

# PORTS *and* HARBORS

April, 1974

Vol. 19, No. 4



Port Taranaki

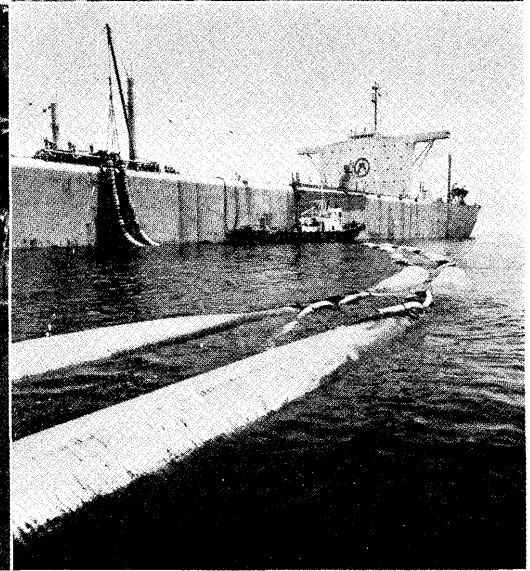
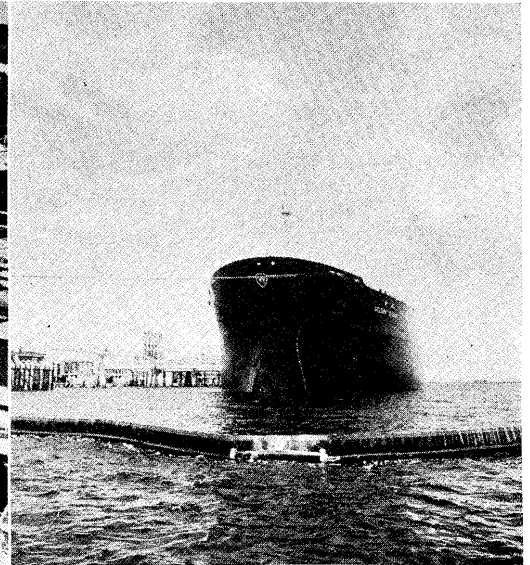
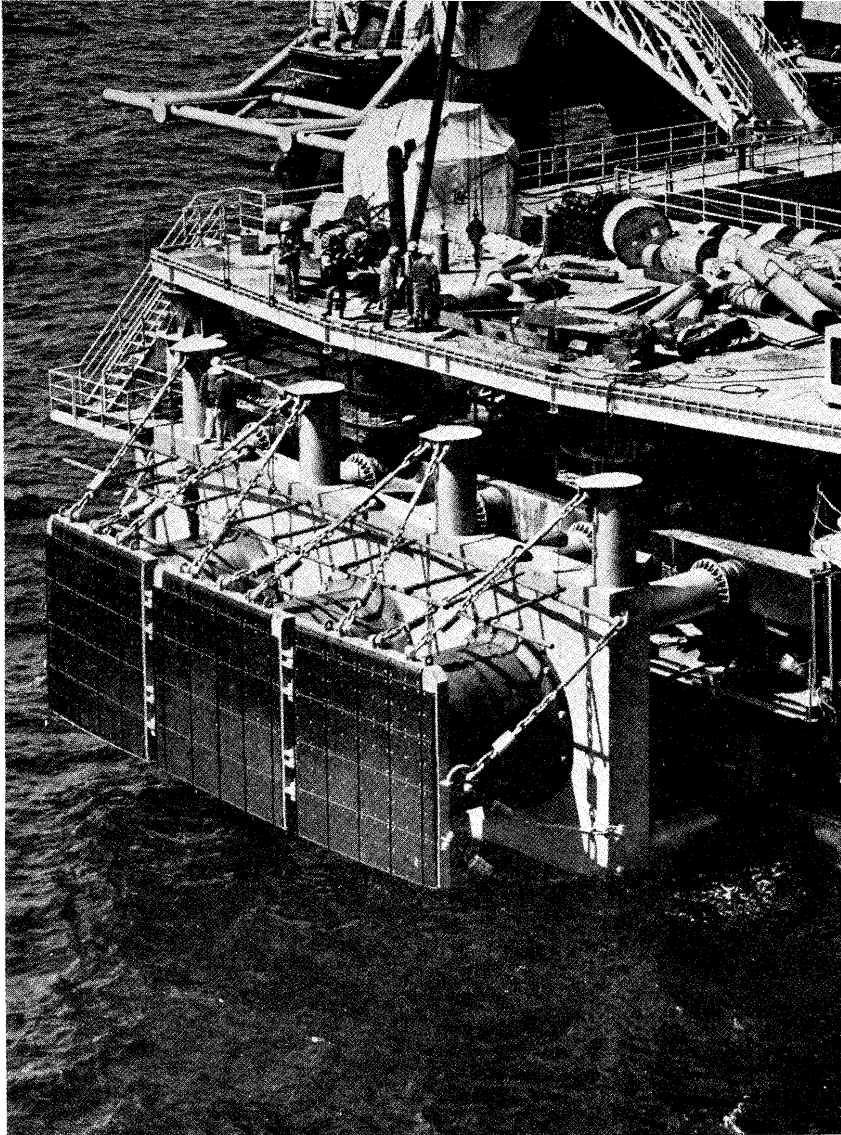
New Zealand

## IAPH Conference Singapore March 1975

The Publisher: The International Association of Ports and Harbors

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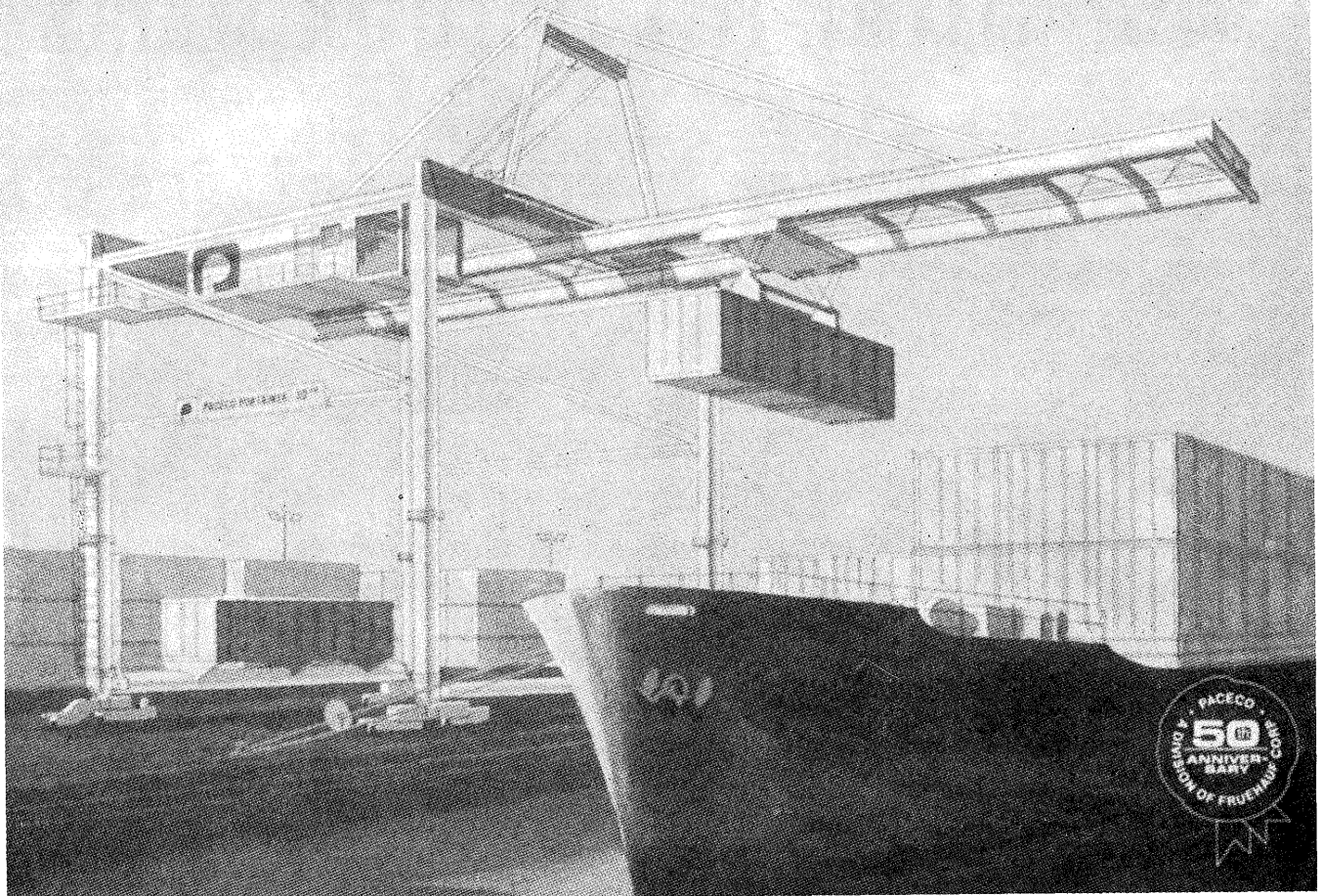


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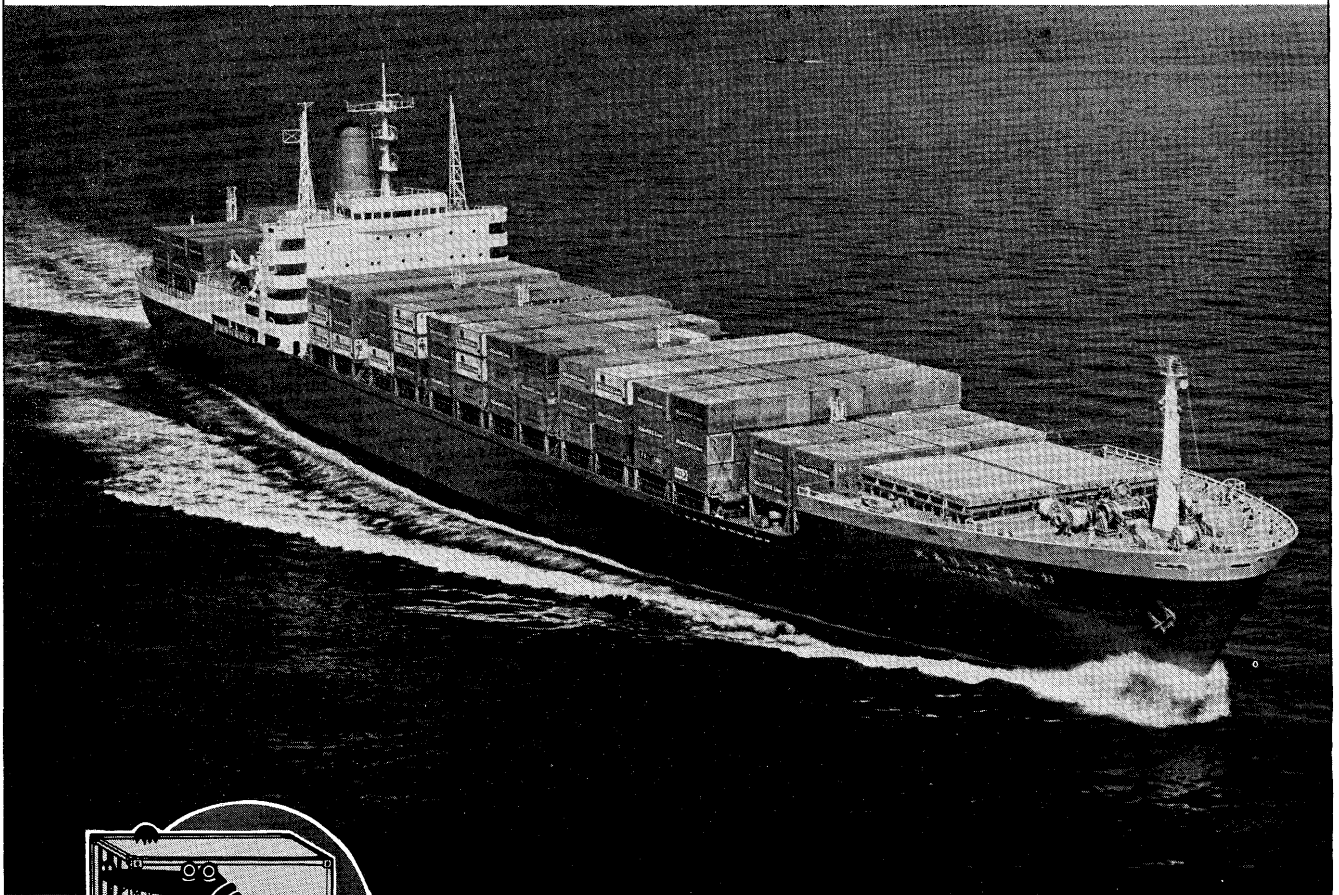
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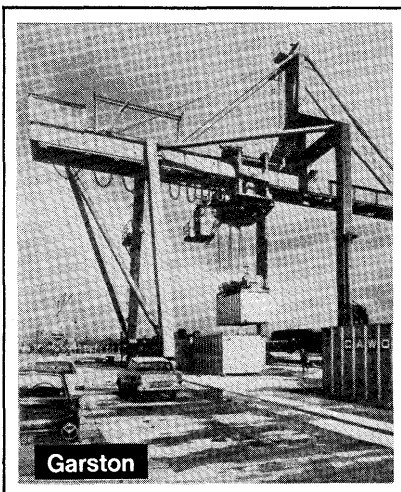


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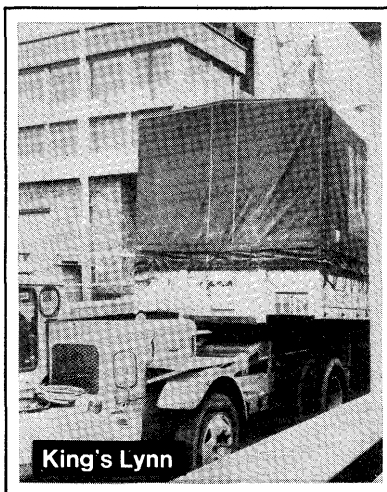
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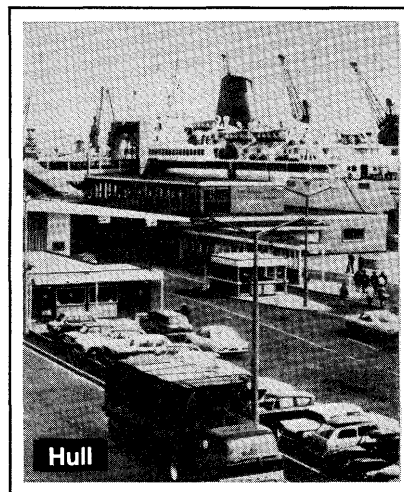
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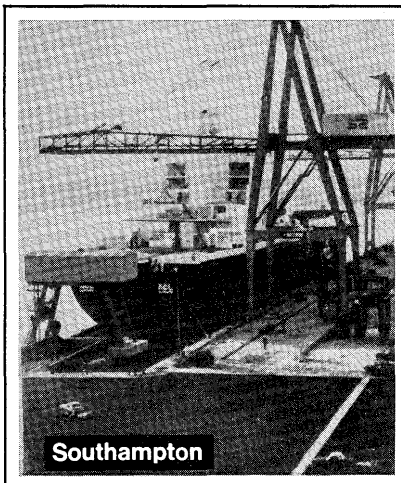
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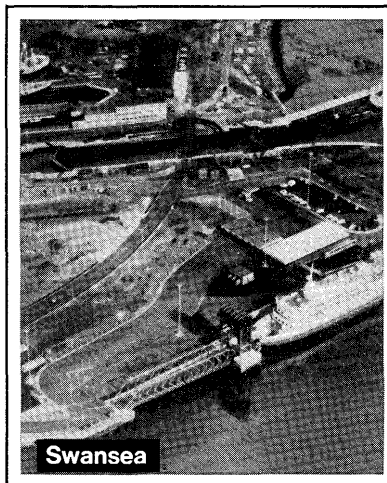
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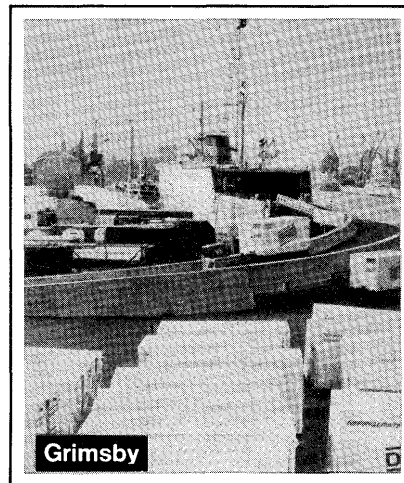
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# PORTS *and* HARBORS

Editor: Yoshio Hayashi

Published monthly by

**The International Association of Ports and Harbors**

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<b>The Cover:</b>	
<b>Port Taranaki, New Plymouth, New Zealand:</b> —The Board has just completed a \$12 m (N.Z.) expenditure at Port Taranaki. It has extended the main Breakwater in the foreground, it has constructed a new lee breakwater, furthest from the port, it has carried out a major dredging programme and has declared a new official draught of 30' (9.15 meters). It has built a new 1400' wharf backed up by some 30 acres of land. In the foreground of the picture is a new 600 megawatt power station which should be in operation fairly soon and which is the second largest producer of power in New Zealand. Where the chimney stands and some of the surrounding works there was once water.	

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all kinds of goods manipulations rendered according to your demands.

- In the second half of 1974 a largest bulk-cargo port on Baltic, so called "Northern Harbour" is due to be completed and ready to accommodate bulk-carriers up to 100,000 dwt. each. The output of the new coal handling terminal of "Northern Harbour" will be of 5 million tons per year and top-modern handling appliances will secure loading of 50,000 tons of coal on ships per day. In 1975 a next specialistic oil-handling terminal is to be completed. Yearly handling capacity of crude oil and other oil products is to be of 6 million tons per year.

**Zjednoczenie Portów Morskich**

**«Central Board of Polish Sea Ports»**

GDYNIA, Zgoda 8, POLAND

Phone: 21-19-71; Telex: 054 389 ZPM PL



# PORTS *and* HARBORS

**IAPH Head Office Announcements: Pages 7~10**

## Two New Committee Chairmen Debut With Inaugural Messages



Mr. Thomas J. Thorley

### Message from Mr. Thomas J. Thorley, General Manager of The Port of Long Beach on his election as Chairman of The Ways and Means Committee

Dear Members,

Our association has reached the point where it is imperative that operating costs of IAPH be allocated to all its members on a business-like basis in order to make it self-supporting.

