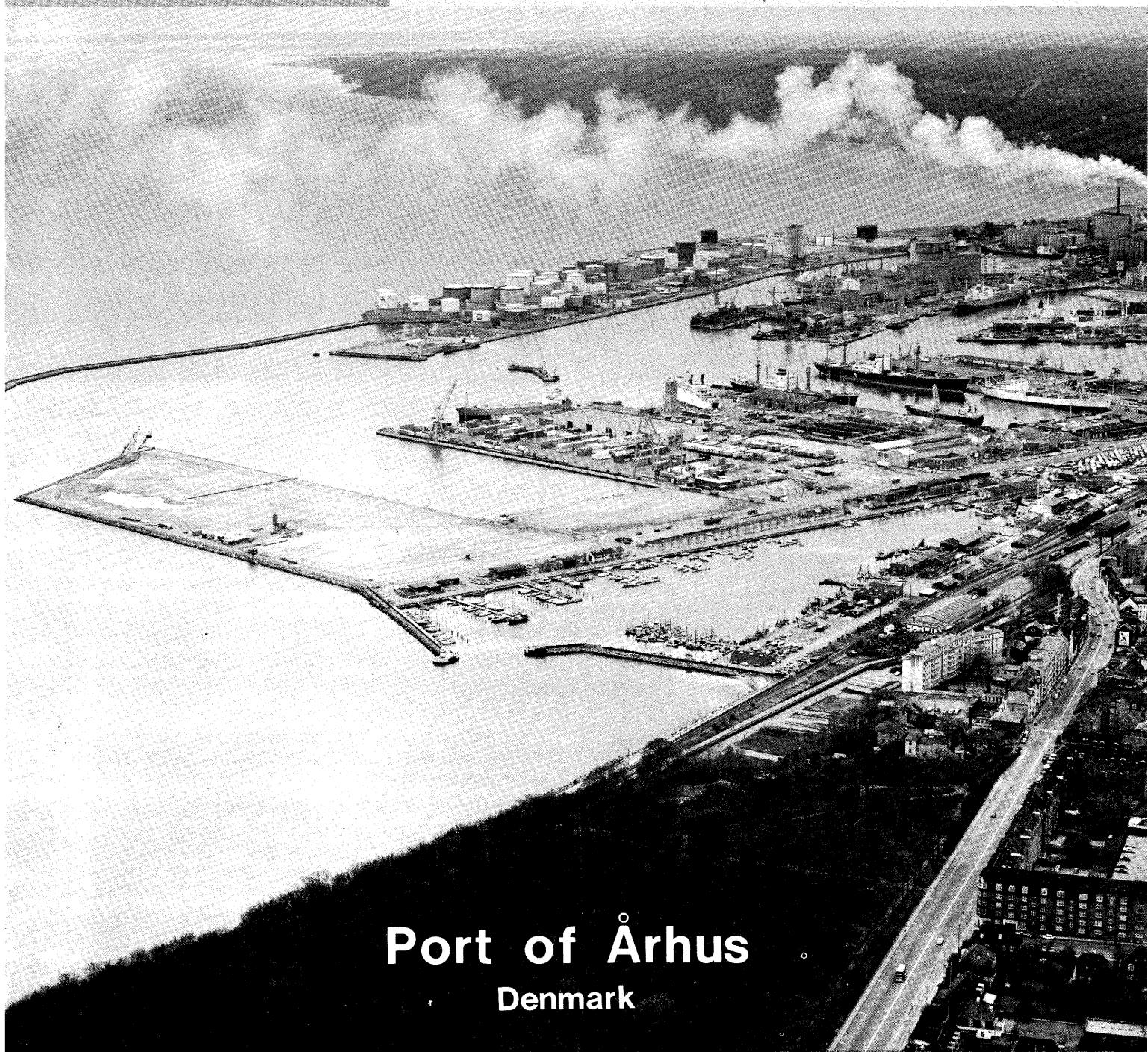


PORTS *and* HARBORS

November, 1973 Vol. 18, No. 11



Port of Århus
Denmark

The Publisher: The International Association of Ports and Harbors

Kotohira-Kaikan Bldg., 1, Kotohira-cho, Minato-ku,
Tokyo 105, Japan

PACECO MACH Systems give you



50% MORE PRODUCTION NOW MODULAR UNITS TO ADD AS YOU GROW AUTOMATION WHEN YOU NEED IT



Take a step into the future with basic MACH (Modular Automated Container Handling) Portainers® and Transtainers®. You'll get greater throughput, because these cranes are faster—they have hi-speed power packages and operate with less dependency upon the skill level of the operator. Low cost automation modules can be added step-

by-step as your volume increases to maximize the return on your investment and minimize the obsolescence factor.

Automation providing the lowest cost per container handled will be available when you need it with Paceco's MACH system. Don't buy cranes that are already obsolete. Plan on MACH.



PACECO

The Only Manufacturer Offering A Complete Line Of Container Handling Systems And Equipment With World-Wide Sales And Service.

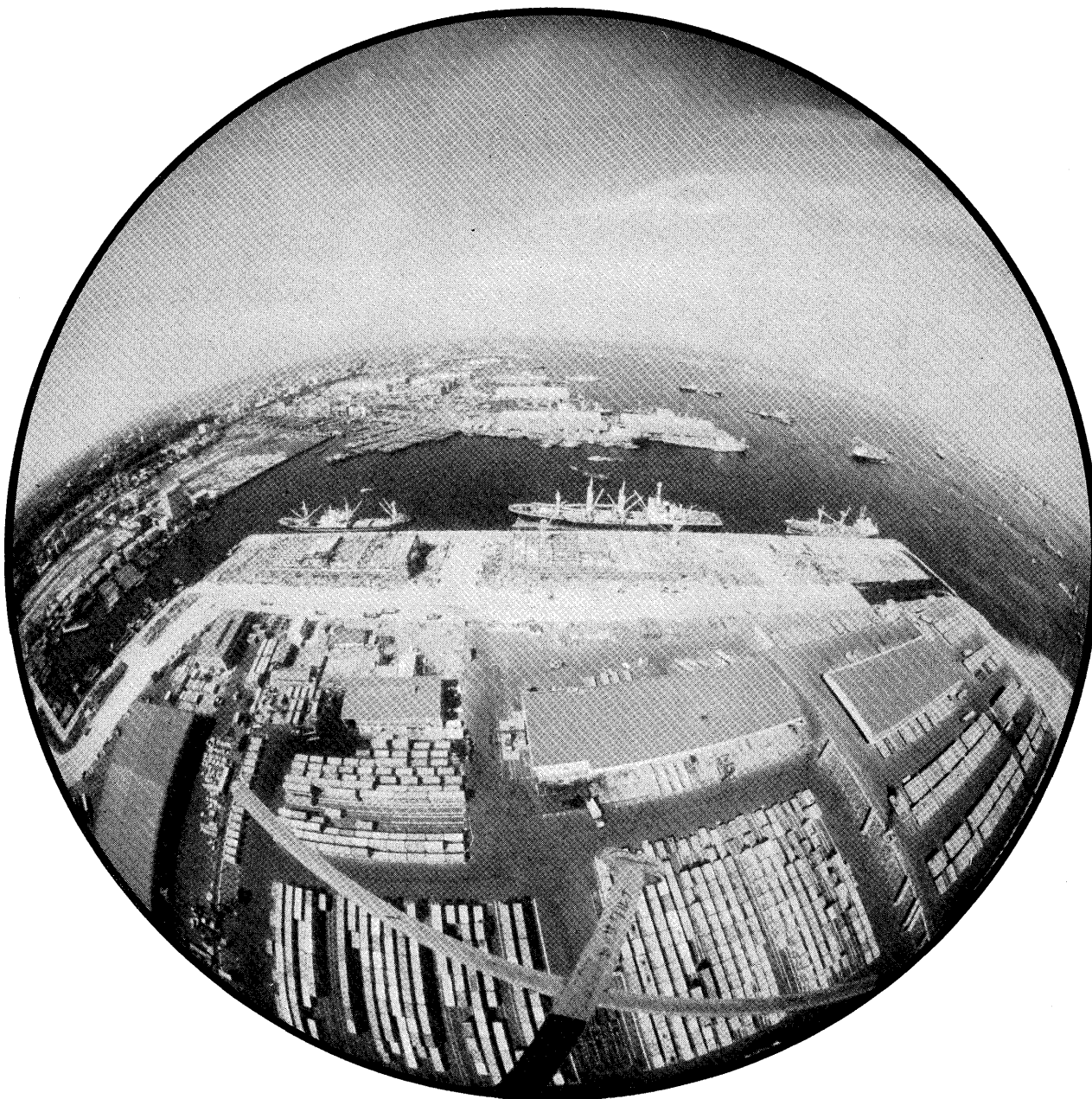


Contact **PACECO** or your nearest licensee. Dept. 24-L—**Headquarters:** Alameda, California 94501—(415) 522-6100—Telex 335-399. **European Sales Office:** PACECO INTERNATIONAL LIMITED, London. **Australia:** VICKERS HOSKINS PTY, LIMITED, Bassendean. **Brazil:** MECANICA PESADA, S.A., Taubate, S.P. **Canada:** DOMINION BRIDGE COMPANY LIMITED, Montreal. **France:** ATELIERS ET CHANTIERS DE BRETAGNE, Nantes. **India:** BRAITHWAITE & CO., LTD.; Calcutta. **Italy:** REGGIANE O.M.I. S.p.A., Reggio Emilia. **Japan:** MITSUI SHIPBUILDING & ENGINEERING CO., Ltd., Tokyo. **South Africa:** DORMAN LONG (AFRICA) LIMITED, Johannesburg. **Spain:** FRUEHAUF S.A., Madrid. **United Kingdom:** VICKERS LIMITED, London.

The difference between power and sail

Ports like this remind us that not so long ago wind determined the destination. Punctual liner services all over the seas reflect the changes steel has made to our world.

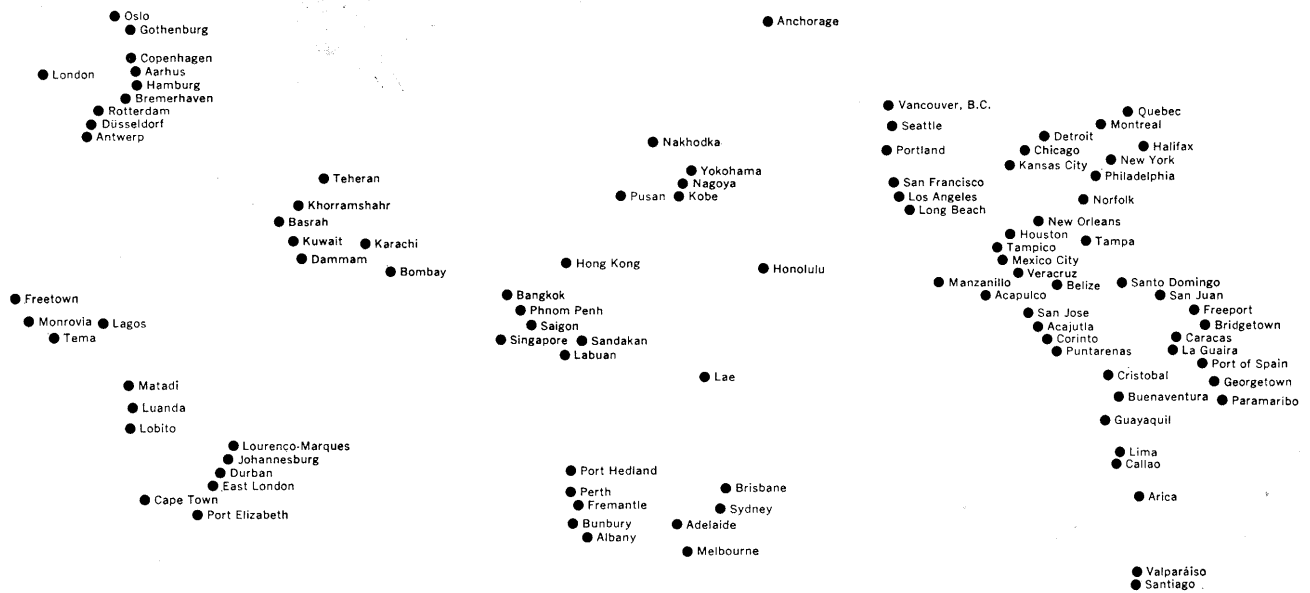
Good steel—an essential ingredient of progress.



Nippon Steel Corporation 6-3, Otemachi 2-chome, Chiyoda-ku, Tokyo 100, Japan
Telex: 22291 Cable: NIPPONSTEEL TOKYO Phone: 242-4111 **Overseas Offices and
Subsidiaries:** New York, Los Angeles, Duesseldorf, Sydney, Singapore, Rio de Janeiro

NIPPON STEEL

"K" Line turns needs into realities.



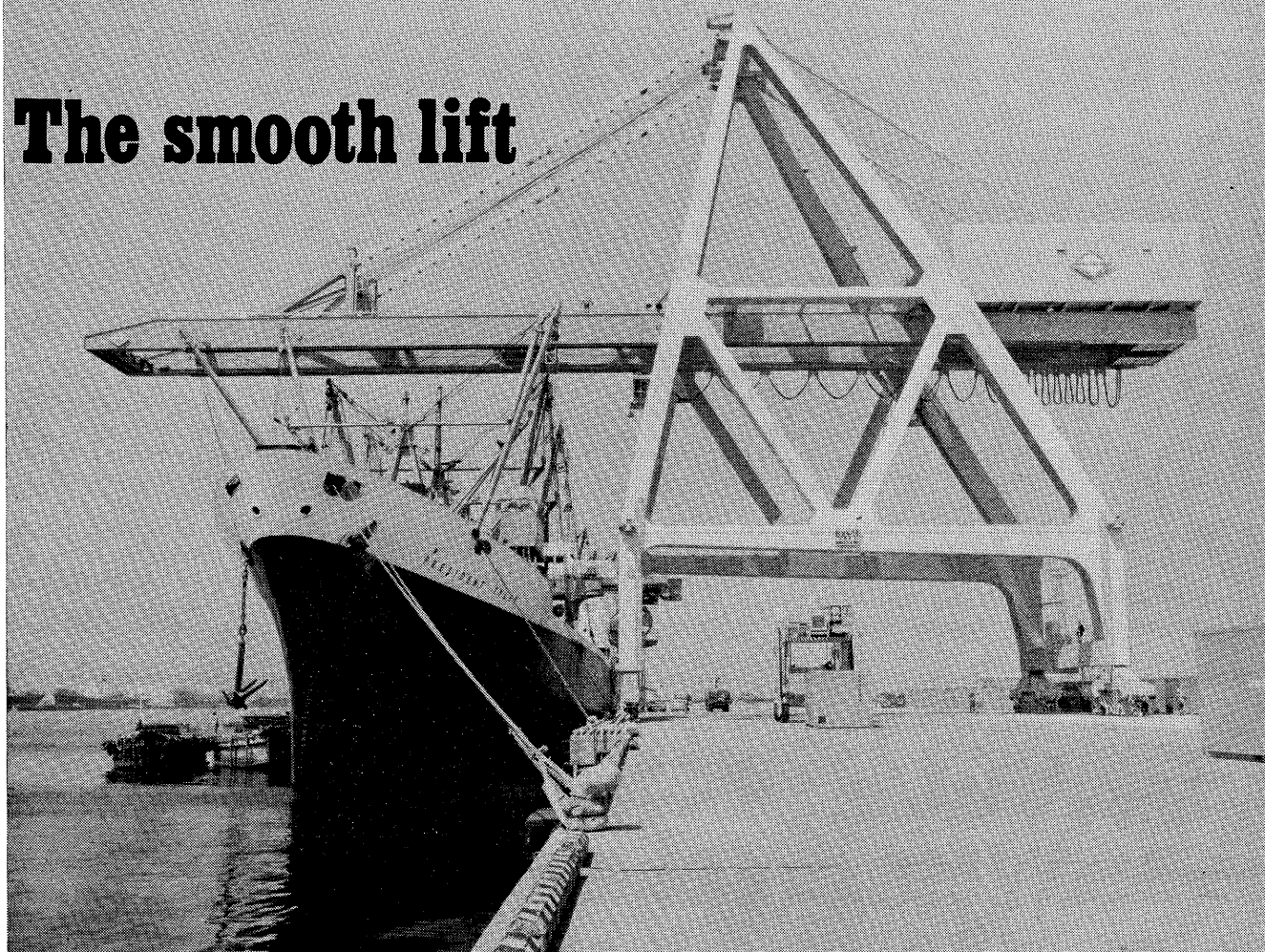
World-wide service, for example.

"K" Line has spread its service world-wide. In joint ventures with foreign flags, we're conducting important new shipping services. Answering the needs of freight owners, we're also conducting tramper, ore carrier and tanker services.

"K" Line turns needs into realities. And world trade is a little better for it.



The smooth lift



Gantry cranes from Mitsubishi

A good example of our latest crane technology is the 37.5-ton container and general cargo handling model above. (A 39-ton model of the same type is under construction now.)

It features reactor controls, automatic hoisting, trimming operation, and an all-welded construction that assures reliable performance for decades to come.

On the heavier side, we are now manufacturing 600-ton gantry cranes with two hooks of 300 tons each; and for lighter lifting, a 3-ton gantry deck model with man trolley.

As a variety of different gantry cranes in between.

You've got the cargo, we've got the lift for it.

Fast, economical, and safe.



MITSUBISHI
HEAVY INDUSTRIES, LTD.

Crane Section, Steel Structure Dept.
Head Office: 5-1, Marunouchi 2-chome, Chiyoda-ku, Tokyo



Elizabeth / Port Newark

America's 2,000 Acre Container Capital has turned the corner to greater and better container facilities

Now we stand ready to handle more new containerships with the necessary land and equipment. Also special and supporting facilities... coordinated into a great new intermodal complex for tenant use.

We welcome the two new container terminals of Maher Terminals, Inc. and Sea-Land Service which will be operating soon in this great new complex. One will have 2,400 feet of berthing space supported by more than 150 acres of terminal space. The other 4,519 feet supported by 232 acres.

And we salute the five major containership terminals of Sea-Land Service, International Terminal Operating Co., Universal Maritime Service, Atlantic Container Line and Pittston Stevedoring. These firms have been efficiently handling more than 6 million tons of cargo every year for the last several years.

The Port Authority of New York and New Jersey

Marine Terminal Department,
111 Eighth Avenue, New York, N. Y. 10011.

PORTS *and* HARBORS

Editor: Yoshio Hayashi

Published monthly by

The International Association of Ports and Harbors

N.G.O. Consultative Status, United Nations (ECOSOC, UNCTAD, IMCO)

President:

Robert L. M. Vleugels
General Manager, Port of Antwerp
City Hall, B-2000, Antwerp, Belgium

Executive Committee

Chairman:

Robert L. M. Vleugels
President, IAPH
General Manager, Port of Antwerp

Members:

Howe Yoon Chong
1st Vice President, IAPH
Chairman/General Manager
The Port of Singapore Authority

George W. Altwater
2nd Vice President, IAPH
Executive Director
Port of Houston

A. Lyle King
Immediate Past President, IAPH
Director, Marine Terminals
The Port Authority of New York
and New Jersey

Y. M. Raja Azam
Chairman
Kelang Port Authority

Robert Boeuf
General Manager
Port of Dunkirk Authority

W. E. Brotherson
President
The Maritime Services Board
of New South Wales

Ir. J. Den Toom
Managing Director
Port Management of Amsterdam

Dr. Chujiro Haraguchi
President
Japan Port and Harbor Association

Stanley Johnson
Managing Director
British Transport Docks Board

P. K. Kinyanjui
Chairman
East African Harbours Corporation

Fumio Kohmura
Vice President
Nagoya Port Authority

J. McConnell
Chairman
Fremantle Port Authority

Dr. Fernando Moreira
President, Administração
dos Portos do Douro e Leixões

Ben E. Nutter
Executive Director
Port of Oakland

Bruce Procopé
Chairman, Port Authority
of Trinidad and Tobago

Thomas T. Soules
Port Director
Massachusetts Port Authority

D. E. Taylor
Chairman, National Harbours
Board, Canada

Ralph K. Trimmer
Chairman
Northland Harbour Board, N.Z.

Gengo Tsuboi
Vice Chairman
The Japan Shipowners' Association

Secretary General:
Dr. Hajime Sato

Head Office:
Kotohira-Kaikan Bldg.
1, Kotohira-cho, Minato-ku,
Tokyo 105, Japan
Tel.: TOKYO (591) 4261
Cable: "IAPHCENTRAL TOKYO"
Telex: 02222516 IAPH J

November, 1973 Vol. 18, No. 11

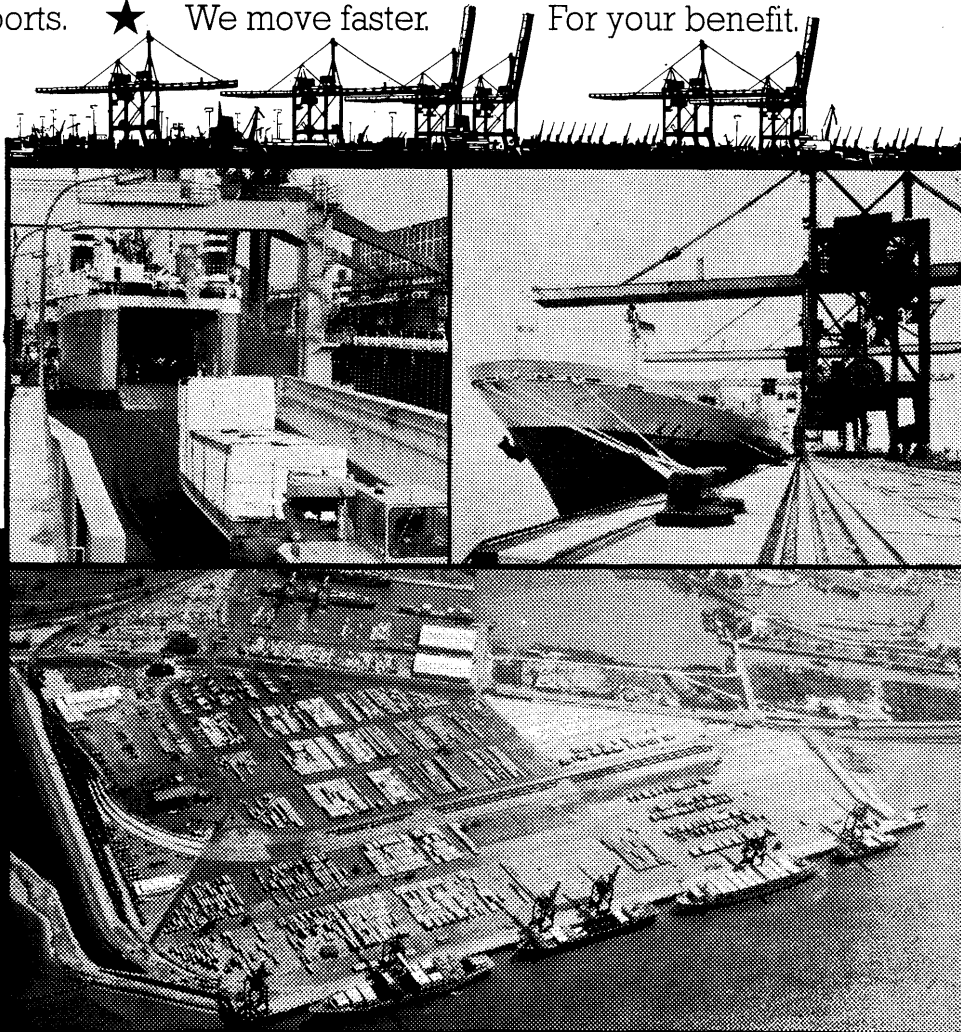
CONTENTS

	Page
IAPH Head Office Announcements:	7~11
IAPH Approved by UNCTAD as Consultative Status NGO—	
Follow-up Data of IAPH Resolution No. 8—Ir. F. Posthuma	
Retires—World-wide Navigational Warning System—IAPH	
Observer to ECAFE Meeting—Japanese Edition of	
Mr. Nagorski's Book —Delay of Proceedings	
Forum:	
Planning of Projects	
..... by J. F. C. Swansbourne, F. I. C. E.	12
Topics:	
Proposals to Control Levels of Lakes Superior and	
Ontario Need Clarification	
IAGLP, Toronto, Ontario, Canada	15
Statement by The Honorable Philip B. Hofmann,	
Commissioner of The Port Authority of N.Y. & N.J.	16
The Port of Lisbon within the Framing of the	
Portuguese-British Commercial Relations.....	22
Imbound U.S. Cargo Paper Cut Test	
Marine Exchange of The San Francisco Bay Region.....	27
Ports:	
A Close-up of a Port—Port of Århus, Denmark.....	19
B.T.D.B. Annual Report 1972	23
Rajang Port Authority Report for the Year 1971.....	24
Soya Export Ban Hits Port of Toronto's Tonnage	31
New China Terminal for Port of London Authority	37
Semi-Annual Report: Cargo Volume Increased 12%	
Port of Helsingborg.....	41
Orbiter Probe (International News):	29~43
The Cover:	
Port of Århus, Denmark, seen from the north. See also story on	
Page 19.	

