An additional 1,068 long tons valued at \$22.3 million went by air from Kennedy Airport to Egypt in 1976.

In addition 98,077 tons of wheat, a bulk commodity, valued at \$12 million were shipped from New York to Egypt in 1976.

General Shin.

In 1977, that balance sheet should mount to \$700 million, he added—making the Sister Port pact executed between Oakland and Incheon (gateway to the capital city of Seoul) “most timely and significant as a way to strengthen and further friendship and understanding between our two peoples.”

Present on behalf of the Port of Oakland for the ceremony were, in addition to Soda, Commissioners H. Boyd Gainor, Thomas Berkley, Harry Lange, Henry Rodriguez and Norvel Smith.

The Korean officials later paid a courtesy call on Oakland Mayor Lionel Wilson, and after a tour of the city were honored last night by a reception and dinner at the Elegant Farmer restaurant in Jack London Square. The remaining days of their visit will be devoted to inspection of major shipping terminals of the Port of Oakland and other Bay Area facilities.

## “Portside” News from Portland

Portland, Oregon (“Portside”, December 1911/January 1978):

### • AAPA Award Won

The Port of Portland has been recognized by the American Association of Port Authorities (AAPA) with a meritorious citation for environmental improvement.

Award was made to the Port at the AAPA's 66th annual convention in Mexico City, this fall. Three other U.S. seaports were so honored.

The citation was presented in conjunction with various United States agencies including the Coast Guard, Corps of Engineers, Department of Commerce, Maritime Administration and Environmental Protection Agency.

The Port of Portland's environmental improvements ranged over eleven categories including treatment of oily wastes and ballast water, oil spill prevention and protection, renovation of facilities, Port beautification programs, pollution abatement, water safety and environmental community relations programs.

### • Port Marketing Team Returns From Digging for Alaska Gold

The adage “cold hands, warm heart” may well have been written about the people of Alaska. Port of Portland aviation and marine cargo marketing specialists were greeted by 19 degrees and sunny smiles as they brought the message of a Portland gateway to Anchorage and Kenai in mid-November.

The trip was planned around the increase in direct barge service from Portland to Seward, which is scheduled to begin in January. The Pacific Alaska Line (PAL) barges OREGON and ALASKA will be bringing urea from Collier Carbon and Chemical Corp.'s Kenai plant to a processing facility in Portland and will be available for backhaul of general cargo. The barge ALASKA has been operating in this trade for over a year.

The expanded service is due primarily to the expansion of Collier's Kenai facility. Plant Manager G.L. Ford gave a briefing and tour to Port representatives. Another link between Portland and Collier's Kenai operation is the SS CORNUCOPIA, now being converted for Collier at the Port's Swan Island Ship Repair Yard to carry anhydrous ammonia from the new plant to the lower 48.

Representing the Port on the three-day trip were Commissioner Ilo Bonyhadi, Executive Director Lloyd Anderson, Director of Marine Development William E. Plymale, Director of Aviation William F. Shea, Alaska Representative Barbara Low and Public Information Specialist Chris Kammer. Accompanying the group were representatives of Western Airlines, which offers direct service between Portland and Anchorage, Continental Airlines, Alaska Airlines and Hughes Airwest. Gary Margado, president of the Alaska Trade Committee of the Portland Chamber of Commerce, represented the chamber.

In both Anchorage and Kenai, Port personnel called on current and prospective customers, not only to attract new business but to assess the viability of current PAL service. Several meetings were held between the Port, Crowley Maritime Corp. (PAL's parent corporation) and the Alaska



San Francisco, Calif., 12/19/77 (Marine Exchange of the San Francisco Bay Region):—A veteran San Mateo yachtsman has been selected to head California's principal boating organization. Marin C. Matosich (left), newly-elected president of the California Marine Parks and Harbors Association, was congratulated by Curtis Burgan of Fairfield (2nd vice president of the northern division), and Daniel McNichol, Redwood City, executive vice president of the statewide, non-profit boating development body. Also elected as 1st vice president for the northern unit was Robert Cooper of Antioch. Matosich succeeds Rod Lundin of Northridge as chief statewide officer. He is also chairman of San Francisco Marine Exchange's small craft safety task force. CMPHA successfully sought creation in the 1950's of what is now the California Department of Navigation and Ocean Development, pushed for boating and recreational use of Angel Island, and has urged development of badly-needed boating facilities, including harbors-of-refuge along the rugged California coastline.

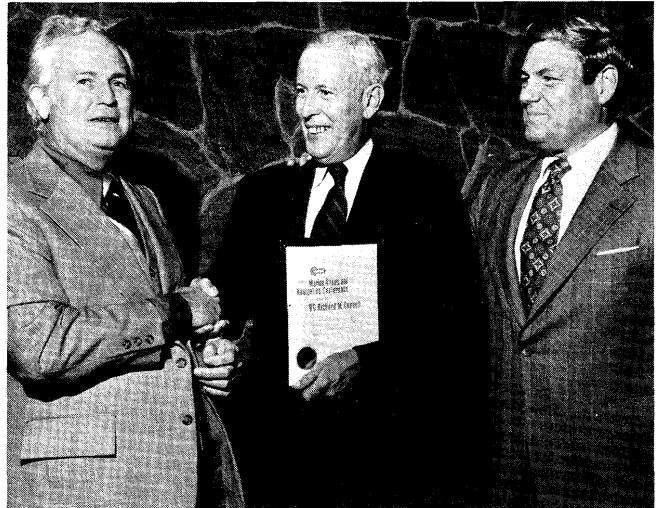
Railroad to explore new ways to increase service to Alaskan customers shipping through Portland.

An evening reception was held in both cities, where Oregon wines, cheeses, sausages and apples were served and a brief presentation was made to members of the local business community. Similar receptions are planned for March 1978 in Anchorage and Juneau and in June 1978 in Anchorage and Fairbanks.

### • Port "On Wheels" Covering County

The Port of Portland's 40-foot mobile van, a traveling schoolroom filled with lessons of the harbor, has almost completed its fall series of grade school visits in East Multnomah County.

The popular Port "on wheels" will tour Clackamas County grade schools beginning in March. This is the van's fourth year of service. To date, more than 90,000 grade school students have gone through the van, touched a variety of import/export products and gained insight into the harbor's impact upon their lives.



San Francisco, Calif., 12/20/77 (California Marine Affairs and Navigation Conference):—Flanked by two former Corps of Engineers' officers, new chief of military construction, Brig. Gen. Richard M. Connell received praise for "outstanding service to commerce and navigation of the state and nation" upon his recent departure from San Francisco and his post as South Pacific Division Engineer, to assume his new command in Washington, D.C. Joining in the recognition were Charles Roberts (left), executive director of the San Francisco Bay Conservation and Development Commission, and Frank Boerger, director and dredging chairman of the California Marine Affairs and Navigation Conference, awarder of the commendation. Both Roberts and Boerger served as San Francisco District Army Engineers before retiring to new duties.

The van is available to all schools in the tri-county Port district, and travels to each county once every two years.

### • NLRB Rules

The National Labor Relations Board ruled last month that work involving import automobiles at the Port's new auto facility shall be performed by Teamsters (IBT) not Longshoremen (ILWU).

The matter has been under dispute since the Port announced plans to build a second import auto dock last May.

### Foreign Trade Conference 1978

Savannah, Georgia, 12/14/77 (Georgia Ports Authority News Release):—The 1978 Georgia Foreign Trade Conference will be conducted in the fall, rather than the usual spring meeting.

Officials have announced that the 12th Annual Foreign Trade Conference will be held from October 31 through November 2, 1978, at the Savannah Inn and Country Club in the Port of Savannah.

The Foreign Trade Conference traditionally brings together shipping and commerce interests from all over the world. Georgia Ports Authority Executive Director George J. Nichols, General Chairman of the 11th Annual Georgia Foreign Trade Conference, revealed that the 1977 session attracted more than 400 participants to the April session in the Port of Savannah. Nichols says the Foreign Trade



San Francisco, Calif., 12/21/77 (San Francisco Customs Brokers & Freight Forwarders Association):—**CAUTIOUS OPTIMISM ON PACIFIC COAST DOCK LABOR** was voiced by longtime member of the waterfront employers' negotiating team at a recent meeting of the San Francisco Customs Brokers and Freight Forwarders Association. Capt. William Boynton (2nd from left), operations manager for Marine Terminals Corp., told the assembled cargo expeditors that longshoremen and employers "have a community of interest—every penny each of us receives is made from moving freight." On hand were association vice president Ted Rausch (left), director Chris Coppersmith and former director Paul Paik. Preparations have long since started for 1978 contract negotiations with the ILWU, Boynton noted as a member of the Pacific Maritime Association's committee. The recent ILA Atlantic and Gulf coast settlement starts bringing those areas to "where the Pacific has been for years—but waterfront labor costs are lower here and we feel that the ILWU will be playing a 'catch-up' game." The original coastwide "M & M" agreement covering 1961-65 containerization movements was a major step forward for both management and labor. But the current version (expiring in 1978) has run into problems as optimistic cargo projections went unmet, and has resulted in approximately \$1-million-plus deficit in the pay guarantee fund. This problem—related to present difficulties in shifting longshoremen from low-demand port areas to those with labor shortages—will be the key issue faced over the bargaining table, the industry negotiator said.

Conference is growing by leaps and bounds every year.

The Georgia Foreign Trade Conference is sponsored by the Savannah Maritime Association, the Independent Freight Forwarders and Customs House Brokers Association of Savannah, the Georgia Ports Authority, the Propeller Club of the U.S., Port of Savannah, the District Export Councils of Savannah and Atlanta, the Savannah Area Chamber of Commerce, the Savannah Port Authority and the Savannah and Atlanta district offices of the U.S. Department of Commerce.

## From Port of Seattle "Tradelines" November 1977

### • Freeze facility busy with produce

The harvest season has brought a rush of activity to the Port's Terminal 20 freeze facility. As an example, during one week late in September:



San Francisco, Calif., 12/22/77 (San Francisco Customs Brokers & Freight Forwarders Association):—**QUE BARBA**—Mexicali St. Nick was guest of honor at a festive San Francisco Customs Brokers and Freight Forwarders Association Christmas Party. South-of-the-Border Santa was really Armando Galaviz of Mittelstaedt, Galaviz and Mylin—perennial portrayer of good fellowship at the event. Association president Bill Bosque was joined by Richard Larson of the Federal Maritime Commission and Carl Camaratta, assistant Customs regional counsel.

Three hundred seventy-two metric tons of assorted freeze cargo were stuffed into 29 containers and loaded aboard the Johnson Scan Star Line ship Margaret Johnson, destined for northern European ports;

The Axel Johnson took on 776 metric tons (66 containers) of freeze cargo, including 8,400 60-pound bags of frozen corn;

And the Lauritzen-Peninsular Reefers vessel Rose Acacia loaded 780 metric tons of frozen fish, cherries and other produce for discharge at London, Rotterdam, Hamburg and Scandinavian ports. She also took on 28,000 cartons of fresh pears and 5,000 cartons of fresh apples, plus a quantity of caviar—something to satisfy all appetites.

### • New bulk carrier trades cars for grain

The Ocean Crown, a new bulk carrier owned by Pan Ocean Bulk Carriers, Ltd. of Seoul, made her first trip to Seattle late in September.

The ship discharged 508 Mazdas at Terminal 115, then proceeded to Pier 86 to load 21,062 metric tons of grain destined for Inchon, Korea.

The versatile ship, which was put into service in August of this year, has five hatches, each with its own crane. The cranes can be used in tandem for extra heavy lifts. The vessel weighs 23,067 deadweight kilotons and is 175.3 meters long.

The ship and her crew were welcomed to Seattle by Capt. Michael O. Bennett, director of the Port's Marine Department, who presented a photo of Seattle Harbor to the ship's master. From left were Captain Bennett; Edmunds Paskovskis of the Operating Department of General Steamship Corporation; Capt. Kim Sang-Yong.

## • New lease signed with Six Lines

After several months of negotiation, the Port has reached a new lease agreement with the Japan Six Lines consortium.

The three-year contract replaces the one that expired October 31. It expands the area used by the companies from 15 acres to 25 acres at Terminal 18. It also gives Six Lines preferential use of two Port-owned container cranes and 10 straddle carriers.

The Port will receive more revenue under the agreement, and Six Lines will be able to move to the new Terminal 37 when it is completed, while continuing to pay rent on the same prorated basis.

## • Commission okays 1978 budget

The Port commission has approved the 1978 operating budget, which includes \$144.3 million in receipts and \$121.9 million in expenditures.

The cash receipts and revenues are a total of \$8.8 million higher than the 1977 figures. They include an extra \$1.6 million in taxes, resulting mainly from general obligation bonds issued for improvements at Terminal 91. Estimated revenues from the marine terminals and the airport are also up by about \$3 million.

The expenditures column includes \$35.9 million tagged for capital improvements on the waterfront and at Sea-Tac. The resulting cash balance at the end of 1978 will be about \$22.4 million.