In assuming the Chairmanship of the Ways and Means Committee from Bernard J. Caughlin, who recently retired, it is my intention to see that the study he initiated to determine an equitable formula for

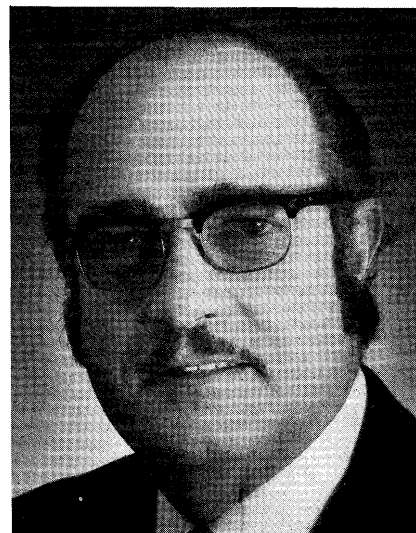
assessment of support from member ports be finalized and put into effect at the earliest opportunity.

It is my sincere hope and expectation that all IAPH members will join in this effort with the same enthusiasm your Committee is exhibiting in its efforts to resolve the problems of making our organization more meaningful.

### Message from Mr. Del E. Taylor, Chairman of National Harbours Board, Canada on his election as Chairman of the Constitution and By-Laws Special Review Committee

It is with mixed feelings that I accept my appointment as Chairman of the Constitution and By-Laws Special Review Committee. I am pleased to undertake a task that is both useful and challenging but I am saddened by the fact that it must be in replacement of my good friend Lyle King who was Chairman of this Committee until his untimely death.

We believe the I.A.P.H. has been a catalyst for exchanges of viewpoints, new ideas and concepts at every level in the management and operation of Ports. The present organizational and administrative practices contained in the Constitution and By-Laws of I.A.P.H. are a tribute to the dedication and foresight of the men who several years



Mr. Del E. Taylor

ago established it. The purpose of this Review Committee is to determine if, based on our experience, some changes should be recommended to the Association which would not only continue the excellent co-ordination and co-operation between the Members, but also provide added flexibility and strength on an international basis.

Your suggestions and assistance will be necessary for the Committee to carry out its assignment successfully and these will be sought.

### Mr. Tozzoli of New York Appointed as Liaison Officer with ECOSOC, U.N.

President Vleugels appointed Mr. Anthony J. Tozzoli, Director of Marine Terminals, The Port Authority of New York and New Jersey,

as successor of the late Mr. A. Lyle King in his function as IAPH Liaison Officer with ECOSOC, The United Nations. This appointment was officially reported ECOSOC by President Vleugels on his letter dated February 2nd to Mr. Marc Schreiber, Director, Division of Human Rights.

Mr. Tozzoli's message in this connection will appear in the following issue of "Ports and Harbors". (R. Kondoh)

### Mr. R. W. Carr Appointed as Executive Member

Mr. R. W. Carr, Chairman of the Auckland Harbour Board was appointed to a member of the Executive Committee of IAPH by President Vleugels under the date of February 19, 1974.

This appointment was based on an unanimous nomination by all the Regular Members of IAPH in New Zealand at a meeting called at Nelson on 14th February to fill in the vacancy resulting from the resignation of Mr. R. K. Trimmer.

### Message of Condolence upon death of Mr. A. Lyle King

Pedro M. B. Arsenio Nunes, President, Administracao-Geral do Porto de Lisboa (Refer to "Ports and Harbors", January issue, page 7, February issue, page 7 and 8, and March issue, page 8)

"The sad news of the decease of Mr. Lyle King, which we received here in the Port of Lisbon through the January issue of PORTS and HARBORS, has deeply hurted us.

"We have met Mr. King on occasion of different conventions and had the honour of receiving him in Lisbon as well as his wife during the IAPH Executive Committee Meeting in 1972.

"Mr. Lyle King's exemplary personality and his exceptional abilities are reasons for a kind remembrance which will remain in our minds for long.

"We sincerely participate in the unmeasurable sorrow of Mrs. Helen King and present to her family, and to the IAPH who so loses one of their most distinguished executives, our sincere condolence".



From left to right, Mr. Yokoyama, Mr. Brand, Mr. McPhail and Dr. Sato at the Head Office.

### Founder Member Dudley Frost Passes Away

(Miss Kimiko Takeda) A sad news reached here this Head Office from Mr. J. Kerwin Rooney, Port Attorney, Port of Oakland, U.S.A. and Chairman of IAPH Legal Counselors, reporting that Mr. Dudley W. Frost, a Founder Honorary Member of IAPH died on February 17, 1974, at the age of 75.

Mr. Frost retired as Executive Director of the Port of Oakland in 1962 after his many years of services since his first appointment to the Commission in 1946.

Mr. Frost was one of the most enthusiastic and active members of IAPH who played a very important role at the Association's early stage of formation. It should be remembered that the Los Angeles Conference in 1955 owed its great success largely to the group of port executives on the U.S. Pacific Coast headed by Mr. Frost.

### Condolence from Sir Leslie Ford, Life Supporting Member

February 27th, 1974

Dear Secretary General,

It was with great sadness that I learned of the death of my good friend Dudley Frost. His passing so soon after that of another mutual friend—Mr. John Davis of Long Beach—makes the world all that poorer by the loss of two great public figures dedicated to the continuing expansion of harbour facilities in their respective districts so as to ensure an ever increasing flow of trade between all countries and thereby bring us all closer together

to a better understanding and solution of today's many problems. Dudley Frost and his charming wife—Jane—have been very dear friends of my wife and me for many years and we have spent many happy hours with them and Mr. and Mrs. John Davis. It is very difficult to appreciate that these meetings must just remain treasured memories.

Although Dudley Frost had been retired for some years his interest in port affairs never diminished and as a representative of one of the largest makers of the modern container lift crane he continued to attend many international conferences where he was able to maintain contacts with his many friends. His enthusiasm never lessened—his knowledge always right up to date—and his persuasion quite irresistible.

He will be missed by so many friends.

26 Bedford Gardens  
Campden Hill  
London, W.8.7.E.H.

### Visitors

From Christchurch, New Zealand, two travelers, Mr. J. Brand, Chairman, and Mr. J. A. McPhail, General Manager of Lyttelton Harbour Board, called at the Head Office on Friday, February 22nd afternoon and were received by Dr. Hajime Sato, Secretary General and Mr. Katsuya Yokoyama, Deputy Secretary General, who invited the visitors to dinner in the evening at Palace Hotel, Tokyo. Mr. Toru Akiyama, Secretary General Emeritus also joined the dinner.



## The First IAPH Participation in UNCTAD SESSION

The United Nations Conference of Plenipotentiaries on a Code of Conduct for Liner Conferences will meet in a resumed session in Geneva from 11 to March 1974 in order to complete the task assigned to it by the General Assembly with its resolution 3035 (XXVII).

Mr. F. N. Reece, a principal officer of the Port of London Authority is due to cover this Conference on behalf of Mr. John Lunch.

This is the first opportunity for IAPH to participate in a Conference convened under the auspices of UNCTAD as an observer in the official capacity of NGO with consultative status. (K. Yokoyama)

## Two Enquiries from Division of Human Rights, U.N.

1. Mr. Marc Schreiber, Director, Division of Human Rights, U.N. asked IAPH in a letter to Secretary General Dr. Hajime Sato, dated December 5, 1973, for comments and observations on economic, social and cultural rights in connection with the resolutions adopted on July 28, 1965 and May 21, 1971 respectively, by the Economic and Social Council, entitled "Periodic Reports on Human Rights and Reports on Freedom of Information".

President Vleugels, having considered the nature of the matter, advised the Secretary General to reply that the Association has, at this stage, nothing particular to submit and the Secretary General's letter has been dispatched on February 22 to Mr. Schreiber to the effect.

2. Mr. Marc Schreiber again requested IAPH in his letter of December 28, 1973, to submit information, comments and suggestions regarding "the exploitation of labour through illicit and clandestine trafficking" based upon the Resolution No. 6 of the sub-commission on Prevention of Discrimination and Protection of Minorities, of United Nations.

President Vleugels has arranged to circulate a questionnaire on this

# Calendar of UNCTAD Meetings for 1974

For the benefit of the readers of "Ports and Harbors", we compiled the calendar of UNCTAD meetings for 1974, as follows, thanks to the good offices of Mr. John Lunch, Director General, the Port of London Authority and concurrently the IAPH Liaison Officer with UNCTAD. (K. Yokoyama)

	Date	Duration	Location
United Nations Conference of Plenipotentiaries on a Code of Conduct for Liner Conferences (resumed) Special Committee on Preferences, six session	11-29 March	3 weeks	Geneva
Committee on Shipping, sixth session	20-31 May	2 weeks	Geneva
Trade and Development Board, fourteenth session, first part	29 July-9 August	2 weeks	Geneva
Intergovernmental Preparatory Group on a Convention on International Intermodal Transport, second session	20 August-13 September	4 weeks	Geneva
	11-29 November	3 weeks	Geneva

## IAPH Inspecting IALA Proposition for Joint Talks on Port Signals

Instructed by President Vleugels, this Head Office immediately sounded reactions of the Association members to the recent proposition from the International Association of Light-house Authorities by airmailing to all the Directors and Alternate Directors of IAPH copies of the proposition under the date of February 13. Their comments on the subject already began flying in here to be submitted at the March meeting of the Executive Committee in Auckland.

The proposition of IALA includes a request of PIANC and IAPH to choose jointly one expert from each country in cooperation with IALA

and convene a meeting this May in Brussels to examine problems on "Port Signals" for unification of new buoyage regulations.

The relevant information accompanying the proposition states,

"The basis for 'signals concerning the movements of vessels at the entrance to harbours of important channels' was laid down at the 'Conferences for the Unification of Buoyage and the lighting of Coasts' held in Lisbon, October 6th-23rd, 1930. It seems that since then most countries have not strictly followed the provisions of this agreement." (Head Office)

matter among the members of the Board of Directors of the Association with note that their replies be sent directly to Mr. Anthony J. Tozzoli, our Liaison Office with ECOSOC in time for his submitting to ECOSOC by March 15th, 1974. (Head Office)

## International dictionary of aides to marine navigation

In accordance with its Constitution, the International Association of Lighthouse Authorities (IALA) has undertaken the publication of an "International Dictionary of Aids to

Marine Navigation". The purpose of this Dictionary is to provide engineers and others working in the aids-to-navigation or allied fields with terms in current use in those fields with precise definitions in several languages and to make them able to communicate more easily with colleagues in other countries.

The Dictionary will include nine chapters, each of them being prepared by a working-group consisting of specialists.

Furthermore contacts have been arranged as necessary with the other international and national associations interested in terminology in allied fields related to aids-to-navigation techniques.

Each chapter is published in three booklets:

- a French booklet,
- an English booklet,
- a German booklet

Other editions in Spanish and in Russian are being prepared.

Each booklet contains:

- a list of terms grouped according to their meaning preceded by a reference number and followed by a definition. By using reference number it is possible to find the corresponding terms for each word in other languages;
- an alphabetical index placed at the end of each booklet.

The first three chapters are on sale at the

IALA Secretariat

43, avenue du Président-Wilson

75775 PARIS CEDEX 16, France

at the following prices effective 1st April, 1974:

Chapter 1—General Terms

Text: 30 p. No figures

12 Swiss Francs

Chapter 2—Visual Aids

Text: 63 p. Figures: 23 p.

35 Swiss Francs

Chapter 3—Audible Aids

Text: 22 p. No figures

9 Swiss Francs

The other chapters now being prepared are:

Chapter 4—Radio Aids

Chapter 5—Reliability, Automatic and Remote Control

Chapter 6—Power supplies for stations

Chapter 7—Civil engineering works

Chapter 8—Floating equipment

## Report on the January Session of the Committee, IMCO on Wreck Removal

by Mr. A. J. Smith

Thanks to the good offices of Mr. Pages, IAPH members were informed in the February issue of this magazine of the working group on Wreck Removal set up by the Legal Committee.

Mr. A. J. Smith, who attended the January Session of the Legal Committee which dealt with the subject of Wreck Removal, sent in a report with a date of February 7th 1974.

The following is the full text of his report afore-mentioned in which Mr. Pages covers further developments of what already was reported in the previous issue. (K. Yokoyama)

This Report updates the comprehensive report which was submitted by Mr. A. Pages subsequent to his attendance at the December Session of the Legal Committee.

Discussions of the Legal Committee were concentrated, in the main, on a Report of a Working Group set up to consider Draft Articles of a Convention in Wreck Removal and Related Issues.

The Draft Articles submitted, were

designed to reflect all the proposals which had been put forward in the Working Group and to which reference has been made by Mr. Pages in his report on the December session. It was clear, however, that the varying viewpoints of the proposals could not be resolved within the time available for discussion.

It continues to be the Committee's view that a diplomatic Conference should be convened to consider Removal towards the end of 1974; to meet this timetable, however, the Committee has necessarily been obliged to issue new and more restrictive guidelines to the Working Group to enable them to consider and draw up a new set of Draft Articles of a Wreck Removal Convention.

The guidelines, set out below, represent the concensus of views expressed by delegations—

(1) The Convention should be limited to wrecks which posed danger to life and property and a hazard to surface navigation; specifically, wrecks of ships and of drilling rigs and platforms.

It is understood that consideration

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## IAPH Dispatches an Observer to cover UN Environment Programme

President Vleugels appointed Mr. P. C. Bakilana, Secretary and Legal Officer of the East African Harbours Corporation, an official IAPH observer to attend the second session of the Governing Council of United Nations' Environment Programme (UNEP) to be held from March 11–22, 1974, at the Kenyatta Conference Centre, Nairobi, Kenya.

On receiving a letter from UNEP

---

Chapter 9—Organization and operation of Services.

on February 18, 1974, requesting to designate one or two observers if IAPH wished to participate in the session, Secretary General, Dr. Hajime Sato, made a fast contact with President Vleugels who in turn got in touch with Mr. P. K. Kinyanjui of the East African Harbours Corporation, a member of the Executive Committee of IAPH to obtain his cooperation for this appointment.

This is the first time for IAPH to participate in a session of UNEP. (N.Y.)



would be given at a latter stage to the possibility of extending the coverage of the Convention to other types of wrecks.

(2) The Convention should apply in a mandatory sense, only to wrecks located on the high seas. Consideration will also be given to an optional part of the Convention to cover wrecks located within the jurisdiction of states.

(3) The responsibility for determining the hazardous nature of a wreck which is situated on the high seas should be held by an international organization to be designated at a later stage.

(4) Location and marking of a wreck on the high seas could perhaps be the obligation of existing inter-governmental organizations; or of designated states for carefully drawn up geographical areas; or of a specially created body.

(5) Obligation to remove hazardous wrecks where necessary should be considered in the context of possible combinations involving international organizations, regional arrangements individual states and owners of the wrecks.

(6) Liability of the owner for the costs of wreck removal should be based on fault, with a limitation of liability on the basis of existing limitation conventions or other applicable legislation.

(7) Unrecovered expenses of wreck removal should be considered in the context of a system based on States "clubbing together" to provide a pool of funds for reimbursing at least part of the expenses incurred and which can be recovered from the owner liable.

(8) There should be an Article dealing with the settlement of disputes on the lines of the provisions of the Annex to the International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Damage, 1969.

(9) There should be further study of the question whether to include reference in the Convention to the removal of wrecks in existence prior to the entry into force of the Convention.

(10) A provision should possibly be included in the Convention, where appropriate, and in the following terms "If a Contracting Party

# *Report on the Water Transport Sub-Committee of ECAFE (Tenth Session) UN*

**by Vincent Lai, Asst. Director  
Port of Singapore Authority  
(IAPH Observer)**

## **I. Organisation of the Meeting and Adoption of Agenda**

1. The tenth session of the Sub-Committee on Water Transport of ECAFE was held in Bangkok, Thailand, from 31 Oct. to 7 Nov. 1973.

### **Attendance**

2. The session was attended by representatives of the following member and associate member countries: Bangladesh, France, Hong Kong, India, Indonesia, Japan, Khmer Republic, Laos, Netherlands, Pakistan, Philippines, Republic of Vietnam, Sri Lanka, Thailand, the Union of Soviet Socialist Republic, the United Kingdom of Great Britain and

Northern Ireland, United States of America, the Federal Republic of Germany and Norway participated in a consultative capacity.

3. The following United Nations bodies, specialized agencies and other organizations were represented: United Nations Development Programme, International Labour Organization, Food and Agriculture Organization, World Health Organization, International Telecommunication Union, International Chamber of Commerce, International Association of Ports and Harbours, International Chamber of Shipping, Committee International Radio-Maritime and Southeast Asian

has reasonable cause to believe that a wreck, dangerous to navigation, exists in the vicinity of its coastline, it should take all reasonable steps to remove the danger".

In order that the Working Group and the Legal Committee should have a clearer picture of the problems raised by wrecks, the Secretariate of IMCO have been requested to collect and circulate available information on the existing wrecks of ships and drilling rigs now located within the navigable waters of the world, and which pose a hazard to surface navigation, with indications where possible of their location and distances from the coastline of the nearest States.

The revised schedule for future discussions of the subject of Wreck Removal is now—

18th to 22nd March 1974, for meetings of the Working Group.  
29th April to 3rd May 1974, for meetings of the Legal Committee at which future work will

be determined in the light of progress achieved.

## **The 10th Session of the Water Transport Sub-Committee**

The article in this regard entitled "IAPH Observer to ECAFE Meeting" was carried in the November 1973 issue of this magazine.

By the good offices of Mr. Howe Yoon Chong (Chairman of The Port of Singapore Authority), the First Vice-President of IAPH, Mr. Vincent Lai, Assistant Director of The Port of Singapore Authority, attended the meeting above, which was convened in Bangkok from October 31st to November 7th 1973.

His elaborated report amounting to 28 pages is made public in this issue for the benefit of the Association members. This report was provided last November but the presentation in this journal has been delayed. (K. Yokoyama)

Agency for Regional Transport and Communication Development.

### Opening Address

4. His Excellency Dr. Sirilak Chandrangsu, Under Secretary of State for the Ministry of Communication of the Royal Government of Thailand delivering the inaugural address stressed that ocean transportation was assuming greater importance than ever before owing to the technological revolution in that field, the impact of which was bound to have far reaching effect on the economies of the developing countries.