Price US\$2.00 per copy
US\$20.00 per year

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.



***The Ports of
Bremen-Bremerhaven***

For details write to: Bremer Lagerhaus-Gesellschaft, 28 Bremen, Überseehafen, Phone 3 89 61, Telex 2 44 840
Bremer Lagerhaus-Gesellschaft, 285 Bremerhaven, Steubenstr., Phone 48 41, Telex 02-38722

PORTS *and* HARBORS

IAPH Head Office Announcements: Pages 7~11

IAPH Approved by UNCTAD as Consultative Status NGO

(See also page 7 of last issue)

Following our announcement in the October issue that IAPH's application for consultative status with UNCTAD as a non-governmental organization (ref. Page 13 of the July-August 1973 issue) was approved by the Trade and Development Board at its 375th plenary meeting on August 31st, the documentary information in this regard is further in this issue for the interest of IAPH members.

(1)

REF. No.: TDO 451

3 September 1973

Dear Sir,

I am writing to inform you that the Trade and Development Board at its 375th plenary meeting on 31 August 1973 considered and approved the report by the secretariat on the designation of non-governmental organizations under rule 79 of the Board's rules of procedure and their classification.

As you will see from the Annex to document TD/B/470 (a copy of which is enclosed for easy reference), your Organization has thereby been classified in the "Special" category and is henceforward entitled, under the terms of paragraph 12 (b) of Board decision 43 (VII) and in accordance with the decision of the Board at its 375th plenary meeting, to participate at meetings of the Committee on Shipping and at meetings of the Board itself when it has before it for consideration specific matters falling within the terms of reference of that Committee.

Your Organization will be included in the secretariat's mailing list to receive notifications concerning sessions of the Committee on Shipping and, as appropriate, concerning sessions of the Board. The Documents Distribution Service of the United Nations Office at Geneva has been asked to add your Organization to its mailing list and to send to you in future two copies (in English) of all documents issued for sessions of the Trade and Development Board and for sessions of the above-mentioned Committee and its subsidiary organs.

I look forward to collaborating with your Organization and with you personally on matters of common concern.

Yours truly,

Maniel Pérez-Guerrero
Secretary-General of UNCTAD

Secretary-General
International Association of Ports and Harbours
Kotohira-Kaikan Building
1 Kotohira-cho, Minato-ku,
Tokyo 105

The following texts comprise;

- (1) A letter from Mr. Manuel Pérez-Guerrero, Secretary General of UNCTAD, dated September 3rd 1973.
- (2) Relevant UNCTAD documents attached to the above letter.
- (3) A congratulatory message from Mr. W. R. Malinowski, Director Division for Invisibles, UNCTAD dated September 5th 1973.
- (4) The rule 79 of Rules of Procedure of The Trade and Development Board.

Any inquiries about the above are requested to be referred to the Head Office. (K. Yokoyama, Deputy Secretary General)

(2)

TRADE AND DEVELOPMENT BOARD

Thirteenth session

Geneva, 21 August 1973

Agenda item 12(a)

TD/B/470

29 August 1973

OTHER BUSINESS

Designation and classification of non-governmental organizations for the purpose of rule 79 of the rules of procedure of the Board

Note by the UNCTAD secretariat

1. Since the first part of the twelfth session of the Board the secretariat has received applications from the following non-governmental organizations:

European Committee of Sugar Manufacturers
International Association of Ports and Harbours
International Cargo Handling Co-ordination Association
International Savings Bank Institute
Miners' International Federation

2. In accordance with established

practice, the Secretary-General of UNCTAD consulted the Bureau of the Board on this matter.

3. The Bureau, after review, concurred with the recommendation by the Secretary-General of UNCTAD that the aforementioned non-governmental organizations be included in the list of non-governmental organizations provided for in rule 79 of the rules of procedure of the Board. The suggested classification of these non-governmental organizations into the General or Special Category is contained in the Annex hereto. Background information about the non-governmental organizations in question is contained in document TD/B/R.5 and addenda.

4. This matter is now submitted to the Board for decision.

ANNEX

1. Recommended for "General" category:*
2. Recommended for "Special" category for the UNCTAD organ (other than Board) indicated:**

Documents and UNCTAD organs

TD/B/R.5/Add.5

European Committee of Sugar Manufacturers

Committee on Commodities

Committee on Manufactures

TD/B/R.5/Add.1

International Association of Ports and Harbours

Committee on Shipping

TD/B/I.5/Add.2

* Board decision 43 (VII), paragraph 12 (a) reads as follows: "Organizations which exercise functions, and have a basic interest, in most of the activities of the Board and which would, therefore, be entitled to the rights provided for in rule 79 of the Board at meetings of the Board and under rule 78 of the Committees at meetings of all the Committees (to be known as organizations in the General Category)" (A/7214, Part Two, Annex I).

** Board decision 43 (VII), paragraph 12 (b) reads as follows: "Organizations which have a special competence in, and are concerned with, specific matters falling within the terms of reference of one or two Committees or of the Board itself and which would, therefore, be entitled to the rights provided for in rule 78 of the rules of procedure of the Committees concerned, and, when the Board has these specific matters under consideration, the rights provided under rule 79 of the Board (to be known as organizations in the Special Category)" (A/7214, Part Two, Annex I).

International Cargo Handling
Co-ordination Association
Committee on Shipping
TD/B/R.5/Add.4

International Savings Bank Institute

Committee on Invisibles and
Financing related to Trade
TD/B/R.5/Add.3

Miners' International Federation
Committee on Commodities

TRADE AND DEVELOPMENT BOARD

Thirteenth session

Geneva, 21 August 1973

Item 12 of the provisional agenda

TD/B/R.5/Add.1

10 July 1973

OTHER BUSINESS

DESIGNATION AND CLASSIFICATION OF NON-GOVERNMENTAL ORGANIZATIONS FOR THE PURPOSE OF RULE 79 OF THE RULES OF PROCEDURE OF THE BOARD

Addendum

Application by the International Association of Ports and Harbours Note by the UNCTAD secretariat

1. The secretariat of UNCTAD has received a letter dated 30 October 1972 from the Secretary-General of the International Association of Ports and Harbours requesting the inclusion of that organization by the Trade and Development Board in the list provided for in rule 79 of the Board's rules of procedure.

2. Having reviewed the information provided, the secretariat is of the opinion that, subject to the concurrence of the Bureau of the Trade and Development Board, the International Association of Ports and Harbours may be classified in the Special Category under the provisions of operative paragraph 12(b) of Board decision 43 (VII).

3. The Trade and Development Board may wish to take action on the application at its current session in the light of the recommendation of the Bureau of the Board.

4. An extract from the letter of application, as well as some information about the structure and functioning of the applicant non-governmental organization is given in the annex.

ANNEX

Extract from the letter addressed to the UNCTAD secretariat

"On behalf of the International Association of Ports and Harbours, I wish to submit herewith our application for consultative status with UNCTAD as a non-governmental organization...

I hope your Trade and Development Board would approve our application upon due consideration".
Structure and functioning of the International Association of Ports and Harbours (IAPH)

1. The membership of the International Association of Ports and Harbours is comprised of port organizations of various types in fifty-seven (57) nations. Membership may be **Regular, Associate or Honorary**, and the Board of Directors of the Association has the power to determine the classification of each. **Regular Members** of the Association consists of public and governmental departments, boards, commissions, agencies, authorities and organizations, and other bodies, whether public or private and whether incorporated or unincorporated, which, in the public interest, exercise powers, jurisdiction or authority or are charged with duties with respect to the planning, development or operation of one or more ports or harbours or with respect to the construction, operation or maintenance of piers, wharves, terminals, or other port or harbour facilities or improvements. **Associate Members** are of two classes: Class A are public and private corporations, individuals, boards, commissions, organizations, associations, and other bodies, other than those qualified to be Regular Members, who are interested in promoting the objects and purposes of the Association; Class B are individuals who are associates or employees of Regular Members or Class A Associate Members, or individuals who are not connected with a port related business for profit. **Honorary Members** are individuals who have rendered meritorious services in the field of port and harbour administration or development.

2. The chief executive body of the International Association of Ports and Harbours is the Board of Directors.

tors which determines its policies and generally supervises its business. The Board of Directors is composed of the President of the Association, the immediate past President, the First Vice President, the Second Vice President, one elective Director from each country represented by not more than ten Regular Members, two elective Directors from each country represented by more than ten and not more than twenty, three elective Directors from each country represented by more than twenty Regular Members, and one elective Director from each country represented only by one or more Associate Members.

3. The International Association of Ports and Harbours has an Executive Committee which represents it as its administrative body. This Executive Committee, which consists of ex-officio members and appointive members, meets as is required to discharge its duties. It has the power to:

- (i) represent the Association as its administrative body;
- (ii) compile and prepare proposed budgets of revenues and expenditures, and Conference agenda;
- (iii) administer the financial affairs of the Association in accordance with the budget, and make minor adjustments to it as necessary;
- (iv) make recommendations to the Board of Directors;
- (v) perform such other administrative duties and exercise such administrative powers as are given to it.

4. The Head Office of the International Association of Ports and Harbours is located at Tokyo (Japan)* and is composed of a Secretary-General, who is appointed by the Board of Directors, two Deputy Secretaries General, Under Secretaries and other staff.

5. The Secretary-General exercises such duties as usually pertain to the office of a Secretary of a legislative and administrative organization. He has, *inter alia*, the official care and custody of the records of the Association, charge of the collection of dues, the preparation of statements

of accounts, and makes recommendations to the Board of Directors and the Executive Committee with respect to budgetary matters, Conference agenda, committee work assignments and similar matters.

6. The Association also has four Special Committees for particular areas of work related to its objectives. These are the Committee on International Port Development; the Committee on Large Ships; the Committee on Containerization and Barge Carriers; and the Committee on Legal Protection of Navigable Waterways.

Aims and functions

7. The aim of the International Association of Ports and Harbours is to increase the efficiency of ports and harbours through the development and dissemination of information useful to port and harbour administrations and through providing them with an opportunity of associating together for the purpose of furthering knowledge in the fields of port organization, management, administration, operation, development and promotion.

8. In order to achieve this aim, the Association carries out the following:

- (i) the holding of conferences;
- (ii) the issue of documentation, including special publications concerning ports and harbours;
- (iii) the establishment of relations with other international organizations, associations and

agencies on matters of international interest concerning ports and harbours;

- (iv) the establishment of centers for the collection, tabulation and distribution of information;
- (v) the dissemination of information to ports and harbours, governmental agencies and private operators;
- (vi) the establishment of committees for reference purposes of members engaged in the organization, administration, development, operation, utilization, management or promotion of ports, harbours and other waterfront facilities.

Relationships with other organizations

9. The International Association of Ports and Harbours has consultative status (Category II) with the United Nations Economic and Social Council as well as with the Intergovernmental Maritime Consultative Organization. Further, it has working relationships with other United Nations bodies including UNCTAD, UNDP, ECAFE, ECA and ECLA. Other organizations with which it has working relationships include the International Cargo Handling Co-ordination Association, the Permanent International Association of Navigation Congress, the Customs Co-operation Council, the American Association of Port Authorities, the Interna-

(3)

REF. NO.: TD 606/5

5 September 1973

Dear Sir,

May I extend my heartiest congratulations to your Association for its inclusion in the UNCTAD list of non-governmental organizations having an interest in matters that fall within the terms of reference of the Committee on Shipping.

I look forward to close co-operation with your Association and with you personally on matters of mutual interest, and have no doubt that the Committee on Shipping will benefit from the participation of your Association in its future meetings.

Yours faithfully,

W. R. Malinowski
Director
Division for Invisibles

Secretary-General
International Association of Ports and Harbours
Kotohira-Kaikan Building
1 Kotohira-cho, Minato-ku,
Tokyo 105 Japan

* Kotohira-Kaikan Building, 1 Kotohira-cho, Minato-ku, Tokyo 105.
Cable address: IAPHCENTRAL, Tokyo.

tional Chamber of Shipping.

Budget

10. The Association's sources of revenue are membership dues, contributions, donations and income from its publications. Budgets are prepared on a biennial basis, and the fiscal year is the calendar year.

Reports and other documentation

11. The Association has a monthly organ, with a circulation of about 5,000, called **Ports and Harbours**. Also, it publishes **Conference Proceedings** biennially as well as various Committee reports. The **IAPH Membership Directory** is published annually.

(4)

XV. Observers for non-governmental organizations

Rule 79

1. Non-governmental organizations concerned with matters of trade and of trade as related to development referred to in paragraph 11 of General Assembly resolution 1995 (XIX) may designate representatives to sit as observers at public meetings of the Board, its sessional committees and subsidiary organs. The Secretary-General of the Conference, in consultation with the Bureau of the Board, shall from time to time prepare a list of such organizations for the approval of the Board. Upon the invitation of the President or Chairman, as the case may be, and subject to the approval of the Board or of the subsidiary organ concerned, non-governmental organizations may make oral statements on matters within the scope of their activities.

2. Written statements provided by non-governmental bodies referred to in paragraph 1 above, related to items on the agenda of the Board or of its subsidiary organs, shall be circulated by the secretariat to members of the Board and the subsidiary organ concerned.

Follow-up Data of IAPH Resolution No. 8

Hoping this may help keep you informed of the contacts being made about Resolution No. 8. We herein introduce to you one more letter as part of the follow-up reference (Continued on Next Page Bottom)

OUR REF: AJS/LA-O/5

7th September, 1973

Dear Dr. Sato,

I.A.P.H./I.M.C.O.

You will wish to know that today, 7th September 1973, Mr. B. Golds and I commended I.A.P.H. Resolution No. 8 on Legal Protection of Ports and Navigable Waterways for consideration by the Legal Committee of I.M.C.O.

The Legal Committee took note of the Resolution and resolved to take the views it expressed into account in their work relating to the subjects of wreck removal and the review of the 1957 Shipowners' Liability Convention.

In our presentation of the Resolution and arising therefrom a number of points are pertinent, as follows:—

- (a) The urgency and applicability of the case presented by port authorities may well be determined by the statistics of navigation accidents occurring in port areas and the extent to which port authorities suffer as a result of these accidents. It would therefore be helpful if you could circularise your members on this matter at an early date with a view to presenting appropriate background information to I.M.C.O. in support of the Resolution.
- (b) The Liberian representative asked whether port authorities would also be willing to subscribe to the principle and practice of unlimited liability when considering a situation of a shipowner's ability to claim for damages against a port authority. There are, as you are aware, occasions when a sinking may be attributable to faulty direction on the part of a harbour authority.
I would welcome your advice on this matter and indeed, any information you have on the subject of wreck removal insurance taken out by port authorities.
- (c) A representative of the international organization of Marine Insurers asked whether I.A.P.H. had considered the applicability of a ceiling on the amount of compulsory "unlimited" insurance to be carried by vessels. Our response necessarily to the question, there being no instructions on the matter, took the form of laying stress on the principles of insuring against wreck. You may wish, however, to advise me whether detailed consideration has been given to this matter by I.A.P.H.

I look forward to hearing from you on the foregoing matters.

Yours sincerely,

A. J. Smith

Hajime Sato

Secretary General

The International Association of Ports and Harbors

Kotohira Kaikan Bldg.,

1 Kotohira-Cho, Minato-ku, Tokyo 105 Japan

c.c. R.L.M. Vleugels, President of IAPH

Ir. F. Posthuma Retires

Concerning the information that Ir. F. Posthuma, General Manager of the Port of Rotterdam, would retire this fall, you are referred to page 17 of "Ports and Harbors" July-August, 1973 issue to find an article entitled "Presentation to Ir. F. Posthuma By A. L. King, President, IAPH."

Another tribute to Ir. F. Posthuma is given as introduction to the 1973/3-4 issue of Rotterdam-Euro-poort-Delta, as below:

"Ir. F. Posthuma will retire as Managing Director of the Municipal Port of Rotterdam on October 1, 1973.

"In this post he has made a major contribution to the post-war development of the Port of Rotterdam. This development has not only made Rotterdam-Europoort the busiest port in the world, but also a universally accepted stand-

data.

In the last issue we published a letter from Mr. Savelier, Secretary, Maritime Safety Committee, IMCO, dated August 10th 1973 (Ref. page 8) informing.

1) that Resolution No. 7 (Water Pollution in Port Areas) will be considered by the Maritime Safety Committee at its 28th session (17-21 Sept. 1973); and

2) that Resolution No. 8 (Legal Protection of Navigable Waterways) will be considered by the Legal Committee at its 20th session (3-7 Sept. 1973) (IMCO Document LEG XX/6 11 Sept. 1973 Agenda Item 6)

Following is a report (Ref. AJS/LA-O/5) from Mr. A. J. Smith, our Liaison officer to IMCO who covered the above 20th session of the Legal Committee on behalf of IAPH together with Mr. B. Golds.

Upon receipt of this Smith report, President Vleugels promptly contacted Mr. Pages, Chairman of the Special Committee on Legal Protection of Navigable Waterways inquiring about the steps to be taken by his Committee. (K. Yokoyama, Deputy Secretary General)

ard for an up-to-date, efficient port management, oriented towards the future.

"In this issue Ir. Posthuma makes a survey of mondial developments and emphasises the role which seaports can play in actively supporting the Third World. The editors feel it is in the readers' interest to learn of the views of a man who, through his position as managing director of a world port, has shaped developments by his own vision and effort."

World-wide Navigational Warning System

The chances are that a small discussion group of IMCO will meet to debate on the above subject in November at London, if things develop as we expect, and IAPH may be given an opportunity of presenting its views either in the form of a paper, or through an IAPH representative attending this meeting.

Members interested are encouraged to be prepared for such a development by conveying individual views in a letter to Mr. Vleugels, President, with copies to Mr. Smith, BPA, and the Head Office. (For the details of the points of discussion, kindly refer to pages 15-16 of the September issue of this monthly.) (Katsuya Yokoyama, Deputy Secretary General)

IAPH Observer to ECAFE Meeting

President Vleugels has, in his letter of September 20, 1973, appointed Mr. Newly I de Rozario, the First Secretary of the Singapore Embassy at Bangkok to observe on behalf of the IAPH, the ECAFE's Tenth Session of the Water Transport Sub-Committee which is to be held at Bangkok from October 31st to November 7, 1973.

This arrangement has been made possible through the good offices of Mr. Howe Yoon Chong, 1st Vice-President, IAPH, Chairman/General-Manager of the Port of Singapore Authority, in response to President Vleugels's request. (R. Kondoh, Under Secretary)

Japanese Edition of Mr. Nagorski's Book

Japanese version of "Port Problems in Developing Countries" by Bohdan Nagorski was published by the Japan Port and Harbour Association, on September 20, 1973, and is now available at ¥2,000 per copy. Purchase order should be addressed as follows:

The Japan Port and Harbour Association

Kotohira-Kaikan Building, No. 1, Kotohira-cho, Minato-ku, Tokyo 105, Japan

The translation of the book was made Mr. Toru Akiyama, Secretary General Emeritus, and Dr. Hajime Sato, Secretary General. (R. Kondoh, Under Secretary)

The 8th Conference Proceedings

"The issuance of the 8th Conference Proceedings is delayed due to some unforeseen mishaps. As for the date of its issuance, it will be announced later." (Secretary General)

Planning of Projects

by J. F. C. Swansbourne, F. I. C. E.

Reprinted from IADC Journal "Terra et Aqua" 3/4

Mr. J. F. C. Swansbourne, F.I.C.E. is a Partner of Posford, Pavry & Partners, Consulting Engineers. His chief fields of activity are harbour works, offshore construction, bridges and railways. During the war he assisted on the construction of gun towers in the sea off the U.K. coast and on the construction of floating docks in reinforced concrete. In more recent years he has carried out project investigations in African and Middle Eastern countries and has been concerned with many bridges across the Tigris and Euphrates in Iraq.

As consultant to the Milford Haven Conservancy Board he has administered the channel improvement project required for the navigation of large tankers-described fully in TERRA 1-and has recently researched into the development of facilities to receive the next generation of crude carriers.

Introduction

Planning can be said to admit of wide definition and to encompass all phases of a project from the conceptual stage to the completion of the works. Planning demands attention from government departments, local authorities, clients, engineers and contractors in respect of their particular activities, be these in connection with master plans, project research and evaluation, the raising of capital, the preparation of detailed designs and documents or the administration and construction of the works. This paper is mainly concerned with the particular aspects which should come within the orbit of the consulting engineer.

Planning is in essence a study of the ways and means of achieving an objective in the most economic and expeditious manner and to the client's satisfaction, whilst having regard to the demands of the environment and of public opinion. In

short, it means getting the design right and ensuring smooth co-ordination and good co-operation between all parties who may from time to time be concerned with the project. In the context of civil engineering one can look back and perhaps remark upon the simplicity with which projects appear to have been planned and organized in the last century.

Large works were carried through with what must have been the minimum of engineering staff and with greater authority vested in fewer people. Proof of viability must have been less exacting, codes of practice simpler, and public relations less onerous. The word 'environment' in its widest sense was almost unused. There was less intervention at all levels from government departments down through district authorities to one of the latest examples of modern democracy—the local residents' association. Even these last can now extend their influence beyond the shoreline to the limit of their vocal capacity and affect the operation of a dredging contract.