## • Port greets PRC team

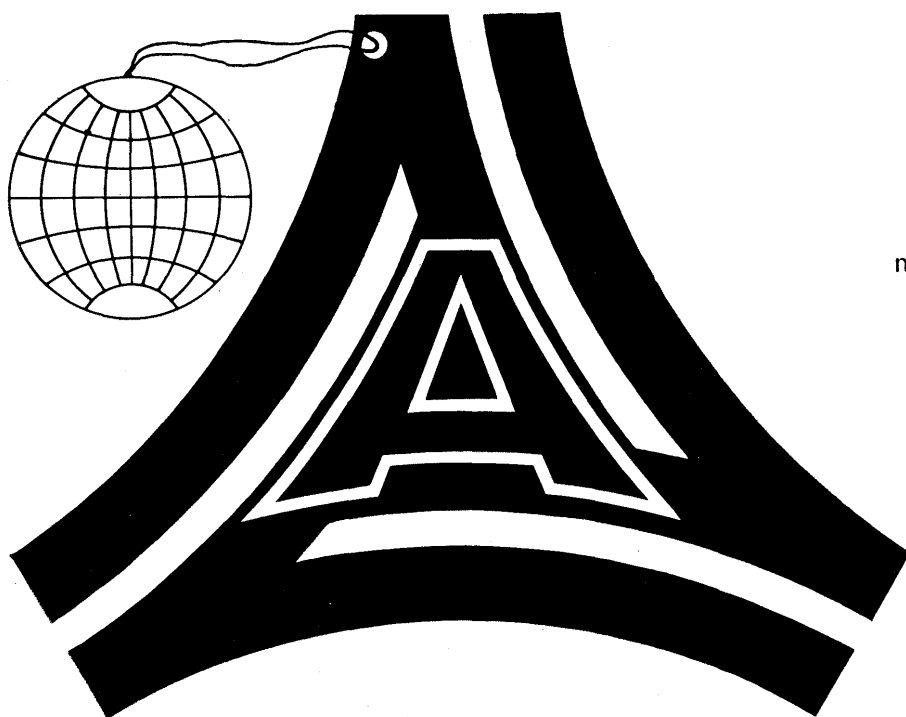
When the 15-man delegation from the People's Republic of China visited Seattle in September, their leader was presented with a specially picked box of Washington-grown nectarines.

Making the presentation on behalf of the Port of Seattle was commission President Jack S. Block. Donors were Lucy and Pat Olwell, owners of Olwell Orchards, a diversified orchard and packing company in Wapato, Washington.

The leader of the team—considered the highest-ranking trade delegation yet to visit the United States and under tight security—was Wang Yao-ting, chairman of the China Council for the Promotion of International Trade. The team made Seattle its first stop on a 10-city tour of U.S. cities before returning to Peking.

## “Seaport Sunday” at Tampa

Tampa, Florida, 12/5/77 (News from the Tampa Port Authority):—More than 65,000 citizens turned out for the “Seaport Sunday” festivities at the Port of Tampa including over 50 maritime exhibits, a harbor tour, and sailboat regatta. This event, in its 4th year, was co-sponsored by the Tampa Port Authority and the Greater Tampa Chamber of Commerce. Attendance more than doubled last year's 30,000 and over 100,000 persons have become more aware of the Port and its benefits since the inception of port open house in 1974.



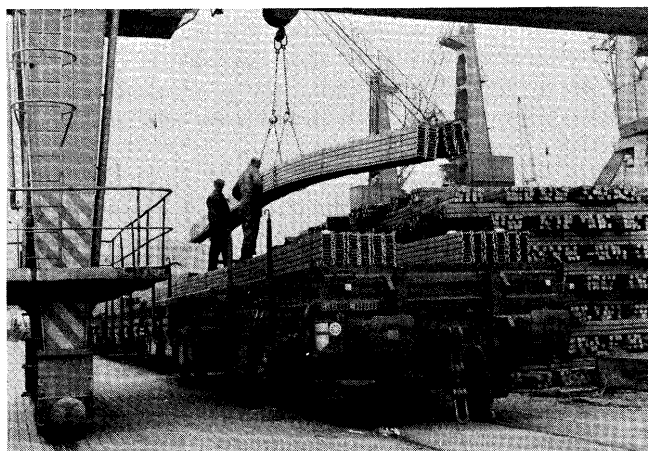
***multi-purpose  
and  
permanent***

The multi-purpose and “round the clock and year” activities are some of the assets symbolized by the new P.R.-emblem, stressing the fact that the Antwerp service to port users **at all times** meets all requirements of international trade and transport.

**PORT OF  
ANTWERP**

Information: General Management of the Port, Town Hall, Antwerp, Belgium.

## The Antwerp Docker: High Productivity



Antwerp (City of Antwerp, General Management of the Port) 13th December, 1977:—According to the very complete report on cargo handling performance, made by the British national port's council, the port of Antwerp showed by far the best handling performance. For exports the tonnage handled per net man hour was 2.8 tons in Antwerp (as compared to Rotterdam 2.4 as second best European port and 0.7 ton in London, lowest figure of the European ports).

As for tonnage per hour at berth by exports Antwerp ranked first with 28 tons (as compared with 14 tons in Tees, the best U.K. port).

When loading the performance in Antwerp is 2.8 tons

per man hour (as compared to 1.8 ton per man hour in Avonmouth as the best U.K. port). And the tonnage per ship hour at berth is 31 tons. So Antwerp ranks first both in loading and unloading of general cargo.

To a large extent this is due to the skill of the 12,000 Antwerp dockers who form one of the main trumps of the port. Total general cargo traffic in the port will amount to some 30 million tons in 1977.

## 75,000 Overseas Calls Per Year

Antwerp, 26/9/1977 (Publitra Press Release):—Every year more than 75,000 times an overseas port is called at by vessels sailing from Antwerp at a predetermined date. Per continent this results into some 11,200 calls on the African continent, 23,700 for America, 21,600 for Asia, whereas for Europe and Oceania 17,800 and 1,500 calls respectively are recorded.

These data can be deduced, provided some calculations, from the column "Alphabetical list of ports with shipping communications to and from Antwerp" as it is published in the fifth edition (1977-78) of the quadrilingual Vademecum of the port of Antwerp, which just came out.

This publication, which is patronized by the City of Antwerp and the Port of Antwerp Promotion Association, constitutes a permanent link between the port of Antwerp and its customers.

In some 370 pages this book gives up-to-date information about the Antwerp port administration, the central authorities and the various associations of the port. A survey of all the enterprises in the port and its related branches (listing some 900 firms) classified according to some 70 branches of activity is conceived as a "Who's who". Interesting is also the complete list of regular shipping lines from Antwerp, their agents and the ports of call.

Apart from the Who's who this fifth edition contains an updated survey of the regulations and tariffs applied in the port. Moreover, this book is the **only source** for a number of private sector tariffs, such as the reception charges, which out of practical considerations are published as an appendix to the Vade-mecum.

In order to constantly provide the users with an up-to-date reference book, a subscription system was introduced by means of which the charges occurring in the various texts in the course of the year are mailed 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.

Vade-mecum of the port of Antwerp; 340 pages + appendix; bound; price: BF 425.- (VAT and postal rates not included); yearly subscription modifications: Belgium/Luxembourg: BF 140.-, other countries: BF 180.-. Further information: Vade-mecum, Brouwersvliet 33, Box 4, B-2000 Antwerp.

## Port of Bristol News

### From "Portfolio", A Newspaper for the Port of Bristol, December 7th 1977

#### • Drivers in Antwerp

In preparation for the working on the 40-tonne gantry crane at Royal Portbury Dock when it opens, three P.B.A. cranedrivers are being sent to Antwerp to train on identical models.

Each of the three P.B.A. drivers will work with an established Belgian driver and when able to do so will be permitted to work the cranes.

Graham Bennett, Dave Bingham and Bob Ranger are the three drivers who will attend the week long course and they will be followed in the New Year by three more drivers, Ivor Chard, Alan Chaffey and Ken Slee.

They will be accompanied by Mechanical Engineer John Reynolds and Berth Manager Gordano Quay, Bernard Pepworth.

#### • Cut-back in meat traffic

Recent reports indicate that Avonmouth is now likely to achieve only 50,000 tons of the residual cargoes of New Zealand meat in the coming season following poor performances from the Port of late.

It had originally been hoped that something over 70,000 tons might be obtained but it is now understood that some 30,000 tons are likely to be imported through Liverpool.

In addition to its meat cargoes Avonmouth has also been promised some 30,000 tons of butter.

## Clydeport News October '77

#### • Record week for boxes

The container terminal recently had its busiest-ever week with a throughput totalling 2,182 containers. Previous record was set one week in June when 2,073 boxes were handled.

#### • Carrier Heralds New phase of Development at Terminal

Two new straddle carriers have arrived at the container terminal from West Germany.

Another is scheduled to come in later this month and then a further two are due for delivery to Greenock next March.

These Peiner machines, of a type widely used in container berths on the Continent, are the first of their kind in Britain.

They are larger than the carriers they will be replacing—all of them can stack boxes three high—they have eight wheels to minimise wear and tear on the surface of the terminal and they have robust mechanical drive, instead of hydraulic.

Their greatest advances over earlier models, however, are in their improved driving positions and controls. Dual steering wheels and seats which swivel through 180 degrees mean that operators can always face in the direction they are travelling.

The introduction of the new straddle carriers is just one facet of a wide-ranging programme of developments now underway at the terminal.

Work is starting next month on the construction of an extension to the administration building, which will increase the available office area by almost half.

Up-dated VHF equipment is being installed to improve radio links between the weighbridge and the straddle carriers.

The area of hard-standing beside the new workshops is being extended to facilitate the outside maintenance of straddle carriers. This will also have the effect of making more space available for stacking containers.

The lorry park is being quadrupled in area and resurfaced, while the approachway to it is being widened.

Work is also progressing on the installation of the computerised system for monitoring the movement of boxes.

#### • Hapag-Lloyd introduce larger containerships

The first of four new containerships for Hapag-Lloyd's North Atlantic service will call at the Clydeport Container Terminal on her maiden voyage on Monday October 3.

Built at the Flender shipyard in Lubeck, the new vessel Stuttgart Express and her sisterships are considerably larger than the containerships they replace.

They will have a capacity of 1,758 20-foot boxes—compared with the 1,100 capacity of the existing fleet—in order to cope with Hapag-Lloyd's growing traffic to and from the United States and Canada.

The new vessels, of around 28,000 g.r.t., measure 689 feet overall. Their main propulsion units are MAN diesels developing 33,000 horsepower, which should certainly ensure that they maintain their predecessors' reputation for punctuality.

Since the Alster Express made her inaugural voyage from Clydeport in March 1970, the Hapag-Lloyd ships have rigorously maintained their Monday-morning deadlines at Greenock.

Second of the new vessels, Dusseldorf Express, is scheduled to make her maiden voyage from Greenock on December 12, with Nurnberg Express following on March 28 next year and Koln Express on June 5.

#### • Seatrain starts Middle East service

Seatrain—whose gas turbine powered containerships are long established on the North Atlantic route from Greenock—have this month begun a regular service from the Clydeport Container Terminal to Middle East ports.

The line has routed some of its Middle East traffic through Greenock on a number of occasions in the past. Now it has established a fortnightly link with the ports of Sharjah, Damman, Bandar Shapur and Jeddah.

#### • VIEWPOINT

While some experts predict that the east of Scotland's North Sea oil boom may very well be passing its peak, its echoes are being heard louder than ever around Clydeport these days.

BP is planning to export some of the surplus crude from the Forties field through Finnart.

Ardrossan Harbour, where modules have been fitted out, is now providing space for work on the barges which carry equipment offshore.

There is a growing traffic in the oilfield accessories now manufactured in Scotland and destined for overseas markets, with potential business, too, for the Authority's export packing and road haulage subsidiaries.

Several years ago, when the Secretary of State declined to give planning permission for two oil refineries on the estuary, there was widespread gloom that the west would not get its share of oil prosperity.

By sticking to the task of getting the best out of its facilities, Clydeport is securing for itself a sizeable slice of the business resulting from Scotland's new found asset.

#### **N.P.C. BULLETIN :**

### **New Forecasts of British Ports Traffic to 1985**

#### **NPC predicts "some stability" in conventional traffic**

London, 23rd November 1977 (National Ports Council News Release):—Results of a study which forecasts the extent to which modern systems of cargo handling will have replaced traditional methods of handling general cargo at British ports by 1985 are published in the latest issue of the *National Ports Council Bulletin*.<sup>1</sup>

Mr. R.E. Baxter, the Council's Director of Economics and Statistics, said that while a further decline in traffic over conventional general cargo berths was expected up to 1980, there was some prospect of stability in the level of conventional traffic by 1985.

New statistics supplied to the Council by port authorities in Britain show that, in 1975, conventional break-bulk vessels carried 12.7 million tonnes out of a total general cargo traffic of 62.6 million tonnes. It is expected that this conventional traffic will fall below this level but will reach some stability at around 8 million tonnes by 1985.

Unit load traffic is expected to reach 53 million tonnes by 1985 compared with 27 million tonnes in 1975 and traffic carried on specialised shipping—mainly chemicals and forest products—will be about 39 million tonnes compared with 23 million tonnes in 1975.

Unitised traffic which already accounts for 25 per cent of the non-fuel total should have increased its share to 30 per cent by 1985. This expansion will take place relatively faster on deep-sea routes, where there is greater scope for further conversion to unitised services. Nevertheless, the short sea and near sea (including domestic) routes will still account for about 75 per cent of the unitised total in 1985.

Traffic on roll on/roll off services already accounts for about 60 per cent of the unitised traffic, and it is expected that there will be a gradual increase in this share to 62 per cent in 1985.

In a separate publication, Volume 2 of the *Annual*

#### **B.T.D.B.—(Continued from page 32)**

ing director, said that the decision to build the terminal, which would be operating by mid-1978, underlined the BTDB's confidence in the port's future. He particularly welcomed the Scottish Development Department's support with a grant towards the new rail facilities, which were a major element in the scheme.

"Although tonnages of coal through Ayr have declined from 800,000 tonnes in 1971 to an expected 500,000 tonnes this year, it is still a substantial and important part of the port's trade and we aim to handle it as economically and efficiently as possible," he said.

"The new terminal has been specially designed to receive coal from the modern 45-tonne bottom-door hopper wagons which British Rail are introducing, and also from road transport.

"From the hopper pit the coal will be carried direct by conveyor to the ship, or be stockpiled on the quayside for subsequent loading by the port's fleet of mobile grabbing cranes. This will enable us to work more than one hatch simultaneously, something that cannot be done with the old coaling cranes, and give improved turnaround for vessels loading coal," Mr. Stuart explained.