5. Mr. A. G. Menson, Dy Executive Secretary of ECAFE, reading the message of Mr. J. B. P. Miramis, Executive Secretary, said that the International Development Strategy of the Second United Nations Development Decade was seeking to promote national and international action that would enable the developing countries, with the technical and financial assistance of the developed countries, to expand their national and multinational merchant marines, including tanker and bulk carrier fleets. Another of its goals would be the implementation, within the Decade, of the principle that the national shipping lines of developing countries should be admitted as full members of liner conference operating in their national maritime trade and have an increasing and substantial participation in the carriage of cargoes generated by their foreign trade. At the same instance it recommended that governments should invite liner conference to consider, favourably, fairly and on equal terms, applications of national shipping lines, in particular of developing countries, for admission as full members to way-port trades related to these countries' own foreign trade, subject to certain rights and obligations. It also advocated the development and improvement of port facilities.

He mentioned that it was essential that the regional ports should be developed to cater for the larger, deeper and more sophisticated modern ships, such as those handling unitized loads or bulk traffic, whilst investment programmes for the improvement of ports must ensure reasonable and fair returns optimum

efficiency in port utilization has to be achieved to prevent the dangers of over-investment. As such there was a need for an integrated development of shipping and ports.

He also stressed that the fundamental aim of the developing countries should be the development of balanced, rational and progressive national fleets; rationalization of shipping services and related facilities; development of ports and, where necessary, inland waterway transport, to provide an infrastructure for the regions' economic and social development.

### Election of the Chairman and Vice-Chairmen

6. Lt. Cdr. Thien Thavajvichien (Thailand) was elected Chairman and Mr. Felino C. Menes (Philippines) and Mr. Takayuki Kimura (Japan) were elected Vice-Chairmen.

### Documents

7. The following documents were submitted to the Sub-Committee for deliberations:—

#### I. Development of shipping, Including Coastal and Inland Shipping

- (a) i. Maritime review of the developing countries of ECAFE
- ii. Government policies on shipping development: Liner conferences; national merchant marines; financing
- (b) Impact of technological developments in shipping on the choice of ships suitable for the maritime traffic of the developing countries
- (c) Role of coastal, inland and inter-island shipping in the developing countries of ECAFE
- (d) Development of containerization and other methods of unitization in the region
- (e) Potential for development of joint ventures on multinational enterprises in the ownership and/or operation of purpose-built ships
- (f) Intermodal routes
  - i. Case study of a cargo booking centre
  - ii. Liner services
- (g) Intermodal routes through Iran to Europe
- (h) Maritime telecommunications

## II. Ports and Inland Waterways

- (a) Review of port developments in the developing member countries of ECAFE
- (b) Financial and economic evaluation of port projects in developing countries
- (c) Collection of port operational statistics on a uniform basis
- (d) Port training
- (e) Regional Dredging Organization
- (f) Inland Waterways
- (g) Hydraulic studies for improvement of navigation in estuaries and harbours
- (h) International maritime conventions, multilateral and bilateral agreements to facilitate international river traffic.

### I. Development of Shipping, Including Coastal and Inland Shipping

- (a) i. Maritime review of the developing countries of ECAFE
- ii. Government policies on shipping development, liner conference, national merchant marines, financing

8. The Sub-Committee recognized the importance of the objective of the International Development Strategy of the Second United Nations Development Decade relating to the promotion of national and international action to enable the developing countries, with the technical and financial help of the developed countries, to expand their national merchant marines including tanker, bulk carriers and combination carrier fleets and also of the principle that the national shipping lines of developing countries should be admitted as members of liner conferences operating in their national maritime trade with increasing and substantial participation in the carriage of cargoes generated by their foreign trade. In so doing, it was noted that the combined effort of the ECAFE developing countries had not shown any increase over its share of 2.7% of the world tonnage (DWT) over the past several years although in absolute terms it had increased by 7.7% (GRT) over 1972. This was of some concern particularly in the context of targets

suggested by UNCTAD III for the developing countries to aim for at least 10% of the world maritime fleet by 1980.

9. The composition of the fleet of developing countries was also no longer suited to the changing patterns of maritime traffic and will thus eventually become uneconomical. The impact of development in ship designs and development of unitized ships and specialized carriers would also have a far reaching effect on the developing countries in their fleet development plans. Furthermore, it had to be recognized that much emphasis in the past had been given to the liner trade operations which handled approximately 20% of the world shipping business, though the rest moved in tramp or competitive shipping. For development of their merchant marines, the developing countries should keep in view shipping opportunities offered in these fields particularly for bulk carriers, tankers and combination carriers under current conditions would ensure optimum utilization.

10. The Sub-Committee noted that as massive investments would be needed to develop national fleets, in order to maximize the efficiency of investment, careful consideration should first be given to the share of investment in shipping in the overall development programmes of individual countries taking into account its contribution to balance of payments and other considerations. Selection of types of ships for specific trades and allocation of funds for construction of new ships where possible, purchase of new and re-conditioned vessels and re-habilitation of old ones should also be fully examined.

11. Some members of the Sub-Committee were of the view that the ship building countries should earmark a percentage of their export capacity for developing countries. Views were also expressed that terms of suppliers' credit and of institutional financing on the government to government basis should be eased and a possibility of channelling more funds through international financing agencies like IBRD and the IDA should be explored for purchasing new/second hand ships and creation/expansion of ship building in the developing countries.

12. In emphasizing the need for creating favourable shipping conditions for developing countries of the region, particularly, regarding the adequacy, frequency and regularity of liner shipping services it was hoped that an agreed "Code of Conduct for Liner Conferences" would result from the forthcoming conference. In this connection, a proposal was made to form a regional consultative machinery of shippers and shipping interests to ensure proper compliance of such a Code.

13. A view was expressed that to narrow the gap between shipowning potential of developing and developed countries, the former should have a common policy regarding shipping matters and therefore, the governments had a role to play in certain aspects of shipping if practical solutions were to be found in the shortest possible time.

14. It was noted that most governments of the region had given legal and financial support to the development of their national merchant marines.

15. In Indonesia, a cargo control agency was replaced in 1969 by a government regulation with the objective of giving support and encouragement to the expansion of national fleets. Under this regulation, foreign shipping companies should appoint Indonesian national lines as their general agents for handling their ships visiting Indonesian ports. The domestic trade is exclusively reserved for Indonesian vessels which provide services on the regular liner pattern based on fixed routes.

16. In the Philippines, the Government is in the process of finalizing a law aimed at developing shipping programme of 10 years for replacement of obsolete inter-island vessels and for modernization of shipyards. Import of shipbuilding equipment and machineries is on a tax and duty-free basis. The law would also bring about rationalization of shipping services within Philippines waters.

17. In India, the current operative tonnage of the merchant fleet is about 2.73 million grt with 2.17 million grt on order. It has a tentative target of 8 to 9 million grt in the fifth five-year plan. The Indian merchant fleet currently carries about 40-50 percent of the liner trade and

about 20 percent of the bulk trade.

18. In Bangladesh, the maritime shipping is fully nationalized under the Bangladesh Shipping Corporation (BSC) which is a member in the Bangladesh/UK/Continental Conference and the India/Bangladesh/Burma/Sri Lanka Conference. The Government subscribes 20 percent of foreign exchange needs for acquiring ships with 80 percent financed by private commercial loans from external resources. At present BSC carries about 7 percent of the country's sea-borne trade and by the end of the First 5-year Plan (1973-78) the operative grt of the fleet is expected to increase from 50,000 to 250,000 tons.

19. A view was expressed that support to the development of shipping should be based on non-discriminatory legislation and on administrative arrangements which would for example not attempt to impose rapid arbitrary formulae.

20. The Sub-Committee noted with appreciation the offer of Norway to consider bi-lateral and/or multi-lateral assistance to countries and to ECAFE Secretariat for any feasible projects in the field of shipping such as for the 4-year Shippers' Council project.

#### **(b) Impact of technological developments in shipping on the choice of ships suitable for the maritime traffic of the developing countries**

21. Technological development and innovations in the Maritime field had revolutionized the trading conditions. Ships were growing larger in size and faster in speed and becoming more and more specialized. Super tankers, parcel tankers, container ships, barge carrying vessels, roll-on/roll-off vessels, bulk carriers, combined carriers had appeared on the maritime scene. Developing countries were thus faced with difficulties in making decisions regarding the choice of types of ships from among a variety of new ones resulting from the recent technological advances in ship designs. The choice was also restricted by certain factors such as the problems of physical characteristics of ports and related facilities, type and volume of cargo movement, hinterland infrastructural facilities and social problems. The lack of financial re-



sources to acquire high cost ships were also a constraint.

22. The Sub-Committee requested the ECAFE Secretariat to study the capital and operational costs of specific systems for specific route or routes to enable determination of the best possible solution in the respective circumstances. The representative of Japan said that his government was prepared to co-operate in further studies in this field.

23. The Sub-Committee noted with interest the encouraging progress made in the use of specialized bulk carriers which had been made possible in many cases as a result of technological changes. As most of the developing countries of the region were producers of primary commodities for export it was felt that there was a tremendous potential for bulking or cargoes as well as for carriage of oil and other liquid cargoes in tankers.

24. A hope was expressed that joint ECAFE/SEATAC projects would be developed for implementation of shipping projects as recommended in the Regional Transport Survey of Indonesia, Laos, Malaysia, Philippines, Singapore, Republic of Vietnam and Thailand.

25. On the various technical systems of shipping, it was felt that the cargo unitization, pre-slipping and palletization were well suited to common situation in developing countries as they had great advantage of conversion of suitable but otherwise economical obsolescent conventional break-bulk ships for specific needs to such composite ships at a reasonably low cost. There was also a need to study in depth the possibilities of introducing barge carrying vessels (BCV) system which showed certain techno-economic advantages on a broader field than container system with its inherent infrastructure costs. Quick turn rounds and elimination of delays in port were necessary pre-requisites for success of their operations. From the point of view of the cheapest way of exportation of the products of a country, the BCV system could prima facie, offer a much cheaper solution than conventional shipping. However, as the economic advantages of this system have yet to be proved, the ECAFE Secretariat was requested to undertake a study of

this system for handling specific trades of countries of the regions.

26. The Sub-Committee also requested the ECAFE Secretariat to explore the possibility of convening a seminar or a working group of experts in 1974/75 to study the suitability of various types of vessels for the fleets of the developing countries of the ECAFE region in handling specific cargo flows and at the same time to promote regional and subregional cooperation in this field by developing feasible projects.

#### **(c) Role of coastal, inland and inter-island shipping in the developing countries of ECAFE**

27. The Sub-Committee noted that with the technological advances in maritime transport resulting in changed traffic patterns, absence of adequate and suitable rail and road networks and the rapid cultural and economic changes taking place in the developing countries, the role of coastal shipping had assumed significant importance and was critical to the socio-political and economic unity of the riparian and archipelagic countries. Coastal shipping was also becoming an important segment of the maritime transport network of the widely international maritime linkage resulting from the growing trend in containerization and specialization. The technical and routing changes in international shipping necessitated complementary changes in coastal shipping for full integration of feeder services with the maritime services and in the case of container traffic to the principal container assembly points.

28. The coastal fleets of the developing countries mostly composed of old, and obsolete and uneconomic vessels required replacement by suitable vessels. The Sub-Committee was of the view that in fleet rehabilitation programmes, endeavours should be made to standardize the machinery and equipment of coastal vessels. Adequate repair facilities should be provided for the maintenance and upkeep of coastal vessels and the needs met for import of spare parts.

29. With the advent of hydrofoil, hovercraft and high speed diesel craft, it might be possible to separate the passenger and cargo operations in coastal and inland waters. For the latter, the ECAFE Secretariat

was asked to study the possibility of introducing sea-going tugs and barges besides the coastal vessels. If the operations of such units proved feasible, it could give a new orientation to the shallow draught coasting and inland navigation.

30. The Sub-Committee noted with interest the development of coastal shipping in Japan for increasing carriage of its domestic cargo. It also expressed interest on a Japanese Advisory Mission on Shipping to Indonesia to help facilitating the development and rehabilitation of the inter-island maritime transportation and welcomed the offer made by Japan to provide information in this field.

#### **(d) Development of containerization and other methods of unitization in the region**

31. The Inter-governmental Preparatory Group (IPG) had been established by UNCTAD to study all the relevant aspects of international combined transport of goods including repercussion in the field of international trade and transport, balance of payment, cost of international transport, insurance and consistency of international combined transport of goods with national policies on transport. Account would also be taken in regard to the needs and requirements of developing countries. The ECAFE Secretariat had in the meantime provided comments to the IPG on the possible implications of the combined transport operation in so far as it might affect the developing countries of the region. The ECAFE Secretariat was asked to convene a working party on containerization in 1974/75 and, pending this, data should be compiled by interested parties concerned in establishing the quantum of containerizable cargo both for exports and imports to evaluate the techno-economic comparisons between containerization and other methods of conveyance of cargo.

32. The Economic and Social Council while considering the recommendations of the UN/IMCO Container Conference at its fifty-fourth session, adopted a resolution on container standards for international intermodal transport. This resolution relates to the convening of an ad hoc inter-governmental

group at the end of 1975 to assess the work of the International Organization for Standardization (ISO) to determine the practicability of drawing up all international agreement on container standards. At this subject is of concern to the ECAFE region the ECAFE Secretariat is establishing close liaison with the ISO in its work on standardization of containers.

33. The representative of FAO mentioned the lack of efficient means of transporting food products resulting in considerable amount of wastage and asked that a study be made to solve this problem having regard to the use of containers and other means.

34. In an effort to assist the developing countries in their preparations for receiving and handling container traffic the ECAFE had made arrangements for a roving mission of multinational experts on containerization (provided by Japan, UK and USA) to visit a number of developing countries upon request. The leader of the mission stated that his mission had so far visited 4 of the 6 countries of the ECAFE region in 1973 and noted that planning was underway to improve facilities and increase container traffic. Noting that its approach had been to try to explain in practical terms the difference between conventional and container transport, the mission offered some preliminary observations on problems to be overcome and potential realizable by developing countries. The leader of the mission emphasized that facilities for self-sustaining adequately geared vessels might be developed merely by employing the existing port installations, by providing space at or near the port for container yard storage and the willingness of the authorities to create a conducive climate within which inter-modal activity might be efficiently conducted. Institutional constraints such as customs practices, port tariffs, pricing policies and misuse of port facilities for storage were frequently noted as a possible impediment to the development of containerization. In emphasizing the importance of allowing containerization to develop in an evolutionary manner the leader of the mission made the point that not every problem must be solved before contain-

erization was commenced and that solutions were frequently easier when the need for such changes were actual operating conditions was more apparent.

**(e) Potential for development of joint ventures or multinational enterprises in the ownership and/or operation of purpose-built ships**

35. The delegates explained that their countries were faced with several problems especially relating to scarcity of capital and foreign exchange resources for the acquisition/building of modern capital intensive ships and to the lack of adequate technical know-how and expertise in the management and operation of shipping services.

36. Co-operation in joint ventures in the ownerships and/or operation of purpose-built ships for the regional bulk exports, appeared to have potential advantages, which might not be available to a national enterprise on its own. Ownership and/or joint operation of a suitable number of parcel/product tankers for the regional export of raw materials such as rubber latex, vegetable oil and molasses, logs and lumber carriers for export of regional timber, bulk carriers for transport of rice, maize, sugar, coal and ores offers good potential for fruitful multinational co-operation. These project had also been identified as good investment opportunities by the ADB South East Asia Transport Survey.

37. The multinational cooperation in shipping venture could take several forms such as (i) cooperation between governments of various countries; (ii) cooperation between shipping lines of various countries; (iii) cooperation between multinational corporations and other governments and (iv) cooperation between a multinational corporation and shipping lines of various countries. The ECAFE Secretariat would in the mean time make a study to determine the most suitable type and form of joint ventures which would later be followed by convening a working party of senior executives at policy making level of shipping lines and/or corporatives of interested countries. The delegations also welcomed the intensification of co-operation between ECAFE and SEATAC and hoped that joint

ECAFE/SEATAC projects would be developed for multinational shipping projects.

**(f) Intermodal Routes**

Rationalization of shipping services

- i. case study of a cargo booking centre

- ii. liner services

38. Sri Lanka has submitted an interesting case study of her cargo booking centre known as the Sri Lanka Freight Bureau. The Bureau, by its power to sign all agreements with the Conferences, has the added advantage of bargaining with the conferences on reductions in freight charges, carriage of all types of cargo and the berthing of ships to areas where cargo has been aggregated for loading.

Although it was generally recognized that cargo booking centres were useful in concentrating cargo for large shipments, their effectiveness could be limited by several factors such as the terms of shipments, secret rebating and the nature of the trade. A view was expressed that such a centre should take into account not only the interests of its national lines but also that of the shippers and the conferences. If those interests were not considered, there could be a danger of disruption to the liner services of the entire area and of inconveniences and financial losses to shippers. It was also stressed that great care should be exercised to ensure that cargo was allocated impartially as between all lines serving the trade on commercial consideration and with freedom of choice to shippers.

39. On the problems of overtonnaging and duplication, a case study of duplication of Liner Services in the Thailand/Europe trade made by the Freight Study Unit of the Government of Thailand indicated that about one-third of those diverted sailings to Bangkok were unnecessary. Their elimination would result in a saving of about US\$1.7 million per annum.

40. It was also Thailand's experience that the efficiency of a liner service depended, to a large degree, upon the number of ports at which each vessel called in order to load and discharge cargo. If most of the vessels in a liner trade were to call at the maximum rather than mini-

mum number of ports, then cargo tonnage to be moved between any two ports in the trade route would inevitably be dispersed among a large number of sailings in the form of small shipments. It was therefore felt that the total tonnage serving a country should be concentrated into the largest possible shipments and shipped on a smallest number of sailings compatible with commercial interests.

41. A view was expressed that as there were complex issues under this changing economic and technological circumstances, the single most important factor in promoting efficiency was open competition as this encouraged improvements in services so that shippers and consignees would have other alternatives should they find one service unsatisfactory. A suggestion was made that it might be useful to study the relative advantages and disadvantages of "open" and "closed" conferences as most of the conferences serving this region were closed ones as well as the detailed operations of conferences on specific routes and on specific commodities.

#### **(g) Intermodal routes through Iran and Europe**

42. A preliminary study had been undertaken of the comparative costs of various alternatives with a view to possibly introducing the "Land-bridge" concept through Iran for cargoes moving between the Indian Ocean and Europe. Since the closure of the Suez Canal the much longer route via the Cape of Good Hope has entailed increased time for goods in transit and higher transportation cost. The land bridge concept between Japan and Europe via the Trans-Siberian route has shown good results in reducing transit time and transportation costs. With the development of cargo unitization the concept of landbridge is fast gaining ground and may perhaps be a common feature in the near future. A master plan had recently been prepared for the development of Iranian ports to handle modern maritime traffic with the ports of Bandar Abbas and Shahpur envisaged to be also developed to handle container traffic. Provision of rail of 550 km between Kerman and Bandar Abbas had also been programmed by the

Government of Iran.