The initial objective of planning is to produce an arrangement which is viable and at the same time acceptable to the relevant sections of the community. For national and international projects, this early stage takes time to complete as so many parties and interests are involved. For private enterprise, however, the interests are usually more local and more readily satisfied, and the main parameters become those of cost and speed of development so as to produce an early financial return. For large civil engineering projects and particularly those with industrial connotations, technology has given us a great variety of materials with which to work, and numerous disciplines to co-ordinate in both design and construction. In consequence, the business of planning

can become highly complex.

A dredging project, by comparison, can appear deceptively simple, particularly when it is viewed as lines on a drawing which identify a hole in the ground that will never be seen and cannot be insured. The very simplicity of the drawing tends to belie the research, thought and judgement that should have been associated with its preparation and to detract from an appreciation of the risks which the contractor may encounter during the execution of the works.

This simplicity in the design may also lead to an over-simplification of the tender and contract documents causing a number of risks either to be foreseen and priced in the offer, or to be met unforeseen during the course of the works and become the subject of substantial claims. A project that has been over-simplified in this way will almost inevitably cost more than it should, either by the pricing of unnecessary risks in the tender, or by the subsequent overcoming of difficulties during execution which, with proper research and documentation, might be avoided.

Good research and contract documentation therefore are the prerequisites of any dredging project as much as they are in any other type of work.

They assist the contractor to tender and to plan the conduct of his work efficiently and enable the contract to be properly administered. With the object of removing as many uncertainties as possible, the tender document should contain as much information as can reasonably be provided by the engineer without undue cost to the client. This should be supplemented by as much information as the engineer can produce on wind and sea state and perhaps other matters which may be helpful to the contractor but which is given in good faith and should be suitably qualified by a special condition of contract which protects the client against claims.

Documentation

The tender documents may beneficially contain reference to the following matters.

1. A plan of the dredging and/or reclamation which should be clearly dimensioned. If possible, the alignment or borders of the areas to be dredged, should be co-ordinated with

respect to the national or local arbitrary grid. In the case of harbours, fixed reference marks or survey points should also be shown with their appropriate co-ordinates. The requirement for depth and for side slopes should be clearly specified. An omission of a definite requirement for side slopes leads to uncertainty during tendering and later irritation.

2. Hydrographic and geophysical surveys to suitable scales. 1:2500 is common for hydrographic work in harbours but 1:1250 or 1:500 should be used in complex areas involving rock. The accuracy of geophysical surveys where rock lies beneath overburden seldom justifies a scale larger than 1:1250 but hydrographic surveys of exposed bedrock justify the larger more detailed scale of 1:500.

3. Wind, visibility and sea state records should all be given for an appropriate period if they are available and if the conditions to which they relate are likely to affect the contractor during the course of the works.

4. Boreholes, with laboratory report on overburden and rock characteristics. Clients should note that 1% of the likely project estimate is not an excessive expenditure on this item where complex substrata occur.

5. Chart datum and tidal information on the area concerned. These may vary from place to place in a long tidal channel or across a large estuary.

6. If wrecks, large metal debris, or missiles are likely to be present on the sea bed, a magnetometer survey should be carried out and followed by a diver's inspection.

7. The location of the spoil ground and any restrictions that may be imposed on its use.

8. Local harbour regulations or requirements.

9. The limitations which may need imposing on blasting because of vibration to structures or shipping; restrictions regarding noise of drilling pontoons and dredgers in operation, particularly at night; and if blasting is to be carried out in the vicinity of tankers with electronically automated valve gear then reference should be made to their presence and the arrangements for paying for reduced output or demurrage should be specified.

10. The requirements for a post-dredging survey including the spac-

ing of sounding runs. It is worth noting that where rock is present the spacing of echo-sounding runs should be about 4 metres.

The method of measurement should also be clearly stated. Commonly used bases for payment are the net or gross volume in situ, or in the hopper. Gross volume in situ requires some limitation as to the amount of overdredging that will be paid for. Net volume gives an unsatisfactory situation if some areas are very thin since the overdredging represents a high proportion of the sea bed material which is actually removed. It seems sensible to state quantities which are close to those which the contractor must actually remove to obtain the required result. It eases negotiation of variations to the contract. In my opinion the most satisfactory method is to measure the quantities to a pay level which is perhaps 15 or 30 cm beneath the minimum required depth.

The project may need to be divided into areas based upon deferring geological conditions, sea state, or distance from the spoil ground and the quantities should be given separately in the document for each area. Unless there is any variation to the contract the amount shown in the tender for each area is then its final measured cost.

This method cannot of course be employed when siltation is likely to take place during the contract.

When a contract involves rock it is often a good method to have each shoal described and rated in the Bill of Quantities as to both rock area and volume and to make it optional for the contractor to bid for being paid either by measurement or lump sum for each shoal including its overburden.

If the thickness of rock to be removed averages say $\frac{1}{2}$ metre rather than 3 metres, then it is obviously going to be more costly per cubic metre whether this rock is directly dredged or prefragmented and the quoted rates should reflect this. That the contractor may elect to be paid on a lump sum basis does not detract from the general usefulness of the pricing by area and volume since such figures may be used for any variation to the contract that may be required. They also assist in the assessment of interim payment.

Where payment is made by in situ measurement firstly of overburden, secondly of directly dredged rock and thirdly of prefragmented rock, there is always the difficult matter of agreeing when each of these stages has been reached as they depend so much on the effectiveness of the equipment used. I believe the method should be avoided unless the contractor has a long term working arrangement with the engineer when the capabilities of individual dredgers may be expected to be equally well known to both parties.

If it is felt that the results obtained from pre-tender research are insufficient for informed and reasonably competitive offers to be based upon either measurement or lump sum, then some form of target contract should be considered. Target contracts are, however, no substitute for pre-tender research.

The conceptual stage

I have dealt with documentation first as this is the area in which the hand of the consulting engineer is most clearly seen. Invitations to tender are also often the first stage at which a contractor learns any details of a particular project. The engineer's brief has, however, started much earlier with what may be called the conceptual stage.

The conceptual stage of a large project commences when a client advises his engineer to conduct a feasibility study. The purpose of the study may be to examine the practicability of the development, its cost and perhaps its viability. Site investigations at this stage will obviously be limited to the minimum necessary for establishing those matters but once the project is expected to 'go ahead' then site investigation can be conducted in sufficient detail to suit the requirement of the eventual contract.

Assuming a site for which no information is available, hydrographic surveys will be required. In a static regime this work can afford to be a once and for all exercise prior to dredging. The geophysical work might well await the sinking of boreholes so that the areas of survey can be confined to the rock shoals and the frequency of runs can be in accordance with the complexity of the rock surface. For this work it is advisable to operate both a high

power boomer and high resolution pinger from the same vessel to gain the benefits of penetration, surface identification and accuracy. Wave and current observation on sea state, weather, and tidal characteristics should be assembled.

The project may then be designed. Channel depths will take account of the trade which they will induce and will allow for underkeel clearance which may vary from place to place in the project depending on the degree of shelter and the reliability of tidal height predictions. Channel widths would normally be four times the maximum vessel width but more may be required between vessels moored to quays on both sides of the channel, on bends and in the open sea. Depth and alignment will result from engineering and economic judgement but for width it is desirable in specific places to take into consideration the local experience and opinions of vessel masters and pilots.

It is desirable for the engineer to envisage all methods by which the contractor is likely to carry out the work and to satisfy himself that the relevant authorities would have no objection. Spoil may be disposed at sea, in shallow water, or as reclamation. The first two choices demand suitable siting to eliminate the possibility of silt or sand being brought back by saline bed currents or other tidal movements. Shallow water siting may also require an ecological study and reclamation may be affected by both environmental considerations and the need for planning approval.

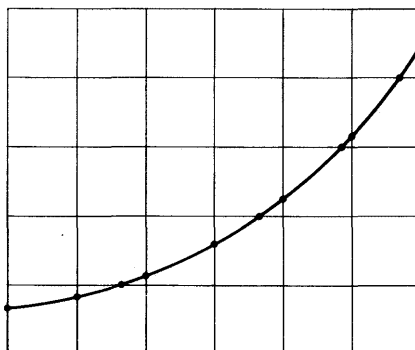
Finally, the effect of the project on the local hydraulic regime may require studying.

Pre-planning

It is clear that the conceptual stage can be a lengthy one. In fact ships are built within a period far shorter than the time it takes to design and implement a harbour or major dredging project. It follows therefore that if trade is to be introduced because certain types or sizes of vessel are on the stocks, then the harbour improvements that may be needed to receive them must be substantially preconceived or the port will suffer.

There is an obvious requirement in these times of rapid evolution and comparatively sudden changes in

N	3800	4800	84200	85400
84705-5		5988-3	86457-1	4939-2
200,		.5		



trading pattern, that port authorities should know the various forms of development that their environment can sensibly absorb. The essence of planning for port development is to examine the likely potential in all its aspects. Quay lines should be established so as to preserve a navigation space sufficient for the possible needs of the future. It is, for instance, unfortunate if a developer is able to grab a deep water site which hinders the economic expansion of the port in the future.

But such planning goes only a small way toward gaining time against the possible need for rapid development. It is the scheming and costing of the likely improvements, particularly those oriented to common usage such as navigation channels, that require particular attention. Thus a harbour which is to keep well in advance of events should have acquired detailed information on the geology of its sea bed and should have drawn up tentative channel arrangements and their costs for future reference. They are not all as cheap to dredge or perhaps as expensive to maintain as those to Europoort!

If a port entertains the idea of receiving future mammoth tankers, some early research, whether on channel improvement or on offshore installations, may even help to influence the design of these vessels and particularly their draught.

In the consideration of long and irregular channels for which various improvements in depth, width or alignment may require estimation, it has been found convenient to prepare digital models of the sea bed in respect of both rock and overburden.

This digital information is fed into a computer with instructions regarding various channel depths and alignments. The volumes and areas of the main dredging and of the side slopes can then be produced with both accuracy and rapidity. Our programme breaks the channel down into areas so that the costs of specific shoals may be analysed.

In preparing the digital model, the reference levels for rock are taken more frequently than those for the overburden since the first is more costly to dredge than the second and therefore justifies greater accuracy. It is our custom to use 20-metre intervals for rock beneath overburden, which probably gives a greater accuracy in computation than can be justified by the contours which have been reproduced from geophysical surveys. For surface rock a 10-metre grid may be suitable.

A developing port would be wise to initiate a system of position fixing which is both positive and permanent and which can be used by its officers and by contractors responsible for investigations, dredging and other construction. For this the establishment of co-ordinated shore stations is fundamental. This would eliminate a lot of unproductive effort, the cost of which is eventually borne by the client, by the many firms employed to carry out research or improvement who find it necessary to set up their own position fixing systems on each occasion. There will be particular occasions when electronic fixing systems for use over water are ideal but the sextant is by no means always outdated by them.

Sextant charts can be drawn up in advance for general use and particular areas can then be covered with greater accuracy or to a larger scale as circumstances may demand. These may be machine drawn by computer but this is not always so useful a method of production as it may sound.

Once the location of the shore station is known with reference to points on the selected grid, the loci of the sextant circles can be machine computed and used for the hand drawing of the circle. The input to the computer is simple and may be illustrated by the following data for one of two sets of circles.

(Continued on Next Page Bottom)

Proposals to Control Levels of Lakes Superior and Ontario Need Clarifications

International Association of Great Lakes Ports
Toronto, Ontario, Canada

Concerned that some of the proposals in an interim report on the regulation of Lakes Superior and Ontario would have harmful effects on some parts of the Great Lakes system, the International Association of Great Lakes Ports (IAGLP) has asked the International Joint Commission (IJC) to hold up publication of a final report until some of the issues can be resolved.

The interim report—produced by the International Great Lakes Levels Board, the technical body of the IJC—proposed to use Lake

The first line requires the insertion of the direction of the locus of circle centres—north or south of the base line; the second co-ordinates the boundaries of the rectangle in which the circles are to lie; the third co-ordinates the location of the two stations; the fourth specifies the required grid size into which the rectangle is divided for plotting. This line also specifies the angular interval of the circles which are required for plotting, in degrees or decimals of a degree.

The printout gives the co-ordinates of the loci of each circle where it cuts the selected grid lines on both X and Y axis. The process is repeated for the circles on a second base line.

For the assistance of projects on site it has been our custom to receive the input data by teleprinter and mail the printout by return of post.

Finally it may be said that dredging and reclamation projects of some magnitude can benefit in their early stages by discussion and interchange of ideas between engineers and contractors. In this connection dredging companies should overcome the reticence which has characterized their industry for so long.

Superior's capacity as a storage reservoir to a greater extent than previously and to abandon the level control limits of Lake Ontario assumed by the International St. Lawrence River Board in 1957.

The level of Lake Ontario was to be kept within a four-foot range with a low of 242.77 feet and a high of 246.77 feet above sea level according to the International Great Lakes Datum. The 242.77 figure is the assumed low water level for navigation charts. Proposals in the new plan set the maximum monthly stage at 246.92 feet.

However, the level of Lake Ontario went beyond the four-foot range this year to a near record high of 5.4 feet above datum or 248.2 feet above sea level.

Members of the IAGLP passed a resolution at their annual meeting in Chicago on June 14 stating that

the report contains inconsistencies between report conclusions and available information and that public hearings and methodology used in producing the report did not give the Great Lakes association and its members adequate opportunity to contribute to or analyze the report's information and conclusions.

"It appears that the interim report has concerned itself with stream flow control to the detriment of water level control and thus disadvantaged upstream interests to the advantage of downstream interests," the resolution said.

The IAGLP resolution also pointed out that there is a "community of interest between ports and navigation" and that "port interests are more closely related to other riparian owners requiring limited lake fluctuation."

Port of Toronto's chief engineer Jack Jones, who is head of the IAGLP engineering committee, said that fluctuations of water levels exceeding the established four-foot range might have detrimental effects on property, recreation, municipalities and navigation.

The International Joint Commission, a six-man body with equal U.S. and Canadian representation, established the International Great Lakes Levels Board in 1964 and charged it with the responsibility of controlling water levels in the Great Lakes and connecting channels.

This control was for the benefit



Chairman of the Canadian section of the International Association of Great Lakes Ports Ernest B. Griffith (left) of the Toronto Harbour Commission and Tom Burke, of the Seaway Port Authority of Duluth, chairman of the association's United States section, look over the resolution sent to the International Joint Commission.

of domestic water supply and sanitation, navigation, water for power and industry, food control, agriculture, wildlife, recreation and other beneficial public uses.

"The board has a most difficult task," said Jones "because these uses are often in conflict. With control dams only at the outlet of Lake Ontario, the board is supposed to regulate both water level and river flow for the benefit of both upstream and downstream users."

He noted that power authorities benefit from an even flow using Lake Ontario as a fluctuating basin. It is also evident that navigation in Montreal Harbour needs an even flow of water to maintain uniform levels.

"These objectives can only be achieved by increasing the fluctuation of water levels on Lake Ontario," explained Jones. "On one hand the fluctuation benefits certain interests while on the other it is detrimental."

Jones pointed out that power interests are well represented on the technical board and their objectives were easily identified.

"Despite their position of third priority as set out in the International Boundary Waters Treaty, the power authorities appear to be the greatest benefactors both by the actual operation of the regulatory works and by the proposed new plan," said the Toronto Harbour Commission engineer.

"On the other hand government personnel representing navigation are involved in a conflict within their terms because during low water periods Lake Ontario must be lowered to keep the 35-foot depth of channel to Montreal, sometimes lowering the Lake Ontario level in winter below the required channel depths of 27 feet," he said.

The situation is the same with government workers representing shoreline property.

"During periods of abundant water, the letting out of water from Lake Ontario raises water levels all down the St. Lawrence River to the detriment of shoreline properties," said Jones, "while holding water back results in damage along the shores of Lake Ontario."

R. L. Schultz, executive director at the Port of Cleveland and a mem-

Statement by The Honorable Philip B. Hofmann

Commissioner of the Port Authority of New York
and New Jersey

*before the
United States House of Representatives Committee on Ways and Means
in conjunction with
Hearings on Foreign Trade and Tariff Matters
May 22, 1973*

New York, May 24—Commissioner Philip B. Hofmann of The Port Authority of New York and New Jersey endorsed the expressed purposes of the Trade Reform Act of 1973 (H.R. 6767) at hearings before the House Ways and Means Committee in Washington this week (please see attached statement).

Speaking on behalf of the Board of Commissioners of the bi-state agency, Commissioner Hofmann said that "the Administration's trade proposals represent on the whole a worldwide cooperative trade expansion on a fair and equitable basis."

At the same time, Commissioner Hofmann asked the Congress to "reject proposals advocating the imposition of statutory import quotas

and other severe restrictions on U.S. foreign trade." (News from The Port Authority of NY & NJ)

Mr. Chairman, Members of the Committee of Ways and Means:

I am pleased to have this opportunity to appear before you on behalf of the Board of Commissioners of the Port Authority of New York and New Jersey to comment on the stake of the nation's largest port community in the complex decisions you are about to make on the future course of U.S. foreign trade policy.

The Commissioners of the Port Authority endorse the expressed purposes of the Trade Reform Act of 1973 (H.R. 6767). We understand these to be

ber of the IAGLP's engineering committee said that the association wanted complete clarification of the issues concerning ports including the following:

1—That a priority of levels regulation versus flow regulation be established since these two factors can be mutually exclusive.

2—That any level and/or flow regulation reflect and be related to the established priority of water use by municipal, navigation and power interests.

3—That stream flow data in the interim report ignores the effect of the Gut Dam (removed in 1953) on the St. Lawrence, and may further be biased by not including the available data prior to 1900.

4—That the assumption that

high lake levels benefit navigation interests ignores the limitations imposed by canal and lock clearances and vessel loadlines.

"We are asking that no regulations be instituted covering flow and level control based on the interim report or a final report until the issues are resolved," said E. B. Griffith, general manager of the Port of Toronto and newly-elected president of the IAGLP.

The resolution sent to the International Joint Commission was signed by Griffith as chairman of the Canadian section of International Association of Great Lakes Ports and by Tom Burke as chairman of the United States section. Burke is executive director of the Seaway Port Authority of Duluth.

- meaningful U.S. participation in multilateral trade negotiations aimed at developing an open, non-discriminatory and fair world economic system,
- furthering the expansion of world trade through the progressive reduction and elimination of barriers to trade, and
- establishing legitimate safeguards and assistance for American industries and workers faced with injurious foreign competition.

Conversely, we vigorously urge you to reject proposals advocating the imposition of statutory import quotas and other severe restrictions on U.S. foreign trade.

The Importance of International Commerce to the Port of New York-New Jersey

The Port of New York-New Jersey has long been a major gateway for American products on their way to overseas markets. U.S. commerce with the rest of the world is the foundation of the bi-state region's economic welfare.

Since the major volumes of U.S. foreign trade serviced or processed at the New York—New Jersey port are an integral part of the regional economy, any changes in the level of this trade are immediately reflected in the level of business activity in the region. Expanded U.S. trade obviously means increased job opportunities and earning capacity for port area residents; conversely, reduced trade would mean fewer jobs and smaller paychecks for workers involved in such port related activities.

Consequently, the Port Authority is engaged in a variety of activities which are designed to promote the commerce of the bistate port, but which in a larger sense help facilitate the international commerce of the U.S. in general.

Over the years, the Port Authority has built piers and docks, airports, bridges and tunnels, and undertaken other projects to facilitate the flow of people and goods, representing an investment of about \$3.0 billion. These have been public projects with public purposes, but accomplished without cost to the general taxpayer.

Through its substantial outlay of capital for freight transportation ter-

minals in particular, the Port Authority has not only provided the facilities for the efficient and economical transfer of goods between inland and ocean or air carriers, but is helping to maximize the productivity of such intermodal transportation systems. The faster turn-around time of ships and planes and better utilization of equipment resulting from transportation innovations such as cargo containerization—which was pioneered on a large scale at the Port of New York-New Jersey—are directly contributing to the expansion of international trade by minimizing transportation costs and making such trade safer, simpler and consequently more attractive.

The newest landmark in Manhattan—the World Trade Center—epitomizes the importance of international commerce to the bi-State port region. Built by the Port Authority as part of its mandated responsibilities to promote the commerce of this principal gateway for U.S. foreign trade, the World Trade Center constitutes a visible symbol of the fact that the flow of international trade is fundamental to the prosperity of the entire New York-New Jersey metropolitan area. For the handling of exports and imports across the piers and through the air terminals of the New Jersey-New York port affords direct income for an estimated one-half million workers and ultimately accounts for some one-fourth of the total wages and income earned in this major metropolitan area.

The World Trade Center brings together hundreds of businesses and government agencies involved in the processing and marketing of world trade. A headquarters for international trade, it will improve and facilitate key customs clearance processes and other foreign trade procedural and negotiating activities; provide space for the display of products from all over the world; and act as a clearing house for the latest information on international markets, regulations and opportunities.

The Center will also aid manufacturers who now sell only to domestic markets and help train businessmen in the technique needed to participate in overseas commerce through its World Trade Institute.

One such export expansion effort now in progress at the Institute is the "Partners-In-Trade" program. Conducted in cooperation with the National Association of Manufacturers and the United States Department of Commerce, it is a concerted effort to help small and medium-size American manufacturers get into exporting or expand their overseas sales. Some 25 of the largest and most successful companies and banks in the U.S. are acting as "senior partners" to smaller firms and lead them step by step to increase sales in foreign markets. I am pleased to note that my own company, Johnson & Johnson, is one of these "senior partners."

The Port Authority will continue to look toward innovations in both service and facilities directed toward expansion of trade among all nations. However, the level of the New York-New Jersey Port's trade unquestionably also hinges upon the national policy framework governing U.S. international commerce. Consequently, the Commissioners of the Port Authority urge you to support expansionary trade policies and to reject proposals such as the Burke-Hartke bill which advocate the imposition of comprehensive import quotas and other severe restraints on U.S. international commerce.

Comments on the Trade Reform Act of 1973

The Commissioner of the Port Authority believe that the proposed Trade Reform Act of 1973 represents a reaffirmation of the American commitment to an expansionary foreign trade policy. If enacted substantially in the form presented to the Congress, it will allow new initiatives aimed at achieving a truly equitable international trading system based on the principles of fairer as well as freer trade.

However, while we welcome the Trade Reform Act of 1973 and strongly support its stated aims, we suggest that your distinguished Committee consider carefully certain provisions which cause us some measure of concern. Specifically, we suggest that the Committee evaluate in particular those provisions of the proposed legislation which, if enacted, may invite excessive pressures for the protection of special interests. Also, we urge the Committee to con-

sider whether adequate opportunity will be available for those affected by prospective Presidential exercise of authority to present their views concerning the impact of such actions.

Negotiating Authority

It is our considered opinion that the continuing thrust of U.S. trade policy should be the progressive reduction of trade barriers of all kinds, and we welcome the President's request for broad negotiating authority for the purpose of improving the equitability of the international trading system.

The proposed authority to reduce or eliminate tariffs deserves unqualified support, and we applaud the President's intention to seek agreements on dismantling of non-tariff barriers to trade.

However, we believe that the Committee might want to consider whether statutory guidelines for the requested authority to increase tariffs in the context of trade negotiations would not be desirable. The open-ended authority to raise tariffs requested in HR 6767 is to our knowledge without precedent and could conceivably result in the increase of duty levels on some imports to such an extent as to severely restrict that trade with consequent adverse effects on firms and workers dependent on it.