The Docks Board scheme includes the construction of two new rail sidings on the west side of the hopper pit, with potential for the addition of a third if required at a later date. Initially the terminal will have standage for up to 48 large capacity wagons.

A new road access on to the dock estate will link up with the road along the rear of the coaling berth, thereby relieving pressure on North Harbour Street from vehicles bound for the north side of the dock basin.

### **5. Acquisition of Newport Stevedoring Co. Proposed**

London, 14 December, 1977:—The British Transport Docks Board and the Newport Stevedoring Co. Ltd. have reached an agreement in principle for the Board to acquire the business of the Company. The Board of NSC have agreed to recommend to their shareholders the sale of the business and subject to ratification by all parties concerned, the acquisition will be effective from 1st February, 1978. On this date the Board will become responsible for the employment of 170 staff (including 128 registered dockworkers) at present employed by the Company in providing cargo handling services at Newport Docks.

For a number of years, both Newport Stevedoring Company and the Docks Board have provided cargo handling services at Newport Docks and have collaborated in attracting major new trades to the port to replace iron ore and coal which were once the port's staple traffic. A

*Digest of Port Statistics*,<sup>2</sup> the Council sets out details of every berth, with the facilities available at each, at Britain's ports. All ports with annual traffic of 500,000 tonnes or more are included in this survey, with a special section for unit load berths serving container and roll on/roll off traffic. This list updates a similar survey published three years ago. This Volume of the *Digest* also contains, in over 80 tables, details of the goods traffic through the United Kingdom's main port groups, analysed in terms of overseas trading areas and commodity groups.

<sup>1</sup> National Ports Council Bulletin No. 11. Published by the National Ports Council, 1-19 New Oxford St., London WC1A 1DZ. 68pp. Price £3.00.

<sup>2</sup> Annual Digest of Port Statistics, 1976 Volume 2, published by the National Ports Council, 166pp price £10.00.

major success recently has been the handling of tea imports on a scale which has made Newport the country's third ranking tea handling port in only five years.

Commenting on the proposed acquisition, Mr. Keith Stuart, Docks Board managing director, said that it was the Board's aim, wherever possible, to be responsible for the provision of all cargo handling services at its ports, as well as basic infrastructure and equipment. "We have had a good working relationship with the Newport Stevedoring Company, including joint overseas sales missions, but we believe that it is now in the long term interests of the port users if the Docks Board can offer a unified service for the port as a whole."

Mr. Ian Roberts, director and manager of Newport Stevedoring Company, said: "I am confident that the close relationship which exists between the company and its many customers both in the U.K. and overseas, will continue to be a feature of the port's service in the years ahead."

## '' Dunkerque News ''

Dunkirk, France, September-October 1977 (Port of Dunkerque Authority):

### ● 1977 Summer Traffic

During the 3 summer months of July, August and September 1977 over 9 million tons of cargo passed through the port. However, in spite of this recovery, the overall tonnage during the first 9 months of 1977 showed a loss of 0.7 million tons compared to the same period last year, i.e. 2.7%. The foreseeable traffic for 1977 will amount to around 32.7 M.T.

Petroleum products traffic slightly increased mainly due to local refining facilities used for direct export.

In spite of a recovery in imports of iron ore the loss of traffic has now reached a figure of 9.5% compared with 1976. On the contrary, the development of coal imports and a more rapid recovery has brought traffic in coal to a higher level than in 1976.

The activity of 1976 has not been equalled in all other areas, except for the imports of general cargo particularly by tramps. There has been outstanding activity in some special lines of traffic, such as forest products which the Port of Dunkerque has shown its traditional ability to handle. A noteworthy achievement was the dispatch by tugs from the Western port of the column base of a North Sea crude transfer terminal weighing 1,000 tons.

The grain campaign has started with twice 16,000 tons of wheat for Italy, loaded on two ships. Last year 310,000 tons of grain were exported through Dunkerque thanks to the newly refitted 25,000 T. grain silo and the various other grain elevators and suction conveyors.

In order to display the modernized grain facilities, on October 11, around 200 customers attended the Grain Seminar set up by the Port Authority in Dunkerque.

### ● Records in the oil field

Dunkerque-West admissible draft is now 21.70 metres (71 feet) and already the 280,000 Dwt V.L.C.C. «Saphir» beat Rotterdam draft by 0.36 metre while she entered with 21.10 m. carrying 270,000 tons of crude oil for the Total Refinery.

Several other VLCC now call regularly at Dunkerque-

# Bremen News

## Bremen International

### ● Bremerhaven: A leading container port

Bremerhaven, 28.11.77 (BremIn). Although the Bremen/Bremerhaven port group—being among the leading container ports from the start (1966)—managed to attain, with a record handling-figure of 468,000 containers (20'-basis), another large annual increase (14.2%) for 1976; port economy circles again are expecting a double-figure increase for 1977—to well over half a million containers (20'-basis). 46 container lines now connect Bremen/Bremerhaven with all the major ports throughout the world.

### ● Bremerhaven-Shanghai Cooperation

Bremerhaven, 28.11.77 (BremIn). On the occasion of the delivery of the 6th, 36-L type, freighter by the Seebeck shipyard to shipping-company director Meng (Polish Joint Stock Shipping Co., Shanghai), the pleasant, fair and friendly cooperation from the shipyard was stressed by the Chinese building-supervisors; and director Meng praised the warm, and indeed intimate, reception afforded in Bremerhaven to the Chinese engineers and the crews of the 6 freighters. Attending the reception on the new vessel "Yongxing" (9785GRT 16070 tdw) were also 10 experts of shipping, ports, shipbuilding and waterway authorities just happening to be inspecting nautical installation in Bremen and Bremerhaven, from China.

Bremen expects two groups of Chinese experts to attend seminars in 1978 on port organisation and techniques and on marketing problems. During his extended China visit, at the head of a Bremen economics-delegation, senator Karl Willms issued the invitation on behalf of the Senate of the Hanseatic City of Bremen, for practical experiences to be exchanged with such meetings.

### ● Fruit-Handling: Bremen-Bremerhaven Quadruples Capacity

Bremen-Bremerhaven, 28.11.77 (BremIn). By expanding the Bremen Fruit Centre, from 3 to 7 air-conditioned fruit warehouses, in 1977 (cost: DM3.5 millions) and with the imminent initiation of the Bremerhaven Fruit Centre, having 5 first-class fruit reefer-chambers (cost: DM5.3 millions) the Bremen-Bremerhaven port-group is quadrupling its fruit-handling capacity to a total of 12 reefer stores, all direct-quay locations—so avoiding intermediate transportation. Storage temperatures: -2 to +13 degrees centigrade. Atmospheric humidity: up to 95%. Air-change: up to 27 times per hour.

Additionally to very substantial banana movements

West oil pier such as the BP VLCC «Chenonceaux» carrying 260,000 tons of crude oil for the BP Refinery in the Eastern Port of Dunkerque. This ship called for the first time in October as the refinery is now connected by pipeline to the Western Outer Harbour via a buffer depot consisting in four 110,000 Cum oil tanks.

Another piece of news in the oil field is the regular calling of LPG carriers at the Total refinery export berths in the Eastern Port. This new traffic of butane for Spain started last August with the «Fridtjof Nansen».

(350,000 tons per year), other fruit handled by the Bremen ports has doubled in quantity, from 74,000 tons in the 1973/74 fruit season, to 140,000 tons in the 76/77 season—and should increase still further. Currently the fruit-handling in Bremen/Bremerhaven amounts to some half-million tons.

#### • Containers Compel Autobahn Construction

Bremerhaven, 28.11.77 (BremIn). The immensely, year for year, increasing container handling of Germany's largest container terminal in Bremerhaven has simply forced an autobahn to be produced to ease the overburdening of overland routes into the interior from container transports. The 34 km Bremerhaven-Bremen stretch, built in four years for DM 220 millions, was opened to traffic on November 21st. It is parallel and adjacent to the No. 6 Federal highway and connects with the Bremen 5-radiant autobahn-star, leading to Hamburg/Sleswick Holstein; Hannover/Lower Saxony; Bielefeld-Dortmund-Dusseldorf-Essen/North-Rhine Westphalia; Kassel-Frankfurt-Stuttgart-Munich/Hessia and Wurtemberg, Bavaria respectively—as well as to Belgium, Luxembourg, Switzerland, Austria, Czechoslovakia and Hungary and, in conclusion to Oldenburg-Wilhelmshaven/North-West Germany and to Bremerhaven:—Columbus Quay, Container Terminal and the 'Weserport' ore-harbour.

#### • Kocks build a 375-ton Loading-Bridge

Bremen, 28.11.77 (BremIn). As a multi-purpose erection, Messrs. Friedrich Kocks GmbH., Bremen, have built the largest loading bridge yet. With one of the two traveller-crabs, the crane operates as a container-bridge of great handling efficiency, with the second traveller-crab the apparatus can move heavy lifts of up to 375 tons to/from Panama-size ships, reaching a 72-metre height, with topped-in outrigger to the water-side. Total outrigger span exceeds 90 metres—track-gauge 27 m. The 4 container loading-bridges, previously delivered already by Kocks to Philadelphia will have this weighty brother in November 1978. Kocks container bridges operate in many ports. There are currently 12 in Bremen/Bremerhaven, which will shortly be 14, as well as a 60-ton capacity heavy-lift bridge which in special cases can manage 80 tons. In the last three months Kocks have received orders amounting to some DM 25 millions.

#### • Fish Consulting Bremerhaven in Great Demand

Bremerhaven, 19.12.77 (BremIn). The quite recently founded—and already very active—Messrs. Fish Consulting GmbH., Bremerhaven, (specialising in all facets of fishery know-how) contemplate supplementing their staff, in view of the numerous enquiries being received from coast-line countries. The latest activities of the FCB include supplying expertise in the development of the Surinam fishery, in the coastal fishing of Haiti, plus a frost-fish-export seminar in Lima and an advisory consulting service in Tunis.

#### • Ro-Ro on Rivers and Canals w.e.f. March 1978

Bremen, 19.12.77 (BremIn). Built by Krupp with Bremen know-how, the first inland-waterway ro-ro vessel will be plying on European rivers and canals w.e.f. March 1978, under the Swiss flag. The increasing demand for

transporting heavy-lift goods (turbines, boilers, transformers, nuclear reactors) on the inland waterways has led to the DDG HANSA Line of Bremen, the Ruhrorter shipyard of FRIED. KRUPP-GmbH, and the Swiss inland waterway shipping company, RUHR & SAARKOHL AG, Basle having, in a joint venture, Krupp construct an initial ro-ro inland-waterway vessel. The 2,400 ton-capacity ship is equipped with a mobile steel ramp over which special vehicles can roll the cargo items into the 64.2 m x 8.8 m-large hold of the 95 m-long, 11.2 m-broad heavy-lift ship (draught: 3.5 m). Heavy-lift cranes—which in any case are not available in all inland-waterway ports—will not be required. (For further info: apply to Carl Jürgen Wulff, c/o DDG "Hansa", Schlachte 6, Bremen. tel: 0421/36651).

## Economic impact of the Amsterdam port

Amsterdam, November 1977 ("Haven Amsterdam):—Ports are rated worldwide by the amount of international sea-going goods traffic they handle. While this gives a fairly good indication of a port's role in the imports and exports of the country, this international figure (which for Amsterdam in 1975 was 18.4 million tons) does not give the full picture. Other cargoes generated by a port, usually very labour-intensive, give an indication of the economic impact any port has.

Therefore, a port's relative importance to the nation's economy must include other modes of transport, both international and domestic. The Port of Amsterdam is a good example of this as it contributes to Holland's economy much more than the international figures would indicate.

In 1975, the latest year for which all figures are available, Amsterdam handled 16.2 million tons of domestic cargoes in addition to the 10.0 million tons of international cargo, other than sea-transport handled that year.

As impressive as these additional figures are, they do not include cargoes shipped through the Port of Amsterdam which is served by two major canals, the North Sea Canal to IJmuiden and thus the open sea, and the Amsterdam-Rhine Canal, connecting the Capital Port to the Dutch branches of the Rhine and other inland waterways throughout Holland.

Also, a product made in the Zaan region, north of the city and shipped to Utrecht or the Ruhr area, or steel made at the Hoogovens plant at IJmuiden are not included in any of these figures. Nevertheless, these cargoes pass physically through the Port of Amsterdam.

### Figures for 1975

	(in thousands of metric tons)	
	international goods traffic (passing the Dutch frontier)	domestic goods traffic (not passing the Dutch frontier)
by sea	18,357	—
by inland waterway	6,955	5,963
by rail	1,767	256
by truck	1,252	10,000
<b>TOTAL</b>	<b>28,331</b>	<b>16,219</b>

Thus in 1975, the Port of Amsterdam loaded or discharged in all modes of transportation a total of 28,331,000 metric tons of international cargo, while over 16 million tons of domestic cargo was also handled.

When the North Sea Canal area is taken as a whole, the economic impact is even greater. The North Sea Canal Ports of IJmuiden/Velsen, Zaanstad and Amsterdam handle some 35 million tons of international sea-going goods traffic each year. Total inland transport probably amounts to 65 percent more.

## Port of Rotterdam receives participants in international course

Rotterdam ("Rotterdam Europoort Delta" 77/4):—Twenty-five port officials from all over the world recently visited the port of Rotterdam to attend the thirteenth 'International Seminar on Port Management in The Netherlands'. For one week they were the guests of Rotterdam's Municipal Port Management. Officials of the External Relations Department accompanied the visitors on their trips to a large number of institutes which were of interest to them.

These included the Port Coordination Centre, the port and transport schools, the Industrial Medical Service, the electric power station in the Maasvlakte area and various private enterprises including Europe Container Terminus, North Sea Ferries, Bell Lines, Incotrans, Quick Dispatch and the Nieuwe Rotterdamse Sleepdienst towage firm.