#### **(h) Maritime Telecommunications**

43. There is a need to augment the existing navigational satellite systems to improve facilities in the lower latitudes of the Pacific. The importance of efficient telecommunications in the maritime services was emphasized by the Sub-Committee. Emphasis was also made that telemetry on board larger ships, e.g., engine room monitor and control systems, the monitoring of watertight doors and steering control servo systems should be considered as an important aspect of maritime telecommunications. The Sub-Committee was informed that bridge to bridge telecommunication i.e. captain of one vessel could communicate with his counterpart of another vessel was used on a trial basis in America. This system was for domestic use and might not be operable on an international basis due to frequency difficulties. Upon request by the Sub-Committee ITU would explore further into the feasibility of applying such system internationally.

It was suggested that ITU training centres in the ECAFE area in particular the Singapore Telecentre should include maritime telecommunications in their curricular and that such training facilities should be made available to operational maritime organizations in the region. ITU was also requested to organize seminars in the region dealing with operation and working of maritime telecommunications. The Sub-Committee was also cognizant of the need and importance of continuing consultations with IMCO on navigational aids including radar and the operation of maritime distress signals. Also relevant to this subject was the Safety of Life at Sea Convention.

## **II. Ports and Inland Waterways**

- (a) Review of port development in developing countries of the ECAFE
- (b) Financial and economic evaluation of port projects in developing countries

44. The Sub-Committee noted with satisfaction the progress made generally in the ports of the developing countries but felt that much more

could be done instead of merely repairing the existing facilities and making marginal changes. Major improvements which were now technologically possible and economically feasible should be aimed at. While the ports in developing countries might be subject to pressures for new facilities the policy makers in deciding whether or not to provide such facilities should take into account the different factors of regional, sub-regional and their own environment. These factors varied from region to region, country to country and from port to port. Port improvement had therefore to be considered in the context of different objectives or in different order of priorities. The question of objectives was thus of central importance particularly in considering possible alternatives to solutions necessitating capital investment not only by operational improvement but also perhaps by changes in port tariffs and charges and by low capital cost solutions to port problems.

45. It was also noted that the problem of forecasting traffic was important in appraising port improvement projects so as to narrow the range of uncertainties on investment decisions for future developments. This was difficult especially in the context of technological changes for instance in the context of forecasting the future pattern of demands for general cargo facilities. Containerization was a case in point. Ports around the world have faced pressure to develop container facilities but the fact that deep sea containerization had been successful on certain routes was no guarantee that this would be equally successful in other potential routes. There was obviously a range of other alternatives roll-on/roll-off sideport pallet ships, barge carrying vessels, combination ships, etc. and it was not an easy task to forecast future traffic and shipping demands for which port facilities had to be developed. It was also felt that even where the technological question as to the type of vessels was resolved there was always the vital competitive question as to which port in an area ship-owners would actually use.

46. The Sub-Committee was of the view that undue financial burden might lead to port charges being in-



creased substantially, and this would not be desirable from a national point of view. It was therefore important to discourage dissipation of resources on a scheme that yielded very low benefits. On the other hand, it was equally important to avoid the other extreme of setting too hard a criteria for investments.

47. Port developments have already taken place or are in planning stages in India, Bangladesh and Indonesia. Several countries of the region were developing facilities for handling larger ships—very large crude carriers (VLCC) and bulk carriers of 80,000 DWT—and for providing special facilities for handling cargoes as well as large silos and storage areas.

48. Co-ordination of port development schemes with those of port based industries was desirable to avoid duplication of facilities. More attention should be given to the importance of the industrial functions of modern ports.

49. There was a need for the ECAFE Secretariat to continue to review the development of ports in an integrated development of shipping to meet the modern draft demands and related facilities. There was also a need for establishing communications between the ports of the developed countries and the developing countries as well as among the ports of developing countries themselves. The ECAFE Secretariat could play a co-ordinating role in this field. The Secretariat was also asked to keep a review of the development of ports of the region and other regions in co-operation with the various international port organizations on a continuing basis and to render advisory services on request for improvement of the operational efficiency of the ports. The Sub-Committee noted that the Government of the Netherlands is actively considering the request of the Secretariat to assist ECAFE in its port development activities.

#### **(c) Collection of Port Operational Statistics on an Uniform Basis**

50. The ECAFE Secretariat had established close co-operation and co-ordination with UNCTAD in the field of port operational statistics. The need for collection and assessment of port statistics on an uni-

form basis for improving the operational efficiency of the ports and to assist in port planning could not be over emphasized. It was through performance or efficiency indicators that improvement of port performance could be identified. Such indicators should include labour productivity, stevedoring and lighterage operations, turn-round time of vessels, throughput per berth, berth occupancy rate, rate of clearance from wharves, equipment utilization rate and cost of cargo handling per ton. The Sub-Committee commended the methodology recommended in the Secretariat's document.

#### **(d) Port training**

51. The question of port training was now assuming greater importance than ever before with the radical change in the maritime traffic that has placed related changes on port facilities, operations and management. Noting the continuing need to improve port operations in some countries of ECAFE region the Sub-Committee recommended inter alia that:

- (a) Further field trips should be organized and financed through ECAFE/ILO co-operation
- (b) UNDP / ECAFE / ILO or multi-lateral technological assistance should be used to provide fellowship training for key-post personnel to obtain experience in port workers' training as well as to provide expert assistance.
- (c) The ports of Singapore and Hong Kong which are two of the most efficient ports in the developing countries of the ECAFE region should be asked through their governments to make available their port management and operation expertise to other developing countries in the region by receiving fellowship trainees or observers for attachment to their training centres or ship operations terminals.
- (d) A training course-cum-seminar on port management and operations should be held in 1974/75 to enable senior port personnel of ECAFE countries to acquire knowledge of modern techniques in port management and operations.

#### **(e) Regional Dredging Organization**

52. The Sub-Committee expressed its warm appreciation to the Government of the Netherlands for making available two experts comprising the Regional Dredging Organization (RDO) who had made recommendations of practical nature after field missions to several countries of the region. This had the impact of improving the efficiency of the very highly capital intensive dredging industry. RDO had also highlighted the inherent weaknesses in the organizational management and planning of dredging works and the multi-purpose use of the dredging plants. It had recommended, inter alia, the standardization of the dredgers and their component parts and for developing modern costing techniques for establishment of unit costs of dredging. The dredging operations have to be supported by hydraulic engineering studies and planning of dredging alignments and dumping areas. As dredging was important for the development and maintenance of port waterways of the region, the Sub-Committee urged the Government of the Netherlands and other developed countries to reactivate the technical assistance in the field of dredging by providing advisory services and other assistance such as on the spot training to engineers concerned in the various aspects of dredging.

#### **(f) Inland waterways**

- i. Development of Inland Waterways and Water Transport
- ii. Review of the Principal Activities of the Mekong Committee in the Field of Navigation Improvement

#### **(g) Hydraulic Studies for Improvement of Navigation in Estuaries and Harbours**

53. The Sub-Committee noted with interest the developments taking place in Bangladesh, India, Indonesia, Laos and Thailand in the field of inland waterways and inland water transport. Some of the common features of the waterways of the region were large fluctuation of water level, restricted depth during dry months, strong currents, shifting channels, shoaling at crossings as well as off-

takes of distributaries and outfall of tributaries. The four riparian countries of the Lower Mekong Basin were co-operating through the Mekong Committee which devoted considerable attention to the navigational needs within an integrated development of the basin and the exploitation of the water resources for various uses such as irrigation, hydro-electric power, drainage, flood control and navigation.

54. The Secretariat was requested among other things to make systematic studies of the specific problems for the development of inland waterways and inland water transport of the countries concerned in the region. These should include studies on the availability to the region of the technological advances in hull design, methods of propulsion and methods of towing including push-towing in order to assist in evolving suitable economic designs for shallow draught vessels having regard to the physical and hydrological characteristics of the channels on which they were to ply.

55. On the question of hydraulic studies for improving navigable waterways a request was made that the Secretariat should undertake studies on the standardization of hydrological measurements for the tidal areas with a view to finding a uniform system for measuring tidal discharges of the estuaries of the region and on river training and conservancy works. In this regard assistance might be obtained from different regional or outside institutions for organizing special short term refresher courses on river training and conservancy for ECAFE region such courses to include also hydrographic surveying and hydraulics of rivers with special reference to the estuaries.

#### **(h) International Maritime Conventions, Multilateral and Bilateral Agreements to Facilitate International River Traffic**

56. In emphasizing the need to achieve the highest practical uniform standards of maritime safety, efficiency of navigation and facilitation of river traffic the Sub-Committee urged member countries to participate effectively by acceding to and implementing the above conventions. It also urged that to facilitate mari-

# *London's Berths for China Trade Opened on January 1st*

**by John Lunch  
Director-General  
Port of London Authority**

**On January 1st 1974, a new agreement came into operation whereby Chinese traffic to Europe centred on a group of berths in London's Royal Docks. This agreement was negotiated in Peking in September last by John Lunch, Director-General of the PLA.**

**Mr. Lunch, who is Chairman of the Special Committee on International Port Development of the International Association of Ports & Harbors, accompanied by Mrs. Lunch, spent two weeks in China, during which he also visited the ports of Shanghai and Canton.**

**In the following article he explains how the new trade agreement with the Chinese was reached and gives some personal impressions of China, its ports and its people. (Director-General's Office, Port of London Authority)**

I was very honoured to be the first Chief Executive from a western port to be invited to China for many years. London has traditionally been the main U.K. port for the China trade. In 1973 London's docks handled some 60,000 tons of Chinese cargo. Until the end of 1973 the vessels berthed either in the Royal Docks or at Tilbury. As a result of this visit I expect the 1974 trade to be some 160,000 tons, handled at the newly-established China terminal in the Royal Docks.

time traffic and more especially to improve the turn round time of ships, it was necessary that the conventions on facilitation of international maritime traffic should be considered for early accession by all the countries in the region.

#### **Friendship and Negotiation**

While we were in China our hosts were the China Ocean Shipping Company (COSCO), who work closely with the China National Chartering Corporation (ZHONG-ZU). Their British agents are Lambert Brothers Ltd. With warm friendship, they offered every help and kindness and I have invited them to London as guests of PLA.

Right from the outset my Chinese hosts were clear that friendship must come before trade. So establishing mutual friendship was the essential start. It was not difficult, for the Chinese are naturally a very friendly and hospitable people. However, this did not influence their approach to the negotiations we had, which were among the hardest and most forthright I have experienced in a long career of negotiating business agreements. The Chinese negotiators were never satisfied to talk in general terms—they went into considerable practical detail and the value of long and careful preparation—and of honesty and sincerity—were very evident. The timetable meant that talks had to be completed in five days but at the end of that time we were able to shake hands on a verbal agreement, which in China, as in the City of London, is considered to be as binding as a signed contract. In demonstration of this we each left the meeting to give immediate instructions to implement the new agreement.

#### **Significant New Agreement**

PLA some time ago identified the Chinese trade as a potential growth area. Moreover there was Chinese

traffic to be won back from Continental ports, which were transhipping it to Britain. Transshipment is costly, but more important the extra handling involved in transshipment damages cargo. It was with these factors in mind that careful approaches were made in London and elsewhere which culminated in my invitation to China to negotiate a new agreement.

We arrived at a commercial agreement which commenced on 1st January 1974, under which a group of berths in the Royal Docks are provided for priority use by vessels from China. The arrangement is experimental for six months and will be reviewed according to the experience of both parties. Importers and exporters will become familiar with this arrangement and dock workers will become experienced in handling Chinese traffic, both of which factors will ultimately lead to greater overall efficiency. Both sides gain from the deal: PLA expect an additional 100,000 tons a year in the Royal Docks, and the total transport costs to the Chinese will be reduced.

Immediately I left Peking, arrangements were made in London for full consultation to begin with the trades unions and others concerned in the operation, for it is my policy for everyone to be involved from the earliest moment. Frank consultation in this way has contributed much to the improved industrial relations situation in London, which has been noted right across the world. Incidentally I was very glad that we started 1974 with a smooth settlement of all London dockers pay.

### **Chinese Trade**

In Peking I met the Vice-Minister for Communications, Mr. Tao Chi, and Mr. Chen Hsu Fu, the Vice-Minister for Foreign Trade, who both confirmed that prospects for increased trade between China and the U.K. were bright. China does a major part of her trade with Japan, accounting for some 20% of her total. The Chinese indicated that they did not want any one country to have too large a share of their trade and I sensed that Japan's share seems to be the desired limit. As the U.K.'s share is about 5% there seems adequate room for ex-

pansion of Britain's trade with China.

### **Port Facilities**

In my capacity as Chairman of the Committee on Developing Ports of the International Association of Ports and Harbors, I was particularly interested to see Chinese port facilities. The ports of Shanghai and Whampoa (Canton) are both ripe for further development and are being steadily modernized. They resemble London's docks as they were in about 1960 and some 95% of cargo is moved to and from the docks by rail. The infrastructure is good with wide quay aprons, in some cases up to 35 metres, and the sheds have very adequate space and height. The ports are equipped with five ton quay cranes supplemented by at least one 25 ton crane. Mechanized cargo-handling with fork lift trucks has already started, and further modernization can be quickly achieved by the introduction of more fork lift trucks, tractors, trailers, etc. Our hosts were very keen to receive constructive suggestions for improvement and wanted to know more about the latest packaging methods and palletization in order to move towards the unit load concept. As a first step, palletization could be introduced to speed dock operations and then ideally extended to the "through pallet" concept to carry goods from door-to-door.

A particularly interesting feature of Chinese port operations was the use of large canvas sheets to protect the working area on the ship and quay to minimize delays caused by rain which is so much more of a problem in China than in temperate zones—Canton is, of course, in the tropics.

I had taken with me a copy of our latest PLA film "Thamesport", dubbed in standard Chinese and this aroused great interest because of the way in which it illustrates the most modern cargo handling methods as used in London. Our hosts were particularly pleased to be able to keep this film for further showings in China.

### **China—People and Places**

Earlier I mentioned that the Chinese were quietly insistent that

friendship came before trade and arising out of this friendship we were soon to see something of the day-to-day life of China—indeed we were given every opportunity to meet the people of China both in the cities and in the country.

The main unit of rural society is the commune, which typically has a population of 50,000 people and is divided into village-type sub-units. As far as possible houses are grouped so that relatives live near each other and the family spirit is maintained. Each commune is encouraged in self-sufficiency with a hospital, local medical clinics, schools and small factories. I visited a clinic and also one of the commune hospitals, which carried out surgery such as appendectomy. Patients paid a small contribution—annually, and on each occasion they used it—towards the cost of medical services. It was explained to us that this maintained the dignity of the individual, avoiding any feeling of charity. It was interesting to see that in the hospital pharmacy traditional Chinese remedies were available side by side with Western medicines, enabling patients to choose their preferred cure.

Bicycles, buses and trains are the main means of transport for the Chinese. There are not many motorcars and those there are are official.

The family unit is still of great importance to the Chinese and grandparents often look after their grandchildren while both parents are working.

The Chinese naturally regard the 1949 Revolution as a major and decisive step in their 4,000 year old civilization. They hold a deep respect for their history and protect their ancient monuments as museums. Outstanding among these is the Great Wall of China—a magnificent feat of engineering in Northern China, built nearly 2,000 years ago and about 4,000 miles long, stretching along the sharp ridges and over the peaks of the mountains which typify this part of the country.

Another place of great interest is the Imperial Palace—the old "Forbidden City". We were struck by its great beauty and splendour, and its priceless art treasures, displayed for all to see. The true extent of the

**(Continued on Next Page Bottom)**



# Construction of the First Artificial Island Trans-Shipping Terminal in the Open Sea

**Authors: Luiz de Lima Cardoso—Termisa  
Leandro Mendes Sabino—Termisa  
Bela Koman —Soros Associates**

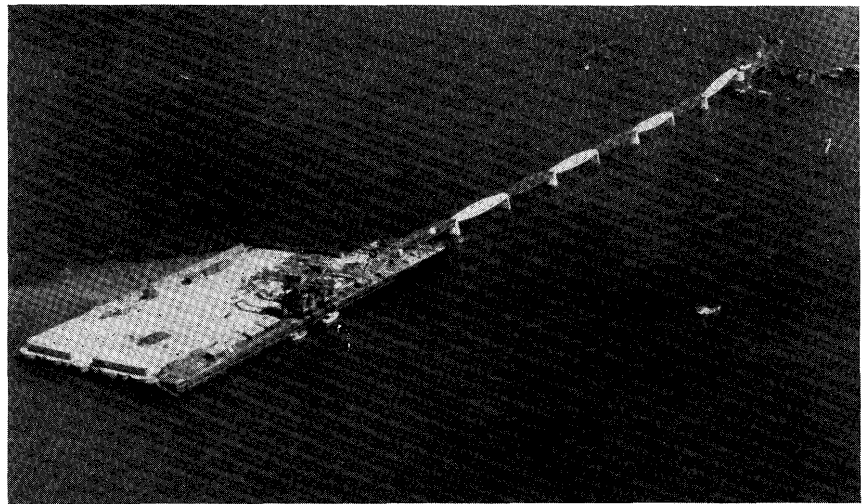
An artificial-island type of terminal was recently built 8 miles (14 kilometers) off the coast of Brazil, near Areia Branca in the state of Rio Grande do Norte. It is intended for the trans-shipment of solar salt, and possibly other bulk commodities, destined for southern Brazilian ports and for export.

The Brazilian government, through TERMISA — Terminais Salineiros do Rio Grande do Norte S/A, a mixed economy enterprise attached to the Ministry of Transport through the National Department of Ports and Navigable Waterways, had the terminal built after a detailed study of the region's salt producing industry, its markets and the traditional methods of handling and transporting the product. The new terminal with its modern material-handling system replaces the antiquated method of hoisting hand-

filled buckets from barges to ships anchored in the open sea. Before the selection of the artificial-island system as the optimum solution for the terminal, SOROS ASSOCI-

ATES INTERNATIONAL INC, the consulting engineers for the project from concept to completion, investigated several alternative systems, including self-unloading barges, floating storage facilities, long-distance conveyors and aerial cableways.

The feasibility of building and maintaining an artificial island in this part of the Atlantic Ocean was established after careful investigation of the wind and wave data, tidal movements, ocean currents and sea bottom conditions. Geophysical surveys and soil borings carried out before final design led to the most suitable location of the island and of the adjacent pile-supported struc-



**1. Transshipping Terminal consists of artificial island, open-sea shiploading berth and connecting conveyor trestle. Island includes barge unloading wharf, storage area and auxiliary facilities.**

Chinese cultural heritage can more easily be understood when one considers that the recent magnificent Chinese exhibition in London was but a small representative collection of the country's treasures.