Safeguards and Adjustment Assistance

Since excessively stringent eligibility requirements for import relief in current statute have been generally recognized as a prime cause of pressures for legislated trade restrictions, we support such modifications of the law as are required to provide adequate relief to industries and assistance to workers faced with foreign-trade generated dislocations.

However, we believe that import controls should be invoked only as an extraordinary measure of last resort. "Safeguards" are costly—they mean higher prices for consumers and reduced national purchasing power in return for the protection of a particular segment of our economy.

We therefore, urge the Committee to evaluate the appropriateness of incorporating the proposed "market disruption" concept in the escape clause provision. "Market disruption" as defined in H.R. 6767 means

substantial and rapidly increasing imports sold at prices below those of domestic producers. As other witnesses appearing before your Committee have pointed out, those conditions may be present and yet have no bearing on the question as to whether imports are actually causing injury to a domestic industry. Thus, such statistical coincidence between imports and domestic production should not become the substitute for the requirement to demonstrate serious injury from causal import competition.

Also, because we view import restrictions with dismay, we urge the Committee to consider retaining adjustment assistance to firms as an alternative remedy available to the President.

Retaliatory Authority

We recognize that it may at times be necessary for the United States to deal with unfair foreign competitive practices which burden American exports.

However, we recommend that public hearings precede any potential retaliatory action by the President and that all interested parties, not merely complainants against foreign restrictions, have an opportunity to present their views as to the likely consequences.

Trade Policy Management Authority

While we are not in a position to evaluate the appropriateness of the proposed criteria for defining serious U.S. balance of payments situations and the remedies proposed, we welcome the President's statement that the authority requested in this section of the Trade Reform Act of 1973 is not intended to be used to protect domestic producers from import competition. In addition, we support authority for the President to reduce tariffs for the purposes of countering domestic inflation.

New Trade Opportunities

We welcome the President's stated objective to take advantage of new trade opportunities while enhancing the contribution trade can make to the development of poorer countries.

Hence, we support granting authority for the President to extend most-favored-nation treatment (consistent with the national inter-

ests) to imports from countries previously denied such treatment and to extend generalized preferences to products from less-developed countries.

Conclusion

I hope that the comments I have offered on certain provisions of the Trade Reform Act of 1973 have not obscured our strong support for the main thrust of this legislation.

In the considered opinion of the Commissioners of the Port Authority, the Administration's trade proposals represent on the whole a realistic approach to attaining world-wide cooperative trade expansion on a fair and equitable basis, and we urge their favorable consideration by the Congress.

A Close-Up of a Port

Port of Århus, Denmark

See front cover also.

(Reprinted from a 52-page photographic brochure recently issued, with some photographs specially provided by the Port Authority.)

Hardly had the Port of Århus completed recent years' extensions when the City Council of Århus decided in favour of further expansions. In the coming years a new Eastern Division of 45 ha and comprising a basin with 1.7 km of quays will be added to the present 122 ha of land and 10.7 km of quays.

This decision to expand the harbour was based on an enormous preparatory work, and was the logical consequence of the remarkable growth in activities experienc-

ed by the Port in recent decades. To an ever increasing degree the need for an efficient, quickly operating, and centrally positioned harbour has been felt by the businessmen in Jutland and Funen as well as by the shipping trade serving them. And it is the fulfilment of this very need which the Port of Århus considers its most important task.

Århus is one of the oldest ports in Denmark. Also in the past, when requirements were more modest, did it play a role in international trade. It used to be a small harbour at the river mouth—and so it remained till about a century ago when far-sighted merchants began to

realize the future potentialities of the harbour. And then it started to grow out into the sea.

However, it was not till after World War II that the expansion started which was to turn the Port of Århus into the smoothly operating tool that is so indispensable to the contact between Denmark and her trading partners on the world market. New land was reclaimed, piers and quays were built and provided with cranes and warehouses, fruitful connections were established.

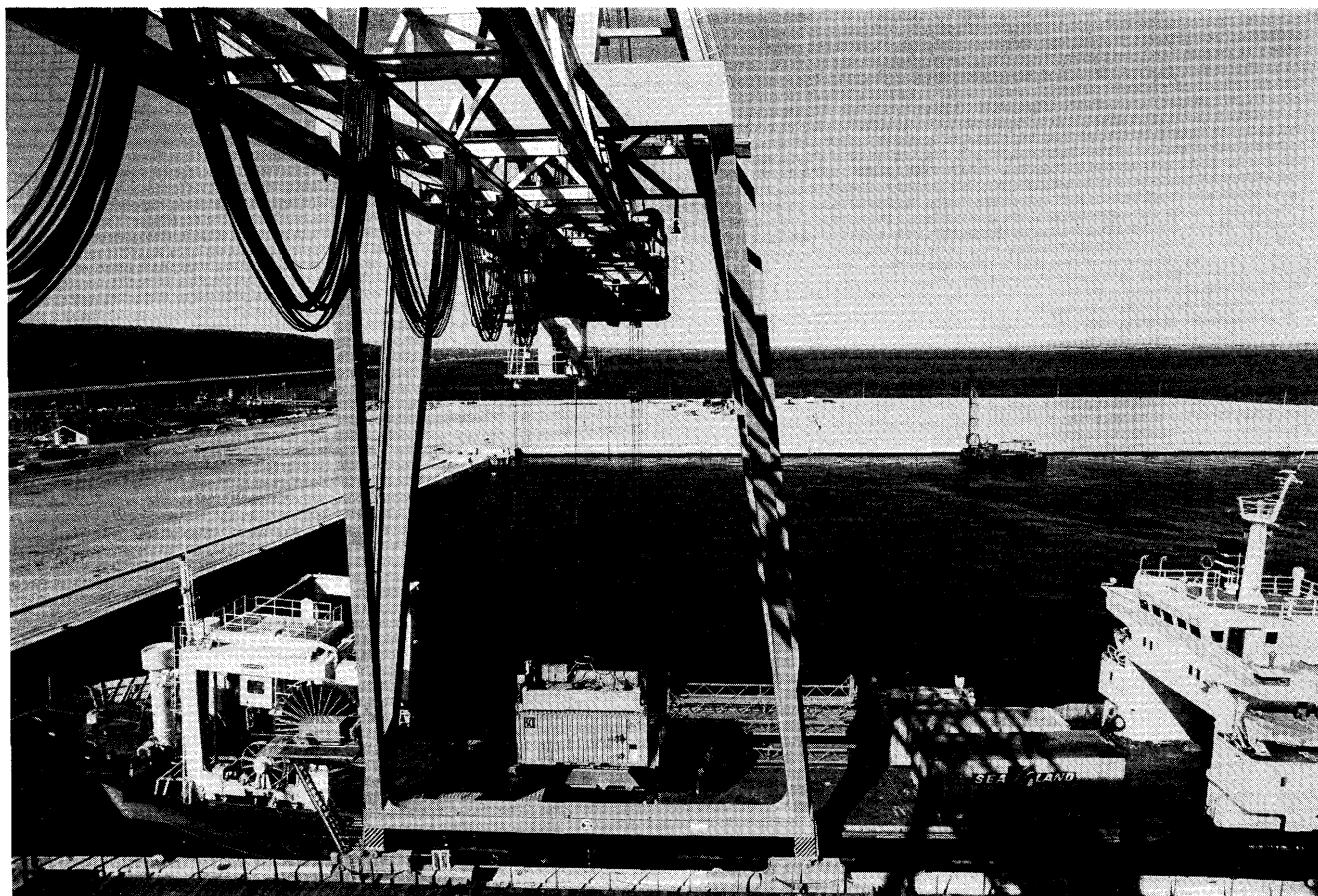
Goods worth millions of Kroner pass through the Port of Århus every year thus creating the picture of life and activity of which the pages in this booklet will give you a close-up.

A few years ago when it became evident that containerization would revolutionize the general cargo traffic, Århus took every possible step to turn the large northward expansion of the harbour into a modern container terminal. This goal was reached in record time.

A whole town of containers cover



The container terminal



The container terminal seen from the south, pier 3.

pier 3 where modern specialized vessels almost daily fetch and bring large goods units. Easily and smoothly they are swung across the quay-side by large new cranes, or are driven across the ramps of roll-on/roll-off vessels for which special berths have been designed at the end of the pier.

At the same time the new large pier 4 is approaching completion. It too is designed for container traffic. Gentle handling of goods and unique efficiency have been ensured.

The primary reason for the developments that have taken place is the geographical position of the Port of Århus. It is situated in the centre of an area in rapid industrial growth, and it faces mild and hospitable waters which offer excellent conditions for navigation. There is hardly any tide, and even winters rarely present any problem. Modern ice-breakers, some owned by the State and some by the Port itself, ensure unimpeded navigation. And it was this position which made trade and industry interest-

ed in the harbour. With proper investments and constant modernization it was here possible to create the Jutland business-world's own alternative to the large continental ports which have a pronounced interest in the Danish market.

The economic advantages are obvious. Not only is it a quick and efficient way to export and import via Århus, but its price level has forced e.g. Hamburg to adapt its freight rates accordingly. Thus indirectly Århus is also an advantage if goods are sent via Germany. Neither as regards size or turnover can the Port of Århus compete with the Hamburg-Giant, but literally speaking it forms the bullwork against higher prices—to the benefit of the entire business world.

But perhaps the success is due primarily to the close contact between the harbour and the city. The harbour is an integral part of the city's life. When in the harbour, one is near the centre, both literally and figuratively.

An increasing number of international lines have included Århus in

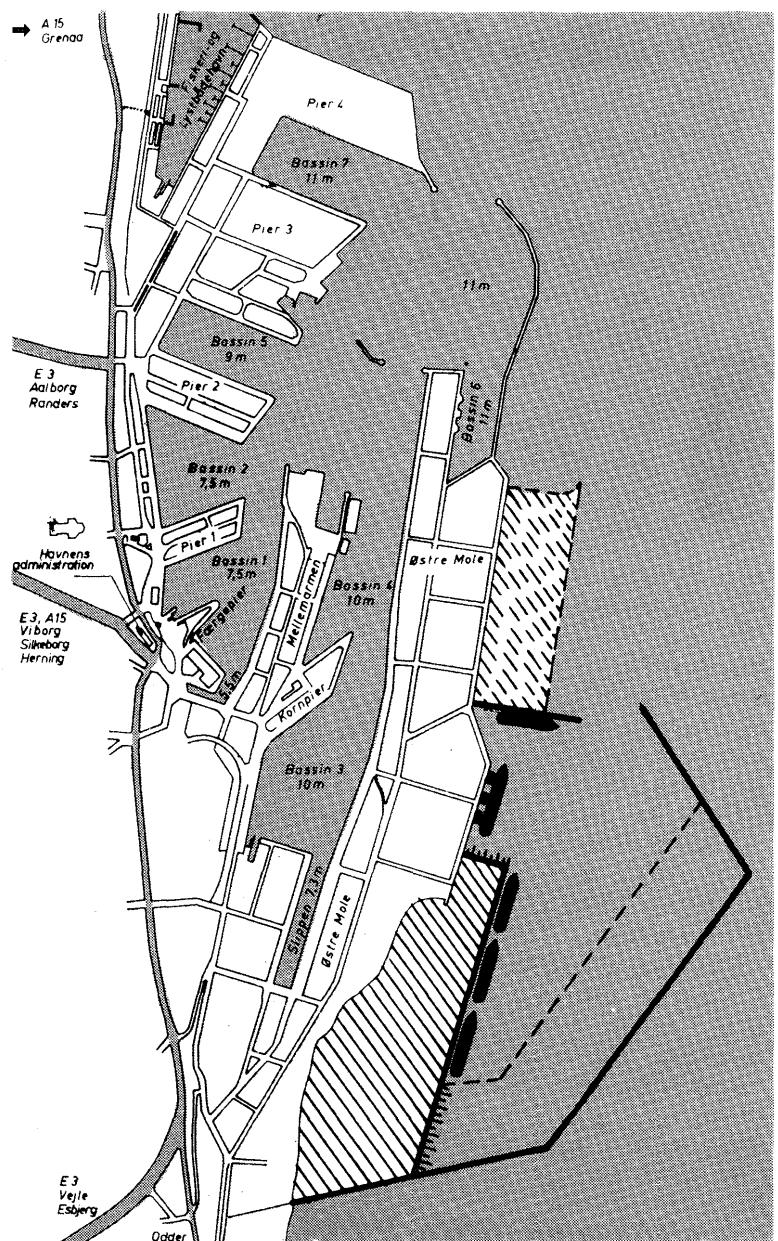
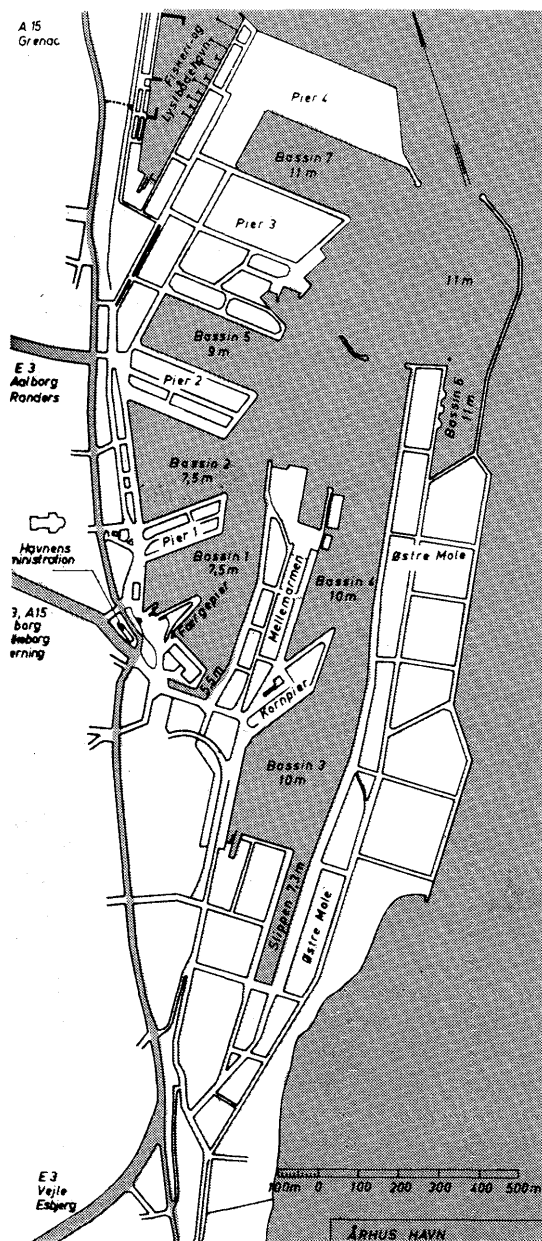
their network of regular ports of call. That applies both to container vessels and to traditional general cargo vessels. Frequent, regular calls, precise as a clockwork ensure connections with the large markets in North and South America, Africa, Asia, and Europe. Add to this the calls by tankers, bulk carriers, and anything else that sails the high seas.

And then there is also the ferry service, both the express route Århus-Kalundborg and the Samsø-route with a total of 10 daily connections to Sealand, plus the DANO Line, which by building a new large ferry has more than double its capacity on the Århus-Oslo-Horten-Moss route as regards passengers as well as freight.

A host of facilities are at the disposal of the shipping trade. A 24-hour pilot service, a fleet of tugs, a multitude of cranes for all purposes, multi-purpose warehouses and silos, an abundance of oil tanks, a large number of trucks of all sizes, and a staff of several hundred dock workers, who enable the harbour to

The harbour today

—and after the next expansion



offer a 24-hour loading and unloading service.

The harbour of Århus is not only the largest working place of the city but also one of the largest in this country. About 5000 people have their daily work there, dock workers, shipping people, stevedores, truck and crane operators, weighers, customs officials, engineers, pilots, harbour officials, railway men, and clerks, a mixed crowd. And then this enumeration does not even include the sailors, or the lorry-drivers who maintain contacts between

the harbour and the firms which use it.

But many more visit the harbour area regularly. For besides being a place of work it is also one of the city's favourite recreation grounds. That applies not only to the Yachting Harbour behind the new Northern Division, but equally much to the Traffic-Division whose many quays, squares, and streets form an exciting and changing scenery.

Goods of all kinds and shapes are piled up, moved, and removed, and from day to day the contours of the

harbour are changed into new ones. The picture is never the same in two places. But the greatest changes are offered by the ships which come and go, and create the impression of something in constant movement, something reflecting the whole world in a maze of details. The plan for the new large eastward extension was approved because it meets a great wish from trade and industry. And above all it means that, as has been the case so far, Århus will be capable of living up to the demands (Continued on Next Page Bottom)

The Port of Lisbon within the Framing of the Portuguese-British Commercial Relations

Speech made by Sr. Eng.º Pedro M.B. Arsénio Nunes, President of the Port of the Lisbon Board of Trustees, on the occasion of the lunch given at the British-Portuguese Chamber of Commerce, in November 28th, 1972.

Reprinted from Boletim do Porto de Lisboa
No. 201, Oct./Nov./Dec. of 1972.

In 1971, 681 merchant ships coming from the United Kingdom ports have entered the port of Lisbon and 578 unities have left Lisbon towards the same ports. In relation to the total amount of 6476 merchant ships which entered, that year, the port of Lisbon, these two first figures represent respectively 11% and 9%.

In the same year, 567 British flag merchant ships came into the port, and this means 9% relatively to the total of 6476 ships. It is interesting to refer that, among these 567 British ships, 64 of them came in service of touristic cruise and only 29 vessels were purposed to be repaired in the Margueira dry docks.

which are the result of increasing trade activities, improved economy and technical progress in the field of transport.

This means that a new era in the growth and development of the harbour has been initiated. For the completion of the Northern Division is actually the last part of the long-term plans for the development of the harbour that were approved in 1933 and which have been followed in all essentials, though—of course—adapted over the years in step with requirements. The work on the Eastern Division will commence as early as in 1974 with the first stage comprising the reclamation of 23 ha of land and well over 600 metres of quays. The new possibilities this extension offers are self-evident.

In which concerns the amount of commodities handled in the port of Lisbon, coming from or going with destination to the United Kingdom ports, what is certainly more significant under the economical point of view, in 1971, was the fact that there were 324×10^3 t of disembarked goods and 311×10^3 t of embarked goods, and this signifies a total amount of 635×10^3 t. We can not help to point out that there was a balance between the embarkment and disembarkment of goods, which was advantageous to the steadiness of shipping lines.

Exception made to the national oversea lines, it is not noticed this steadiness in any line with other foreign country.

By considering only imports, the following countries are ahead of Great Britain: U.S.A. (588×10^3 t), the Netherlands (370×10^3 t which have to be only considered under international transit aspect), Italy (359×10^3 t) and, because of petroleum, Iraq (1178×10^3 t) as well as Saudi Arabia (448×10^3 t).

But in which concerns exports, no country receives more commodities from the port of Lisbon than the United Kingdom; the next country, in the statistical classification, is Italy with 136×10^3 t.

Among the total of 7.4×10^6 t of goods disembarked, in 1971, in the port of Lisbon, the referred 324×10^3 t coming from the United Kingdom represent only 4.4%; but, amongst the 2.2×10^6 t of embarked commodities, those which were con-

signed to Great Britain have already represented more than 14%.

And if it is only considered the general cargo, that is, if bulk traffic (liquid and solid) is excluded, the algebric fractions representative of the Portuguese-British trade within the effected traffic, in 1971, in the port of Lisbon, will be as follows: 184×10^3 t / $1,6 \times 10^6$ t = 11.5% in disembarked commodities and 203×10^3 t / $1,5 \times 10^6$ t = 13.5% in those which were embarked.

Up to now, the Portuguese-British trade position in the port of Lisbon traffic framing has been analysed.

Let us, now, observe the port of Lisbon position in the global table of the Portuguese-British trade.

In 1971, continental Portugal has imported 422×10^3 t of goods from the United Kingdom and exported 710×10^3 t of commodities to the same country. So, a total of 1.1×10^6 t of goods were handled between the two countries.

Therefore, those 635×10^3 t of commodities handled through the port of Lisbon represent 635×10^3 t / $1,1 \times 10^6$ t = 58%; as regards imports, we notice the high relation of 324×10^3 t / 422×10^3 t = 78%, as for exports, 311×10^3 t / 710×10^3 t = 44%.

These percentages reflect, undoubtedly, how important the port ensemble Douro-Leixões continues to be in the commercial relations between Portugal and Great Britain, namely in which concerns exports.

As known, the maritime transportation of general cargo is at present in a phase of intensive conversion into the container system. In the port of Lisbon, the total numbers of handled containers were 4,650 unities in 1969, 13,300 unities in 1970 and 25,400 «boxes» in 1971; so, from 1969 to 1970, there was a growing rate of 185%; and from 1970 to 1971, of 90%. In the first nine months of 1972, were handled 20,400 containers against 18,850 in the same period of 1971; thus the annual growth rate is now of 8.5%, what would seem to signify already a stabilization.

But if we only consider the handling of 20 and 40 feet containers (which correspond with the standardization of dimensions that is more and more widespread), the

handled amounts in the port of Lisbon are the following: 3,100 containers in 1969; 12,500 unities in 1970; 22,200 «boxes» in 1971, and, up to September 1972, 20,300 containers (against 16,300 unities from January up to September 1971). Then, the growth rate is of 300%, from 1969 to 1970, 78% from 1970 to 1971, and of 25% from 1971 to 1972 (since January up to September).

Let us see now how the adoption of container system results in the Portuguese-British maritime traffic through what is noticed in the port of Lisbon.

The total number of containers here disembarked or embarked from or to British ports was of 9,040 unities in 1970 and 12,700 unities in 1971. In the first nine months of 1972, there were 9,370 containers. By comparing these figures with the above referred global ones, it is noticed that, among the port of Lisbon container handling, it pertained to the Portuguese-British traffic an algebric fraction of $9,040/13,300=68\%$ in 1970 and of $12,700/25,400=50\%$ in 1971; and, in 1972, it seems to tend towards the relation $9,370/20,400=45\%$.

This decrease of the relative value in the connections with British ports in matter of container traffic in the port of Lisbon, reflects a pionier's position, the really stimulating position which British shipowners have assumed by using the port of Lisbon in this new system of maritime traffic. The rise in position of the other foreign countries signifies a confirmation or even a sanction of the British shipowners' confidence.

Among the ten regular shipping lines which make exclusively container traffic and call now at the port of Lisbon, there are two of British flag ships.

The importance which container traffic has now, and which will surely have in future, is a good reason for telling you still here some more words on its development among us.

Under the real conditions of port work in Lisbon, the cargo handling output is usually, in a ship which transports only containers, nearly five times up on that of a medium general cargo vessel. This relation will still increase in proportion to

B.T.D.B Annual Report 1972

Operating Surplus £8.4 Million

Traffic Total Rises to 83.6 Million Tonnes

British Transport Docks Board
London

The British Transport Docks Board improved its position both financially and in terms of total trade in 1972, despite the three-week national dock strike in the summer.

The Docks Board's annual report for 1972, published today (Monday, June 11), reveals a surplus of £8.4 million (1971: £7.6 m) and a three million-tonne growth in traffic to 83.6 million tonnes.