The seminar, designed as a course for international participants, was held at the initiative of the Foreign Affairs Ministry's Directorate for International Technical Assistance.

The organisation had been entrusted to NUFFIC (Netherlands Universities Foundation for International Cooperation), which cooperates closely with the scientific department of the International Institute for Hydraulic Engineering at Delft's Technological University.

The municipal port managements of Rotterdam and Amsterdam also have a large share in the programme every year. This thirteenth seminar lasted over one month. The participants had come from Bangladesh, Canada, Ethiopia, Greece, Yugoslavia, Iran, Israel, Libya, Nigeria, Pakistan, Sierra Leone, Syria.

Three weeks of the course were devoted to theory in Delft. The rest of the time was spent on visits to ports and industries in Holland, Britain and France.

Rotterdam's Municipal Port Management organised a series of penetrating lectures for the international company. Thus Ir. J. Brolsma of the Project Bureau Walradar explained the new shore-based radar chain which the Port of Rotterdam hopes to build. His colleague, Ir. P. Noë, gave a survey of the efforts that are being made to keep the water of Rotterdam's harbour basins clean. The Rotterdam traffic guidance system was discussed by Mr. J. Wondergem.

## International Symposium by Netherlands Maritime Institute

Rotterdam, 8th December 1977:—The NETHERLANDS MARITIME INSTITUTE, will organize the next international symposium on "Maritime Research and European

Shipping and Shipbuilding". This symposium will be held in the Rotterdam Hilton from 29–31st March 1978. As on previous occasions the symposium is organized in close co-operation with other leading European research organizations, viz.:

- The Institute for Shipping Research, Bergen, Norway;
- The Institute for Shipping Economics, Bremen, B.R.D.;
- The Maritime Institute, Gdansk, Poland.

The joint organizers feel that further development of European shipping and shipbuilding calls for extensive research for the maritime industries both on a national and European level. Quite a number of basic topics will be dealt with by reputed maritime and general economists. These topics include the process of balancing supply and demand on the shipping and shipbuilding market, economic evaluation of shipping and shipbuilding among other industrial activities in Europe, flags of convenience in shipping strategies, the shipbuilding cyclus, and the optimum size of the firm both in shipbuilding and shipping.

Mr. W.H. Brouwer, member of the Executive Board of Phs. Van Ommeren, Rotterdam, will act as chairman of this symposium.

This research symposium is expected to assemble a few hundred executives, officials and staffmembers from the shipping business, the shipbuilding industry, research institutes, ports, governments and international organizations from Europe and outside.

Inquiries can be made with:

Netherlands Maritime Institute  
P.O. Box 1555

Rotterdam—The Netherlands

Telephone 010—11.47.68

Telex 27-67; cables Namarin Rotterdam

## TECNOMAR '77-Genoa Fair

Genoa Faire: 17–23 September 1977 (Extracts):

### PORT CONSTRUCTION AND EQUIPMENT

In the field of port construction and equipment—a sector which is much talked about in the proposals for reform recently formulated by the Association of Italian Ports and in the plans for modernization regarding, in particular, ports of national importance—the presence of specialized industries is remarkable and the range of machinery and equipment is vast and diversified.

Apart from ITALIMPIANTI, the leading Italian company in the field of maritime construction (it recently won the Iranian order for the construction of the Port of Bandar Abbas), several industries specializing in hoisting gear, lift trucks, land and floating cranes, mechanical shovels, clamshell buckets, platform trucks, special vehicles for ports are partaking in the exhibition, i.e.: CELLA, Brescia; Officine CONTENTO, Trieste; CMI and O.N.I.G., Genoa; PELLEGRI, Verona; ITALMARE and S.I.S., Genoa; TROJSI, Milan; DONATI, Varese; ZEPHIR, Modena; EFFER, Bologna; INTERPRODUCT-Holland; LIEBHERR-WERK EHINGEN-Holland, PENGG-WALENTA-Austria), chains, cables, ropes, anchors, etc. (ADRIATICA CAVI, San Benedetto del Tronto, CO. FOR. NI. and FRUGONE, Genoa, ITALCATENE, Lecco), fire-fighting equipment (MINIMAW, Genoa).

(Continued on next page bottom)

# Some Notes on the Port of Mombasa

## Kenya Ports Authority Mombasa, Kenya October, 1977

### 1. Organisation:

- Port Management headed by a Managing Director and Deputy Managing Director, assisted by Sectional Heads.
- Cargo Handling is carried out by a contract company - Cargo Handling Services Ltd.

### 2. Facilities:

- 15 deepwater berths equipped with cranes and other cargo handling equipment: transit sheds, stacking grounds, etc.
- 2 bulk oil jetties and lighterage wharves.
- Facilities for handling bulk cement, bulk molasses and tallow, plus a small jetty for handling explosives.
- A cold storage.

### 3. Labour force:

15,000 employees of all grades:  
Port Authority - 3,000  
Cargo Handling - 12,000  
Services

### 4. Hinterland served:

Kenya, Uganda, Ruanda, Eastern Zaire and the Sudan.

### 5. Foreign Market connections

U.S.A.: Southern America, Europe; Far East especially Asia, Japan and Australia.

(Continued from page 54)

## MARINE DEPOLLUTION

The field of marine depollution completes the panorama of the Show through the participation of some important companies which specialize in the study, design and production of plants for the treatment of industrial waste and sewer water, for cleaning Diesel engine exhaust circuits, instruments for antipollution controls, cleaning equipment for holds and tanks, degassing systems, etc.

Besides ITALIMPIANTI, whose maritime activity excels not only in the area of port constructions but also in the design and manufacture of anti-pollution plants and desalination systems, are also present: ITALSVENSKA, TERMOMECCANICA ITALIANA, NAVALIMPIANTI of Genoa, MARINE VENTURES of London, STROMME SHIP SERVICE, Norway and Co. BA. DI which specializes in the design of ships for marine depollution, built at the Picchiotti Shipyards, Viareggio. At its debut, TECNOMAR '77, with the Patronage of the Ministries of the Merchant Navy, State Participation, Industry, Public Works, Post and Telecommunications can be considered as complete in its various branches and, consequently, in a position to develop on the experimental blue-print of the first edition, the next one, scheduled for May 1979, using to full effect the lapse of time in between.

### 6. Shipping:

	1974	1975	1976
Number of Ships	1,699	1,563	1,380
Net registered tonnages (NRT)	6,538,370	6,190,917	5,711,467
Passengers			
Disembarked	4,251	3,441	2,014
Embarked	4,336	3,216	1,816
Total	8,587	6,657	3,830

### 7. Cargo dealt with (D.W.T.)

Imports	1974	1975	1976
Dry General Cargo	1,218,906	735,289	859,006
Coal	52,470	67,093	67,273
Sulphur	*	*	3,000
Fertilizer	*	*	9,900
TOTAL DRY CARGO	1,272,435	802,382	939,269
Palm Oil (total)	**	**	7,930
Crude Oil	3,022,330	3,303,809	3,205,092
Petroleum and products	**	**	98,713
TOTAL Crude, Petroleum and products	**	**	3,303,805
TOTAL IMPORTS	4,294,765	4,106,191	4,251,004

\*(Included in total General) \*\*\*(Included in total oils)

Exports	1974	1975	1976
Dry General Cargo	1,070,046	926,393	867,002
Cement, bulk			437,314
Soda, bulk	757,825	523,863	92,449
Flourspar, bulk			91,453
Cement Clinker			76,845
Total dry cargo	1,827,871	1,450,256	1,562,063
Molasses, Bulk	51,739	51,065	35,579
Petroleum and products	570,039	362,580	293,068
Bunker Oil			81,813
TOTAL EXPORTS	2,449,649	1,863,901	1,972,523
TOTAL IMPORTS AND EXPORTS	6,744,414	6,024,935	6,223,527
Transshipments	30,830	30,200	12,278
GRAND TOTAL	6,775,244	6,055,135	6,235,805

### 8. Main Commodities:

Exports: Coffee, Tea, Oilcake, Timber, Cotton, Sisal, Soda Ash and Cement.

Imports: Wheat, Rice, Sugar, Fertilizer, Salt, Coal, Bitumen, Cement, Clinker, Machinery, Gunnies, Wheeled vehicles.

### 9. Developments:

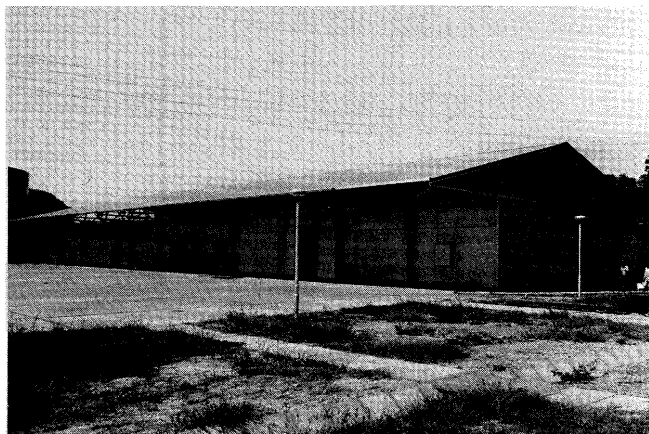
#### i. Completed:

Six storey administrative building; a new services area now accommodating a new fire station and various repair workshops; Two new deep water berths, 16 and 17 designed for conversion to container berths with ancillary transit sheds and stacking area. A new cold

store with capacity of 1,000 tons.

- ii. In Progress:  
Container berth 18. Rehabilitation of lighterage wharves and main quay sheds 3 and 4.
- iii. Planned:  
Roll-on-Roll-off facilities.  
Mbaraki wharf bulk handling facilities extension, etc., intended for handling of grain, etc.

## New Cold Store for Mombasa Port



Mombasa, Kenya, 5th December, 1977:—A new cold store, built at a cost of just over 10 m/—, is due to come into operation at the port of Mombasa, in a few weeks time. The new installation will replace the existing cold store situated in shed No. 5, which is nearing the end of its useful life.

Plans for the building of the new cold store were started in 1970, when it became obvious that chilled exports then passing through the existing cold store were likely to expand. A Nairobi Firm of Consulting Engineers, Carl Bro Roughton and Partners, were therefore commissioned to carry out a feasibility study and come out with recommendations for the provision of a new and up-to-date cold store that would cater for an increased volume of chilled cargo.

Their findings after consulting various firms dealing in chilled and frozen export trade indicated that the Kenya Meat Commission requirements would increase from storage of under 200 tons in 1970, to 500 tons in 1974 for a period of one month. It was then estimated that at peak periods in 1976, space would be required to store 750 tons of Kenya Meat Commission export products. Requirements for Kenya Creameries and Uplands Bacon Factory were estimated at 206 tons, while provisions were made for possible storage of 100 tons expected from Uganda Meat Packers.

In co-ordination with Cobb Archer and Partners as Architects and, Armstrong and Duncan (K) Ltd. as quantity Surveyors, Carl Bro came out with recommendations to build the new installation and a formal agreement for its construction was entered into in 1972, between the Consulting Engineers and the then Harbours Corporation. Mvita Construction Company were appointed contractors for the work.

The building consists of a simple steel column and roof

truss structure under which the cold store is erected. Walls, partitions and ceiling, are made up of interlocking steel clad polyurethane panels, while the floor structure is of 100 mm concrete slab resting on polyurethane insulation. Thermostatically controlled heating cables under the insulation prevent frost from entering the ground under the store.

Handling in the cold store was planned to be mainly by forklift trucks while allowance was made for provision of hatches with portable conveyors providing an alternative method of handling. In order to prevent an excessive influx of hot air which would otherwise give icing problem, the outer door is designed to open at press-button by forklift driver without him having to come off his truck, and to close automatically when he has passed, an act which should activate the inner door to open automatically, allowing the driver to proceed on.

The finished work provides for an eight-chamber cold store, with chambers 1-6 forming the main inner storage with a temperature of  $-10$  degrees centigrade to  $-20$ , while chambers 7 and 8 form a buffer zone with a temperature of  $-4$  degrees centigrade. All the eight chambers have a usable space of 1,233 cubic metres, providing storage area for 900 tons of chilled cargo. Such cargo will include: beef, bacon, cheese, fruit, horticultural products and various other commodities passing through the cold store as export or import traffic.

Ample space has been provided at the frontage of the store for easy movement of articulated vehicles and a railway siding has also been provided to service wagons loading and unloading cold store traffic.

It is anticipated that the new installation will boost Kenya's external trade in meat, cheese, butter, fruit, vegetables and horticultural products that require cold store facilities before exportation. The new cold store will also provide more room for storage of supplies, such as photographic material and foodstuffs, for Mombasa firms that deal in products that require cold storage.

It is fitting in Kenya's economy that the cold store is coming into service at a time when the country is securing new markets for export of meat and dairy products, especially to the Arabian Gulf ports of Muscat, Dubai, Abu Dhabi and Bahrain.

# Reorganization of Polish Ports

Here is an informative note from a Polish member of IAPH:

On the 30th of June, 1977 the Central Board of Polish Sea Ports has been liquidated. Instead, two new organizations were called into being.

One, for the Gdańsk-Gdynia port complex and one for the Szczecin-Świnoujście port complex.

Both these organizations are supervising and coordinating the activities of several subordinated state enterprises situated in the ports of Gdańsk and Gdynia as well as Szczecin and Świnoujście (see enclosure).

Please note, that our organization, namely: ZESPÓŁ PORTOWY GDAŃSK-GDYNIA (Gdańsk-Gdynia Sea Ports Corporation) took over from the former Central Board Of Polish Sea Ports all the duties of membership and cooperation with your organization.

The General Director of our Corporation is Mr. Stanisław PAWLOWSKI, M.S.Ec., and the Managing Director is Mr. Lech RUDNICKI, M.S.Ec.