## The Silk Routes

We flew to Peking via Rome, thus following the 2,000 years old "Silk Route". Few people realize that in 100 B.C. the Chinese were exporting exquisite silk cloth to Ancient Rome.

I will finish on the same note as I started—friendship. The last and indeed most lasting memory we took away from China was of our hosts joining hands with us and singing "Auld Lang Syne" which my wife had taught them in a launch on the Pearl River. We left with a feeling of enduring friendship with a wonderful people and their fascinating country.



**2. Circular sheetpile cells form the perimeter of the island.**

tures for the barge unloading and shiploading facilities.

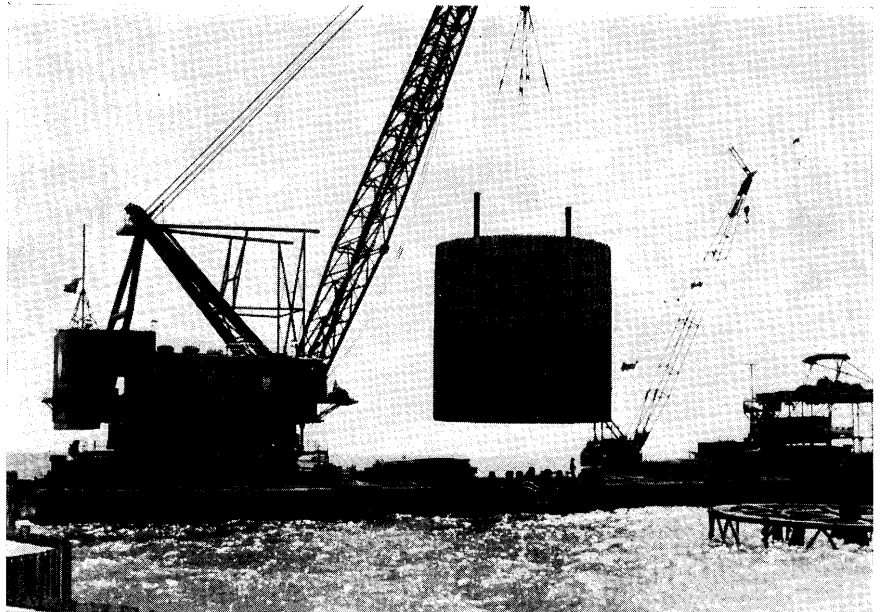
Several alternative methods were considered for the construction of the island perimeter, including a rubble-mound breakwater, rectangular caissons on top of a rubble base, cylindrical caissons jettied into the sea bottom, a flat beach with revetment and seawall, and sheet-pile bulkheads. The method adopted consists of steel sheet-pile circular cells topped with a reinforced concrete seawall. Rip-rap protection is applied in front of the cells to prevent scour of the sea bottom and to serve as a filter blanket.

The construction of sheet-pile cells in the open sea presented many initial problems, mostly related to the selection of construction equipment. However, once these were surmounted, the basic island was completed in less than four months.

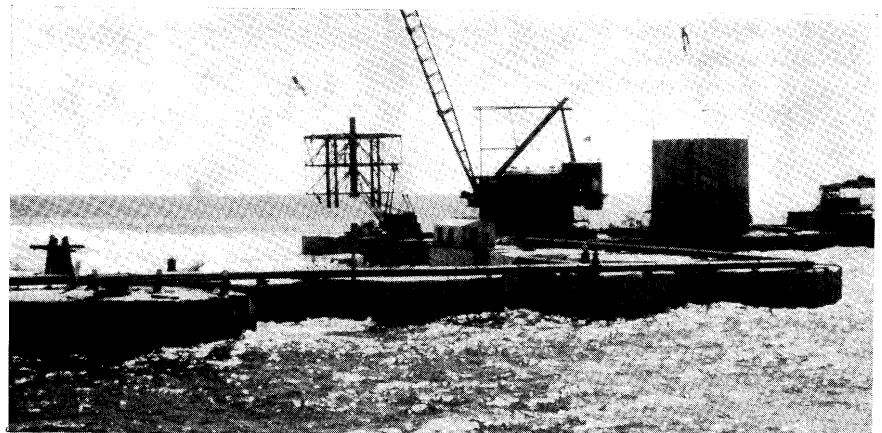
The marine engineer-contractor, the OCEANIC division of J. RAY MCDERMOTT INC. used a fleet of vessels including a derrick-boat of 500 ton lifting capacity. Each of the 24 cells was preassembled around a circular template on the deck of the derrickboat. The 58-foot (17.5 meter) diameter assembly was then lifted by the derrick boom, swung into position and lowered to the sea-bottom over guide piles. A pile driving hammer was used to drive the sheet-piles to a penetration of approximately 15 feet (5 meters) into the fine granular soil. As soon as each cell was driven it was filled with selected material dredged from the sea-bottom some 9 miles (16 kilometers) from the terminal. The template was removed progressively with cell filling.

The dredging and filling operations were carried out by a seagoing trailing-suction type hopper dredge which filled the cells and cell closures as well as the enclosed body of the island. The discharge pipe-line of the dredge was supported on the approach trestle between the island and the shiploader.

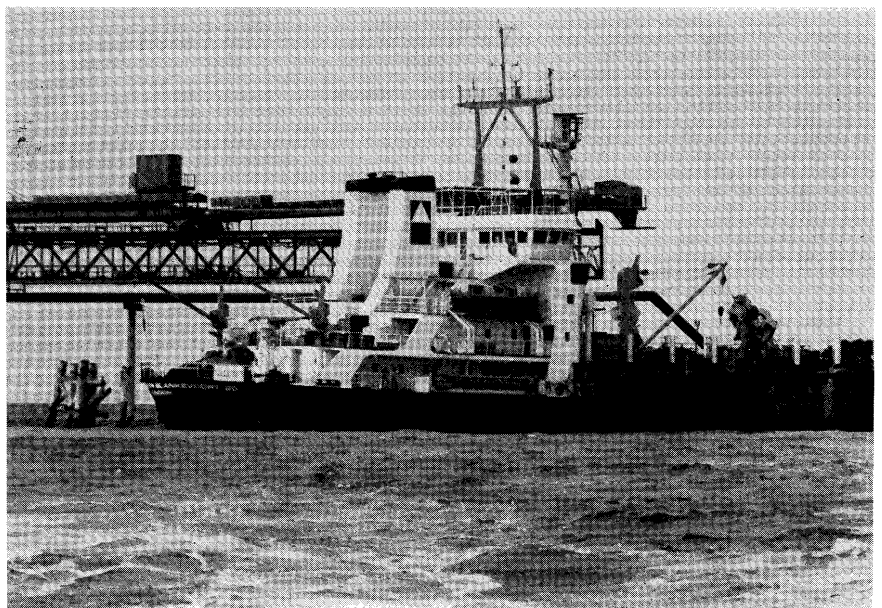
The shiploader, dolphin, trestle and supports are steel structures supported on pipe piles of 24 inch (60 centimeter) diameter penetrating up to 120 feet (37 meters) into the sea-bottom. Permanent, braced jackets were used to position and guide the piles during driving. The



**3. Derrick-boat lifts 200-ton sheetpile cell.**



**4. Template is removed from inside a completed cell.**



**5. Seagoing dredge docks at shiploading pier to pump its cargo to the island.**

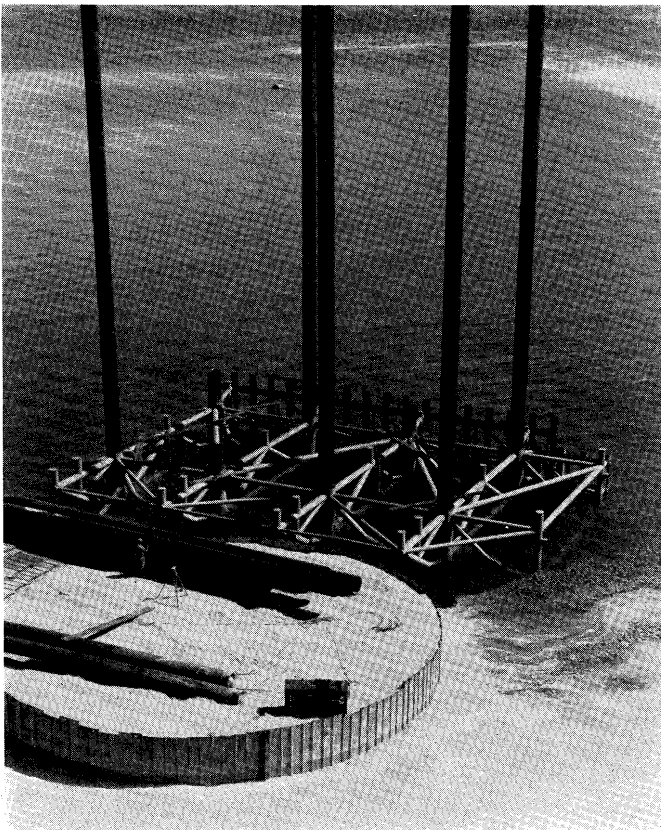


**6. Conveyor trestle supports temporary pipeline carrying a mixture of sand and water.**

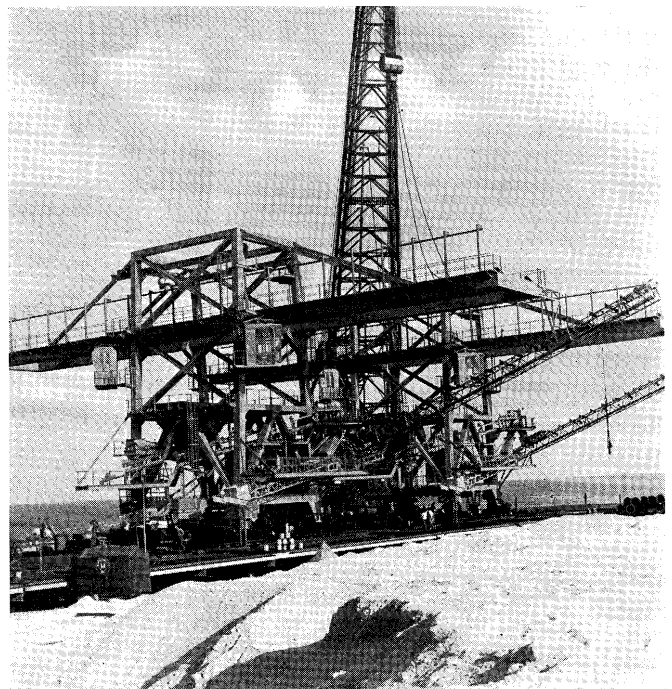
depth of the water at low tide varies from 23 feet (7 meters) near the island to 50 feet (15 meters) at the shiploading berth.

The shiploader designed by SOROS ASSOCIATES and detailed by POHLIG-HECKEL is of the slewing-bridge type capable of loading up to 25,000 DWT bulk carriers without having to move the ship while at berth. Larger ships can be loaded by moving them fore and aft under the loader so that the boom may reach the extreme hatchways.

The shiploader was towed, pre-assembled, from the construction yard on the bank of the Mossoró river via barge to the terminal. Upon arrival at its final location it was lifted into position by the derrick-boat. The completed shiploader, including slewing bridge, shuttle carriage, boom, mast and conveyor equipment, has a total

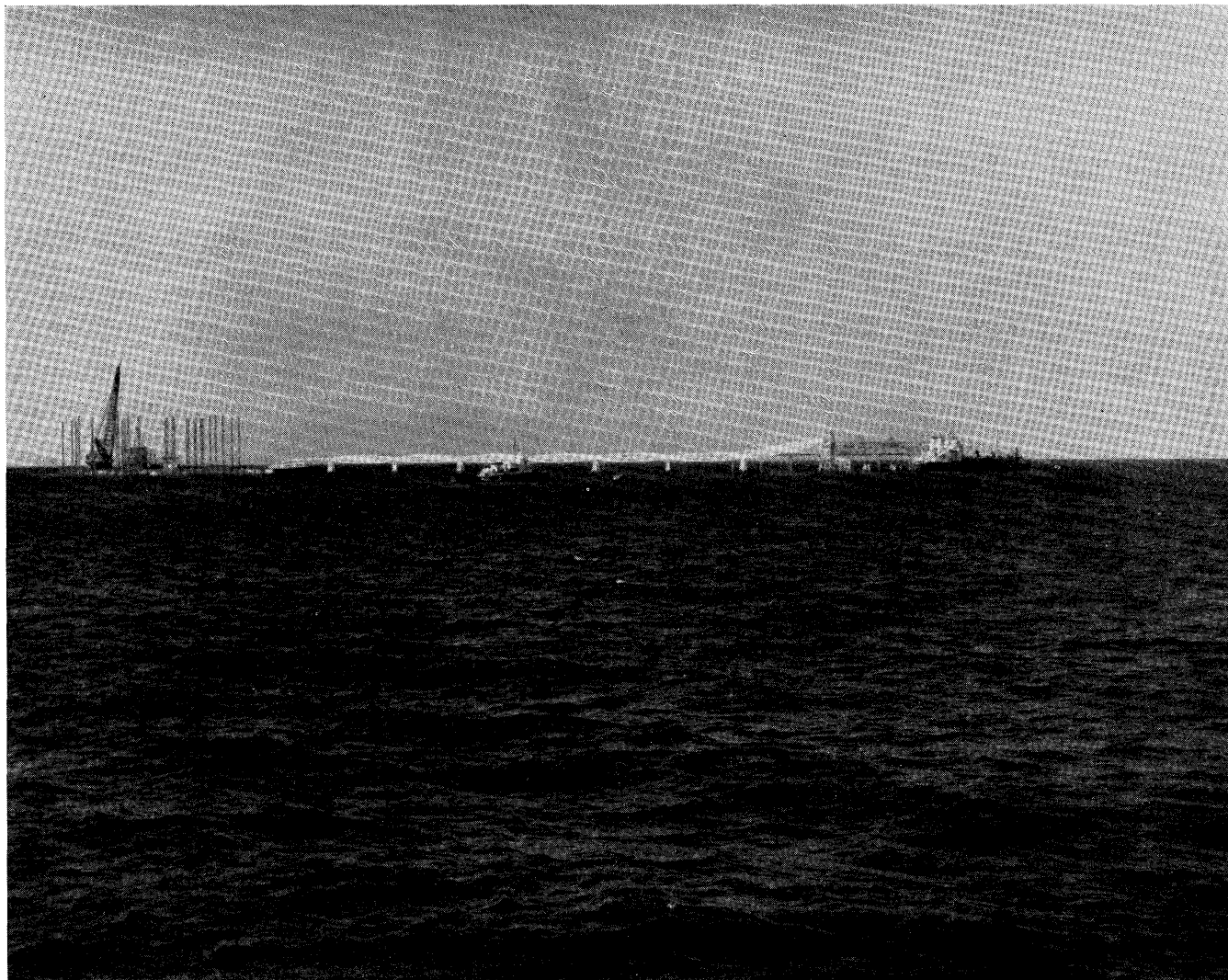


**7. Barge wharf utilized a pre-fabricated template.**



**8. Barge unloaders were assembled on the shore, transferred to a barge and towed to the island for positioning by the derrick-boat.**





9. View of the terminal nearing completion.

weight of 320 tons. The shiploader as well as the rest of the materials handling machinery was furnished by POHLIG-HECKEL AG and POHLIG-HECKEL DO BRASIL S/A.

The western or lee side of the rectangular island is naturally protected from the prevailing easterly waves. A pile-supported wharf was built along this side to accommodate two barge unloaders capable of traveling longitudinally over the length of the wharf. Each unloader weighs 353 tons including counterweight and machinery. The two machines were pre-assembled in the construction yard on shore, transferred to a barge and towed to the terminal. The derrick-boat lifted each unloader and placed it on the

wharf track.

Each unloader is equipped with a grab-type bucket and has a capacity to unload salt from barges at the nominal rate of 350 tons per hour. The reclaiming and shiploading system, using 42 inch (1070 mm) and 36 inch (920 mm) belt conveyors, can load ships at the nominal rate of 1500 tons per hour. Up to 100,000 tons of salt can safely be stockpiled on the island.

Along the three exposed sides of the island a reinforced concrete seawall was built on top of the sheet-pile cells. This seawall protects the island against wave action. Records indicate a maximum wave height of approximately 8 feet (2.5 meters).

The open-sea structures were designed to resist 20-foot (6 meter)

waves as a safety measure. Recorded waves are sufficiently small to permit the docking and loading of ships on a regular basis.

The completion of the TERMISA terminal is considered a milestone in the relatively short history of offshore terminals for bulk materials. The successful solution of the technical problems encountered during its planning and construction should provide useful guidance for what will probably be an increasing number of installations of this type in the future.



# *Supervisor Training in the Port Industry*

by **B. Cobb, F. I. W. S. P., A. M. B. I. M.**  
**Training Manager**  
**Felixstowe Dock & Railway Co.**  
**Felixstowe, Suffolk, England**

I have endeavoured to set out in this article a clear description of the Felixstowe port approach to supervisor training, including a brief history of the way in which formal supervisor training was introduced and how certain difficulties were met and overcome. Whilst I feel that each and every industry has its own particular problems, and that the same applies to each part of every industry, I do think that Felixstowe problems, in general terms, are not greatly different from those to be found elsewhere.

The first "Supervisors Basic Management Course" was run in October 1971, with myself as course tutor. Certain features of the Port, its history and above all, its quality of labour-force influenced me when I drew up that very first course programme. I had to bear in mind the background, and calibre of men attending the course, and since this was to be the first of what was planned as a never-ending series (a prediction which has come true), I had to draw up a set course objectives which would prove successful in the immediate short-term, yet stand the test of time as the series continued.

That first course consisted entirely of men who had joined the company from either the services, or from outside industry, mainly as labourers, and by means of internal promotion had reached the rank of foreman, a position which they had held for some time. They were men who were experienced in handling labour, and who were technically qualified (by experience) to deal with day-to-day shipping problems. However, they had re-

ceived no formal training whatsoever, and I was confident that they would be typical of supervisors attending the subsequent "Basic Management" courses. But why was supervision identified as a key training area. Well, to me, and mercifully, to my superiors also, the reasons were abundantly clear. Felixstowe is a port which in 1967 handled in the region of a million tonnes, in 1969 two million tonnes, and in 1973 three million tonnes. Dramatic growth indeed, but pause for a moment to consider the problems encountered by supervision. Upon them had fallen first-line responsibility for productivity, safety, security.