The surplus represents a financial return of 6.1 per cent on capital employed, which, the report says "was a further step forward from the 1971 return of 5.6 per cent towards the

1975 target, set by the Secretary of State, of 9 per cent".

After interest of £6.1 million and the transfer of £1.5 million to reserves for cost replacement depreciation, a net surplus of £783,000 remained.

The report records that the South Wales Ports continued to operate profitably, and that there was expansion of trade and improved financial results at Immingham. Southampton, though achieving a profit, was particularly hard-hit by the national dock strike—which the report estimates to have cost the

the diminution of percentage of empty containers which are transported.

In the last three years, the administração-Geral do Porto de Lisboa (AGPL) have invested about 92,500,000 escudos in land installations (warehouses and parking areas) as well as equipment (crane, side-loader stackers, tractors, trailers, etc.) specially purposed to container service; up to now, there was no need of any investment in mooring works.

But we have projected, for 1973, the beginning of the construction of a new 500 m long wharf, in the eastern lengthening of the existing Santa Apolónia container terminal. It will provide two more mooring posts and a close parking area of about 6 ha.

The corresponding investment, in maritime and land works as well as equipment, will be of nearly 190,000,000 escudos.

By other side, it is also planned the establishment, at Beirolos, of a parking area with an initial surface of 17.5 ha aiming at a greater concentration of container stuffing and distuffing operations as well as the

coordination with roadway and railway transportation.

However, the outlook of container traffic development presents now in this port a very great importance namely in the matter of international transit, that is, the utilization of the port of Lisbon as a terminal for container disembarkment from big ships and their ulterior regional or continental distribution. Also on this subject, the British shipowners' initiative seems to be facing the port of Lisbon potentialities on stimulating terms.

Therefore, the AGPL at the making of their development installations studies are paying special attention to the establishment plan of a big terminal, in the south river bank, which will be able to handle more than 200,000 containers a year and to receive the biggest ships foreseen up to now, for their maritime transportation.

We have faith in a next realization of this undertaking. And we also trust that the United Kingdom flag will continue to be there, lending its constant prestige.

Thank you.

Board over £1.5 million.

Performance generally at the small ports was encouraging, the report says, with substantially increased traffics at King's Lynn and Lowestoft. At Barrow, however, heavy losses were sustained for the tenth year in succession, and the Board announced in December that unless a substantial increase in trade was forthcoming, the port would be closed for cargo operations.

The financial result at Hull for the year as a whole was slightly worse than in 1971, but the losses were checked during the latter part of the year. During the year the Board carried out a thorough review of the port's situation and prospects and put in hand a general reorganization involving concentration of operations and discontinuing the use of two docks. The full effects of the reorganization will be felt in 1973 onwards. In the longer term, the report goes on, the port's position should improve appreciably but this will depend both on containing costs and increasing traffic—which in turn depends on freedom from industrial disputes.

TRAFFIC

Comparisons of traffic handled by the Board's ports in 1971/72 are materially distorted by the effects of the national dock strike. Nevertheless, total traffic increased from 80,694,000 tonnes to 83,606,000 tonnes.

Principal increases were in imports of petroleum, iron and other ores, coal and coke, and manufactured goods, and in exports of petroleum. The increase in petroleum traffic, however, had a relatively small direct impact on the Board's revenue because of the special long-term agreements between the Board and the oil companies. Exports of coal were substantially reduced as a result of the miners' strike at the beginning of the year.

UNIT LOAD RECORD

Container and other unit load traffic through the Board's ports again increased substantially, the total handled rising by 1.2 million tonnes to a new record figure of 4.8 million tonnes.

At the end of the year new roll-on/roll-off terminals were approaching completion at Hull and

Rajang Port Authority

Report for the Year 1971

Extracts from "Report & Accounts
for the Year 1971"

The Historical Background

Introduction

This being the first report of the Rajang Port Authority, it is only appropriate that a general review of the major events leading to the establishment and operation of Rajang Port be made. Although the Rajang Port Authority came into legal existence on 1st November, 1970, it commenced operation much later on 17th May, 1971. The lapse of time was spent on "preparation" and this is fully explained in the following paragraph under "Events After the Formation".

The Geographical Setting

The State of Sarawak (area: 48,342 sq. miles) is one of the two States in East Malaysia, stretching across the northern coast of the island of Borneo. It is bordered largely by Indonesia to the south, and Brunei and the East Malaysian State of Sabah to the north-east. Sarawak is divided into 5 Administrative Divisions. The largest of the five Divisions, the Third Division covers 48% of the total land area, and supports

Plymouth, while at Southampton a major new development was the inauguration of the Far East Container Service. As a result of new container berth construction, 914 metres of additional quayage is now available.

PERSONNEL

As a result of the acquisition of the remaining capital of the Southampton Cargo Handling Company, some 2,191 employees of that company were transferred to the Docks Board. Apart from this transfer, the Board's employees were reduced in number from 10,874 to 9,987.

34% of the total population. The Divisional headquarters is in Sibuluan, which has a population of 50,600 persons (1970). Rajang Port embracing the overseas ports of the Lower Rajang, namely Sibuluan, Binatang, Sarikei and Tanjong Mani Anchorage, is situated in the Third Division.

The Economic Setting

The economy of Sarawak has been and still is export oriented. Almost all the manufactured goods required in the country are imported, and most of the country's agricultural products are exported to acquire the necessary foreign exchange with which to pay for the imports. Of Sarawak's total external trade in 1971 (including re-exports, but excluding import and re-export of crude petroleum), Rajang Port accounted for approximately 50% of it.

Recognition of Need

The need for increased efficient and properly organized port facilities in the Third Division was recognized as early as 1964, and this recognition was embodied as a project to be implemented in the First Malaysia Plan (1966-70). The importance of providing adequate port capacity which is vital to the achievement of export expansion and therefore economic development was one of the primary objectives of the FMP. For this reason, financial provision was included in the Plan to meet the cost of expanding the port facilities in Sibuluan, Sarikei and other smaller ports in the Third Division.

The Need for Expansion

The early idea on port expansion in the Third Division was centred on the construction of a new deepwater port in the Lower Rajang area and

on the improvement of the existing facilities. Following a number of studies on it (see below), it was finally decided to do this by expanding Sibu Port which is the largest town in the Third Division and second largest in Sarawak after Kuching.

The Malaysian Transport Survey, reporting in 1967, estimated that the existing facilities consisting of a single wharf of 486 ft. × 30 ft. with a covered storage space of 42,500 sq. ft. and a water depth of 20 ft. alongside, had only an optimum handling capacity of 175,000 tons per annum, a figure which had been exceeded since 1963. The maximum capacity, with resultant costly congestion and delay was estimated at 200,000 tons per annum—a figure which had also been exceeded since 1964. The Survey estimated that at an average annual growth rate of 3.5–5.8% in throughput, the tonnage to be handled at Sibu by 1975 would reach 350,000 tons per annum. There was thus an urgent need to expand the existing port facilities as Sibu if serious congestion with consequent high costs were to be avoided.

Following the submission of the Report of the Malaysian Transport Survey, action was taken by Government, which resulted in the commissioning in February 1969 of the firm of Sir Bruce White, Wolfe Barry and Partners, to conduct the Feasibility Study to expand Sibu Port. The Feasibility Study confirmed the finding of the Malaysian Transport Survey and urged the prompt expansion of the facilities at Sibu in view of the severe congestion and the increasing volume of cargo handled. The Study indicated that by 1975 the volume of general dry cargo handled would reach an estimated 330,000 revenue tons and that by 1980 the tonnage would be about 450,000 tons which is more than double the maximum capacity of the existing facilities. To cater for the increase in throughput, the Consultants recommended that the existing wharves be extended forthwith.

The recommendation of the Consultants was accepted and the Asian Development Bank was approached to assist in financing its implementation. The Bank examined the technical, administrative, operational and economic aspects of the Sibu Port Expansion Project and found it to

be technically sound and economically justifiable. This resulted in the conclusion of a loan of \$10.5 million with the Bank to finance the foreign exchange cost of the Project.

A Port Authority

While steps were taken to expand the physical capacity of Rajang Port, simultaneous action was also taken to improve the operation and rearrangement of the facilities. Hence in 1970, the Minister for Communications and Works appointed the Rajang Port Consultative Committee to consider and advise him on all matters relating to port facilities and operation to be provided in Rajang Port and to consider and advise him on the formation of an adequate controlling authority to operate the facilities.

Before then adverse comments were made on the inordinate way the port was run. The Malaysian Transport Survey commented on the absence of centralized and clearly defined port administration. Three Government Departments were involved in its operation, each carrying out a different function. The Public Works Department was charged with its maintenance and repair. The Marine Department directed the movements of ships, collected wharf rents, maintained markers, buoys and lights in the river, and provided pilotage as required. The Department of Royal Customs and Excise assumed the responsibility of operating the transit sheds and the clearance of cargo. There was thus no proper supervision and integration of overall port activities. Shippers and consignees utilized their workmen to receive and deliver cargo to the ship's side and there was, in fact, no overall control over wharf and shed operation.

This unsatisfactory state of affairs where the rates of cargo discharged in 1968 were of the order of 6–8 B/L tons per gang hour only, was noted by both the Consultants for the Feasibility Study and the Rajang Port Consultative Committee.

The Consultants noted that the costs of the system of cargo handling then within the port area were so high that considerable benefits to the community as a whole would be attainable with re-organization, and

the only satisfactory way to accomplish this, in their view, was through the formation of a Port Authority.

This view was fully endorsed by the Rajang Port Consultative Committee. The Committee recommended that the organizational structure, the management arrangements, the tariff structure and the operation procedures be patterned on those of the Kuching Port Authority and this, in the Committee's views, would facilitate the eventual formation and operation of the proposed State-wide Port Authority. The Committee also recommended that the existing wharf and godown facilities in the ports of the Lower Rajang be transferred to and be vested in a central controlling authority as Government's contribution to it with the object of not overloading the authority with a heavy debt burden. This would enable the authority to fix as low as possible the level of its tariff.

The need for a controlling body was also recognized by the Asian Development Bank. Thus Sibu Port as well as the ports of Binatang, Sarikei and Tanjong Mani were amalgamated to form Rajang Port and the organization formed to operate and manage it is the Rajang Port Authority.

Jurisdiction

Under Section 3A of the Port Authorities Ordinance, the Governor-in-Council is empowered to declare any area in Sarawak to be a port and to define the limits of that port.

In exercise of this power, the Governor-in-Council in 1970 declared the limits of the Rajang Port extending from Kapit (the Inner Limit) to the estuaries of the Rajang River (the Outer Limit). (See Gazette Notification No. Swk. L.N. 50 (Part II)—The Port Authorities (Declaration of Port) (No. 2 Notification, 1970). The port limits thus defined cover an extensive area coinciding with the delta of the Batang Rajang (See map Page 10).

In view of the advantages of having a single estuarial port authority, the Rajang Port Consultative Committee fully agreed with the decision taken. The port limits

so defined also agreed with the Feasibility Study Report in which the Consultants recommended that the port limits would include all the foreign-trade port facilities on the Rajang and Paloh and would extend to the outer bar buoys of these two channels.

Formation of the Authority

On 3rd October, 1970, the Governor-in-Council, in exercise of the powers conferred upon him by Section 3 of the Port Authorities Ordinance, 1961, made an order establishing the Rajang Port Authority.

The Authority so established was to be a corporate body which would consist of a Chairman and not more than eight other members appointed by the Minister for Communications and Works, of whom not more than half shall hold office under the Government.

The functions of the Rajang Port Authority are defined as follows:—

- (a) to maintain, or provide for the maintenance of, adequate and efficient port services and facilities for all users of the port;
- (b) to co-ordinate the activities of the port;
- (c) to promote the improvement and development of the port; and
- (d) to execute such works as may be necessary to the performance of the duties specified in paragraphs (a), (b) and (c).

Events After the Formation

Following the formation of the Rajang Port Authority, the recommendations of the Rajang Port Consultative Committee on the organization, management and operation of Rajang Port were put into effect.

The recruitment and training of port personnel through the office of the Government Ports Adviser was promptly effected. In view of the Rajang Port Consultative Committee's recommendation that Rajang Port be patterned on Kuching Port in its legislation, management, tariff and operation procedures (except the salary scales), its staff were trained at Kuching Port. Personnel from Kuching Port were also temporarily seconded to assist in the

training of staff in Rajang Port and in preparing the documents and operating procedures etc. for the final opening of the Port. Mechanical equipment was also bought and the personnel to man them recruited and trained.

In the meantime, following the recommendation of the Rajang Port Consultative Committee, certain modifications and improvements to the existing facilities to facilitate the efficient operation of the Port were effected.

In addition, the Authority took positive measures to inform the public and especially the port users about the implications of establishing a port authority in the area. At the same time, the Authority got together potential port users and explained to them the port procedures and the facilities available to them.

By May, 1971, the Rajang Port was ready to begin operation. It could claim to be the first port in the area to be planned, organized and managed wholly by local personnel.

Port Operations

Siren wailed in the Customs Wharf area on 17th May, 1971 at 8.00 a.m. marking the official commencement of operation by the Rajang Port Authority. Since that historical moment, the wailing of the siren from the Port has become a familiar part of the din and bustle of Sibu Town.

Although Rajang Port has a wide area of jurisdiction, port operations have been confined to five centres: Sibu, Sarikei, Binatang, Tanjong Mani and Sg. Merah Oil Wharf. It is heartening to report that during the period under review (7½ months) the operation had been going on smoothly at all the operating centres.

Trade of the Port

During the 7½ months under review, 137,896 tons of dry general cargo were handled at the three centres of operation: Sibu 117,457 tons; Sarikei, 13,869 tons; and Binatang, 6,570 tons. Of the total volume of traffic handled, 118,330 tons were imports and 19,566 tons were exports, constituting 86% and 14% respectively of the total general cargo.

The cargo consisting of sago flour, timber logs and sawn timber loaded at Tanjong Mani totalled 472,590 tons, while cargo worked at Sibu centre but not through the Authority's wharves totalled 13,535 tons. Bulk oil totalling 36,246 tons were discharged at Sungei Merah.

Productivity

In Sibu the handling rate per gang hour achieved during the period under review was 15.9 B/L tons. This rate was considered reasonable considering that the Authority was in its first year of operation and has to face the physical limitations of the wharves and transit sheds not originally planned and built for efficient cargo handling operation.

Palletised Cargo

Palletised cargo service was introduced for the first time in Sibu towards the end of the year. The pallet ship M.V. "Tronoh" made 3 trips during December carrying 1,543.2 tons of cargo. The handling rate for this vessel was reasonable averaging 25.2 B/L tons per gang hour as compared with 15.5 B/L tons for the conventional vessels.

Vessels

200 ships berthed at Sibu during the period; 115 ships called at Binatang; 126 ships at Sarikei; 250 ships at Tanjong Mani and 57 ships at Sungei Merah. The total gross registered tonnage of shipping for the period was 1,425,152 tons. (Sibu—186,897 tons, Binatang—58,929 tons, Sarikei—63,997 tons, Tanjong Mani—1,076,782 tons and Sungei Merah—38,547 tons).

Storage

Congestion was experienced in the transit sheds in the Sibu and Sarikei centres. In Sibu, the use of the newly completed vehicles shed had to be regularly resorted to for the stacking and overstacking of cargo in the transit sheds. In Sarikei, shed congestion was acutely felt after the pepper harvest in the months of July and August.

Cargo Claims

Cargo claims paid out during the period amounted to \$924 as against
(Continued on Next Page Bottom)

Imbound U.S. Cargo Paperwork Cut Test

Marine Exchange of The San Francisco Bay Region

San Francisco, 8/10/73:—Possibility of significant reduction in import cargo paperwork is under discussion by an industry-government task force.

At meetings last week in San Francisco (August 6-8), representatives of foreign and American steamship companies met with U.S. Customs Service and Department of Transportation officials to consider a trial program which could lead to replacing present use of the Customs Inward Foreign Manifest form by filing instead carriers' bills of lading.

Development

One of the chief function of a Port Authority as clearly laid down in the Port Authorities Ordinance is to promote the improvement and development of the Port. Upon its establishment, the Authority had taken positive measures to expand the existing port facilities at Sibu and Sarikei. The Sibu Port Expansion Project consisting of 1,000 ft. wharf extension and 2 transit sheds of 75,000 sq. ft. floor space will call for a total capital outlay of some \$16.6 million. A loan of \$10.5 million was raised with the Asian Development Bank to finance the foreign exchange cost of the Project. The firm of Sir Bruce White, Wolfe Barry & Partners of the U.K. was commissioned in November to carry out the detailed survey, investigation and design of the Project. It is expected that the detailed design will be finalized towards the latter part of 1972 and the implementation of the Project carried out in 1973. The additional facilities are scheduled for operation in early 1975.

In Sarikei, the Government was constructing a new concrete wharf 198 ft. long with a Federal Government loan of \$1.2 million. On completion, it will be transferred to the Authority for operation. The loan will also be transferred to and be serviced by the Authority. The Authority planned to utilize some of the loan funds for the construction of a new transit shed immediately behind the wharf.

San Francisco (August 6-8), representatives of foreign and American steamship companies met with U.S. Customs Service and Department of Transportation officials to consider a trial program which could lead to replacing present use of the Customs Inward Foreign Manifest form by filing instead carriers' bills of lading.

J. J. Greene, General Steamship Co., Ltd. vice president and Marine Exchange facilitation chairman, termed the experiment "hopeful" but cautioned against premature optimism that the test will assure early elimination of the cumbersome Customs form. He chaired the initial San Francisco session attended by American Institute of Merchant Shipping and Marine Exchange members and government representatives. Federal participants included the U.S. Customs Service's Albert J. Francis, Cargo Security and Control Branch chief, and Edward B. Gable, chief of the Carrier Rulings Branch; DOT's Murray A. Haber, assistant chief of the Documentation and Procedures Division, Office of Facilitation, and George W. Dyson, assistant regional director of the Dept. of Agriculture's Animal and Plant Health Inspection Services. William Payne, deputy regional commissioner, headed the Customs Service team here participating.

The proposal—set for a limited "dry run" starting in mid-September—envisioned substitution of the ocean carriers' bills of lading for the now independently-prepared Customs Manifest, to document inbound cargo being discharged at U.S. ports. The commercial documents are now largely standardized on a common format coming into worldwide use.

Instead of delivery to the Customs inspector on the dock of a set of the official forms, the arriving ship

would provide the ladings, with a "cover" transmittal sheet giving essential voyage details. The latter document is also standardized—the Cargo Declaration—one of several formats for ships' use at world ports urged for adoption by the United Nations' Intergovernmental Maritime Consultative Organization (IMCO).

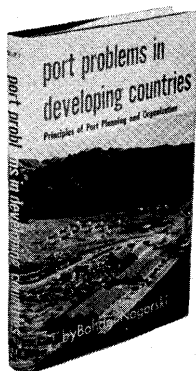
The seven steamship companies and agencies participating in the first tests estimate that a substantial portion of their inbound documentation manhours could be eliminated if the procedure is ultimately adopted nationally.

Use of bills of lading for outbound Customs clearance—as an option to filing a separate, detailed government cargo form—has been permitted for several years. Such use for both export and import Customs documentation is also urged by IMCO and already adopted by several nations.

The test program was hastened by industry urgings that adoption of use of ladings would improve the "quality" of inward Customs documentation and therefore lessen excessive paperwork otherwise required by the Customs Quantity Control program.

Since the test program's evaluation will ultimately be on a cost-effective basis, participants are also submitting reports to Customs on manhours required under the two systems, frequency of errors involved (as in transposing data from ladings to the government form) and other operational information.

The San Francisco test follows other, earlier uses of Golden Gate commerce to try out facilitation measures, Greene noted, including off-dock clearance of containerized cargo and "radio pratique" clearance of arriving ships without Quarantine inspection.



160 x 233 mm hard-cover
book, 293 pages covering
every aspect of principles
of port planning and oper-
ation.

IAPH Publication—

port problems in developing countries

by Bohdan Nagorski

US\$12.00 (including surface mailing charge)

Airmail sur-charge:

Area I (Asia, Oceania)	US\$5.20
Area II (Canada, U.S.A. Central America)	US\$6.80
Area III (Europe, Africa, South America).....	US\$8.60

Delivery on Receipt of Remittance Only

Order to:

The International Association of Ports and Harbors

Kotohira Kaikan Bldg., 1, Kotohira-cho, Minato-ku, Tokyo 105, Japan

"I am sure, the book will be readily accepted a "bible" by the port industry throughout the world".

—Editor, the Dock and Harbour Authority

"I would like to take this opportunity to say that I found the study by the author of this book to be of tremendous interest and I would like to congratulate Mr. Nagorski on a first class work".

—Assistant Secretary General, ICHCA

ANNOUNCING !!

Bohdan Nagorski's "Port Problems in Developing Countries" is now available in New York.

Please send your order now to:

Marine Terminals

The Port Authority of New York and New Jersey

One World Trade Center

New York, New York 10048

Telephone: (212) 466-7953

(201) 622-6600, ext. 7953

port problems in developing countries

by Bohdan Nagorski—Published by IAPH

Price: US\$12.00 (including surface mailing charge)

Airmail sur-charge: Area I (Asia, Oceania) US\$5.20
Area II (Canada, U.S.A. Central America) US\$6.80
Area III (Europe, Africa, South America) US\$8.60

I order _____ copy/copies of the book to be sent
by airmail/surface mail to:

Mr.

Name (please use block letter) _____ (first - last)

Address _____

Delivery on Receipt of Remittance Only

**Affix
stamp
here**

**The International Association of
Ports and Harbors**

**Kotohira Kaikan Building,
No. 1, Kotohira-cho, Minato-ku,
Tokyo 105, JAPAN**

Orbiter Probe

AAPA Annual Convention

San Diego, Calif.:—According to the preliminary program issued by the San Diego Unified Port District, the 62nd Annual Convention of the American Association of Port Authorities will be held October 14 through 18, 1973 at the Sheraton-Harbor Island Hotel.

Dredging and Ecology Conference

San Diego, Calif., 9/13/73 (C-MANC News Release):—Conflict of stringent Federal "guidelines" and enforcing regulations by the states on the growing demands of navigation will be reviewed critically October 13 at a special dredging Conference in San Diego.

J. Monroe Sullivan, Port of San Francisco consultant and conference chairman, announced the theme of the one-day meeting as "Ecology, Economics and Dredging: A Balancing Point for Navigation." Sponsor is the California Marine Affairs and Navigation Conference in cooperation with the World Dredging Association, American Association of Port Authorities and the Port of San Diego.

Eleven speakers—government and industry—will outline the problems faced in assuring environmental protection and maintaining and improving channels and harbors.

The morning session—titled "Challenges and Needs—Ecology and Economics"—will feature Lawrence L. Whiteneck, Los Angeles Harbor chief engineer, and John N. Henderson, Standard Oil Company Richmond Terminal superintendent, outlining shipping access requirements. Responding on behalf of the environment will be Charles Fullerton, deputy director of the California Department of Fish and Game, Russell Earnest, area supervisor for the Federal Bureau of Sports Fisheries and Wildlife, Dept. of Interior, and Joseph Edmiston,

Southern California coastal coordinator, Los Angeles chapter, Sierra Club.