Yours faithfully,

Lech RUDNICKI, M.S.Ec.,  
Managing Director

## New Organization of Polish Sea Ports

From "Polish Maritime News"  
September, 1977

THE reorganization of the management of Polish sea ports has become a fait accompli. By virtue of Resolution No. 91/77 passed by the Council of Ministers on 17th June 1977, the Central Board of Polish Sea Ports was liquidated on 30th June 1977. Simultaneously, two new economic organizations: the Managing Board of the Gdańsk-Gdynia port complex, and Managing Board of the Szczecin-Świnoujście port complex, were called into being by the same resolution.

The following are subordinate to the new organizations:

- **Managing Board of the Gdańsk-Gdynia port complex:**

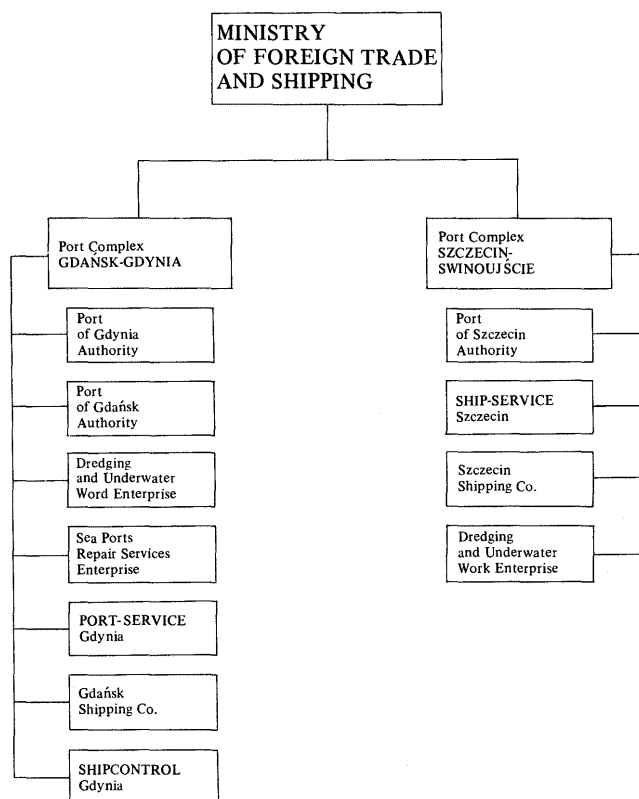
- Port of Gdańsk Authority,
- Port of Gdynia Authority,
- Dredging and Underwater Work Enterprise, Gdańsk,
- Sea Ports Repair Services Enterprise,
- PORT-SERVICE Marine Services Enterprise,
- Gdańsk Shipping Company (Zegluga Gdańska),
- SHIPCONTROL Cargo Experts and Tallying Enterprise.

- **Managing Board of the Szczecin-Świnoujście port complex:**

- Port of Szczecin Authority,
- SHIP-SERVICE Marine Services Enterprise,
- Szczecin Shipping Company (Zegluga Szczecińska),
- Dredging and Underwater Work Enterprise, Szczecin.

Apart from the above changes, further decrees of the Minister of Foreign Trade and Shipping have brought about the following organizational adjustments:

Organizational structure of the port complexes



- The Polish Ship Salvage Company has been directly subordinated to the Minister of Foreign Trade and Shipping,
- The state enterprises Gdańsk Shipping Company and Szczecin Shipping Company have been subordinated to the Managing Boards of the Gdańsk-Gdynia and Szczecin-Świnoujście port complexes, respectively,
- SHIPCONTROL Cargo Experts and Tallying Enterprise, Gdynia, has been subordinated to the Managing Board of the Gdańsk-Gdynia port complex, and their Szczecin Branch Office—to the Managing Board of the Szczecin-Świnoujście port complex,
- The Szczecin Branch of the Dredging and Underwater Work Enterprise has been transformed into a self-dependent enterprise and simultaneously subordinated to the Managing Board of the Szczecin-Świnoujście port complex,
- The Central Port Mechanical Workshop has been taken over by the Port of Szczecin Authority as a department able to maintain itself financially,
- Polish Baltic Shipping Company has ceased to be supervising enterprise for Gdańsk Shipping Company and Szczecin Shipping Company.

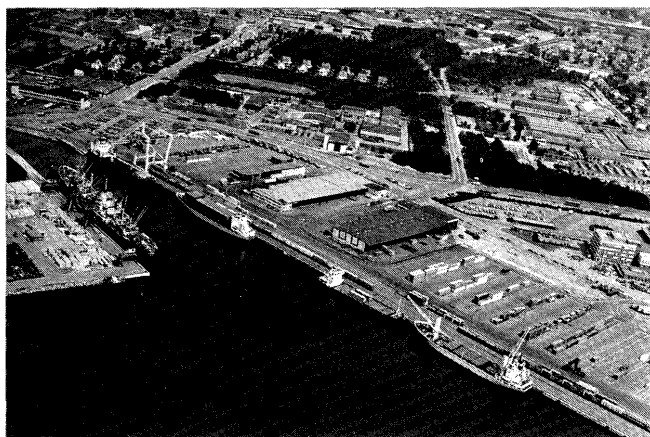
The co-ordination of turnovers in seaborne trade, hitherto handled by Organ For Co-ordination between the Ports in the Central Board of Polish Sea Ports, has been entrusted to PSM C. HARTWIG International Forwarders, Gdynia.

The current operating co-ordination of all transport media,  
(Continued on next page bottom)

# Port of Helsingborg

Press Release  
November 22, 1977

## Up for Containers and Other Units



**PORT OF HELSINGBORG:** The Skane Terminal is the next largest container port in Scandinavia. Frequent regular services are operated to a row of British and continental ports. Convenient feeder services link Helsingborg with USA, east and west, the Gulf, and the Far East.

Containers, RoRo-cargo and other unitized shipments have continued to rise in the first 10 months of 1977. Ferried passengers, trucks, and automobiles have again set new records in numbers. On the other hand bulk cargo and the conventional general cargo have declined somewhat at the expense of unit cargo.

The overall estimated cargo volume for the whole of 1977 will exceed 7.5 million tons meaning an increase of 1 or 2 pct compared with 1976. Of this amount containers, flats, trailers and lorries contribute with 2.5 million tons, while the corresponding figure for 1976 was 2.3 million tons. Consequently there is an increase of 10 pct for all unitized cargo. Ferried passengers and automobiles have also made a rise of 10 pct and is estimated at 18 million travellers and 1.5 million motor-cars. The remarkable and

(Continued from page 57)

so far handled by the Central Board of Polish Sea Ports, has been entrusted to the chief dispatchers of the Managing Board of the Port Complexes.

The new organizational form of Polish sea ports has been in force as from 1st July this year. Discussions on the provisional operating principles of the Managing Boards of the Gdańsk-Gdynia and Szczecin-Swinoujście port complexes, as guidelines for the newly established economic organization, are being finalized.

The project of the final organizational economic structure or structures associating port-marine enterprises incl. the principles of the economic-financial system to be put into force as from 1st January 1978, will be presented by the end of October this year.

continuous rising figures for the ferries implies that almost half of all ferry passengers in Sweden are using Port of Helsingborg. The same conditions prevail for ferried motor-cars.

## Repair Workshop For Containers

Port of Helsingborg will introduce a new move for better service to customers involved in transport of units. At the container terminal a workshop is being constructed for repair, maintenance, testing and inspection of containers, flats, trailers and other cargo carrying units. The equipment will be perfect for its purpose in order to meet the requirements of demanding customers. A modern testing unit is also included in the plant. The service to unit operators is to be complete: sandblasting, painting, welding, etc will be the principal jobs for a staff of 20 included in the project. The business is estimated to be in full swing in February 1978 as a separate division of the terminal company Skaneterminalen AB. Offices and staff facilities will be included in the construction.

## Gray Mackenzie Monthly Bulletin

OCTOBER 1977

### • Bahrain

89 vessels called at Bahrain during October, 1977 to discharge 86,716 tons and load 421 tons. In the same month last year 68 vessels discharged 86,211 tons and loaded 532 tons. There were no berthing delays throughout the month.

55 tankers called at Sitra during the month as compared with 93 tankers in October, 1976.

### • Abu Dhabi

69 vessels called at this port during the month of October, 1977 discharging a total of 103,208 dwt. of cargo consisting of 60,108 dwt. of general cargo, 38,800 dwt of cement, 1,300 dwt. of pipes and 3,000 dwt of bitumen plus 1,620 vehicles, 3,000 live sheep, 3 caterpillars and 20 containers.

Additionally, 1 tanker called and discharged 12,022 tons of gas oil.

During the month the port has been free of delays and consequently vessels have received prompt despatch.

### • Teheran

Bandar Shahpour has been equipped with two shipside container cranes. The cranes mounted on rails can handle containers up to 40 feet long and weighing 18 to 31 tons.

An oil terminal is being built on the Sirri Island for Messrs. Sofiran, a joint venture between the National Iranian Oil Company and Elf/Erap of France. It is understood that cargo will shortly commence to move from Europe, United Kingdom and U.S.A. for direct discharge at the anchorage on the south east corner of the island.

### • Khorramshahr

During October 93 vessels discharged a total of 292,908 tons of import cargo.

Berthing delays ranged from one to four days.

### • Kuwait

During October, 1977, 129 vessels called at this port,

discharging 177,913 tons general cargo inclusive of 9 vessels discharging 123,316 tons cement.

Berthing delays at Kuwait port ranged from nil to two days for Conference vessels and from 10 to 20 days for non-Conference vessels.

During the month of October the berthing delays for both Conference and non-Conference vessels have been completely eliminated and whilst the berths did not remain idle at any time the new arrivals experienced only maximum 24/48 hours berthing delays. The Port authorities still insist minimum tonnage of 600 tons dw to qualify for a berth and vessels arriving with reduced tonnage are required to discharge their cargo at anchorage by private barges.

## Adelaide will be a key port for new container service

Adelaide, South Australia (December, 1977: "South Australian Ports & Shipping Journal"):-The Port of Adelaide will be one of two key Australian ports for the new Gulf Shipping Lines Group container service which begins this month.

The first of the line's two cellular ships, Khalij Enterprise, is due to begin loading on December 20 in Adelaide.

The only other direct port of call will be Melbourne, with Brisbane, Sydney and Fremantle cargo being centralised by rail and road at the two ports.

Anticipated usual container requirements for Adelaide are 140 x 20' dry and 16 x 20' freezer; Melbourne 230 and 40; Sydney 94 x 20' dry; Brisbane 22 x 20' dry and Fremantle 10 x 20' dry.

Round-trip time for the Khalij Enterprise between Australian ports and the Middle East ports of Muscat, Dubai, Dammam and Kuwait is expected to be 54 days.

A sister-ship will join the run in February, servicing alternative ports in the Middle East Gulf area, such as Abu Dhabi, Bahrain and Khorramshahr.

Both vessels will operate for the Middle East Express Line and, together with a continuance of the line's conventional services now operating, will effectively provide a 23-day service from South Australia to the Middle East.

Each of the two new container vessels will carry up to 368 containers in the holds and 184 on deck, with a total TEU capacity of 552. The container capacity will include provision for up to 56 refrigerated containers.

The two new cellular ships are equipped with their own twin gantry cranes and manual 20' container spreaders. However, they are being re-equipped with twin automatic-telescopic 20'-40' Kone Oy's spreaders.

Maximum spreader lifting unit weights will be 20.5 tonnes for the 20' containers and 21.0 tonnes for the 40'. Each ship will also carry two hook frames.

Maximum lift for the lower gantry crane pulleys is 28.3 tonnes and the crane operating speed is rated at about 20 cycles an hour. Containers can be moved over two 8'6" containers stowed on the hatch-covers.

In the holds the maximum unit weights are 20 tonnes for the 20' units and 30 tonnes for the 40'. On deck the slotweights are 30 and 50 tonnes.

### GULF ONE OF SA'S MAJOR SHIPPING LINKS.

In the past three years the Gulf Group lines have lifted

more than 300,000 tonnes of cargo from South Australian ports, paying more than \$500,000 in port dues and over \$4,000,000 in stevedoring charges.

In addition to the Middle East Express Line, Australian ports—including South Australia—have had access to the services of the Group Lines Africa/Australia Direct, Mediterranean Express and West Africa Express.

Monthly sailings to Port Louis, Mahe, Mombasa and Dar-Es-Salaam are offered by the African/Australia Direct line, using conventional vessels with some refrigerated and container capacity. The Tasman Enterprise will be joined on this service by another ship early next year.

The Mediterranean Express Line services Red Sea, Mediterranean and North African ports and has carried the bulk of South Australian produced cargo for Libya. It is also actively engaged in encouraging trade between SA and other North African countries, such as Egypt and Algeria.

Permanent vessels will probably be assigned to this service next year and sailings reduced from six weekly to monthly. Additional container facilities will be provided because of the backhaul potential from the Middle East.

The West African Express Line will continue exploring the potential of the existing Australia-Nigeria link and has guaranteed a quarterly service during 1978.

The Cokal family, which operates the Gulf Group, is based in London and has strong ties with Middle Eastern countries.

### YOU NAME IT—WE SEND IT VIA GULF.

The port and sales agents for the Gulf Group, Burns Philp and Co. Ltd, say that sooner or later you'll find almost anything produced in South Australia outbound on a Gulf vessel.

The marketing manager for B.P. shipping, Alicia Williams, lists flour, grain, fruit juices, canned fruits, wines, washing machines, irrigation systems, portable and prefabricated structures, meat, agricultural machinery, engineering products, wool, woollen goods, seeds, oil drilling equipment and a wide range of packaged goods as being among the long list of commodities leaving South Australia for Middle East, Mediterranean and North African countries.

She said the Khalij Enterprise will pick-up around 120 dry containers and 20 reefer (refrigerated) boxes from the Port of Adelaide's container terminal on her maiden visit.