Upon them had also fallen first-line responsibility for Industrial Relations. As the port expanded physically, so the labour force doubled in number, and commensurate with that expansion, so supervisors were promoted from within the port. (Promotion from within has always been encouraged here, and is a policy which is now stronger than ever. Again, the fullness of time has proved this to be a most wise policy). However, it was necessary to demonstrate to these people that they really were (and still are, of course), a vital part of the Management structure of what in a very short period of time had become a very famous port. So, not only was the Basic Management course to be educational, it set out to be a contributory factor in cementing a certain camaraderie amongst men who by the very nature of their jobs were 'loners.'

Consequently, bearing the foregoing in mind, the following objec-

tives were established, and have always been published for discussion on the opening session of each course:—

1. To provide supervisors from differing areas of the dock with the opportunity to meet for discussion of mutual problems. By doing this course, members quickly appreciate that their own problems at work are not unique!
2. To provide supervisors with the opportunity of discussing case-studies presented as exercises in human relations and industrial relations. The case-studies are specially selected for their relevance to the Felixstowe Dock situation, and supervisors therefore benefit from the ideas which result from syndicate discussion.
3. To provide supervisors with examples and exercises in communications, both written and oral. Once again, the exercises are designed so that each supervisor can practice, and improve both his letter-writing and instructional techniques.
4. To provide supervisors with the opportunity of talking to Senior Managers from both our own Company and outside organizations. This deepens the supervisor's appreciation of the problems of management at other levels, and emphasises to him the importance of his own role.
5. To promote an awareness of the Supervisors special responsibilities for Safety, Security, Productivity and general cost-consciousness, and to encourage Supervisors to further develop this awareness upon their return to their work-places.
6. To increase the Supervisors knowledge of the various aspects of his responsibilities as a Supervisor, and to satisfy what should be a natural appetite for knowledge of all sorts.

Now, having discussed the history and objectives of the "Basic Management" course, I would like to dwell briefly on the resultant course programme. Each course is of one week's duration. At this stage, I believe that a supervisor of this type can only happily absorb training material for a week at a time. After this the whole thing becomes a bit of

a drag, and therefore the results won't come. (Without enthusiasm nothing is worthwhile in training. This is my personal view and I am sure I'm right). There is also the economic factor to consider; the supervisor is a vital cog in shipping and back-up operations, and senior management are understandably reluctant to release supervisors for more than a week at a time. Alternatively, for my money, any course lasting less than a week will hardly be worthwhile running if a variety of subjects are to be covered.

What then, was to be the theme? Well, I have dwelt briefly on the port's exciting growth. Obviously such growth would not have occurred had there not been good industrial relations and high productivity. Felixstowe, like any other industrial concern, has certain resources upon which to capitalize, and over the years the greatest resource has been its manpower. So, what better course theme than simply "people"? Consider any aspect of management which does not reach out and affect individual persons—you can't, because there isn't one. Progressing to the course programme then, the week consists of five four-period days. The twenty period course typically is made up as follows:—

- Communications 10)
  - Industrial Relations 5)
  - Safety, Security & Productivity 5)
- Some overlapping in these areas

Now, all this is fine—without exception courses have been successful, and the major reaction from course members has been one of genuine appreciation—firstly for the Company's recognition of their importance, and secondly for the educational aspects of the course. But What Next? I think most people will agree that to take a group of supervisors, put them on a training course, weld them into an enthusiastic group and then at the end of the course disperse them to their various work stations to be forgotten forevermore, would do far more harm than good. Consequently, follow-up training for Supervisors has been organized as shown below:—

#### Steps in the training of Supervisors

1. Supervisor selected and appoint-

- ed, always from within the company, often from within the group he is to be associated with.
2. Period of attachment with established supervisor learning routines and procedures.
3. BASIC SUPERVISORS COURSE, as outlined in preceding part of this article. This is training and education but is invaluable in identifying further areas for training.
4. Supervisors' Study Tour. (See note later in article).
5. Follow-up training in specialist areas e.g.
  - i "Simport" business game
  - ii Inplant specialist seminars, one or two days, on subjects such as Finance for supervisors, Value-added tax, Industrial Relations Act, Metri-cation etc.).
  - iii Specialist inplant short-courses. (Recent ones have covered derrick work and documentation.)
  - iv More advanced management courses at outside Colleges.

Obviously, every supervisor passes through stages 1, 2 and 3. From then onwards he has a large influence on what further training he would receive. Stage 4 is an interesting one, and has so far proved to be an important step in the supervisors' development. This stage consists of a short 3 or 4 day study tour of other ports, all of which so far have been on the Continent, to places such as Rotterdam, Antwerp, Hamburg, Bremen and Bremerhaven. Whilst this is a comparatively costly exercise, a brief look at the reasons behind it will quickly justify it.

The large proportion of our supervisors joined the industry from outside, and have worked their way through the ranks to their present positions. Consequently, the only port which they have seen is Felixstowe. For pure education it is indeed exciting for them to be given the opportunity of seeing ships which their gangs have loaded being discharged in a continental port. Incidentally, there is normally a gap of some 18 months or so between the Basic course and the Study tour. This is partly because of the expense involved, but mainly through the importance of spreading a man's

training progressively. Again, in addition to the personal development experienced by those people attending these study tours, it is good that they can actually see the favourable comparison between Felixstowe and ports many times larger. They also see that problems, as well as ships, are bigger and better in places such as Europort and Bremerhaven, yet are still overcome by the same brand of endeavour and enthusiasm as that which resulted in Felixstowe's rise to fame.

However, to stage 5, which is the further follow-up training. This is probably the most difficult area of all to satisfy. It is here where the supervisor has to be catered for individually, it being disastrous and humiliating for a man to have his confidence destroyed through being put onto a training course which is too academic for him. Likewise, scorn would be poured onto the Training Department if supervisors were put onto courses which were not of sufficient standard as to tax them to the full. So it must always be horses for courses, with great care being taken to establish the right course to meet the required objectives. In many instances people have benefitted by mv consulting outside training establishments and colleges of further education for advice on individual requirements for students. One establishment which we use regularly on this basis is Burton Manor College in Cheshire, whose Director of Management Studies, Mr. H. Middleton, has always backed his advice by providing training courses pitched at exactly the level we require. Without regular contact with such establishments I think that industry and the various educational and training organizations would quickly be pulling in opposite directions.

#### Conclusion

Supervisor training in the Port Industry, as with any training, should not be carried out without an agreed, published set of objectives. Naturally, the settling of these objectives varies from individual to individual, so an ad hoc system of detailing a random number of people to attend a training course will never bear fruit. Sadly, this is

**(Continued on Next Page Bottom)**

# 10th Anniversary Observed at Port Kelang, Malaysia

## Extracts from the Anniversary Special Issue of Port Kelang News

(See also news item in the "Ports and Harbors", February, 1974, page 43 captioned "10th Anniversary Celebrations".)

Charting the Kelang Port Authority's progressive policies are the 10 members of its Board under the chairmanship of RAJA DATUK

not unusual in industry today.

What has been attempted at Felixstowe, with more than a little success, has been the planning of "universal" training early on in the employee's career as a supervisor, stages 1-4 as outlined earlier in the article, followed by more sophisticated training later on. Several people who came onto my early Basic courses have now attended more advanced courses at outside establishments, not as supervisors but as managers, their careers having developed in parallel with their training plan. To my mind this underlines the importance of a rigid system of basic training, being followed by a flexible system of progressive advanced management training. Indeed—it leads me to my final words on the whole subject of Supervisor training in the Port Industry—What is needed is

- (a) a formal set of objectives for each course
- (b) a solution for each individual, but in his early days a rigid system covering the vital human elements of management.
- (c) flexibility within a formal plan. No flexibility and no plan means no results from the training effort.

This has been attempted at Felixstowe, we have got results, and I can only commend the system to the Industry in general.

January, 1974

**PADUKA HAJI AZAM BIN BAJA HAJI KAMARALZAMAN.**

Y. M. Raja Azam was in Government service for 31 years before retiring in 1970 as secretary-general of the Transport Ministry.

He was also the Seremban District Officer, Negri Sembilan's State Secretary and State Commissioner of Lands and Mines.

Born in Kuala Dipang, Perak, he was educated at the Kuala Kangsar Malay College and the Raffles College in Singapore.

### Port Kelang: Railway Terminal to Container Port

On July 1, 1963, the administration of Port Swettenham (as Port Kelang was then known) was divorced from the Malayan Railway and placed under the newly established Port Swettenham Authority. Since that historic day a decade ago the port has experienced tremendous changes, with its development programme steadily gaining momentum.

The long sought after construction of North Port was finally completed in 1964, adding 2,490 ft. of wharves, four transit sheds with a total of 191,000 sq. ft. and four warehouses with 70,000 sq. ft. of storage area. Cargo handling was mechanised and a two-shift (later a 3-shift) system was introduced. A bonus scheme of payment to the labourers was effected and the Authority's own by-laws and schemes of service and staff regulations were drafted. Three years after the opening of North Port, there were 2,644 ships calling at the port as compared to the 1,727 in 1963. Since then Port Kelang has been handling record tonnages every

year.

Port Kelang, Malaysia's biggest port, has its origins in 1900 when it was constructed as a terminal of the Malayan Railway. How much the port has developed can be seen when one compares the 4.5 million tons of cargo handled last year and the original capacity of 400,000 tons planned for the port in 1900.

In 1932, the Port Swettenham Advisory Council recommended that when tonnage through the port reached 450,000 tons a year, steps should be taken to provide additional wharfage in the North Klang Straits. This figure was reached four years later. However nothing was done to implement the Council's recommendation mainly because there were no funds available.

By 1951, the character of the cargo handled at the port was greatly different from those of the previous 20 years. Bulk commodities such as rice, flour and sugar, which previously formed the main items passing through the port constituted only a quarter of total imports in that year. General imports on the other hand increased substantially. Furthermore, the increasing export of latex and palm oil in bulk meant that ships calling for these commodities had to be berthed at the import wharf where facilities were available to handle bulk liquids. General import cargo had to be dealt with in the stream, although the imports were, by the large, not suitable for lighterage.

For a port with a capacity of 400,000 tons, South Port was by 1962 handling over 1.3 million tons. The need for expansion was clearly urgent. Prior to 1963, short term development programmes carried out consisted of the construction of one coastal berth 350 ft. long and one ocean berth 480 ft. long with a transit shed, three lighterage jetties and storage facilities. The long term development programme matured only with the construction of North Port.

The Kelang Port Authority has not looked back since then. Though it faced many difficulties in its early years and even up to the present time, its development programmes have not been hampered. North Port which had a capacity of 1,903,000 tons a year was within a year of

its opening receiving 2,039,000 tons of cargo. By 1972, tonnage had reached, 4,489,000. An estimated 5.2 million tons is expected to be handled this year.

The increasing passage of goods through the port necessitated a corresponding increase in facilities and accordingly more storage areas, equipment and personnel were brought in. Ten years ago, the total staff in the Authority came to only 1,276. Today it stands at over 5,000.

As the Authority entered its 10th year, another milestone has been reached: the completion of a \$85.8 million containerization project. By August the first container ship will arrive in Port Kelang.

The port has travelled a long road in its development history and the Port Authority can observe its 10th Anniversary with pride. Within a decade it has charted the transition of Port Kelang from a railway terminal to Malaysia's biggest port to container port.

### **Port Kelang: Container Port**

From August onwards container ships will be calling at Port Kelang to discharge and take on massive steel framed aluminium boxes.

Once this has been achieved the port will join the ranks of other advanced ports to accept a revolution in shipping—containerization.

During the last few months, an average of 150 containers were handled at the port, most of them brought here by conventional ships. With the beginning of operations at the container terminal 9,000 containers are expected to be handled during the remaining months of the year.

A total of 21,500 containers is expected to be handled next year. A tall order indeed but then the Kelang Port Authority wasn't unprepared for this new type of shipping that has caught on in the world.

As early as 1969, the Authority was faced with a big decision—to containerise or not. If it were to adopt a "wait-and-see" attitude it would only mean that the port would eventually lose out to others with container facilities and if the advantage was lost it will take at least four years to get Port Kelang on the container ships map.

### **NPC Book :**

## *A New Programme of Port Industry Research National Ports Council Gives Details*

Details of a new five-year programme of research for the ports industry are published by the National Ports Council in the latest issue of the **NPC Bulletin\***.

The new programme is largely

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\* National Ports Council Bulletin No. 5. Published by the National Ports Council, Commonwealth House, 1-19 New Oxford Street, London WC1A 1DZ. Price £2.00.

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This would mean higher costs for Malaysian exporters if an overseas buyer wanted his goods in containers for then the goods would have to be sent to Singapore by conventional vessels and packed there. Furthermore, container goods for Malaysia would have to be unpacked in Singapore before arriving in Malaysia. Again, greater costs are incurred and time which the shipping industry can ill afford is wasted.

Though it would mean the expenditure of vast sums of money to containerise, the Authority felt this would be the wiser move in the long run. Accordingly, the \$85 million project was decided upon by the Authority.

The investments involved the building of 2,800 ft. of new wharves (2,100 ft. for container ships and 700 ft. for conventional), dredging of the sea-bed and purchase of modern container handling equipment.

Two container cranes, 85 ft. high and costing \$3.5 million each have been erected on the container wharves; each has a lifting capacity of 35 tons. In addition there are eight straddle carriers each with a lifting capacity of 30 tons and each costing \$500,000. Twelve prime movers and 9 twenty feet and 6 forty feet trailers have also been bought to facilitate movement of containers within the port area.

The specially strengthened container wharves designed to bear the

based on answers to a questionnaire circulated to ports in co-operation with the British Ports Association, which produced over 150 suggestions for future research.

The programme takes account of basic principles agreed between the Council and the British Ports Association, that research be directly related to the needs of the ports, that projects be selected on their cost effectiveness where this can be

weight of containers are equipped with huge vulcanized rubber fenders to absorb the impact of container ships of about 60,000 GRT during berthing. Two container ships of the third generation type can be berthed simultaneously at the wharves.

Stacking of containers at the port poses a problem as the soft subsoil tends to sink under pressure.

The Authority has come up with a \$6 million answer: Special stelcon slabs (made of concrete and steel), six feet square and six inches thick are laid on the stacking area. Should part of the ground sink, the slabs can be lifted, the ground filled with sand and the slabs laid back again.

Initially 18 acres are being stelconised with an additional 10 acres available for future expansion. Thirty acres are available for future expansion of the back-up area.

Facilities for refrigerated containers (for perishable goods) are also provided at the port with rail transport at hand.

Containers are delivered to Kuala Lumpur by lorries belonging to Kontena Nasional, a government sponsored company. Because of its size and weight, transport of containers by road to other parts of the country is prohibited. To ensure that the containers reach the consignees in any part of the country, the Malayan Railway has ordered 110 special container wagons.

readily evaluated, and that effective procedures for monitoring can be established.

The programme covers four main areas: nautical research, harbour structures, dock operations and design, and research aids to planning and control.

**Nautical Research.** The questionnaire response showed an increasing requirement from ports for research on the 'wet' side of harbour operations and a substantial number of nautical research studies are therefore proposed to deal with three broad topics, namely the evaluation and improvement of navigational systems, the behaviour and operational needs of large ships in restricted waters, and hydrographic surveying.

**Harbour structures.** There were many suggestions from ports concerned with reclamation and dredging methods, berthing forces and paved areas. These topics are therefore major proposals for research under this heading.

**Dock operations and design.** This is an area of significant expenditure offering substantial scope for savings. Topics include an examination of container berth operations, the control of engineering maintenance costs, the evaluation of plant and equipment and the development of a visual information transfer system between central control and straddle carriers.

**Research Aids to Planning Control.** The great interest shown by ports in corporate planning and management information is proposed to be met by projects concerned with berth management information, ship analysis time, computer usage, and port documentation.

Many suggestions from the ports were concerned with the future of general cargo in terms of forecasts of transport methods and flows, and port capacities and requirements. Council staff are working on this topic.

## *Can Beverly-Salem Host The Port of the Future?*

(Courtesy Mr. Y. H. Matsui of Massachusetts Port Authority Tokyo Office, obtained from Beverly Times, December 28, 1973):—The deep water oil port issue has generated much political heat but little energy in the nation's homes.

The local issue centers on the best utilization of the Salem-Beverly Harbor area for handling supertankers of the future. The question is: should Salem or Beverly authorize construction of deep water port facilities at all?

Some local officials are not sure.

Although Salem Mayor Jean A. Levesque conceded he knew little about the deep water port concept, he stressed that Salem would consider construction if the port did not destroy the environment.

Rudy Conant, Beverly Harbor-master, however, was against the installation of a deep water port since environmental impact to the community was unclear.

The deep water port concept was given national prominence in April, when President Nixon described the proposal in his energy address. The new ports would be capable of handling the new giant supertankers which will be delivering crude oil to the United States from around the world. The new tankers are capable of transporting enough oil to fuel a city for up to a week.

New England, particularly, would benefit from increased deliveries of large quantities of the oil. But because oil is currently delivered in small tankers, no U.S. east coast or gulf coast port is capable of handling any tanker larger than the ones presently in use.

Because of the inadequacy, the deep water port issue has become a topic of interest in the oil industry.

But local officials know little about deep water ports and their economic implications. The confusion exists because several different kinds of deep water ports have

been proposed by congressional leaders and none has been properly explained to the public, according to a spokesman for the Mass Port Authority.

The basic plan is relatively simple. Oil tankers would moor several miles from shore tying up to buoys anchored on the sea floor. A series of floating hoses would connect the tanker to a buried pipeline attached to the buoy or mooring platform outside the actual harbor. The pipeline would carry the oil to bulk storage facilities on shore.

Most oil imports today are carried on non-American flag carriers, which, as one congressional aide argues, makes the U.S. "double dependent" on other nations during the energy crisis. However, the U.S. Merchant Marine fleet soon will have 26 new super tankers in the massive 250,000-ton class.

The Mass Port Authority has proposed a deep water port off Winthrop where many storage tanks have already been constructed. Furthermore, Gibbs Oil Co. in Revere is considering a deep water port and refinery in Sanford, Maine. And Aristotle Onassis is attempting to build a \$600 million oil refinery in Durham Point, N.H. and the Isles of the Shoals are ideally situated for pumping stations.

Yet only a few cities have considered construction of the deep water ports. Most of the opposition comes from conservation groups who feel the environmental impact studies are incomplete.

According to Ralph Hobbs, Salem Harbormaster, large intercontinental tankers may not be necessary as the U.S. looks more and more toward its own coastal waters for oil wells.