"Responses: Reactions and Regulations" will highlight afternoon reports by Richard L. O'Connell, enforcement director for EPA's region IX, California Water Resources Control Board member Roy E. Dodson, and Brig. Gen. George Fink, South Pacific Division Army Engineer. Frank C. Boerger, chairman of C-MANC's S.F. Bay Region Dredging Committee, will outline that task force's efforts to be constructively responsive to needs of both the environment and navigation.

More than an hour has been scheduled for audience questions and participation, Sullivan said. He noted the collision course of regulations and essential dredging affects not only deep draft ports, but also, small draft harbors and marinas at a time of increasing demand for recreational boating facilities. Both large and small projects face in common escalating costs to maintain access channels.

Scheduled for a 9 a.m. opening at the TraveLodge Inn on San Diego's Harbor Island, Sullivan said space would be limited but registration still available from C-MANC, 303 World Trade Center, San Francisco 94111. The \$12 fee includes luncheon and all activities.

Banner Year 1973

OTTAWA, August 23 (The St. Lawrence Seaway Authority):—At mid-season, all indications point towards new traffic records in both sections of the St. Lawrence Seaway. At the end of July 1973, tonnage surpassed the 1972 figures by 3.8 million tons in the Montreal-Lake Ontario section and 3.9 million tons in the Welland section. Should this pattern continue until the end of the season, last year's levels of 53.7 million and 64.2 million tons on the two sections will be

surpassed and new marks established for the fourth consecutive year.

Major gains have been registered so far in most bulk categories which represent the mainstay of Seaway operations. Of particular significance is the fact that iron ore and grain traffic, which usually account for over 70% of the total traffic, are up significantly this year. Increases of 30% in the former category and an overall increase of about 20% in the grain traffic indicate the growing importance of the Seaway system to the North-American economy.

Apart from being the fifteenth year of operation of the deep waterway, the 1973 season will go down in history as the year of the opening of the welland By-Pass. At the official opening ceremony last July 14, the Honourable John Munro paid tribute to the men who made possible the successful completion of the By-Pass which, he said: "represented another remarkable engineering feat designed to meet the needs of our changing times."

It is also worth mentioning that the 1973 season saw the earliest opening in the St. Lawrence Seaway since its inception in 1959. The "David, Marquess of Milford," a British vessel, locked through at St. Lambert on March 28 setting the pace for what appears to be the busiest season in Seaway history.

Dundalk Container Records Pace Port Commerce

Baltimore, Md., September 5 (News from Maryland Port Administration):—Two new container records at Dundalk Marine Terminal paced an overall increase in the port of Baltimore's total foreign waterborne commerce for the first six months of 1973.

New half year highs in both the total number of containers handled and in total container tonnage were registered at Dundalk, according to figures just compiled by the Maryland Port Administration, an agency of the State Department of Transportation.

Baltimore's overall import-export foreign trade for the period showed a rise of more than 10 per cent over the same point in 1972.



Boston, Mass.:—The Boston-Mystic Public Container Terminal 50-ton LeTourneau Letro-port straddle crane. The straddle crane, located at the J. F. Moran Docks, in Charlestown, Mass., works in conjunction with the 70-ton capacity Hitachi crane. (Massachusetts Port Authority)

Containers handled at Dundalk for the month of June totaled 12,787 boxes, bringing the six-month 1973 figure to 79,692, a 68.8 per cent rise over the old record of 47,188 established last year.

Dundalk's container tonnage for June was 146,850 tons, jumping the total thus far in 1973 to a huge 913,456 tons, about 62.6 per cent above the old high mark of 561,587 set in 1972.

As Baltimore's center for container activity, Dundalk led the port to the greatest container year in its history in 1972, handling a total of 1.23 million tons of container cargo out of a portwide figure of

about 1.8 million tons.

Baltimore's overall foreign waterborne commerce increased about 1.6 million tons for the first half of 1973 over the previous year, hitting a mark of 17.07 million tons. Total export trade was up 21.4 per cent over last year while import trade showed a 5.8 per cent rise.

Continuing to highlight the port's export trade picture was grain shipments, up 802,732 tons over last year to a figure of almost 2.2 million tons. Leading grains included wheat, which jumped 81.8 per cent to 194,518 tons; corn, which rose 80.2 per cent to over 1.3 million tons; and soybeans, which increas-

ed 42.8 per cent to 358,767 tons.

In 1972, Baltimore experienced one of the greatest grain export years in its history, with the port's three grain elevators handling almost 1.7 million tons of corn and wheat alone.

On the import side, petroleum was by far and away the dominant commodity for the first six months of 1973, reaching a level of nearly 5.2 million tons through June, an increase of more than 726,000 tons or 16.3 per cent over the same figure of last year.

As in the case of export grain, the steady increase in Baltimore's petroleum imports in 1973 continues the high rate established for that commodity last year when it was the largest single item handled in the port, registering a total of 9.2 million tons.

Chicago Office Opened

Charleston, S. C., September 6 (News from S.C. Ports):—The South Carolina State Ports Authority has opened a Midwest Regional office in downtown Chicago.

The Chicago office is the South Carolina agency's third out-of-state regional sales headquarters. Others are in New York and Tokyo. Preparations are being completed for an European regional office which will be opened this winter in Brussels, Belgium.

The Midwest office is located in Chicago's newly-completed Randolph-Wacker Building. Opening ceremonies were highlighted by a reception (September 6) for top executives of transportation industries in the Midwest as well as Ports Authority officials and representatives of Charleston waterfront businesses.

The South Carolina State Ports Authority operates major seaport terminals at Charleston, Georgetown and Port Royal, and provides air freight services at the Piedmont-Inland Port located at the Greenville-Spartanburg Airport. W. Donald Welch is executive director.

Walter Hugh Swanson is the Authority's Midwest regional manager. A veteran of 27 years in the transportation field, Swanson most

(Continued on Next Page Bottom)

Soya Export Ban Hits Port of Toronto's Tonnage

Toronto Harbour Commission
Ontario, Canada

Toronto, Ontario, July 1973:—The federal government's embargo on the export of soya beans, rapeseed and flax seed imposed in June, has dealt a severe blow to the Port of Toronto's overseas tonnage.

In a report to the Commissioners, Harbour Master John Mann said that two overseas vessels which had entered port to load export soya meal for Europe had been refused permits to load even though the cargoes had been contracted in 1972.

"Every effort was made to obtain an early ruling from Ottawa," said the harbour master, "but in both cases no decision was reached until the vessel had remained on berth for four or five days at a cost of several thousand dollars a day."

The Greek ship *Spartan Bay* was to have loaded soya meal at Victory Mills and the Soviet freighter *Vasya Shishkovsky* waited for days to load meal at Maple Leaf Mills.

recently was Midwest regional manager for Texas Transportation and Terminal Company in Chicago. He joined the SCSA staff last May.

New York Office Appointment

Charleston, S. C. (News from South Carolina Ports, September 21):—Carl M. Staggs has joined the New York staff of the South Carolina State Ports Authority.

Trade Development Director Charles A. Marsh said Staggs holds a newly created post as assistant manager in New York, with responsibility for the state's Northwest region.

The New York Regional office was opened last January. The South Carolina agency operates other out-of-state offices in Chicago and Tokyo, and will soon open one in Brussels.

"The loss of these two export cargoes alone amounts to about 9,000 tons," explained Captain Mann, "and the two mills were expected to export about the same amount of soya meal as last year, which will affect the tonnage figures by at least 100,000 tons."

The embargo is scheduled to continue until October 15.

It will be impossible to export any more soya meal for the rest of the season," said Murray Davis, export manager for Victory Soya Mills. "By October, not only will it be very hard to find anyone to buy the product," he continued, "but foreign buyers will not be too keen on entering into a Canadian contract now that they have been let down."

Davis explained that the cost of awaiting Ottawa's decision on the soya meal amounted to a total of \$2,000 a day for the vessel alone.

"Labour was standing by throughout the four-and-a-half day period," he added, "ready to start loading if we got the go-ahead."

Ottawa's decision to maintain a complete embargo on soya exports, even those contracted months before the June ruling, has greatly angered exporters.

"At the time of the embargo," Davis explained, Victory Mills had sufficient meal and raw products on hand to fulfill all contractual commitments and to meet all normal domestic requirements."

Failure to ship exports will result in a stoppage of soya beans being imported into the port for processing, which could mean a work slowdown at the mills.

Victory Mills is one of the few industries that imports raw materials from the United States, processes them and exports the end product. Usually the situation is reversed.

Additional embargoes were placed, July 16, on alfalfa products, by-products of distilling, brewing and meat packing used in animal feeds, animal fat, edible oils and corn meal and all other protein livestock feeds. The following day the Department of Industry, Trade and Commerce, said that approved export permits for shipments of iron and steel scrap on and after August 1 were cancelled, effective immediately.

These embargoes are expected to affect total tonnage figures by more than 25,000 tons.

The world trade situation is reflected in the Port of Toronto's overseas tonnage figures to July 14, 1973, which are down 300,000 tons or 50 percent. A world shortage of steel, devaluation of the U.S. dollar, the high cost of chartering vessels, and effect of the strike last year in St. Lawrence River Ports are four major reasons for the decrease.

Offsetting the decrease in overseas cargo is a big increase in domestic cargo. Last year a total of 667,720 tons of cargo were handled in the first 12 weeks of the season compared to 831,429 tons this year, an increase of 163,709 tons.

Container traffic for the period to the end of May is at last year's level when 2,419 boxes of equivalent 20-foot lengths were handled.

News from Port of Duluth

Duluth, Minn.:—C. Thomas Burke, Executive Director, Seaway Port Authority of Duluth, Minnesota, in speeches before the Duluth Area Chamber of Commerce and the Minnesota World Trade Association, has announced the passage of the 50 millionth ton of international cargo through the port since the opening of the St. Lawrence Seaway in 1959.

International shipping began in earnest with the arrival in the Port of Duluth-Superior of the British motor vessel "Ramon De Larriaga" on May 3, 1959, marking the extension of America's Fourth Seacoast 2300 miles inland to Minnesota's World Port. 234 other deep draft oceangoing ships called in Duluth-Superior that year and international cargo movements climbed to 1.9 million tons.

The 2 million ton mark was

reached the following year and the 3 million ton mark was topped in 1964. In the decade that Burke has called the "Seaway Seventies," import-export cargoes have remained above the 4 million ton mark and last year another record was set with international cargo movements climbing over 5.2 million tons. Thus far in the 1973 season over 5 million tons have already been shipped and a significant new record will be established.

In making the 50 millionth ton announcement, Burke disclosed that a commemorative coin has been struck in honor of the occasion. The coin depicts an ocean vessel passing under Duluth's famed Aerial Bridge and carries the phrase, "World Peace Through World Trade."

Burke said it is that principle which has guided the Port Authority to the new milestone and it will be the foundation on which the future will be built.

He said those who are familiar with Duluth-Superior port activities know that the bulk of the cargo making up the 50 million tons has been the agricultural products of Midwest farms. Burke noted that the largest single export general cargo item moving through the port has been government relief supplies, powdered milk, flour and bulgur destined for such places as Pakistan, India, Bangladesh and other developing nations.

Burke revealed that he has written to President Nixon and United Nations Secretary-General Kurt Waldheim suggesting that the United States, in conjunction with the United Nations, conduct a WORLD FOOD CONGRESS here in the breadbasket of the United States . . . Duluth, Minnesota.

The purpose of such a meeting would be to establish a United Nations FOOD-KEEPING MISSION and to determine the real food needs of all nations and in so doing protect not only the wealthy countries but the developing nations as well. Terms of sale; storage; allocation; transportation and proper dissemination of product at destination would come under the purview of such a Mission.

A WORLD FOOD BANK made

up of those nations capable of contributing their food excesses would be a natural outgrowth of such an organization. And it is not inconceivable that WORLD FOOD RATIONING would also follow. Certainly we in the United States must realize that our farm production, like the value of the U.S. dollar, cannot solve world problems forever. If we are to once again show world leadership, we must re-order our priorities and live within the new structure no matter how distasteful it may be. Innovation and courage in the face of this new world challenge will be the responsibility of our entire society.

Port Master Planning Must Be First

Los Angeles, Calif., September 6 (Port of Los Angeles):—Harbor master planning has gained importance in recent years largely due to coastal zone and environmental legislation, according to Donald A. Walsh, director of planning and research at the Port of Los Angeles.

It would have been even better, however, if the planning had begun before the upsurge in containerization a decade ago, he added.

Walsh made his claims in a 10,000 word paper on port master planning philosophy and practice to be given along with a slide presentation to the Los Angeles metropolitan section of the Society of Naval Architects and Marine Engineers (SNAME) at a 6:30 meeting Thursday (9-13) at the Princess Louise Restaurant at the Port.

"New coastal zone legislation has been passed in many states which require some sort of master plan before permits will be issued by responsible agencies for new port projects," notes Walsh.

If master planning had been a practice before containerization, which forced the construction of many new facilities at large established commercial harbors during the last decade, ports would be better able to accommodate new ship and methods of cargo handling.

Walsh indicates that most harbor officials are now aware of the need for port planning. There are two general ways of organizing a master plan after an established harbor

previously has grown on a project-by-project basis.

The first is to plan the harbor as single entity. But Walsh believes that a port should be divided into sections and studied in terms of economic activity carried on in each area.

After generally discussing goals, objectives and constraints of a master plan, Walsh explains the present master plan scheduling underway at the Port of Los Angeles.

This planning, under Walsh's direction and with use of outside consultants when necessary, is divided into 17 separate segments, including eight geographical areas in the Port.

The present master planning schedule also includes marketing, land acquisition and land transportation studies along with specific inquiries as to the best method of handling anticipated larger oil tankers carrying Alaskan and Mid-Eastern oil. The best location for a new Los Angeles Harbor Department headquarters building is also being considered.

The 17 segments of the Port of Los Angeles master plan should be completed by August, 1975, and if approved, will guide the port up through the year 1990.

Substantial Cargo Tonnage Increase

New Orleans, La., September 15 (Port of New Orleans News Release):—The Port of New Orleans recorded "substantial cargo tonnage increases for fiscal year 1972—73," according to the annual report submitted to the Governor of Louisiana by Eads Poitevent, president of the Board of Commissioners of the port.

Sizable gains in grain and cotton exports and in plywood and steel imports brought the port's cargo total to 17.9 million tons, a 23 percent increase over the previous fiscal year. The cargo was valued at more than \$2.5 billion. There were 4,836 vessel arrivals recorded, a 17 percent increase over last year.

Major projects of the port during the fiscal year were the purchase of the Stuyvesant Docks from the I.C.G. Railroad and commencement of their reconstruction; com-

pletion of the first berth at the France Road Container Terminal and beginning of work on the second berth; and installation of more than a million dollars worth of dust collection equipment at the Public Bulk Terminal and the Public Grain Elevator. Two land-based container cranes were placed into operation by one of the Board's tenants at a cost to the tenant of approximately \$3 million. Another port operator placed in operation a 300-ton truck mounted crane at a cost to the operator of about \$400,000.

Poitevent reported to Governor Edwin W. Edwards that "the port has made tremendous strides since the reorganization of 1940. With approximately a fifth of the number of persons on the payroll prior to 1940, the port now does more than three times the amount of business. This economic success has been brought about because the Board has been permitted to function as an autonomous business entity, managed by outstanding and successful industrial and professional leaders in the community, all of whom are nominated by their peers for your selection and appointment.

"Our prestige among world ports continues to increase. The U.S. Maritime Administration classified New Orleans as the third largest port in the world, the second largest port in the United States, and the largest port on the Gulf. The port is the state's largest industry, contributing \$2 billion a year to the state's economy and approximately \$700,000 a day to the local economy. Some 37,000 people are employed in port-related jobs in this area, and the port handles 80 percent of Louisiana's exported manufactured goods and 50 percent of its exported farm products. In addition, port activity during the past year generated \$19 million in state taxes."

The tonnage total for cargo passing over public facilities at the port includes 4.8 million tons of imports, 11 percent above last year, and 13.1 million tons of exports, 29 percent above last year. General cargo total tonnage came to 6.6 million tons, 27 percent above last year. Grain exports were up 22 per-



SAN FRANCISCO (MARINE EXCHANGE OF THE SAN FRANCISCO BAY REGION) 8/2/73:—A view of his post was presented new Regional Customs Commissioner Roland Raymond at a welcome reception recently at the Sanford Court Hotel. John Sundfelt and James J. Burns (left) presented the career official the Golden Gate panorama on behalf of the San Francisco Customs Brokers and Freight Forwarders Association, while the Marine Exchange's facilitation chairman, J. J. Greene (right) looked. Raymond will headquarter in San Francisco with responsibility for several Customs districts. Experienced with assignments on both U.S. coasts and overseas, he was last deputy commissioner in New York. More than 150 industry and government representatives attended the "welcome aboard" event.

cent at 8.7 million tons. Bulk commodities at the Public Bulk Terminal were up 51 percent at 2 million tons. Cotton exports were up 19 percent at 800,000 bales. The number of containers handled was up 44 percent, with 52,000 units. Coffee imports were down 5 percent at 3.9 million bags. Banana imports were down 18 percent at 148,000 tons.

The port now has two special container cranes in operation, and two more are planned for the current fiscal year.

Milan Street Wharf Dedicated

New Orleans, La., August 31 (Port of New Orleans News Release):—Louisiana Governor Edwin W. Edwards formally dedicated the Port of New Orleans' new Milan Street wharf today. Eads Poitevent, President of the Board of Commissioners of the Port of New Orleans, was Master of Ceremonies, and Secretary of Labor Peter J. Brennan was principal speaker.

The Milan Street wharf, just downstream from the Napoleon Avenue wharf on the Mississippi River, is one of the first terminals in the United States built specifically to accommodate barge-carrying vessels and their barges. The 1,265-foot wharf, with its shed and railroad approaches, costs \$6 million and is the first step in the port's rebuilding of a major waterfront area formerly owned by Illinois Central Gulf Railroad and known as Stuyvesant Docks.

"This magnificent wharf has the capacity to handle 650,000 tons of cargo a year, which would generate 120,000 man-days of employment and \$12 million in economic impact on the community," said E. S. Reed, Port Director. Delta Steamship Lines will be the assignee of the new wharf.

Secretary of Labor Brennan was sworn into office last February. A long-time trade unionist, Brennan was formerly president of the New York City and New York State

Building and Construction Trades Councils. He has also served as vice-president of the New York State AFL-CIO. As a union official, he played an active role in efforts to bring minority group workers into apprenticeship programs of the building and construction trades in New York.

Several hundred guests from the shipping and business community attended the dedication. The Eighth Naval District band furnished music.

New Passenger Ship Terminal

New York, Sept. 13 (News from The Port Authority of NY & NJ):—A unique self-propelled passenger gangway and baggage conveyor system will be a welcome convenience for travelers at the new Passenger Ship Terminal under construction on Manhattan's West Side. Fourteen 60-foot-long airplane-type loading bridges or gangways and conveyors will be installed next year at Piers 88, 90 and 92 on the Hudson River under a \$2,297,700 contract awarded today by the Commissioners of the Port Authority, it was announced by Chairman James C. Kellogg, 3rd.

The specially-designed, electrically powered gangways, which will ride on rails on the outside of the three piers, will accommodate a wide variation in elevation so that passengers can be moved to and from the loading decks of ships of varying configurations.

The contract was awarded to Wollard Aircraft Equipment Co. of Miami, the low bidder. The new passenger gangways and baggage conveyors will be installed in mid-1974.

The Passenger Ship Terminal involves reconstruction of Piers 88, 90 and 92—three obsolete Hudson River piers between 48th and 52nd Streets to provide six ship berths with the most modern passenger facilities. The exteriors of the piers are being rehabilitated and the interiors rebuilt to include modern heated and air-conditioned areas for passengers and baggage. The ground level of each pier structure is being retained as a service area for the delivery of equipment and ships' stores. Convenient access to

the terminal will be provided via vehicular ramps and a 20-foot-wide sidewalk with a glass wind-break which will permit easy pickup and discharge of passengers and their baggage.

The old peaked roofs on the piers have been removed and the buildings stripped to make way for new flat roofs now completed and capable of providing about 1,000 public parking spaces. Structural steel has been erected at all three piers. The 1,700-foot-long viaduct roadway structure, which fronts the three piers, is well under way, as well as the interior finishes of the terminal facilities.

The new terminal is being constructed at an estimated cost of \$35,900,000. It will be operated by the Port Authority under a 20-year lease with the City of New York.

New Acting Executive Director

New York, Aug. 9 (News from The Port Authority of NY & NJ):—The appointment of A. Gerdes Kuhbach as Acting Executive Director of the Port Authority to succeed Matthias E. Lukens, who is retiring, was announced today by Chairman James C. Kellogg, 3rd, following the regular Board meeting of the Commissioners of the Port Authority. Mr. Kuhbach joined the Port Authority staff in 1962 as Director of Finance.

Mr. Lukens has served as Acting Executive Director since December 1971. He served as Deputy Executive Director for eleven years prior to that and is completing a 26-year career with the Port Authority.

Chairman Kellogg expressed deep appreciation on behalf of the Commissioners to Mr. Lukens for his outstanding career of public service to the Port Authority. He noted that "Mr. Lukens' contributions to the management and staff leadership of the Authority as Acting Executive Director and throughout his distinguished years of service have been of inestimable value to all of us. His sound judgment and tireless spirit have motivated the staff to carry out their responsibilities with dedication and skill. We shall miss him, and wish him well."

Prior to joining the Port Au-

thority, Mr. Kuhbach had served as Executive Vice President of the New Haven Railroad and had been with that organization in a variety of positions since 1941. Mr. Kuhbach graduated from Columbia College in 1938 and Columbia Law School in 1940. Mr. Kuhbach, who is 56 years old, is a resident of Chatham, New Jersey. He is married and has three children.

Philadelphia Port Corporation

BACKGROUND: The Philadelphia Port Corporation is dedicated to protecting and improving Philadelphia's most valuable asset. The largest freshwater port on the Atlantic seaboard, the Philadelphia Port is an ideal location for import, export and distribution. It is in the center of the world's richest market place and boasts the greatest population, industry and wealth in a 100 mile radius. Thousands of jobs, generating millions of dollars in economic gains for the community, are interwoven through the port and port-related industry.

OPERATION: It is the second largest port in the United States and the third largest port in the world. The Philadelphia Port Corporation was established to oversee and manage the General Cargo port facilities for the City of Philadelphia. It is responsible for the improvement, maintenance and construction of new and modern piers for use by the world's shippers. It also assists in developing, promoting and recruiting new shipping.

HISTORY: Formed in 1965 as a partnership between the City of Philadelphia, the Commonwealth of Pennsylvania and the Greater Philadelphia Chamber of Commerce, the Philadelphia Port Corporation's primary goal is to construct new modern terminals and upgrade existing pier facilities along the 23 mile Delaware River waterfront. To attract more shippers to use the Port, the Corporation embarked on a twelve year plan for extensive modernization, aided through self-sustaining bond issues and state and city contributions.

SHIPPING DATA: Located just 88 nautical miles from the Sea, the Philadelphia Port is capable of handling as many as 100 large cargo

ships at any one time. Ships with draughts of up to 38'6" are able to freely navigate without delay. The Philadelphia Port handled approximately 6 million tons of general cargo in 1972. To complement the nautical aspect, more than 30 foreign consuls, packing and crating firms, stevedores, steamship agents and myriad other port-oriented services are available for cargo movement. Moreover, the port is serviced by three major railroad trunk lines, 30 foreign freight forwarders, custom house brokers, hundreds of motor carriers and eight major banks with international departments.