## Port Chairman & Director General Attend Conferences

Penang, Malaysia, July, 1977 (The Penang Port Commission):-The Commission's Chairman Tan Sri Abdul Jamil b. Abdul Rais and Director General Tuan Haji Mohd. Azuddin b. Haji Zainal Abidin, Chairman and Hon. Secretary respectively of the International Cargo Handling Co-ordination Association South East Asia Region Section attended the 13th ICHCA General Assembly and Biennial Conference in Melbourne between 17th and 21st April. They also attended the 10th International Ports and Harbours Biennial Conference in Houston, U.S.A. between 24th and 30th April 1977.

# Melbourne Hosts International Seminar

Melbourne, Australia, November 24 (The Melbourne Harbor Trust Commissioners):—The control, operation and administration of the Port of Melbourne and its important role in Australia's future came under close scrutiny recently when the Melbourne Harbor Trust Commissioners hosted a section of an International Port Seminar.



Members of the International Port Seminar 1977, take a break from lectures, in the group is the Course Co-ordinator, Melbourne segment Mr. Len Glazner (standing back right); Melbourne Harbor Trust Chief Surveyor, Mr. Ken Ascott (seated back right) and Port Hostess Lynne (standing, second left).

The Seminar was organised by the Commonwealth Department of Transport, Canberra in liaison with the Australian Development Assistance Bureau and enveloped four Australian States over a three week period. It involved a comprehensive programme of theoretical and practical group discussions, lectures and site visits.

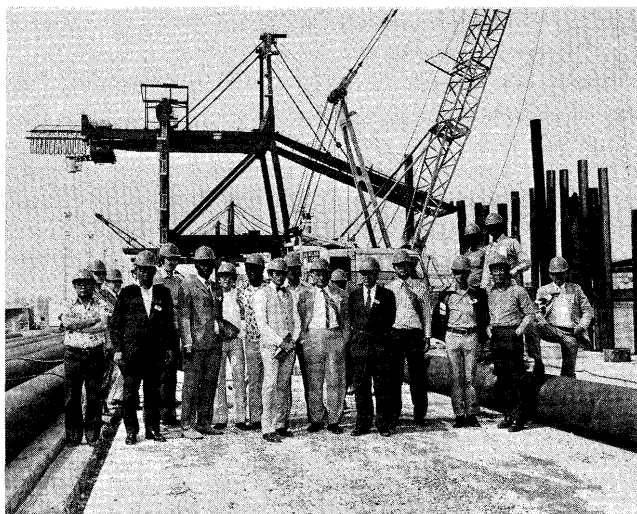
In addition to Melbourne, the ports of Sydney and Brisbane, together with the Commonwealth Government's shipping line—the Australian National Line (ANL) participated in the Seminar which involved seventeen participants from developing nations nominated by Colombo Plan and ESCAP (Economic and Social Commission for Asia and the Pacific) countries. The actual nations represented were Bangladesh, Ghana, India, Indonesia, Malaysia, Nigeria, Philippines, Papua New Guinea, Seychelles and Sri Lanka.

All the participants held senior port administrative positions, each having a direct contribution to their respective port's policy and development.

The Seminar was directed at port management and development with emphasis on cellular, vehicular deck and unitised transportation systems, yet giving each participant every opportunity to obtain assistance in their respective environment.

The Seminar period in Melbourne (7–11th November) was carefully planned thus ensuring the total aspect of port management and development was covered and some of the papers delivered were:-

- Role the Melbourne Harbor Trust in State Development and Community Relations;
- The role of ship owners and commercial bodies in a Port environment;
- Containerisation;
- Port Emergency and Security;
- Port Financing.



The construction of 3 East Swanson Dock—the third berth of the “common user” side of the Port of Melbourne's six berth overseas container complex was one of the many construction areas visited by participants in the International Port Seminar 1977.

In addition papers were given on forward development planning and function; port statistics; urban environment; legal constitution and shipping control. Participants toured the Port area on board the Trust's inspection vessel and visited construction areas and maintenance workshops and slipways.

The Melbourne Harbor Trust, in being a major contributor to the Seminar considers that such platforms must assist international trade relations thus promoting goodwill amongst our trading nations which in turn will further Australia's economic prosperity.



Grown Prince of Jordan-Sydney, Australia (The Maritime Services Board of N.S.W.):—Their Royal Highnesses, Crown Prince Hassan Bin Talal and Princess Sarvath, of the Hashemite Kingdom of Jordan, visited Sydney recently as part of their 10 day Australian visit. The President of the Board, Mr. J.M. Wallace, accompanied them on a tour of the Harbour aboard the “Captain Phillip”.

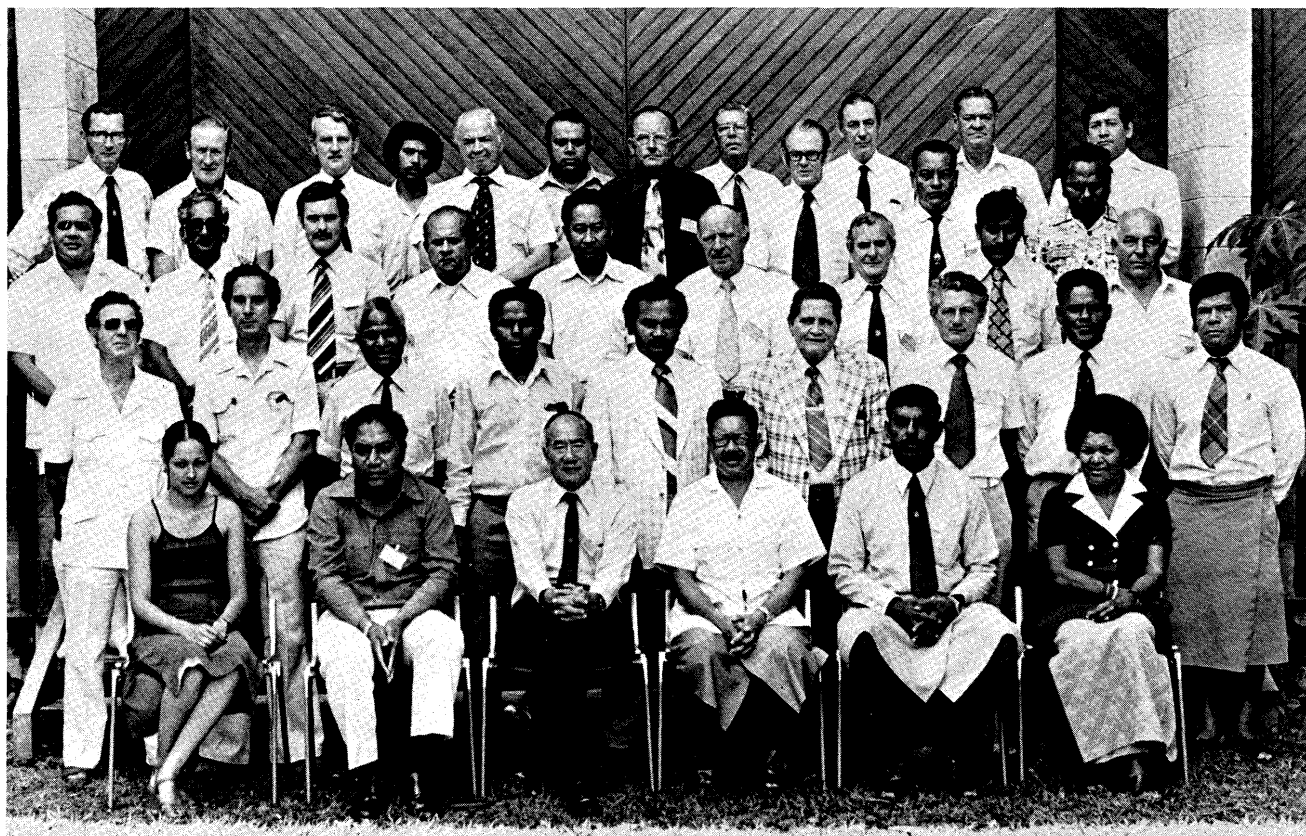
# Fiji Container Seminar/South Pacific Ports Conference Successfully Concluded

by Loh Heng-Kee  
Director-General  
Ports Authority of Fiji

Suva, Fiji, 6 December 1977 (Refer to "Ports and Harbors" October 1977, page 13, article titled "Fiji Hosts 1977 South Pacific Ports Conference", and January 1978 issue, article titled, "Mr. Lorimer's Paper for the Ports

Authority of Fiji Container Seminar November/December 1977"):—The papers presented were of a high standard and they attracted very keen and active participation from the floor.

Over 80 participants and observers attended the Container Seminar and some 30 delegates representing most of the South Pacific countries including American Samoa, Western Samoa, Solomon Islands, Papua New Guinea, New



## FOURTH SOUTH PACIFIC PORTS CONFERENCE

### Seated (L-R)

Miss F. Fenton (Ports Authority of Fiji), Mr. T.S. To'alepaali'i (Western Samoa), Mr. Loh Heng-Kee (Ports Authority of Fiji), Hon. Mahe U. Tupouniua (South Pacific Bureau for Economic Co-operation), Mr. J. Kaukimoce (Ports Authority of Fiji), Mrs. A. Qionibaravi (Consumer Council).

### Second Row (L-R)

Capt. A.W. Spivey (Marine Department, Fiji), Mr. L. Smith (Seatrans, Fiji), Mr. P. Tarua (PNG Harbours Board), Mr. J. Vaukei (Solomon Island Ports Authority), Mr. J. Liu (American Samoa), Mr. M.H. Hunkin (American Samoa), Mr. K. Trueman (Melbourne Harbour Trust), Mr. A. Nabati (Ports Authority of Fiji), Mr. A. Beci (Ports Authority of Fiji).

### Third Row (L-R)

Capt. M. Joy (Marine Department, Fiji), Mr. N. Singh (Ports Authority of Fiji), Mr. C. Smith (Department of Transport PNG), Capt. A. Pickering (Cook Islands), Mr. F. Hong Ti

(South Pacific Bureau for Economic Co-operation), Mr. R.T. Lorimer (Auckland Harbour Board, NZ), Mr. B.A. Gapes (Harbours Association of NZ), Mr. R. Pratap (Ports Authority of Fiji), Mr. G.B. Rockett (New Hebrides).

### Fourth Row (L-R)

Mr. B.H.E. Manning (Northland Harbour Board, NZ), Mr. B. Cullen (New Zealand Ports Authority), Capt. I.P. Carr (Union Steam Ship Company of NZ Ltd), Mr. R.W. Carr (Harbours Association of NZ), Mr. A.G. McHugh (Northland Harbours Board, NZ), Mr. N. de V. Lawrence (Hawke's Bay Harbours Board, NZ), Mr. J. Murdoch (Solomon Islands Ports Authority), Mr. H. Mission (PNG Harbours Board).

### Fifth Row (L-R)

Mr. H.P. Chambers (Ports Authority of Fiji), Mr. R.J. Bryson (Ports Authority of Fiji), Mr. J. Costelloe (PNG Harbours Board), Mr. P.F.J. Corbett (Burns Philp, Fiji), Mr. G. Powell (Burns Philp, Fiji), Mr. N. Slade (Pacific Forum Line).

Hebrides, Cook Islands, New Zealand, Australia and Fiji were present at the Ports Conference. The Chairman of Pacific Forum Line (PFL), Hon. Neroni Slade, and the Director of the South Pacific Bureau for Economic Co-operation (SPEC), Hon. Mahe U. Tupouniua, also presented papers at the South Pacific Ports Conference.

## Fiji hub of the Pacific for containers?

Fiji Times—7.12. 1977:—Fiji could form a vital port in a chain of routes the newly formed shipping venture Pacific Forum Line is planning to operate.

And the director general of the Ports Authority of Fiji, Mr. Loh Heng Kee, believes Fiji has the facilities and capabilities for a transshipment port despite suggestions that Australia and New Zealand are the best prospects.

The chairman of the Pacific Forum Line, Mr. Naroni Slade, told the fourth South Pacific Ports Conference last week that with the absence of container ports in the islands it appeared very likely that transshipment ports would be located in Australia and New Zealand.

Mr. Slade named Fiji in three of the five routes a Forum Line marketing survey team was studying before services were begun.

The five possible routes are Australia-Fiji-Tonga-Western Samoa-American Samoa; New Zealand-Fiji-Tonga-American Samoa-Western Samoa-Australia-Papua New Guinea, New Zealand-Papua New Guinea, Fiji-Papua New Guinea.

A proposal on a trans-Fouth Pacific route from Papua New Guinea to Cook Islands and Tahiti was dropped because it was found to be uneconomical and an impractical proposition.

Mr. Slade said that the intention was to start on a small and moderate scale beginning with operations on routes which were economically viable.

"With the absence of container ports in the islands, there is a possibility that these large container vessels will not be able to call at island ports" he said.

Mr. Slade said as a result it was necessary for these operators to look for transshipment port or ports where onward carrying facilities to the islands were available.

He said it appeared very likely that transshipment ports would be located in Australia and New Zealand. He said the Forum Line could perform container feeder service from these transshipment ports.

He said in the formulation stage of the regional shipping line it was proposed that two island container ports should be developed, one in the Western Pacific and the other in the Eastern Pacific.

Reacting to this Mr. Loh said Fiji could offer the facilities and service to become a transshipment port.

He said for example at King's Wharf in Suva big warehouses to cater for increased cargo had been built.

He said with Fiji listed in three of the five routes which the Forum Line might operate. Suva port would be busy. He said this was a good sign "an indication of progress."

## Ports meeting success, says Loh

The fourth South Pacific Ports Conference, in Suva last week, resolved that closer cooperation among island countries was vital to ensure efficiency and high productivity in port operations.

The director-general of the Ports Authority of Fiji. Mr.

Loh Heng-Kee, said the conference made member countries feel they were important links in a chain.

The message was: "If one link is weak then the whole chain is effected."

He said the conference encouraged island nations in healthy competition.