Paul Swatek of the Massachusetts Audubon Society, advocates deep water ports but not in Beverly or Salem Harbor. Swatek said the North Shore harbors are too far from storage and refinery facilities,



and such a port may disturb natural resources in the area.

He is against the Beverly-Salem are despite a proposal to build a refinery in the Lowell-Dracut area. No site, however, has been selected for the Lowell refinery, proposed by Congressman Paul Cronin (R—Andover).

And Swatek said he was skeptical of the super tankers since the United States is looking for energy self sufficiency by 1984.

Nonetheless, prior to the Arab oil embargo, one federal study estimated that five to six million barrels of oil still will be imported into the U.S. ports annually in 1985.

And shippers must now think of imports from South America and Alaska, as oil imports from Arabian countries decrease.

"We're talking about literally billions of federal funds for this project," Swatek said. "I don't think the economic factors of cheaper oil and more jobs would be worth the amount of money we would be forced to invest."

Wilma Frey, chairwoman of the New England Sierra Club, and Swatek both called for the development of a coordinated policy on coastal land use before deep port legislation is enacted.

Although Salem owns several islands which could be used for deep water ports, Gregory Sanko, Salem's city planner, said that no property was available for the development of refinery near the harbor.

According to Sanko, the refinery could pay an estimated 30 to 40 per cent of the tax rate. New England Power Co. in Salem already pays 30 per cent of Salem's tax rate.

Congressman Michael Harrington (D—Beverly) said the deep water port should not be rejected if appropriate safeguards are found to protect the environment. He advocated a study of the Salem-Beverly Harbor to determine if the sites were feasible for the terminals.

Despite New England's urgent need for oil this winter, no deep water port proposal has materialized and no one has considered the idea in Beverly or Salem.

Former energy director John Love urged: "Unless legislation is passed fairly soon, many companies may exercise options currently held

# California Ports Conference Seeks Government Responsibility in Controls

California Marine Affairs and  
Navigation Conference (CMANC)  
San Francisco, Calif.

San Francisco, Calif., 1/4/74: — SAN FRANCISCO: Federal and state agencies, with authority and responsibilities to regulate commercial ports and recreational harbors and their improvements, should be subject to the same demands to assess the effects of their proposed regulations and actions as are currently imposed upon those seeking and sponsoring such needed improvements.

Such a call for "equal treatment" was expressed by the California to use foreign terminals." He said this would result in loss of jobs and revenue, would have national security disadvantages and would result in the use of a large number of environmentally risky small transshipment vehicles.

Yet city officials and conservationists, while not solidly against the deep port concept are skeptical of the environmental impact to both Beverly and Salem Harbor.

But some energy experts say deep water ports can be constructed without destroying our natural resources.

"The energy gap can be closed without total surrender to those who would sacrifice hard-won environmental gains and further ravish the national heritage in order to produce power at any price," said Ford Foundation energy expert David Freedman.

But according to Swatek, city officials first must understand the deep water port concept before they can consider the economic and environmental impact to their communities.

Said one Mass Port spokesman, "Most city officials don't understand the problem at all."

Marine Affairs and Navigation Conference (C-MANC) upon behalf of all commercial ports, major shallow draft harbors and others dependent upon maintenance and development of the state's navigational facilities.

Paul Sorensen, Conference president, who is also chief engineer for the Port of Oakland, cited the position as reflecting the unanimous resolve of C-MANC's membership. He noted that currently, sponsors of dredging and other construction and improvements at California and U.S. harbors must develop and present for public scrutiny and comment an assessment of the estimated environmental impact of the changes proposed. But such evaluation is not currently required in most instances of Federal and state agencies proposing new or modified regulations, "guidelines" or other actions with equal or greater impact on the same projects.

Such constraints and responsibilities would be consistent with the procedures established by the National Environmental Policy Act and the California Environmental Quality Act, the C-MANC statement stressed, and would restore often currently absent or ignored considerations by the agencies of the social, economic and related "quality of life" factors involved in proposed regulations.

An example of current distortion in the development and exercise of regulatory authority, C-MANC noted, are inhibitions on dredging to maintain existing navigational access channels and facilities at commercial and recreational harbors, by the United States Environmental Protection Agency and the

California Water Quality Control Board. Generally, these regulations stress concern for marine biota and wildlife, but often overlook specific needs of the human population and social organization.

The full statement as approved recently by C-MANC's membership is as follows:

"The California Marine Affairs and Navigational Conference was founded in 1956 to provide a common forum and agency for regional ports, recreational boating facilities and other public and industry interests to promote and assure necessary navigational improvements consistent with National Interest. The Conference has consistently sought to assure the fullest coordination and support of its programs and recommendations through testimony and other activities before Congress and regulatory agencies, so that the general welfare of the State of California and the nation are served by these projects and programs.

"In continuing in this role and undertaking these missions, C-MANC has increasingly encountered problems and delays resulting from growing State and Federal regulations, proposals, "guidelines" and other official actions.

"Therefore, upon the unanimous request of its membership, the California Marine Affairs and Navigation Conference formally recommends and requests that such public agencies that may have responsibilities or regulatory authority affecting navigation use the same parameters, requirements and responsibilities for the establishment of guidelines as are currently imposed upon those sponsoring, promoting and advocating new or improved commercial and recreational navigation and coastal facilities.

"Specifically, C-MANC calls upon these agencies, and proposes that necessary administrative, or if ultimately required, legislative action, assured to require such agencies to present adequate environmental impact analysis of their proposed regulations, actions, and constraints and guidelines, as are consistent with the procedures established by the National Environmental Policy Act, and especially, often including currently absent or

## *Singapore Beckons—Here's the 9th IAPH Conference Logo*



1. In this issue, we would like to introduce the 9th IAPH Conference Logo (pictured above). This is the symbol which the Port of Singapore—as host port—will be using in forthcoming months to promote the Conference in Singapore in March 1975.
2. Shaped in the form of a stylised "9" the Logo end with an arrow at each end of the figure. The two arrows, one pointing east and the other west, depict Singapore's position at the crossroad of East-West shipping and trade routes. The message is that the Port of Singapore is ever ready to serve the world as the ocean gateway to international trade in this part of the globe.
3. It will be printed on a gold background with the 9-shape in blue, edged with black.
4. The Logo will be produced in the form of stickers and luggage tags and will be printed on all letterhead and envelopes for the 9th Conference.
5. Apart from publicizing the Conference, the Logo will come in useful to help facilitate immigration and customs clearance for delegates when they arrive in Singapore for the Conference.
6. So please look out for this symbol—and come to Singapore in March 1975. The Port of Singapore promises you a most memorable and pleasant stay in the Republic.  
(Port of Singapore Authority)

ignored considerations of the social, economic and related "quality of life" factors involved.

"In adopting this posture, the Conference not only commits its resolve and membership, but also calls upon all other responsible and affect individuals, agencies and public entities responsible for speci-

fic projects, or organizations representing such interests, and concerned legislators and public officials, to join in this request for rational, reasonable and above all, equitable evaluation in the development and administration of regulations and constraints on activities which affect the environment."

Sirs,

Re: Rotterdam/Europoort

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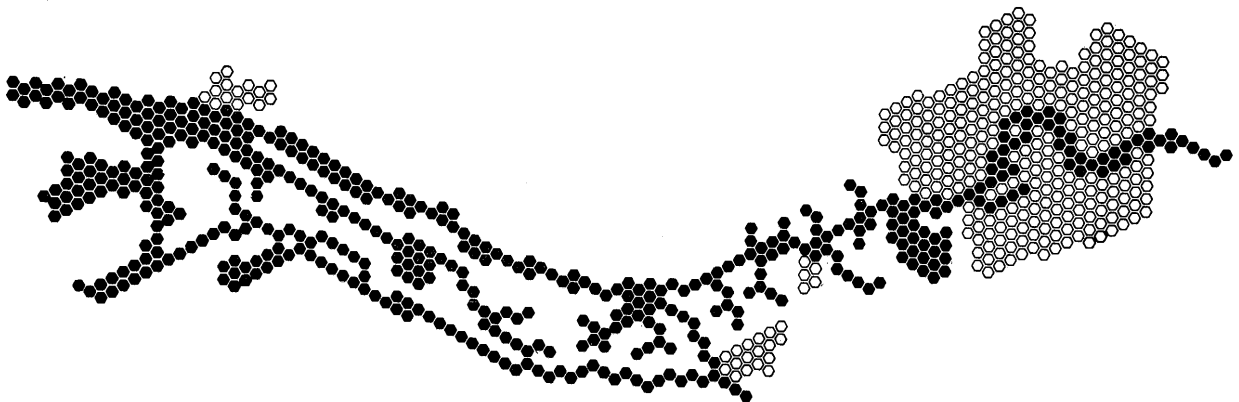
**Rotterdam is at the hub of transport routes to and through this market.** It fronts on the North Sea, with short connections to England. It straddles the mouth of the Rhine, over which 200,000 barges carry cargo to Germany, France and Switzerland every year. It stands on several of Europe's international highways. It sends off rail cargoes direct

to every point in Europe. (Not surprisingly, half Rhine shipping is Dutch-owned. And 40% of Common Market road haulage is Dutch.)

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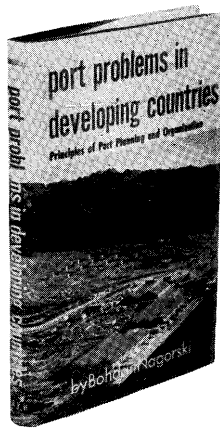
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# Rotterdam/Europoort

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*—Assistant Secretary General, ICHCA*

## ANNOUNCING !!

Bohdan Nagorski's "Port Problems in Developing Countries" is now available in New York and London at the following address.

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## Topics

### NUFFIC Seminar

The Hague, Netherlands:—The Tenth International Seminar on Port Management in the Netherlands will be held from 22nd April until 25th May, 1974.

It is a study programme of the Delft International Courses in Hydraulic and Sanitary Engineering with observation periods offered by the Port Authorities of Amsterdam and Rotterdam.

The programme consists of two lecture periods of one week each at the beginning and the end of the seminar, a two-weeks' period of visits to and around the Ports of Amsterdam and Rotterdam and study visits to ports in Germany and in the Scandinavian countries (one week).

In the lecture parts, next to a general survey of problems of transportation and of navigation, the programme will deal with aspects of port management, lay-out of port areas, cargo handling, port labour, safety and health. The seminar is open to government officials and other qualified candidates with some years of practical experience with regard to problems of port management. Participants should have a university degree although in special cases experience can replace a university background. The language of the course will be English.

The participation will be Dfl. 1,400,—which includes the tuition fee, travel costs for the fieldtrips, and lodging and breakfast for the fieldtrips outside the Netherlands. The other expenses, hotel accommodation during the stay in the Netherlands as well as lunch and dinner expenses will be borne by the participants themselves.

For further details, write to:  
Netherlands Universities Foun-

ation for International Co-operation 27, Molenstraat

DEN HAAG

The Netherlands

### Seminars for Port Managers

Washington, D.C., February 14:—The American Association of Port Authorities offers an intensive 5-day (June 9-14, 1974) session designed to enhance the professional problem solving skills of port executives. This highly successful Port Executive Development Seminar, which started in 1969, has had 218 participants from the United States and its territories, Canada, Latin America, Caribbean areas and England, representing all segments of the port industry. This Seminar presents the managerial methods used by forward-thinking port administrators along with new ideas from the academic community. Classes will be held at the Port of New Orleans' Rivergate Convention-Exhibition Hall.

### TOPICS TO BE COVERED

Project management methodologies and matrix organization for effective control of schedules and costs for development and construction projects: Determination of port capacities; sources of Federal Government financial aid to ports; leasing policies; sources of information on commodity movements for developing marketing and trade development programs; linear programming techniques for optimal allocation of land and water resources; environmental consideration in re-development of waterfront areas; development of preventive maintenance programs; development of preventive maintenance programs; development of tariff structures; long range planning programming and budgeting systems; long range trends affecting the port industry; port administration /commission relationships.

### SPANISH SPEAKING SEMINAR

The first Latin American and Caribbean Port Management Development Seminar scheduled for June 16-21. The seminar is tailored in content and language to deal with the Latin American and Caribbean port problems. This Spanish-language seminar will be held at the U.S. Trade Center in Mexico City. Participants to stay at the Chateau Royal Hotel.

### FACULTY—DR. JOSEPH D. CARRABINO

Dr. Joseph Carrabino, Professor of Management, Graduate School of Management, University of California at Los Angeles. Board Chairman EMSCO (Engineering and Management Sciences Corporation). He served on the Los Angeles Board of Harbor Commissioners (1961-65) and was President (1961-62). He also served as President of the Pacific Coast Association of Port Authorities. He authored a University of California at Los Angeles School of Engineering Research Monograph on An Engineering Analysis of Cargo Handling Containerization, a definitive study which had an international impact on containerization developments. He is currently working on the pioneering Washington State Public Ports System Study which is co-sponsored by the Maritime Association.

### HARRY C. BROCKEL

Harry C. Brockel, Lecturer at the Center for Great Lakes Studies, University of Wisconsin at Milwaukee. He served as Director of the Port of Milwaukee, and as President of The American Association of Port Authorities. He has also served as a member of the Advisory Board of the United States Seaway Development Corporation.

### PAUL A. AMUNDSEN

Executive Director, The American Association of Port Authorities, Washington, D.C.

### DONALD D. ALLEN

Public Information Director, The American Association of Port Au-

thorities, Washington, D.C.

## INQUIRIES

Inquiries should be addressed to: Paul A. Amundsen, Executive Director, The American Association of Port Authorities, 1612 K Street, N.W., Washington, D.C. 20006. Telephone: (202) 638-6263.

## FEE

The full registration fee of \$400 is payable in advance. This fee includes the cost of tuition, teaching materials and refreshments. It does not include the cost of room and meals. Rates at the International Hotel will be \$28.00.

## Seaway Progress Report

Ottawa, January 29, 1974 (The St. Lawrence Seaway Authority):—Paul D. Normandeau, President of The St. Lawrence Seaway Authority and his American counterpart, David W. Oberlin, Administrator of the Saint Lawrence Seaway Development Corporation, jointly announced in Washington today that, for the fourth consecutive year, new cargo records had been attained on the Seaway. Following a mild winter, the Montreal-Lake Ontario section opened to navigation on March 28th, the earliest opening date. The system closed on December 20th and the last commercial vessel cleared the St. Lambert Lock December 22nd.

Cargo tonnages in 1973, on the Montreal-Lake Ontario section amounted to 57.6 million tons, an increase of 7.4% over last year. Traffic on the Welland section also surpassed the 1972 record by 4.7% attaining 67.2 million tons. Bulk commodities dominated the traffic and indeed the increase in these commodities more than compensated for a substantial decrease in the general cargo category. The largest bulk commodity, iron ore, resumed in 1973 the growth that had been interrupted in 1972, registering increases of about 25% in both sections of the system. A buoyant demand for steel products generated larger shipments of iron ore in the Great Lakes area.

There has been, however, a significant reduction in the import of

# U.S. FMC Chairman Speaks in Toronto

Toronto, Ontario, January 23 (International Association of Great Lakes Ports):—Continuing close cooperation between the transportation industries of Canada and the United States, especially during the current energy crisis, was urged recently by the U.S. Federal Maritime Commission Chairman in a

manufactured iron and steel products via the St. Lawrence Seaway. These products, which generally account for a large proportion of general cargo, decreased by about 30% from 1972 in both sections of the waterway.

A major improvement to the Seaway was inaugurated during the year, when the Welland By-Pass was opened to traffic on March 28th to replace an old section of the Canal which bisected the City of Welland, Ontario. The new section is a comparatively straight 8.3-mile channel, which provides a 350-foot navigable width, as against the 192-foot width of the part it replaces. It also enhances the safety of transit in that section of the canal. There are no overhead obstructions, all land traffic being handled by tunnels. Roundtrip transit time through this new channel has been decreased an average of 50 minutes at a considerable saving to the shipping industry, while delays to highway and railway traffic have disappeared in this section.

The oil crisis focussed attention on the Seaway in 1973 as an alternative shipping route between regions of the continent, and there was a growing realization that water borne transportation is more pollution-free and efficient. All vessels carrying petroleum products were extended a priority from November 9th to the end of the season and more than one million tons of these products transited the Seaway under this priority system.

speech in Toronto.

"I am hopeful that we can continue our history of progress in reaching mutually acceptable solutions to our problems," Mrs. Helen Delich Bentley told members of the Marine Club, "for we are now confronted with a problem which can only be described as critical to the transportation industry."

Mrs. Bentley was guest speaker at the Marine Club's 35th Annual Dinner held January 11, 1974 at Toronto's Royal York Hotel.

"Although we look for your help in the area of supplying oil and natural gas," the chairman told members of the Canadian shipping industry present at the dinner, "we are prepared to put other vital resources such as capital and technology to work in their development."

Mrs. Bentley added that the United States does not, and should not "expect to gain the benefit of Canada's natural resources" without "continuing our investment in your country."

She told guests that she believes Canada and the United States can continue to count on each other's assistance and co-operation.

Citing the St. Lawrence Seaway as an excellent example of past joint efforts between the two nations, the U.S. official described the waterway as "a great historical testament of the achievements to be realized when two nations are able to work in concert."

Mrs. Bentley pointed out that both the U.S. and Canada were striving towards the extension of the navigation season on the Great Lakes.

"Ice, as you know, is the culprit," she said, "but in attacking the problem jointly, I submit that it will soon be resolved."

Speaking on the question of Seaway tolls, Mrs. Bentley said that the United States is not considering any increase at the present time and

went on to add that in her opinion, "only a drastic change of circumstances could alter the existing situation."

Referring to the energy crisis, Mrs. Bentley explained that Canada and the U.S. "are not remote neighbours but rather neighbours sharing a common boundary and common coastline."

She added, "As such, the strength or weakness of either of our economies is bound to have some impact on that of the other."

While Canada's oil supply appears not to be in jeopardy, the F.M.C. Chairman noted, it is impossible to predict whether Arab oil nations will cut back production or whether Venezuelan oil can supply Canada with the amount of oil necessary.

"I would suggest cautious optimism at best," she warned transportation officials.

Mrs. Bentley made it quite clear that while she was asking for Canada's co-operation and help, it wasn't just for the United States, but all its trading partners as well.

"If we are not able to provide the fuel to service our own ships," she explained, "it is obvious that we cannot provide bunker fuel for those ships from other nations that will visit our ports."

Fuel supplies for many of our shipping lines have already been cut between 18 and 30 per cent, she added, but while reduction of speed and maximum utilization of cargo space could help alleviate the problem "these measures will be futile unless fuel is made available."