PACKER AVENUE MARINE TERMINAL: All types of general cargo are handled at this modern marine terminal situated over 100 acres along the Delaware River at Packer Avenue. The terminal opened in 1967 and has grown in size and capability. It has three break-bulk cargo berths, four single deck transit sheds 500 ft. by 200 ft., two 100,000 sq. ft. warehouses and a refrigerated warehouse of 88,000 sq. ft. Two additional berths for container cargo were constructed in 1972 along with a roll-on, roll-off berth to accommodate the world's most modern ships. A huge container crane, soon to be joined by a second unit, will assist shippers in loading and unloading their cargo.

TIOGA MARINE TERMINAL: On the Delaware River at Allegheny Avenue. Philadelphia's newest Port terminal is situated on a 75 acre site. Ranks among the finest marine terminals in the world. Equipped to handle general cargo, containerized, unitized and break-bulk cargo. Also designed with a roll-on, roll-off berth and facilities for storage of Liquefied Natural Gas. Another 64-foot high, 16-wheeled container crane will soon be added to Tioga's present mammoth container crane making this terminal one of the most efficient and productive on the East Coast. With seven berths, approaching a mile in length. Tioga Marine Terminal has complete rail and motor transport services to assist shippers.



EMPEROR NORTON—San Francisco's early-day self-styled "king"—appeared to approve of John A. Sundfelt's recent election as president of the San Francisco Customs Brokers and Freight Forwarders Association. Sundfelt—2nd from left—is manager of Frank P. Dow Co. He was congratulated by James J. Burns, retiring association president, who is also president of Thornley & Pitt, Inc. Also selected to lead the Golden Gate group of brokers and forwarders were (right) Bonnie Biejen, manager of Harper, Robinson & Co., who will serve as secretary, and Kevin Maloney, marketing director of Enterprise Shipping Co., treasurer. Not shown is Bill Bosque, partner of J. E. Lowden & Co., who was elected vice president. (9/27/73)

Spanish Landing Park Extension

San Diego, Calif., 29 August (Port of San Diego News Release):—The Port of San Diego announced that plans are essentially complete for the first 1,100 feet of the Spanish Landing Park extension which will extend the present park westward up to a proposed sand beach. In action at the Port Commission meeting later in the day Commissioners unanimously voted to authorize advertising for bids for development.

The remaining 1,600-foot portion of the park extension, which includes the planned beach, parking areas and a comfort station, must be delayed until the contractor vacates the area after his completion of the City of San Diego sewer force main contract. The latest information

has completion scheduled for late fall 1974 due to problems in construction.

The Spanish Landing extension will be a continuation of the existing park on Harbor Drive and opposite Lindbergh Field. Similar landscaping, riprap shore protection, lighting, bicycle path, parking facilities and other characteristics will be maintained in the new addition's design.

Two federal grants are available to assist in both the east and west Spanish Landing extensions. A sum of \$250,000 has been allocated by the Department of Housing and Urban Development. One half of the bicycle path will be financed by the Federal Bureau of Outdoor Recreation.

Export Grain Terminal Bringing Economic Benefit

Seattle, Wash., September 7 (News Release from Port of Seattle):—Predictions by the Port of Seattle that its new export grain terminal would substantially increase Puget Sound wheat exports are proving true. More than 1,225,000 tons have been loaded aboard 82 ships during the first eight months of 1973, according to a September 1 report by Cargill, Inc., operator of Pier 86.

The eight-month figure exceeds the total for any full year in Seattle's history. Each ship loaded during the balance of the year, Port officials pointed out, will set a new record.

The Port also noted that the economic return to the community, based on a conservative estimate of \$10 per ton, is more than \$12 million so far this year, roughly the entire cost of the Pier 86 facility. Should the total wheat exports for 1973 reach two million tons, King County's economic benefit—which includes shipside and shoreside payrolls, ship expenditures, etc.—will be in the neighborhood of \$20 million.

Mechanical Handling Exhibition

Paris:—The 15th International Mechanical Handling Exhibition will be held from November 30 through December 7, 1973 at Palais de la Defense (C.N.I.T.). More information may be obtained from
M. A. Hedoux
Salon International
de la Manutention
20, rue du Colisee
75 Paris 8
FRANCE.

7,000 Hectares for the New Port

Antwerp, 21 September (Port of Antwerp):—On April 1, 1971 the construction of a sea lock (360 m×50 m) on the left bank of the river Scheldt started. This date can be considered as the take off of the vast expansion project for the port of Antwerp, aiming at the development of an area of 7,000 hectares (the present port located

on the right bank of the river covers over 10,000 hectares).

Since then the works continued. Today a first zone of 1,250 hectares has been expropriated and expropriations are carried out in the second zone of 1,600 hectares. The works at the lock entered the last phase; the cost, including the bridges over the lock, amounts to 2.7 billion Belgian Francs (about \$67.5 million).

Several industries are already established in the new area. The German chemical companies Bayer (200 hectares) and Haltermann (34 hectares) and the French Progil (160 hectares) as well as two electric power stations, a thermic station in operation on a site of 65 hectares and a nuclear station under construction on 87 hectares.

Other works carried out include construction of roads and railroads. End of June the building of a tunnel under the future canal dock was allocated for an amount of 1.4 billion Belgian Francs (\$35 million). Completion of the lock and the first dock is scheduled for 1975.

"Port of Ghent" Information Periodical

Ghent, Belgium:—The inaugural message for this 16-page, 4-language periodical by Mr. G. Van Den Daele, Burgomaster of the City of Ghent, is quoted below:

"It is a real pleasure to me to introduce the new periodical «Port of Ghent». This publication aims at giving regularly information about our port. The various economic and technical aspects, directly or indirectly related to the port, will be commented upon. Subjects as the expansion, the development of companies and also the difficulties and the complications will be reported and investigated. The increase of the port's access up to 125,000 tons and the connected extensions of the port zone will be closely followed. I express the confident hope that the informative periodical «Port of Ghent» will become a rich source for a better knowledge of the port's activities and that it will prompt everyone to an entire co-operation."

PLA Participate in JONSDAP '73

London (News from PLA, 17th September): — During the period September 10 1973 to October 20 1973 the PLA's Hydrographic Service will be participating with some 50 research institutes and laboratories of European countries in JONSDAP 73 (Joint North Sea Data Acquisition Programme 1973).

Because of its concern for conservation and its particular interest in ensuring safe navigation for the very large vessels which will be using Maplin Seaport the PLA is happy to co-operate in this research programme.

JONSDAP 73 has the objectives of carrying out thorough going research to provide a range of scientific information essential to fishery conservation, prevention of pollution, tidal activity and the establishing of safe deep water routeing for super tankers.

The PLA survey vessel "MAPLIN" will lay meters to record velocity and direction of currents on the sea bed in the Thames outer estuary, and also will set a submersible automatic tide recorder to measure tidal range during the 40-day period.

"MAPLIN" will be positioned at various points in the outer estuary during the research programme where, in 13-hour spells, she will be carrying out surface readings, monitoring sea temperature and salinity measurements and making tide flow observations. Other participating European countries will be paralleling these activities off their own coastlines and all the information gained will then be processed through computers under the direction of the Institute of Oceanographic Sciences.

It is believed that one of the benefits will be a better understanding of conditions producing storm tide surges and this will help in devising flood defence and flood control measures.

PLA Award Travel Scholarship for Middle Management Trainees

London (News from PLA, 3rd
(Continued on Next Page Bottom)

New China Terminal for Port of London Authority

London, 24th September (News from PLA):—Mr. John Lunch, Director-General of the Port of London Authority, and Mrs. Lunch accompanied by Mr. Alan Holland, PLA Trade Development Manager, have just completed a two-week business visit to China. They were guests of the China Ocean Shipping Co.

After important discussions in Peking they visited China's two largest ports, Shanghai and Canton.

Speaking on his arrival in Hong Kong on September 21st Mr. Lunch said: "This has been a highly successful visit. We received every help and kindness from our Chinese hosts. I met Mr. T'ao Chi, Vice-Minister of Communication responsible for seaports and inland transport, and Mr. Chen Hsu Fu, Vice-Minister of Foreign Trade, and both confirmed that the prospects for increased trade between China and Britain are bright.

I am happy to announce that as a result of a new commercial agreement reached in Peking with the Chinese authorities PLA will open a China Terminal in the Royal Group of Docks, in the Port of



Mr. John Lunch

London, at which the China trade will be concentrated, giving priority berthing to Chinese ships. The most efficient means of handling cargo to and from China will be introduced at this terminal thus benefiting exporters and importers as well as ships.

The China Terminal will start on January 1st 1974 and will be large enough to handle the substantially increased trade expected from the

training period in September. They include a docker who works in the Royal Docks.

The Director-General, Mr. John Lunch, said "Management development and training are very important. We already have a number of training arrangements and I welcome this new scheme. It will be a further step in our plan to provide a comprehensive career structure for all PLA employees.

"The PLA will award a travel scholarship of £250 to the best trainee on each course to enable him to widen his knowledge and experience by making a study of UK and Continental ports."

new agreement. We were entertained with great warmth and hospitality by our hosts and shown varied aspects of Chinese life. As a result we met many Chinese people in a wide range of occupations and made lots of good friends. This will provide a fine basis on which to build even more trade in the future.

I have issued an invitation to our Chinese hosts to come to London as guests of PLA and we look forward to entertaining them in London at a time to be mutually agreed."

Whilst in China Mr. and Mrs. Lunch and Mr. Holland travelled 4,000 miles and visited two communes, a food processing factory, a children's educational and play centre, and the Shanghai industrial exhibition.

They are continuing their business tour of the Far East in Hong Kong and Japan, where they will have discussions with leading government, industrial and shipping interests.

PLA Announce Selective Increase in Import Charges and Simplification of Container Schedule

London (News from PLA, 31st August):—The Port of London Authority is making selective increases in charges for handling import goods from October 1st, 1973. At the same time the opportunity has been taken to simplify and revise the schedule for import and export 'House-to-House' containers.

From October 1st the Transit Charge Rates on imports covered by the General Import Schedule and those schedules for fresh fruit and vegetables, tobacco and tobacco manufactures, wines, spirits and liqueurs will rise by 5% and other import rates—Basic Charge, Storage Rent, Daily Rent, etc.,—will rise by 8%. The simplified schedule for handling import and export 'House-to-House' containers will incorporate an 8% increase to reflect the high cost of handling this traffic through conventional berths.

The Authority have told their customers that in determining the increase full account has been taken of the Government's policy of restraint and the Prices Code. Part

September):—The Port of London Authority have introduced a training scheme for future middle management positions throughout their organization. This is a further step in PLA's management development programme. The scheme is open to all PLA employees and comprises a two-year training period, which will be flexible and best suited both to the individual and to PLA's future requirements. Day release to enable trainees to study for the Higher National Certificate in Business Studies is an essential feature of the scheme.

After a rigorous selection process, the first 12 trainees have now been chosen and will start their two-year

of increased costs have been absorbed by PLA and they have been actively promoting more efficient methods of cargo handling to ensure further cost control. Indeed, on August 27th they introduced substantially improved discounts for cargo on 'through-pallets,' raising the discount from £1.21 to £2.50 per tonne. Importers taking advantage of this will be in a good position to contain the new charges rise.

Leaflets detailing the revised charges are available from the PLA Charges Officer, Docks Director's Central Office, Royal Victoria Dock, London E16 1BJ.

Grimsby Car Terminal Scheme Given Go-Ahead

London, 25 September (B.T.D.B):—The port of Grimsby is to become the northern import and distribution centre for Volkswagen cars in Britain as a result of an agreement between the British Transport Docks Board and Volkswagen (GB) Ltd., announced today (Tuesday, 25 September).

In a scheme estimated to cost more than £400,000, the Docks Board will provide a new roll-on/roll-off berth to deal eventually with up to 50,000 vehicles a year. They will also widen the shipping access to Alexandra Dock for the large car carriers which Volkswagen propose to use.

The roll-on/roll-off berth is to be situated in the north-west corner of what is known as the Western Arm of Alexandra Dock and will consist of a simple fixed stern ramp. Adjacent to the berth, an area of 2.6 acres (1.05 hectares) has been leased to Volkswagen for use as a temporary storage area for cars before they are moved to a large new servicing and distribution depot which the company is setting up at Grimsby outside the dock estate.

Under the scheme the Union Dock Cutting between Royal Dock and Alexandra Dock will be increased in width from 44 ft. to 95 ft., thereby allowing entry into Alexandra Dock of the largest vessels which can enter Grimsby's enclosed dock system.

As a result of the removal of

floodgates in the Union Dock Cutting it will be necessary to provide a system of weirs and pumps to prevent the possibility of the River Freshney, which flows into Alexandra Dock, from flooding parts of the town. Grimsby Corporation has agreed to make seven annual grants, each of £18,000, to the Docks Board towards this capital expenditure.

Mr. R. Bury, Docks Manager for Grimsby and Immingham, expressed his delight that the scheme could now proceed and welcomed Volkswagen traffic as an important addition to Grimsby's trade. Grimsby's Chief Executive, Mr. F. W. Ward, said that Grimsby Corporation hoped that further developments of this type would come to Grimsby in view of South Humberside's favourable location in relation to the other Common Market countries.

ICHCA Tackles Unit Load Problems

London, 27 September (B.T.D.B., Issued on behalf of the U.K. National Committee of ICHCA):—A problem solving conference for those concerned with container and roll-on/roll-off handling methods is being organized by the International Cargo Handling Coordinating Association in London on 13th November.

The Association hopes that solutions may be found to a number of outstanding problems connected with unitised cargo systems. Hazardous chemicals, delicate foods, small parcels of ores, awkward lengths of metal sections and bulky engineering plant are examples of cargoes presenting special problems and a number of eminent speakers have accepted invitations to discuss them.

Mr. C. W. G. Wilson, Director of the Institute of Freight Forwarders will outline the problems in general, and specific deep-sea and short-sea aspects will be dealt with by Mr. R. E. W. Butcher, Operations Director of Atlantic Container Lines, and Mr. I. M. Churcher, General Manager, North Sea Ferries.

The Shipping Manager, Tubes Division, British Steel Corporation, Mr. R. A. L. Barr will speak on

problems of handling steel products; the Shipping Manager of the Fibres Division of I.C.I., Mr. A. R. Hutchinson will speak on 'units within units.'

The problems of documentation will be considered by Mr. K. H. Locke, Export Office Manager, Associated Biscuits Limited.

The Conference will be opened by Lord Hayter, Chairman of the Economic Development Committee for the Movement of Exports and the panel discussion at its close will be chaired by Mr. E. P. Chappell, Chairman of the National Ports Council. At the Conference luncheon there will be a short address by Lord Thorneycroft, Chairman of British Overseas Trade Board.

The Conference will be held at the Royal Commonwealth Society's Conference Hall, 16/20 Craven Street, London, W.C.2, beginning at 09.45 hours, and is timed to close at 17.00 hours. Conference brochures may be obtained from A. J. V. Merritt, Secretary, ICHCA (U.K.), P.O. Box 1, Yarm, Yorkshire.

Versatile Container Crane

Alameda, California, September 17 (Paceco News):—One of the huge Paceco Partainers at the Port of Southampton is shown loading double decker buses aboard the O.C.L. ship Liverpool Bay, bound for Australia.

The crane, specialized for handling containers, can handle general cargo and unusual cargo such as buses as well. It has a rated capacity of 35 Long Tons and has a 122 ft. outreach for servicing the largest of the new supercontainer-ships.

The Port of Southampton, a major container port in the world, has six of these large Paceco container handling cranes, which were built by Vickers Limited under a license agreement with Paceco, A Division of Fruehauf Corporation, Alameda, California.

Investment Boom Receding

Hamburg (Hafen Hamburg Report, 2/1973): — The investment boom among quay operators in Hamburg, which was caused mainly through structural alterations in maritime transportation, is

slowly receding. This is the conclusion reached by the Association of Port Operators in Hamburg in its recently published annual report. The largest projects (Burchardkai Container Terminal, Africa Terminal, Hapag-Lloyd Terminal, Holzmüller Terminal, Eurokai Terminal, Tollerort Terminal and Hansa/Hamburg-Süd Terminal) have either been completed or are nearing completion. From 1970 to 1972 approx. DM 220 m. was invested in suprastructure projects by quay operators in the Free Port area of Hamburg. According to the report, a further DM 90 million will be invested in 1973.

In both the field of general cargo handling and bulk goods the port facilities in Hamburg have undergone further modernization and specialization: for grain 17 floating and 64 shore elevators with a total discharging capacity of 10,500 t.p.h. are now available. Storage capacity now totals a good 800,000 tons. For liquid cargoes about 4 million cub. m. of tank storage space is available and it is planned to increase this to 5 million cub. m. by 1974. The extension of industrial processing capacities for ores, the concentration of handling operations for the West German potash industry in Hamburg and the modernization of the bulk goods facilities in the docks at Harburg (present daily capacity up to 30,000 tons) will mean a big increase in grab handling. The Port Economy Association anticipates important stimulus from the "Hansaport" project which is to be built by 1975/76 at a cost of about DM 100 million and attain an annual capacity of 9 or 12 million tons.

"Hamburg—The Quick Port"

Hamburg (Hafen Hamburg Report, 2/1973):—The new edition of "Hamburg—The Quick Port, General Information—Tariffs and Expenses," a brochure published annually in English, is now available. The brochure has been completely revised and brought up to date, detailing all the costs arising for a ship in the Port of Hamburg, such as port, loading, discharge, towing and mooring charges. Other information, for example the dock and



Versatile Container Crane — FACECO PORTAINER loading double decker buses in England. (Photo courtesy of the British Transport Docks Board)

repair facilities available, is also given. The booklets can be obtained from Hafen Hamburg Report or direct from the publisher (K. O. Storck & Co., 2 Hamburg 50, Stahltwiete 7) at a price of DM 6,00.

250,000 Containers in 1973 ?

Hamburg (Hafen Hamburg Report, 2/1973):—Following the good start to 1973 which the container traffic through Hamburg enjoyed in the first few months of this year, the Port expects at least 250,000 containers (on a 20 ft basis) to pass through by the end of the year. The biggest increase are expected in the East Asian traffic. In this sec-

tor alone 23 container ships (17 Trio and six Scan Dutch) are putting in, so that the planned departure rate of two ships per week is certain.

Ministerial Appointment

Lourenço Marques (Monthly Bulletin of the Mozambique Harbours Railways and Transport Administration, January 1973):—Engineer Fernando Augusto Soares Seixcs, General Manager of Ports, Railways and Transport Services of Mozambique (C.F.M.), was appointed superior inspector for Public Works and Communications of the Ministry of Overseas Affairs, by Order dated the 22nd December



Stanlow Oil Docks, Port of Manchester

last published in the "diário do Governo" (Government Gazette of Lisbon).

Married, he was born on 15th December, 1913, at Castro Daire, in the Viseu district of Continental Portugal.

—In 1939, he was contracted by the Ministry of Overseas Affairs as assistant engineer in the Brigade for the Construction of the Tete Railway Line.

—In 1946, he was contracted as Head of the Brigade for the Planning and Construction Division, continuing in the Brigade for the Construction of the Tete Railway Line.

—In 1950, by decision of the Ministry of Overseas Affairs, he proceeded to Angola in order to occupy the position of Inspector of the variant of the mountain range of Chela, contractual job of the Moçâmedes Railway Line.

—Having been nominated Chief Engineer of the main staff list, he took over this position officially on 22-5-1950.

—He returned from Angola in 1952 and was appointed Port Manager of Mozambique Island.

—In 1956, he became Port Manager of Lourenço Marques.

—In 1957, he became Port Man-

ager of Beira.

—Promoted to Managing Engineer on the main staff list, he was appointed to the position of Assistant General Manager of the Serv-

ices in Mozambique, having taken over officially on 27-3-1961.

—He was nominated a member of the Commission of Planning and Development in 1961.

—In 1963, he officially visited Japan and the U.S.A.

—Also in 1963, he was nominated administrator on the part of the State, with the Companhia de Pipeline Moçambique-Rodésia S.A.R.L. (The Mozambique-Rhodesia Pipeline Company).

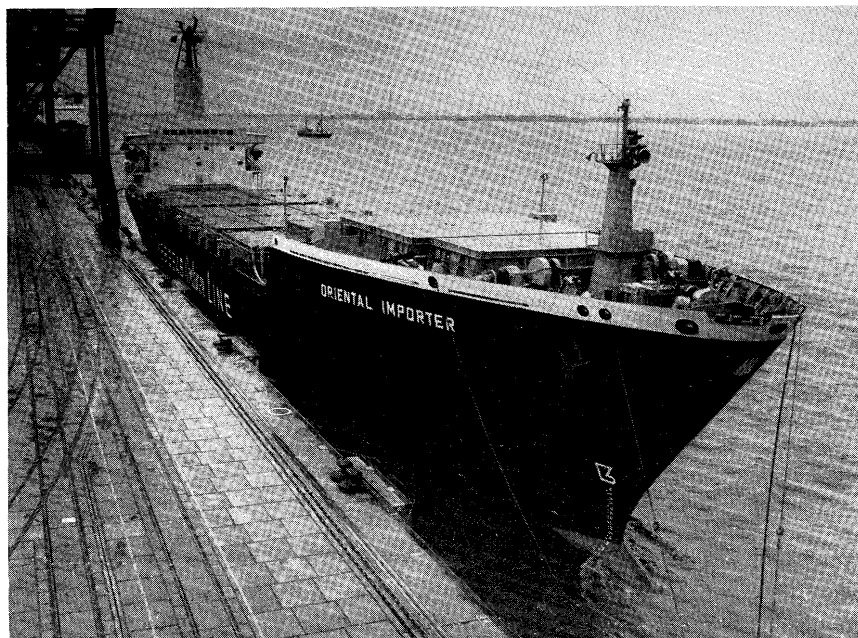
—Again in 1963, he took part in negotiations in Pretoria in respect to the Convention with the South African Republic, being in the Portuguese delegation on behalf of the Ministry of Overseas Affairs.

—He was appointed General Manager of the Port, Railway and Transport Services of the Province of Mozambique, officially taken over the position on 3-10-64.

—From May, 1968, he became Director-delegate, resident in Mozambique, of the Trans-Zambesia Railways.

—He was a member of the Por-

(Continued on Next Page Bottom)



Ports of Bremen-Bremerhaven—, (Now 16 Full-Container Lines at Bremerhaven) With the departure of MS "Oriental Importer" of Orient Overseas Container Lines on 20-9-73 the number of full-container lines calling at Bremerhaven increased to 16. From now on an OOCL-ship will leave Bremerhaven for the Far East every 12th day. This will further increase the amount of containers which came to 189.027 on a 20'-basis in the first half of this year representing an increase of 18% compared to last year's figures.