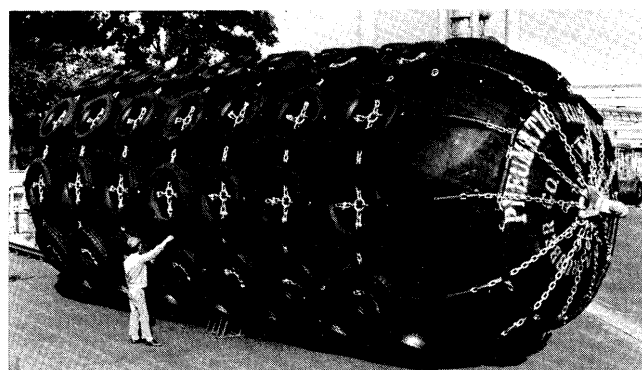
"The idea is not to cut each other's throat but to boost the efficiency and productivity in port operations generally," he said.

One idea was to boost training programmes by introducing an exchange scheme.

The container seminar which preceded the ports conference highlighted, among other things the dangers involved in transporting containers from wharves.

Without proper care, this might lead to serious accidents. Correct lashing of containers when loaded on to trucks was of particular concern.

## Largest Pneumatic Rubber Fenders



Tokyo. December 22, 1977 (Yokohama News Release): —The Yokohama Rubber Co., Ltd. recently exported three of its 4.5-meter-diameter x 12-meter-long pneumatic rubber fenders to Shell Petroleum's oil terminal on the island of Curacao in the Caribbean Sea. These, the world's largest pneumatic fenders, are valued at approximately US\$400,000.

These new fenders have an energy absorption capacity more than two and one-half times that of the 4.5 mφ x 9 mℓ fenders which were previously the largest fenders in use. The force of impacts on both jetties and ships is greatly reduced by this new fender, and therefore, construction of heavier jetties is not required.

The three fenders at Curacao are scheduled to be installed at the oil loading and unloading jetty of Shell's oil terminal next February.

### Major Features of the Pneumatic Rubber Fender

1. Exhibits greater energy absorption and lower reaction force than conventional solid fenders which are fixed to the quay, thus reducing surface pressure from impacts on both the jetty and ships. Port construction costs are also reduced as these fenders can be mounted on a jetty of relatively light construction.
2. Easy installation, maintenance and inspection.
3. Can facilitate mooring of large vessels.
4. Reaction force remains proportionate to the size and weight of vessels.

# Port of Osaka Celebrates the 110th Anniversary

Port & Harbor Bureau  
City of Osaka



More than 1000 guests were invited at the reception



Container Terminal of the Port of Osaka



Mr. A.S. Mayne (left) shaking hands with Mr. Yasushi Oshima, Mayor of Osaka.



A Part of the newly constructed Port Town

The Port of Osaka celebrated the 110th anniversary of its inauguration simultaneously with the 20th's of the South Port development project on October 17th, this year. During the two decades since the reclamation works started in 1958, the construction programs of the South Port have been satisfactorily carried on and by this time more than 70 per cent of the reclamation works have already been done. The first container wharf was constructed in August 1969, and now, four container wharves are in full operation with a partial use of No. 5 wharf, connecting Osaka with Australia, the Pacific and Atlantic coasts of North America, Europe and Southeast Asian destinations. In July 1974, the symbolic Bay Bridge made debut as the main artery linking the South Port with business center of Osaka. The ferry service, initiated in 1971, now serves various places in Kyushu, Shikoku and western Japan with 16 services a day, facilitating feeder service to/from Osaka. In addition, seven liner berths were completed last year, reinforcing the overseas trade functions of the port.

Aside from these infrastructures of the port, a unique

project of creating a port Town in the center of the reclaimed land has also been afoot, and rows of high-rise buildings accommodating 1,500 households have been built. Within a few years, a modern town with a population of 40,000 will emerge in the South Port. Surrounded by thick wooded environment, the Port Town will be provided with the sophisticated facilities such as pneumatic garbage collection system and the latest mass transportation means connecting the town with a subway station.

To the ceremony more than 1,000 guests were present, representing the governmental authorities and business circles concerned. As a representative of the sister ports of Osaka, Mr. A.S. Mayne, Chairman of the Melbourne Harbor Trust Commissioners participated in the ceremony. Mr. Mayne gave a short congratulatory speech on behalf of the foreign guests, in which he emphasized the importance of promoting understanding and friendship among the nations through maritime activities. Osaka was affiliated with San Francisco as sister port in 1967 and with Melbourne in 1974.

# Osaka Port Goodwill Mission Visits Southeast Asia

## Port & Harbor Bureau City of Osaka



Mr. Fukuyama, Leader of Osaka Port Mission to Indonesia (third from right) talks with Mr. Nimpuno, Director General of Sea Communications (second from left) on November 2, 1977.

The 19-member Osaka Port Goodwill Mission, headed by Mr. Sinzaburo Fukuyama, former Deputy Mayor of Osaka, visited leading ports in Southeast Asia from October 27 through November 5, this year. The Mission is cosponsored by the Osaka Municipal Government, Osaka Port Terminal Operators' Association and Osaka Chamber of Commerce & Industries, and its object is to promote the trade relations with Southeast Asian Countries through exchange of views with the representatives of the relevant governmental authorities and shipping business organizations, introducing them modern aspects of the Port of Osaka. The group toured three major ports: Manila, Singapore and Djakarta, hosting a reception at each of these cities, to which many dignitaries were invited. At the reception, a movie briefing the Port of Osaka was also shown to the attendance.

As one of the foremost international ports in Japan, the Port of Osaka has recently witnessed a remarkable development with the completion of a variety of new port facilities. It is equipped with 110 berths totalling 15,716 m, including five container and seven liner berths. The volume of cargoes handled in 1976 marked 78,820,000 tons and the trade volume with Southeast Asia accounted for 34 per cent of the total foreign trade volume.

## Progress of Construction Work

Penang, Malaysia, July, 1977 (The Penang Port Commission):—The construction of Berth No. 6 which will be a container berth with roll-on roll-off facility is progressing smoothly. Piling commenced on 1st September 1976 and by 30th July 1977 all the piles will be driven in position. Other permanent works in progress such as casting of prestressed deck slabs, beams, fender nibs, deck planks, etc., are in the advanced stage.

The tender for the construction of the Ro-Ro berth and Ramp closed on 6th June 1977 and will be awarded very

shortly. The whole project is expected to be completed by May 1978.

To time with the completion of this terminal, the Commission has called tenders for the supply of mechanical handling equipment to adequately serve the needs of the increasing number of containers which are expected to be handled by the Port. The equipment to be purchased include 2 units 25 tonnes diesel forklift trucks, 6 units shortmast LPG forklift trucks of 5,000 lbs capacity, 14 units prime movers, 11 units twenty foot container trailers, 8 units forty foot container trailers, 1 unit container handling crane capable of handling both 20' and 40' containers with a maximum capacity of 35 tonnes and 2 transtainers capable of stacking 20' and 40' containers—three high.

Development of the Bulk Cargo Terminal is being executed under three separate contracts, namely; Reclamation Works, Civil Works and Mechanical Works. The terminal is located at the Prai Industrial Estate and will cater for the import and export of dry and wet bulk cargo.

The area to be covered by the terminal is approximately 75 acres, 53 acres of the foreshore will be reclaimed by hydraulic sandfill and 22 acres of land will be raised. About 1.8 million cubic yards of sand will be dredged from the Great Kra Flat Sandbank to reclaim the area.

Reclamation work is progressing on schedule. Up to the end of May 1977 about 74% of the reclamation work has been carried out. At the rate of progress, the reclamation works may be completed in the third quarter of 1977.

The Civil works contract includes the construction of a 460 feet long wharf of reinforced/prestressed concrete on steel piles, mooring dolphins, walkways and a 3,850 feet long approach bridge. Electrical installations and Administrative Buildings and other related works form the other part of the contract.

Construction is slightly behind schedule but is expected to be speeded up when additional piling frames are brought in. As at 30th May 1977, 30% of the piling work has been completed.

Mechanical works comprise of the supply of two front-end loaders, one travelling rail mounted level luffing crane fitted with a boom, clam-shell, bucket or magnet, main conveyor (reversible) approximately 4,100 feet long and eight other conveyors with their own devices.

Physical fabrication of components commenced at the contractor's factory in Petaling Jaya in May 1976. Orders for plant and components from overseas have been placed and two-front end loaders, one dock tractor and a portion of the components have been delivered.

It is expected that the Mechanical works will be completed by February 1979.

# Solomon Islands Gets ADB Loan for Port Development and Technical Assistance Grant

**Asian Development Bank  
News Release No. 76/77  
9 December 1977**

The Asian Development Bank today approved a loan of US\$2.03 million to the Government of the Solomon Islands for a project to increase the capacity of Honiara Port, and also agreed to provide a technical assistance grant of US\$50,000 for a related port tariff and accounting/management study.

The loan, which will be financed from the Bank's concessional Special Funds resources, will cover the foreign exchange costs of the Project. The total cost of the Project is estimated at US\$2.73 million.

Honiara Port, the principal international port in the Solomon Islands, currently handles almost all of the country's imports as well as a diverse range of export commodities. With the increasing volume of cargo traffic, resulting particularly from the recent agricultural and agro-industrial developments in the Guadalcanal Plains, the present deepwater wharf at the Port is expected to reach its capacity in 1981.

The Project aims at increasing the capacity of the Port through extension of the deepwater wharf. The main components of the Project are (1) extension of the existing 72 meters of deepwater wharf by about 50 meters, (2) provision of limited facilities and equipment for container handling, (3) reconstruction of seawall protection works, and (4) engineering services.

On completion, the Project will provide better and more economical services for ocean-going ships calling at the Port, and will reduce the waiting time of ships and cargo-handling time along the berth.

In addition to the direct benefits from improved Port facilities, the Project will provide considerable support to the development and expansion of a number of local export-oriented industries, namely palm oil, rice, fish and timber.

The Project will be implemented during 1978-1980 with the Solomon Islands Ports Authority (SIPA) as the Executing Agency.

The Bank's technical assistance grant will also be executed by SIPA and is intended to cover the foreign exchange costs of engaging the services of (1) a port operations and shipping expert, and (2) a financial analyst, for a total of four man-months.

This technical assistance is expected to lead not only to an improvement of the existing tariff structure but also to a strengthening of the Port's financial management and accounting capability.

The Solomon Islands comprises a scattered archipelago of mountainous islands and coral atolls, stretching about 1,500 km. in a south-easterly direction from Papua New Guinea. The total population of the islands is estimated at 196,800 (February 1976 census), of which about 8 per cent

live in Honiara.

## PROJECT INFORMATION

The information given hereunder is intended to provide prospective suppliers, contractors, consultants and other interested persons with general information concerning the project. Detailed information may be obtained from the Executing Agency indicated below. The particulars given with respect to "consultants" and "procurement" are based on present project planning and may change in course of project implementation as the circumstances require.

Project: Honiara Port Development Project

Country and Location: The Solomon Islands at Honiara on the Guadalcanal Island

Project Description: The project involves—(1) the extension of the existing 72 meters of deepwater wharf by about 50 meters, (2) the provision of limited facilities and equipment for container handling, (3) the reconstruction of seawall protection work, (4) the engineering services for detailed engineering design and construction supervision and the strengthening of the engineering capabilities of the Solomon Islands Ports Authority (SIPA).

Total Cost: Estimated at \$2.73 million, of which \$2.03 million is the foreign exchange component.

Bank Loan: \$2.03 million from the Bank's Special Funds resources. Amortization is 40 years, including a grace period of 10 years.

Date of Approval: 9 December 1977

Other Sources of Finance: The Government of Solomon Islands and SIPA

Borrower: The Government of Solomon Islands

Executing and Procurement Agency: Solomon Island Port Authority

### Consultants:

(1) Consultant services will be required (a) for preparation of detailed engineering design, tendering and construction supervision, and (b) to assist the Executing Agency in project implementation and in establishing an adequate engineering capability. For detailed engineering and tendering, a port engineer and a port (coastal) engineer will be required for 8 months and 4 months, respectively. For construction supervision, a port engineer will be required for 18 months. To assist in project implementation, an engineering expert will be required for a total of 7 months, spread over six visits during a span of 2-1/2 years.

(2) The consultants will be selected and engaged in accordance with the Bank's guidelines on Uses of Consultants.

### Procurement:

(1) Civil work contracts will involve (a) extension of the deepwater wharf (about 50 m. steel pipe supported margin-

al wharf), and (b) seawall protection works (approximately 820 m.). Each civil works contract estimated to cost \$100,000 or more will be awarded on the basis of international competitive bidding in accordance with the Bank's Guidelines for Procurement.

(2) The project will also involve works for the container shed and stacking area which will be carried out by a prequalified local contractor, in accordance with procedures and specifications satisfactory to the Bank.

(3) Procurement of container handling equipment (4 units of short masted forklift trucks) will be carried out under international shopping procedures, i.e. after inviting bids from a reasonable number of suppliers from more than one eligible source country.

(4) Procurement is expected to start in the second quarter of 1978.

Estimated Date of Completion: 31 July 1980.

## New Berthing and Fire Fighting Tug

Penang, Malaysia, July, 1977 (The Penang Port Commission):—The Penang Port Commission has placed an order for the construction of a new berthing and fire fighting tug with the Penang Shipbuilding Corporation Sdn. Berhad. The local shipyard won the contract from among a field of international ship builders.

The Commission presently has two berthing and fire fighting tugs. The purchase of an additional tug is essential to supplement the present towage fleet by 1978 when more berthing and unberthing movements are expected with the completion of the Sixth berth and Vegetable Oil Tanker Pier at Butterworth Wharves in 1978 and the Bulk Cargo Terminal at Prai in 1979.

The new twin screw tug of 2,000 B.H.P. with a bollard pull of 25 tons has much greater power than the present two tugs of 1320 B.H.P. and 1200 B.H.P. respectively. This is to cater for the bigger sized ships which needed the assistance of tugs with correspondingly greater power.

## Port Surcharge Postponed

Karachi, Pakistan. August 15th to 31st, 1977 (KPT News Bulletin):—The Karmahom Conference Lines are understood to have decided to postpone the additional port surcharge for an indefinite period.

This has been done through the efforts made by the administration headed by Mr. Ardasher Cowasjee. Adviser to the CMLA on Port and Shipping. Besides, the congestion of ships at the port has also been reduced.

The overall waiting period for vessels calling at the Karachi Port has been brought down to 20 days.

The turn-round position at the port has improved greatly and is much better than neighbouring ports of Bombay, Colombo or the Persian Gulf ports.

It may be mentioned here that the Karmahom Conference had first decided to postpone the implementation of the decision to impose the additional port surcharge till August 15.

The Karachi Port Trust had earlier expressed its resentment over the arbitrary imposition of port detention

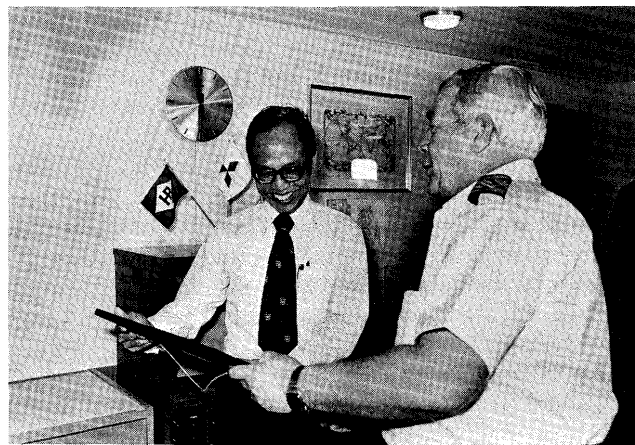
surcharge by the conference lines in respect of the cargoes lifted by their vessels to and from Karachi.

According to a KPT Press release, on June 18 last, the conference had convened its decision to reduce the import surcharge from 15 to 10 per cent with effect from June 21 last.

During the month of June and upto the third week of July, the congestion at the port had virtually eased. The waiting time for alongside vessels and for vessels berthed in abreast position was well within the tolerance limits. There were periods during which there was in fact no waiting time at all.

Whereas the lines acknowledged the fact that the out-turn rate at the port was improving and the waiting time was eliminated, they sought longer evidence. Under these pretexts the surcharge level, as announced on June 18, 1977 continued to exist.

With the heavy incessant rains in Karachi, however, the waiting time at the port suddenly increased. The dock labour demands were settled and a number of additional items have been brought under the incentive scheme and the out-turn at the port has shown positive trends towards improvement.



### MAIDEN VOYAGE

M.S. "MENELAUS", Blue Funnel Lines' newbuilding arrived at the PSA Keppel Wharves on 5 Dec. 77 on her maiden voyage to load some 500 tonnes of used steel pipes for the USA. "MENELAUS", built at Nagasaki, Japan this year was accorded a special welcome by the PSA. A special ceremony was held on board the vessel to mark the maiden voyage. Mr. Chow Peng Tien, Assistant Director (Management Services) presented commemorative gifts to the Master of the ship, Capt G.A.W. Fisher, on behalf of the P.S.A. The Owners reciprocated with a painting of one of their vessels. The 164.6-metre long vessel besides catering for general cargo, can carry 76 reefer containers. She has a Gross tonnage of 10,443.

# Shipping and Ports in Korea (Extracts)

## Korea Maritime and Port Authority

### Foreword

Keeping abreast with the rapidly expanding national economy under the three Five-year Economic Development Plans since 1962, the traffic volume of export and import goods has skyrocketed, which demanded and resulted in the constant expansion of port capacity and development of port management and operation.

The traffic volume of those goods totaled 45 million tons in 1975, which was a whopping increase of 670 per cent over 6.7 million tons in 1965.

The port capacity and facilities have to be further expanded to meet the ever increasing cargo traffic volume estimated at 92 million tons in 1981, the target year of the Fourth Five-year Economic Development Plan, which starts in 1977.

By 1981, the government will invest a total of 251,248 million won, including \$121 million in foreign exchange, in the expansion and development of the nation's 43 major ports. The cargo handling capacity of the 43 ports will be increased by three-fold from 31 million tons in 1975 to 95 million tons in 1981.

The Korea Maritime and Port Authority will exert its utmost to develop the nation's ports and maritime transportation and will welcome helping hands and good advice by our friends for the sound development of port administration.

Kang, Chang Sung

Director General

THE KOREA MARITIME AND PORT AUTHORITY

### Brief History

- July 17 1948: Maritime and port affairs were under the administrative control of the Ministry of Transportation and the construction of ports was under the authority of the Ministry of Home Affairs.
- February 7, 1955: The Office of Marine Affairs under the Ministry of Commerce and Industry controlled the shipping, shipbuilding, fishing vessels and port administration.
- October 2, 1961: Shipping and port administration were handled by the Ministry of Transportation and the port construction was in charge of the Ministry of Construction.
- May 25, 1973: The Busan Port Authority was organized to control the shipping and port construction in Busan and Mugho, Kangwon-do.
- December 31, 1975: The Korea Maritime and Port Authority was organized to control under an integrated administration the shipping affairs and port development.

March 13, 1976: The office regulations of the Korea Maritime and Port Authority and its provincial office were promulgated.

## Maritime Transport

### Tonnage of Vessels

The tonnage of the Korean flag vessels aggregated 3,062,162 gross tons as of the end of February 1976, including 407 ocean-going vessels with 2,305,080 gross tons. The ocean-going vessels are 365 freighters with 1,589,111 gross tons and 42 tankers with 715,969 gross tons.

The ocean-going fleet was increased by 12.5 per cent annually during the First Five-year Economic Development Plan from 1962 to 1966 and by 32.4 per cent yearly from 412,000 gross tons in 1967 to 836,000 gross tons in 1971 for the Second Five-year Economic Development Plan.

The tonnage will be increased to 2,900,000 gross tons in 1976, the target year of the Third Five-year Economic Development Plan, and to 6,000,000 gross tons by 1981, the target year of the Fourth Five-year Economic Development Plan.

### Ships' Movement

The total number of the incoming and outgoing ships stood at 77,057 vessels with 43,893,000 tons in 1970, 75,747 ships with 54,294,000 tons in 1973 and 77,357 vessels with 70,189,000 tons in 1975.

Of the total, the ocean-going vessels were 8,126 ships with 29,968,000 tons in 1970 and 16,565 vessels with 51,202,000 tons in 1975, representing an annual increase of 16 per cent in terms of the number of vessels and 11 per cent in tonnage during the 1970-1975 period.

The movement of coastal ferryboats was also increased from 68,931 boats with 13,925,000 tons in 1970 to 60,792 ferries with 18,987,000 tons in 1975.

On the international liner services, two 6,000-ton freighters are put on service to and from Singapore six 10,000-ton vessels to and from New York, three 8,000-ton vessels to and from San Francisco, and one 20,000-ton container ships to and from the North America.

### Cargo Traffic

The sea-borne cargo transport was increased by an annual average of 15.6 per cent in overseas shipping and by 6.2 per cent in coastal shipping during the 1970-1975 period.

The in-bound and out-bound cargo transport totaled 45 million tons in 1975, a whopping increase of 670 per cent over the 6.7 million tons in 1965. The cargo transport is expected to rise to 92 million tons in 1981.

Of the total cargoes, the Korean flag vessels are expected to ship about 50 per cent in 1981, compared with 33 per cent of the total in 1975.

Major items of incoming cargoes will be crude oil, logs, grains, fertilizer and mineral ores, while major outgoing cargos will be cotton goods, plywood, electronic and electric appliances and other manufactured goods.

(Continued on next page bottom)

# MOL Container Vessel on Maiden Voyage

## PSA Press Release

Singapore, 9 December 1977:—m.v. "THAMES MARU", the latest addition to Mitsui OSK Lines' (MOL) container-ship fleet arrived in Singapore on 27 Nov. 77 as part of her maiden voyage round the world which began from the Port

(Continued from page 67)

### Container Traffic

The container transport has been increased since 1970, when it amounted to 287,000 tons. The container traffic was increased to 455,000 tons in 1972, to 1,726,000 tons in 1974 and to 3,672,000 tons in 1975. The proportion of the container cargoes to the general cargoes was increased from 2.8 per cent in 1975.

To facilitate the container cargo traffic, piers have been constructed and developed for the exclusive handling of containerized goods in Busan and Incheon ports.

### Passenger Transport

The international passenger traffic has been increased rapidly due to the booming Korea's tourist industry. The international passenger ferry service carried a total of 12,000 persons in 1966, 51,000 persons in 1974 and 48,000 persons in 1975.

The coastal passengers totaled 5,909,000 persons in 1966, 6,170,000 persons in 1974 and 5,988,000 persons in 1975.

A total of 147 ferryboats, with 16,122 gross tons, has been on coastal passenger ferry service on 121 regular lines and 22 special lines.

The ferry service connects with 461 islands of the total remote 700 islands scattered around the Korean peninsula.

## Port Capacity and Facilities

### Port Facilities

The Korean peninsula, surrounded by sea east, west and south, has a total of 16,864 km of coastline. The Republic of Korea, the southern half of the peninsula, has 12,796 km of coastline, including 5,563 km of the mainland coastline and 7,233 km of shoreline of islands. There are about 1,300 ports, big and small combined, along the coastline.

The ports have been classified into the First Class Ports and the Second Class Ports according to the importance. The First Class Ports are the 19 open ports for the international traffic, including Busan, Incheon, Gunsan, Mugho, Jeju, Ulsan, Pohang.

The Second Class Ports are 24 ports designated for the coastal ferry service and as harbor of refuge, including Samcheok, Dae Huksan-do island, Gomun-do ports.

### Cargo Handling Capacity

The cargo handling capacity of the nation's major ports has been increased to 31,830,000 tons in 1975, about 3.5 times the capacity of 9 million tons in 1961.

The cargo handling and berthing capability of the nation's ports have been expanded and developed under the three Five-year Economic Development Plans.

of Tokyo in late September. The 50,722 GRT vessel with a total capacity of 1950 TEUs, is the 13th fully cellular container vessel owned and operated by MOL.

With the addition of this new vessel, the third to be placed by the Lines in the Trio Consortium's fleet, the Trio group's service between Europe and Japan/Far East including Singapore is handled by a total of 19 third-generation containerships.

The Trio Consortium, comprising five leading shipping lines from Japan, United Kingdom and West Germany (MOL, Nippon Yusen Kaisha (NYK), Overseas Containers Ltd. (OCL), Ben Line Containers (BLC) and Hapag Lloyd (HL)) is one of the larger users of the PSA Container Terminal.

The local agents Mitsui OSK Lines (Singapore) Pte. Ltd., held a reception on board the vessel to commemorate the maiden trip of the "THAMES MARU". During the reception gifts were exchanged between the Port Authority and the owners.



Picture shows Capt. T. Kaneko, Master of "THAMES MARU" and Mr. Tan Hock Lye, Secretary (Administration), PSA with the commemorative pewter tray from the Port Authority.



Picture shows (from left) Messrs H. Kanai, Managing Director, M.O.L. (Singapore), Tan Hock Lye, Secretary (Administration), PSA, Capt. Kaneko Master, and Lim Chit Soo, General Manager, M.O.L. (Singapore) during the maiden voyage reception onboard the "THAMES MARU".

# Port of *Kure*



The world's largest tanker "NISSEI MARU" (484,337 DWT) assisted by a fleet of 4,000 B.H.P. tugs sides up to discharge a full cargo of valuable Arabian Light at the world's largest (6.6 million tons) storage farm. All are owned and operated by our group of companies. The investment is indicative of the Group's positive outlook and, confidence in the future of the petroleum, tanker and related industries and, as the trained eye will evaluate, we are well prepared to meet the demand for oil in the coming upsurge in the world economy.

**TOKYO TANKER CO., LTD.**



# MITSUI Computer Control System for Container Terminals

**Huge piles of data!  
How do you process them for efficient  
handling of containers?**

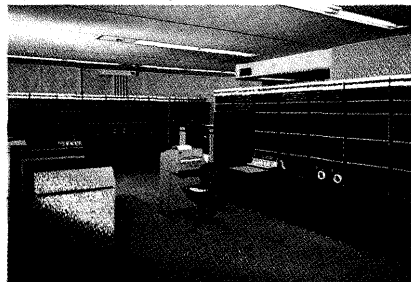
Our System can help solve your problems and enable you to reap the true benefits of container transportation.

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.

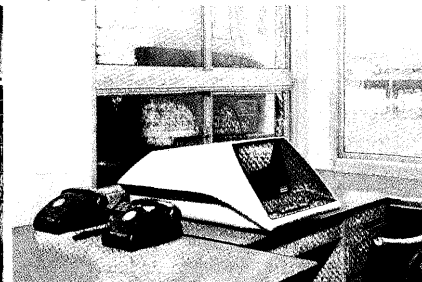
## Major Application Software

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

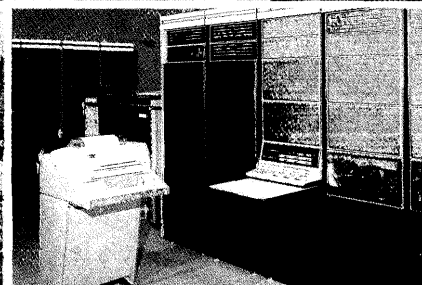
COMPUTER ROOM



GATE OFFICE



OPERATION ROOM



CENTRAL CONTROL UNIT



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Systems Headquarters Marketing Dept. Tel. (03) 544-3272

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Hong Kong, Singapore, Rio de Janeiro