Semi-Annual Report :***Cargo Volume Increased by 12 PCT***

Press Release from
Port of Helsingborg
Sweden

July 25:—Port of Helsingborg sails with a fair wind as never before. The semi-annual report shows new records for both general and unitized cargo. The entire increase for all cargo rose by 12 pct to 3,789,000 tons as against 3,364,000 the year before. To all appearances the steady boom will continue, which means that the cargo volume for

tuguese delegation who, in 1967, negotiated a Convention with Malawi relative to the use of the ports and railways of Nacala and Beira, and in 1970, the revisions to the Convention with South Africa regarding the port of Lourenço Marques.

—He has represented the Administration of the Ports, Railways and Air Services at various international congresses.

COMMENDATIONS:

He was commended for the following works he developed:

- In the Brigade of Construction of the Tete Railway Line (Mozambique Government Gazette 32/1949).
- For fiscalizing the variant of the mountain range of Chela (Angola) — (Angola Government Gazettes 26/1952 and 3/1953).
- While in the Management of the Port of Beira (Mozambique Government Gazette 13/1961).
- As General Manager of the C.F.M. (Mozambique Government Gazette 35/1966).

DECORATIONS:

- He was awarded the insignia of Commander of the Order of Merit and Industry (INDUSTRIAL MERIT CLASS). (Lisbon Government Gazette No. 30 of 28/12/1949).

the whole of the year 1973 will exceed 7.7 million tons.

The port is Sweden's largest for dry cargoes, and the last few years' unprecedented development makes evident that a greater share of the total cargo volume of Sweden in directed the speedy way via Helsingborg.

As usual it is the roll-on traffic that is responsible for the lion's share of the increase. Another 267,000 tons was added to the figure of last year, thus arriving at 2,063,000 tons. Out of this quantity ferried railway cargo was 1,175,000 tons while other ro-ro cargo came up to 888,000 tons. The increase corresponds to 17 pct for the former and 12 pct for the latter type of goods.

Unit cargo by lift-on methods and conventional cargo increased together with 158,000 tons and arrived at 1,279,000 tons as against

1,137,000 tons in the year before. The import of mineral oils rose by 16,000 and reached 448,000 tons during the six months' period.

Movements of Shipping

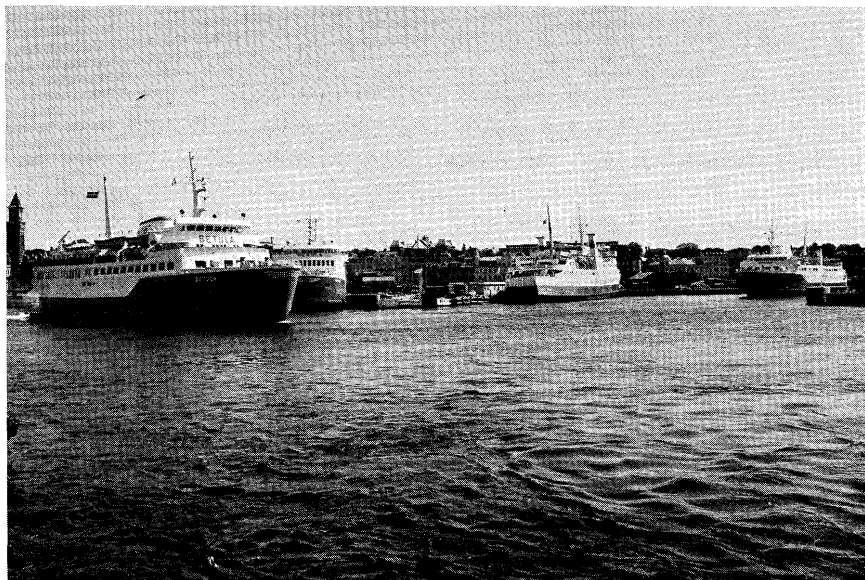
The number of entering and leaving vessels rose from 63,553 to 68,485, or by almost 5,000. The corresponding tonnage increased by 4,483,000 net register tons, and arrived at 34,149,000 nrt, an increase of 15%.

Motor Vehicles—Ferried Railway Cars—Passengers

The largest roll-on port in Scandinavia took again a giant stride in shipping of motor vehicles and railway waggons. During the six months' period the number of vehicles increased by 17,500 to 446,000 and railway cars by 11,600 to 114,000. The number of passengers arrived at 6,633,000, which means a good 12,000 more travellers than the year before.

Investing 14 million Sw.Crs. in new Facilities 1974

The favourable development, especially as to the expanding ro-ro traffic, is the reason for that the port now decided to make considerable investments during the next few years to come. The largest project comprises redevelopment of the old oil terminal—out of operations since



PORT OF HELSINGBORG—The sharp increase in ro-ro traffic is remarkable. There are 424 daily ferry arrivals and departures at Helsingborg covering 14 different destinations.

ten years—for an estimated cost of 12.4 million Sw.Crs. spread over two years. Two new ferry berths are to be constructed here with adjacent terminal building, marshalling areas, roads etc. The new port is planned to be put into operations early in 1975, when it is expected to be of considerable value for existing and future ferry traffic.

Among other works projected for 1974 dredging of the harbour basin outside the berths Nos. 604–606 at the South Harbour will be made for a total cost of 3 million Sw.Crs. The new depth of 10.5 m will allow large, modern general cargo ships of 14,000–15,000 tdw to use that part of the harbour.

Furthermore a new ramp at one of the ferry berths at the Skane-Terminal is to be constructed. Shed No. 2 at the Ocean Terminal is to be modernized and a new, efficient elevator is to be installed. These projects in addition to some other small works are estimated at 2.5 million Sw.Crs.

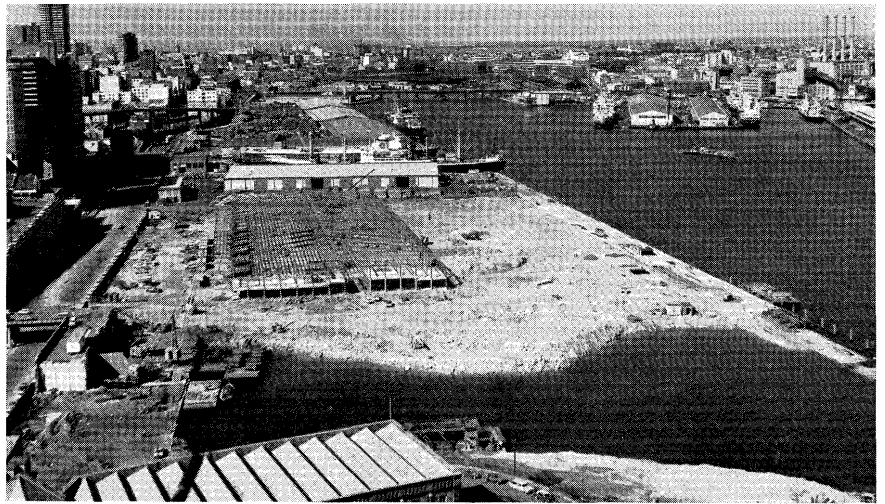
New Installations

Barcelona (Puerto de Barcelona, Boletín Informativo, Jan.-Feb. 1973):—Yearly traffic increase is forcing the port to enlarge its installations progressively so that goods may be handled adequately and stored in accordance with their needs.

In accordance with these guidelines the above photographs show the advanced state of construction of: the new silo for the storage of cereals, doubling the present capacity; the new installations for inflammable products on the Southern Section of the new Counterdike; the combined transport terminal which will join up containers, TIR and roll-on roll-off traffic; and finally the new bulk solids unloading installations the South Counterdike Wharf.

New Port Director

Barcelona (Puerto de Barcelona, Boletín Informativo, Jan.-Feb. 1973):—In the light of the resignation of the until now Director Engineer of the Port of Barcelona, Don Aurelio González Isla to Head of the Coasts and Ports of Catalonia, Don José E. Prieto Moresi,



Australia's largest general cargo wharf abuilding at No. 5 Berth, Darling Harbour in the Port of Sydney.

who until now has filled the post of Director of the Port of Seville, has been nominated for the above post by Ministerial Order of the 5th February, 1973.

Impressions of Traffic in 1973

Barcelona (Puerto de Barcelona, Boletín Informativo, Jan.-Feb. 1973):—Even though the month of December specifically has presented modest traffic flow and figures somewhat lower than those achieved in the same month of the previous year, the figures obtained at the end of the year 1972 are very satisfactory.

In fact total traffic has reached the figure of 10,693,366 tonnes, of which 3,857,917 tonnes correspond to general cargo, 2,419,623 tonnes to bulk solids, 1,359,869 tonnes to non-petroliferous bulk liquids, and 3,055,957 tonnes to petroleum.

Thus total traffic has been 10% higher than that of last year and general cargo (the most important element in our traffic breakdown) has shown a 9% increase over 1971.

Container traffic, too, has reached very satisfactory figures with 31,352 containers of 20' or over, corresponding to a traffic of 282,482 tonnes. The number of purely container boats was 403.

Likewise, TIR traffic continues its enormous growth, since this year's figures show an increase of 33% over 1971.

Passenger traffic reached the

figure of 712,600 of which 560,000 travelled with the Baleric Lines.

Work Well Advanced on Large Cargo Shed

Sydney, 24th September (The Maritime Services Board of N.S.W. News Item):—The largest general cargo wharf shed in Australia is in an advanced stage of construction at No. 5 Berth, Darling Harbour in the Port of Sydney.

The shed is being built for the Maritime Services Board by Graham Evans Pty. Ltd., at a cost of \$1.4 million.

The President of the Maritime Services Board, Mr. W. H. Brotherson, said today that an unusually feature of No. 5 Berth, Darling Harbour is that the cargo shed will be towards the rear of the surrounding wharf area whereas the normal practice is to have the shed close to the face of the wharf near the waterfront.

This particular design feature has been incorporated at the request of the consortium which will be leasing the Berth, and is intended to cater for the handling of unitised cargoes and containers which will be packed and unpacked in the shed.

Mr. Brotherson said the wharf will be used by the roll-on/roll-off ships operated by Scan Austral and the Pacific Australia Direct lines in the services between Sydney and Europe and Sydney and the

West Coast of America.

The photograph which was taken from the Maritime Services Board's Tower to serve the needs of the Port Operations and Communications activities at present nearing completion at Millers Point, also shows Nos. 6, 7, 8, 9 and 10 Berths, Darling Harbour which have been built over recent years at a total cost of more than \$17 million.

The cost of No. 5 Berth, when completed, will be of the order of \$3.5 million.

Mr. Brotherson, in commenting on the Tower from which the photograph was taken, said the Board intends to bring the Port Operations and Communications Centre which will be located there, into operation in March, 1974.

Long Term Development

Penang (Berita Pelabohan, July 1973, Publication of The Penang Port Commission):—A study is to be undertaken by the Penang Port Commission to determine the development needs of the port for the next 20 years. For this purpose a firm of Consultants will soon be appointed to undertake the study on behalf of the Port Commission.

Although a number of projects are in hand to improve and provide additional facilities for the port, there is still a need to undertake a comprehensive study to assess future needs for facilities so that the Port Commission can undertake development projects in the most effective way.

Present cargo projection indicates that additional facilities will be required for the port towards the end of the seventies when the existing port facilities reach saturation point. It will be necessary to develop new areas within the port for additional facilities to handle the increased volume of cargo that will be generated by the industrial and agricultural development of the country. External factors such as the container revolution, changes in ship technology and changes in shipping and transport patterns require to be carefully considered in assessing future port requirements. Draft limitations and other engineering problems are also factors



Singapore:—Picture shows Capt. M. J. Sayeed (right), Managing Director of the Neptune Orient Lines Ltd., presenting a plaque to Mr. Howe Yoon Chong, Chairman/General Manager of the Port of Singapore Authority at the presentation of a model of the 'Neptune Ruby' for the Maritime Museum. Looking on are Messrs Eric R. Alfred, Curator of the Maritime Museum, and K. Sakurai, General Manager of the Jurong Shipbuilders which built the 'Neptune Ruby.' Model of the ship 'Neptune Ruby' (extreme right)

to be taken into account. The port study will provide the Commission with a guide for the future development of the port. This study is expected to take approximately 6 months and will commence in the latter part of this year.

PSA Maritime Museum

Singapore, 19 Sept. (The Port of Singapore Authority):—Singapore's Maritime Museum project was formally launched on 8th September 1973 when Capt. M. J. Sayeed, Managing Director of the Neptune Orient Lines Ltd., presented a model of their 14,869 ton 'Neptune Ruby' to Mr. Howe Yoon Chong, Chairman/General Manager of the Port of Singapore Authority.

The 'Neptune Ruby' is the first ocean-going vessel to be built in Singapore.

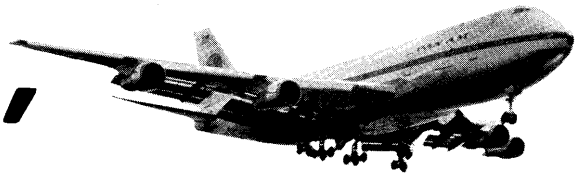
The 8-acre Maritime Museum will interpret the history of Singapore by exhibiting a variety of themes and materials pertaining to shipping, navigation, hydrography and the history of the port.

The Port of Singapore Authority

proposes to have a section on the ships and naval battles which took place in the region. This may be supplemented by an exhibit of a historical submarine.

Major outdoor exhibits will also be included. It is proposed to include exhibits on a variety of different small craft found in the region, in addition to full scale models of early trading vessels.

SAVE TIME, SAVE MONEY.



ONLY 15 MINUTES

To and From Haneda Airport

Monorail leaves every 7 minutes daytime

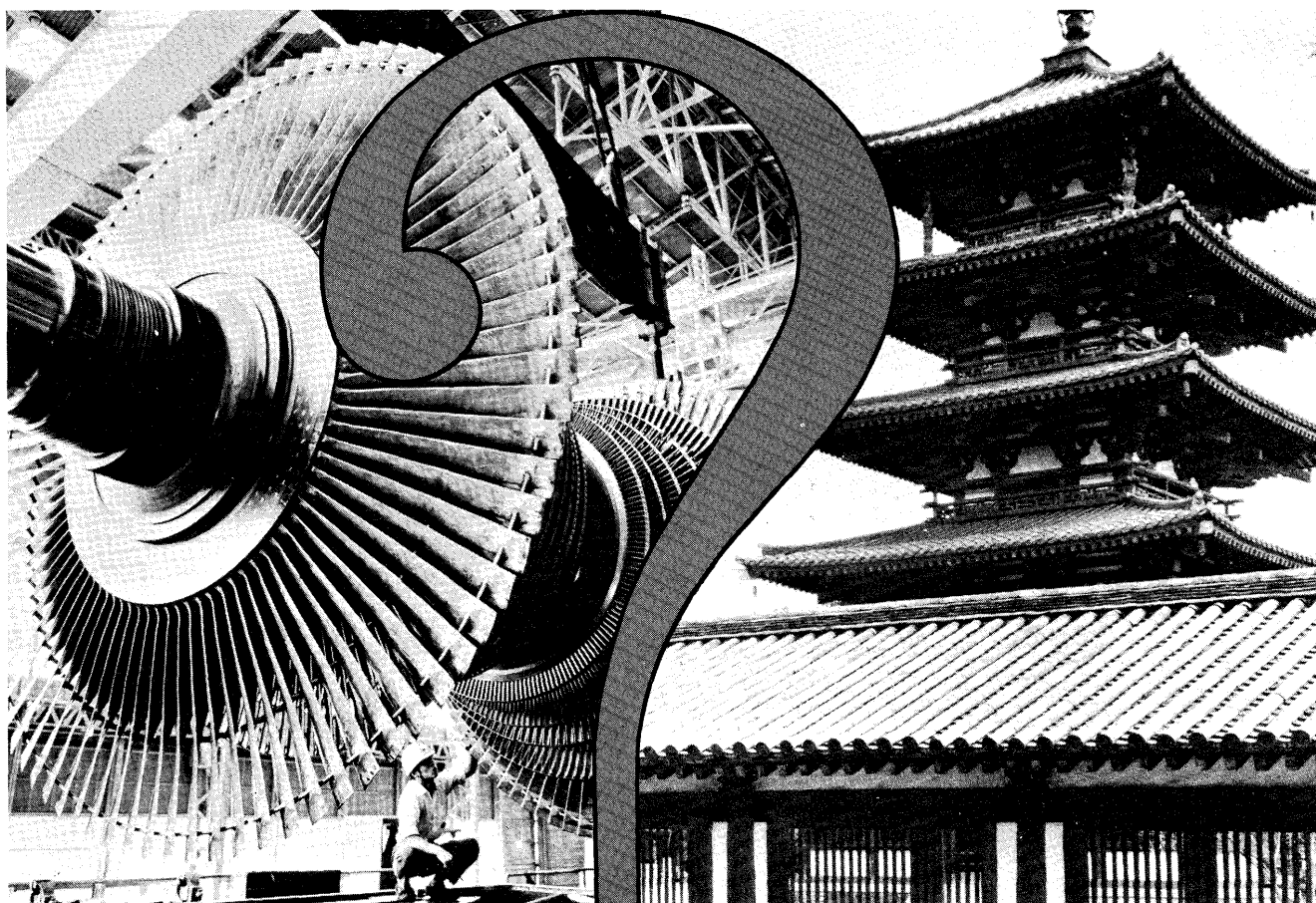
¥190 per person



TOKYO MONORAIL

TEL. TOKYO (03) 434-3171

What do you know



about
JAPAN

Surely a little, maybe a lot. And whatever you have learned will be useful for getting a foothold in this dynamic economy. But to unravel the intricacies of Japanese business you will need the assistance of specialists. In fact, you will need FUJI BANK.

Fuji's distinguished economists and experts have researched the problems you will be most likely to encounter, and have helped many foreign firms to set up flourishing businesses here. It's part of the comprehensive service offered by Fuji, the leader in Japanese commercial banking. Even those already well-informed about Japan will find it very useful to consult Fuji.

It pays to go with FUJI and grow with FUJI

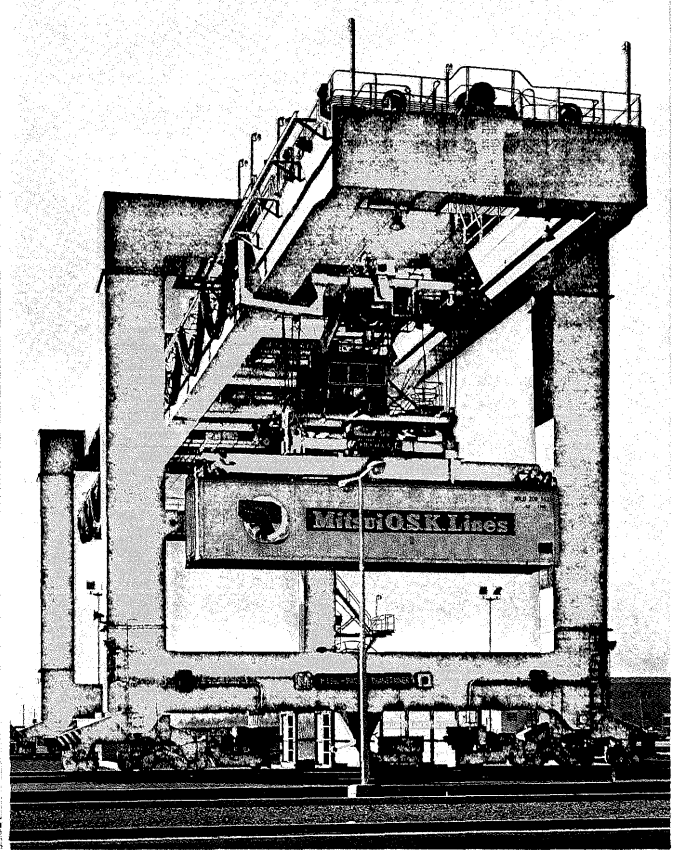
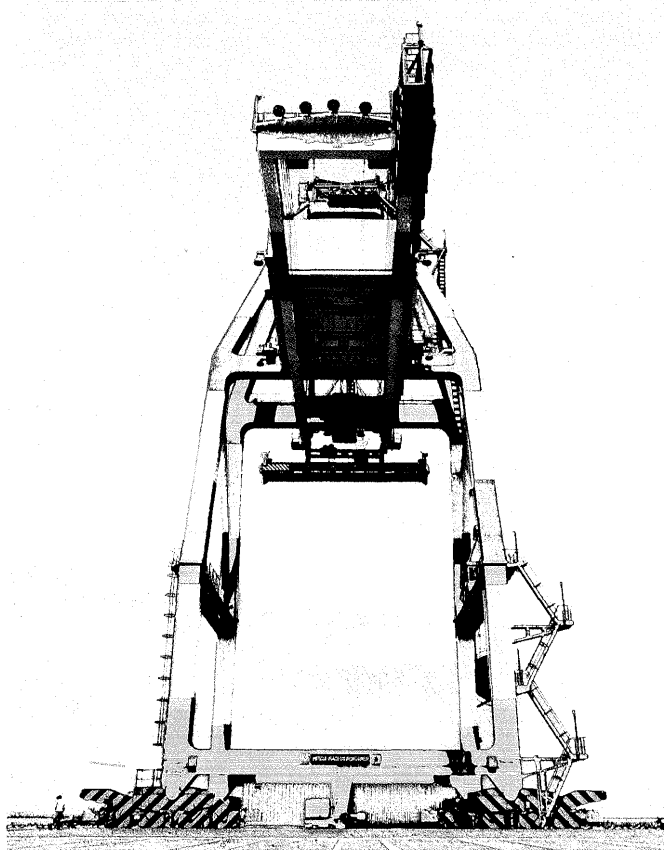


FUJI BANK

C.P.O. Box 148, Tokyo, Japan

Overseas Offices: New York, Los Angeles, London, Düsseldorf, New Delhi, Seoul, Jakarta, Hong Kong.

Push-Button Container Terminal by MITSUI-PACECO



The Dawn of A New Generation of Portainers[®] and Transtainers[®]

Containerization is now being exploded widely, and containers must be handled quickly, safely and inexpensively.

Key to solution are high speed, reliability and automation of MITSUI-PACECO portainer, shoreside container handling crane. Mitsui is leading this field and challenging tomorrow.

Volume of containers is increased largely in the terminal, and keenly demanded are systematization, computerization and automation.

MITSUI is developing one answer and that is push button container terminal system.

MITSUI/PACECO automated and computerized Long-span Rail-mounted Transtainer and Rail-car System will materialize most efficient terminal operation, benefitting terminal operation, shipping line and all others.



MITSUI SHIPBUILDING & ENGINEERING CO., LTD.

Head Office: 6-4, Tsukiji 5-chome, Chuo-ku, Tokyo, Japan

Overseas Offices: New York, Los Angeles, London, Duesseldorf, Hong Kong



WORLD WIDE MANUFACTURING AND SERVICE OF PACECO

U.S.A. PACECO: Alameda, California PACECO INTERNATIONAL, LIMITED: London Australia: VICKERS HOSKINS PTY. LIMITED, Bassendean
Canada: PACECO CANADA, LIMITED Vancouver 2 France: ATELIERS ET CHANTIERS DE BRETAGNE, Nantes India: BRAITHWAITE & CO., LTD., Calcutta
Italy: REGGIANE O.M.I., S.p.A., Reggio Emilia South Africa: DORMAN LONG (AFRICA) LIMITED, Johannesburg Spain: FRUEHAUF S.A., Madrid
United Kingdom: VICKERS LIMITED, London