Mrs. Bentley noted that Canadians are legitimately apprehensive about the prospect of oil spillage on the west coast, with large oil movements from Alaska. However, she pointed out that Canadian tankers move regularly up the Seaway from Montreal and are no less vulnerable than those flying the U.S. flags or those serving U.S. ports.

"Late in 1973," said Mrs. Bentley, "an agreement in principle was reached on a number of important aspects which were outstanding in the Canadian-U.S. maritime pollution contingency plans for spillage of oil."

She termed this agreement "a

fine example of our sincere and mutual efforts towards resolving a problem as sensitive as one involving our environment."

### Maryland Directory Published

Annapolis, Md. Dec. 14 (Maryland Department of Economic and Community Development News):—The 1973 edition of the Directory of Maryland Exporters-Importers is now available for purchase, Joseph G. Anastasi, Secretary of the State Department of Economic and Community Development announced today.

The 143-page directory contains information on more than 800 firms interested in international business. Products listed are classified per Standard Industrial Classification (SIC).

Governor Marvin Mandel in his introductory letter to the publication stated, "We are understandably proud that our State continues to play a prominent role in world trade and international marketing. Our many miles of modern port facilities, major railroad terminals, multitude of interstate motor carriers, and numerous airline services combine to provide outstanding advantages for overseas trade with Maryland."

Purpose of the directory is to give information and to provide a listing, as complete as possible, of Maryland businesses currently engaged in, or "seriously desirous" of involvement in, international economic activity, the products or services of these firms, and the opportunities in the world markets. It is the result of a joint effort by the Maryland Port Administration and the Maryland Department of Economic and Community Development, with the cooperation of the Baltimore District Office of the U.S. Department of Commerce, to promote and encourage Maryland industry and enterprise internationally.

Copies of the publication may be obtained from the Department's Division of Economic Development, 2525 Riva Road, Annapolis, 21401. The per copy price is \$4.00 plus 4 per cent Maryland sales tax for purchases delivered in Maryland. Check or money order should

be made payable to the Maryland Division of Economic Development.

### Mr. King Next Governor?

Boston, Mass. (Courtesy Massachusetts Port Authority from Revere Journal, January 9, 1974):—A concentrated move will be launched in this city to draft Edward J. King, Massport executive director, to seek the Democratic nomination for governor in the upcoming primary election.

Ralph C. Belmonte, director of school community relations for the Revere school system, told the Journal that he will serve as chairman of such an effort. He said he will open a headquarters in this city and circulate nomination papers to secure the necessary 10,000 valid signatures to have King's name placed on the ballot in the Democratic primary.

He stated that he feels King would make an ideal candidate and could unseat Gov. Francis W. Sargent. "The businessmen of this State have indicated that they would back such a move and I feel that the people would welcome a candidate of Mr. King's calibre into politics. He has proven his capabilities in the manner in which he has guided the destinies of Logan Airport and his keen business judgment makes him an ideal candidate as this State's leader."

Belmonte went on to explain that he has been told that it would take 10,000 signatures to place King's name on the primary ballot and that he believes that he can secure them in Revere.

The local educator admitted that King knew nothing of his intentions to draft him for a run at Gov. Sargent but said that he was of the opinion that if there was a ground swell for the Massport leader then King would agree to a draft.

King is a former Beachmont resident and now makes his home in Winthrop.

Belmonte said that he should have the necessary papers for circulation by April 1 and that he would have until June 30th to collect the signatures.

## Port of Boston Sets Record in Cargo Volume

Boston, Mass. (Courtesy Massachusetts Port Authority, from Boston Maine Guide, January 18, 1974):—In 1973 the Port of Boston set new records in both passenger and cargo volume, providing evidence to support the claims of Massport Executive Director Edward J. King and Port Director Thomas T. Soules that Boston has regained a position of prominence among the world's deep-water ports.

Massport's Boston-Mystic Container Terminal has led the way in the handling of containers at Boston. In 1973 the huge Hitachi and Paceco cranes handled the equivalent of 39,264 20-foot containers as 193 vessels visited the \$25 million, two-year-old terminal. This far exceeds the 1972 volume of 25,598 T.E.U's (twenty-foot equivalents) at the terminal.

Of the 301,000 tons of containers handled in 1973, 116,098 were export, resulting in an import/export ratio of less than 2 to 1. Boston has traditionally, for over 50 years, run an import/export ratio of 10 to 1 on general cargo. In no previous year did the entire Port of Boston ever export more than 131,000 tons of general cargo.

The great increase in exports relative to imports is important because it indicates that businesses throughout New England and the Midwest are switching to Boston from other ports. It also indicates that businesses in Massachusetts are prospering.

Mr. Soules said that volume at the terminal is running close to capacity and that over 250 vessels are expected in 1974. Based on the continuing increase of volume at the terminals, over 50,000 T.E.U.'s are expected next year.

The container terminal was equipped with a totally automatic cargo inventory system this month. The computer provides instant information on each of the 4,000 containers stored in the terminal's marshalling area at any one time.

Fifty-three cruise ships departed from Massport's Commonwealth

Pier in 1973 with over 40,000 passengers aboard. This was far above the previous year's high of 32,000 in 1972.

Vessels from eight passenger lines visited Commonwealth Pier in 1973. This year activity at the pier will be highlighted by the first visit of a Russian cruise ship. The M/S Mikhail Lermontov of the Baltic Lines will take 500 to 700 passengers on a round-trip voyage from Commonwealth Pier to the Saint Lawrence River and Prince Edward Island.

## Port Everglades News

Hollywood-Fort Lauderdale, Fla., 1/23/74:

• Port Everglades Commissioner W. Phil McConaghey was elected chairman of the five-man board for 1974.

McConaghey has been a Port Commissioner since 1969 and is in his sixth year and second term of office.

Commissioner Michael K. Tewksbury, former Great Lakes steamship official and Port Everglades managing director in 1969-70, was named vice chairman. Tewksbury has served on the Commission since 1971.

Other commissioners are Fred J. Stevens, now in his 16th year; Jack C. Behringer, outgoing chairman, and Jack Clark, a member of the board since 1969.

• New highs in virtually every category of operations at Port Everglades in 1973 were reported by Outgoing Chairman Jack C. Behringer.

Waterborne commerce rose by 1.34 million tons to an all-time high of 13.69 million tons, Behringer said.

Number of cruise passengers was up 53,063 in the year ended to 256,652, the largest single-year increase in port history. The gain was 26 per cent.

Ship entries, import volume and operating revenues also reached historic levels. Ship entries were up eight per cent to 1.731; imports rose 34 per cent to 4.7 million tons and port revenues rose from \$3.7 to \$4.3 million.

In his year-end summary Behrin-

ger referred to 1973 as "one of the most successful years in all Port Everglades history." He estimated that excess revenues earmarked for future expansion would be above \$700,000.

Behringer also pointed out that "Port Everglades is one of the few ports operating at a profit and is not dependent on local tax rolls or income sources other than its own revenues."

## 1973 Tonnage Jumps 21%

Houston, Texas, 2/5/74 (Port of Houston News Release):—Tonnage handled at the Port of Houston during 1973 jumped nearly 21% above the previous record high of 1972, Port Commission Chairman Fentress Bracewell announced today on the basis of preliminary statistics just compiled.

A smashing 97% increase in bulk foreign trade and a 17% jump in foreign trade general cargo helped account for the stunning performance, Bracewell said, in addition to a 72% rise in overall container traffic, and a 137% increase in the handling of containers in foreign trade, alone.

The most dramatic increase, tonnage-wise, was in export and import bulk cargo, where 28.5 million tons of grain, petroleum and products, and ores, fertilizers and other bulk products were handled, as against 14.5 million year ago.

Of this, 20 million tons moved in export, primarily wheat which accounted for more than three fourths of the total. Much of it, of course, was in heavy shipments under the U.S.-Russia wheat pact, of which Houston handled between 75% and 80%.

Foreign trade general cargo was at an all time high of more than 5.7 million tons as against 4.9 million a year ago. This is the Port's high value, revenue-producing cargo, Bracewell noted, and most of this increase was in exports, which exceeded 1972 by 43% at 2.9 million tons. This is healthy for the U.S. balance of payments problem, he said, and reflects a better competitive performance by U.S. goods abroad.

General cargo imports were vir-



tually unchanged in 1973 as against 1972, which came as somewhat of a surprise as a decrease, especially in steel receipts, had been expected. However, this came to less than predicted and record-smashing imports of more than 157,000 automobiles, as against 137,000 in 1972, and an increase in coffee helped to offset what decline there was.

Refineries' search for foreign crude oil during the energy crisis was reflected in the dramatic 200% jump in bulk imports, much of it crude petroleum, from 2.7 million tons in 1972 to 8.3 million tons last year. Greatly increased imports of ore and concentrates also helped boost the big 1973 foreign bulk total.

Domestic general cargo came to nearly 1.4 million tons, up one million tons over 1972. Of this 874,000 tons moved in deepsea coastwise traffic, largely containers, and nearly 400,000 tons moved in internal barge shipments.

Domestic bulk barge tonnage on the inland waterways was 23.5 million tons in 1973, a little more than a million tons under 1972 movements. However, coastwise deepsea bulk movements, largely petroleum, were up nearly a million tons over 1972 at 23.5 million tons. Local bulk barge traffic, on the Ship Channel and Galveston Bay, was virtually unchanged at 3.5 million tons.

The Port handled 121,389 units of 20 foot containers or their equivalent last year as against 70,367 such units in 1972. Of these 68,910 moved in foreign trade, as against 29,065 in 1972, and the remaining 52,479 were in domestic coastwise shipments.

### Dredging to 40 Feet

Houston, Texas, Calif., February 5 (Port of Houston News Release):—The three-mile long Bayport Ship Channel and Turning Basin will be deepened from 36 feet to 40 feet to equal the depth of the Houston Ship Channel, port of Houston Commission Chairman Fentress Bracewell announced today following commission action.

A change order will be issued to C. F. Bean, Inc., contractors for the dredging, to begin immediate dig-

ging on the additional four feet. It is estimated that 2.275 million cubic yards of earthen material will be moved during the dredging at a cost of approximately 2.3 million dollars. C. F. Bean, Inc. recently completed deepening the Channel from 12 to 36 feet.

The project will be paid for from the Bayport Revenue Bond Fund at no cost to taxpayers.

"There are many advantages to equalizing the Bayport and Houston Ship Channels," Bracewell commented, "including the ability of a

40 foot channel to handle 80,000 ton liquid bulk tankers."

Dredging in the Channel and Turning Basin should be completed by the third quarter of 1974. Spoil from the dredging will be used to build spoil dikes to hold residue from U.S. Army Corps of Engineers' maintenance dredging in the Houston Ship Channel.

Bayport is an 8,750 acre industrial center 25 miles southeast of downtown Houston developed by Friendswood Development Co., a subsidiary of Exxon Corporation.

## The new Port of Boston lets you travel in fast company.

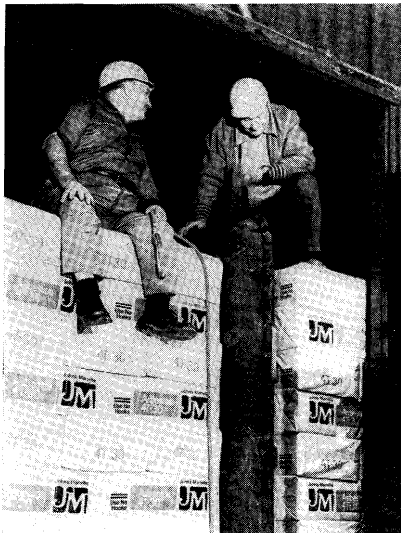


### These companies:

- ACT/PACE—Australia and New Zealand
- American Export Lines—Northern Europe, Mediterranean, Far East
- Atlantic Container Line—Northern Europe
- Atlantica Lines—Mediterranean
- CNCA (Portuguese) Line—Portugal
- Columbus Line—Australia and New Zealand
- Dart Line—Northern Europe
- Finnlines—Northern Europe
- Japan Line—Far East
- K Line—Far East
- Maritime Coastal Containers Limited—Halifax
- Mitsui OSK Lines—Far East
- N.Y.K. Line—Far East
- New England Express Line—Northern Europe
- Sea-Land—Puerto Rico, Europe, Far East
- Y-S Line—Far East
- Zim Line—Mediterranean and Far East

**massport**

470 Atlantic Ave., Boston, MA 02210



**PACKED WITH AIR, January 1974 (Goodyear International, Akron, Ohio):—Dunnage bags are positioned and inflated in boxcars at Asbestos, Quebec, Canada, to prevent 55 tons of packaged asbestos fibre from shifting during transit. The dunnage bags, made by Goodyear, only need five-pounds-per-square-inch air pressure to hold the stacks of 100-pound packages in place. Some 35 per cent of the world's asbestos comes from Canada.**

More than 28 industrial firms will have plants or offices in the area and more than 50% of the available land already has been sold.

Financing for Bayport's Port and Channel will come from revenue bonds issued by the Port of Houston and purchased by the Friendswood Development Co. When completed, the deep-water port will offer 16,000 linear feet of berthing capacity and there will be deep water frontage on 1,500 acres of land.

### General Sales Manager

Houston, Texas, 1/8 (Port of Houston News Release):—C. A. Rousser Jr. has been named General Sales Manager for the Port of Houston Authority replacing Henry M. Broadnax, former Director of Trade Development, who resigned January 1st to take a job with Robertson Tank Lines.

The action was announced by George W. Altwater, Executive Director, following a meeting of the Port Commission January 7th.

Altwater stated that Rousser's long experience with the Port "fits him ideally for these new responsibilities."

A veteran of 10 years with the Port of Houston, Rousser had been Western Sales Manager since 1970 with responsibility for trade promotion in an 18-state area. He previously was District Sales Representative for the Port.

In his new capacity, Rousser will supervise all trade development and advertising for the Port of Houston and will travel extensively overseas and in the United States to promote the services of the Port.

Rousser received a Bachelor of Business Administration degree at Texas Tech University and a Bachelor of Foreign Trade degree from the American Institute for Foreign Trade. He is active in many trade and transportation associations.

A native of Kress, Texas, Rousser is married and has three children.

### 1973 Annual Report

Long Beach, Calif., 1/25/74 (Port of Long Beach News):—"Harbor Highlights" — the Port of Long Beach's 1973 annual report — has just been published and is now available to members of the maritime industry and others interested in America's most modern port, according to Board of Harbor Commission president Henry H. Clock.

Tonnage figures included in the 20-page report show that the Port of Long Beach handled a record 26,195,071 tons of cargo during the 12 months ending June 30, 1973, valued at nearly \$4-billion, which is also a new high for Long Beach. More than 2,500 cargo ships called at the port last year.

Containerized cargo registered the most dramatic advance, more than doubling during the fiscal year to cover 3,000,000 tons, largely due to occupation of much of the port's 225-acre container complex. There are now ten deep water container berths in four container terminals, served by a dozen high-speed gantry cranes, all located within two miles of the open sea.

The general cargo category likewise scored an impressive gain, ris-

ing from 3.8 million to 6.4 million tons last year. Long Beach lists general cargo in revenue tons—all other cargoes in short tons.

Dry bulk cargo handled rose substantially from 3.8 to 5.2 million tons, while bulk petroleum registered only a token increase from 14.1 to 14.4 million tons.

Japan was far and away the largest trading partner with Long Beach, at 4.9 million tons. Others in the top ten included Indonesia, Saudi Arabia, Ecuador, Belgium, Iran, Taiwan, Mexico, West Germany and Korea.

Sixty-eight percent of all goods moving through Long Beach came from or went out to other nations in the Pacific Basin. Latin America accounts for 19 percent, Europe and the U.K. 15 percent and the Middle East 12 percent, mainly petroleum.

The report points out that the yearly economic benefit to the Southern California community generated by world trade handled by the Port of Long Beach exceeds the entire 62 year investment of Port revenues in harbor facilities.

### Queensway Hilton Hotel

Long Beach, Calif., 2/20/74 (Port of Long Beach News): — Official groundbreaking ceremonies for the \$6-million 200-room first phase of the Queensway Hilton in Long Beach Harbor took place here today (Feb. 20) with port, city and hotel officials turning the first shovels of reclaimed land before 300 invited guests.

Located on the southerly portion of an 18.8 acre waterfront site just west of the Queen Mary and on the Port end of Queen's Way Bridge, the uniquely styled hotel will consist of four 50-room satellites. The lobby, restaurants, meeting rooms and shops are to be housed in a central building and the five structures will be linked by landscaped terraces. Virtually every room in the pinwheel-shaped satellites face the water.

Completion date for the first 200 rooms is early 1975.

The parcel boasts nearly 4,000 feet of waterfront along the ocean overlooking the city skyline. Eventually, the Queensway Development



San Francisco, Calif., December 10, 1973 (California Marine Affairs and Navigation Conference): — **TO DREDGE OR NOT TO DREDGE** might have been the subtitle when the above industry and government officials met in San Diego to confer on the subject, "Ecology, Economics and Dredging—a Balancing Point for Navigation".

The one-day conference—first of its kind in California and among the few ever presented in the United States—attracted almost 150 port, recreational boating and regulatory officials, some from distant harbors as Florida and Guam, plus solid Pacific Coast representation. Co-sponsoring the event with the California Marine Affairs and Navigation Conference were the American Association

of Port Authorities, the Port of San Diego, and the World Dredging Association.

Proceedings of the October gathering have now been published, with summaries of the nine principal presentations, and reprints of graphics used. Copies are available for \$3 post-paid from the California Marine Affairs and Navigation Conference, 303 World Trade Center, San Francisco, California 94111.

Key participants, from left to right: Frank C. Boerger, chairman of the San Francisco Bay Region dredging committee; J. Monroe Sullivan, executive assistant, Port of San Francisco, and conference chairman; Joseph Edmiston, Southern California coastal coordinator, Los Angeles chapter of the Sierra Club; Roy E. Dodson, mem-

ber of the California Water Resources Control Board; Brid. Gen George Fink, South Pacific Division Army Engineer; John N. Henderson, terminal superintendent, Standard Oil Company of California; Donald Lollock, Environmental Services Branch chief, California Department of Fish and Game; Russell Earnest, Bureau of Sports Fisheries and Wildlife, U.S. Department of Interior; Richard L. O'Connell, Enforcement Division regional director, Environmental Protection Agency; B. E. Peterson, president, Pacific chapter, World Dredging Association, and WODA director, and Robert Langner, executive director of C-MANC and the Marine Exchange of the San Francisco Bay Region.

will contain two major chain hotels and four restaurants, along with a mini-marina.

J. Jay Feinberg, 27 year old General Partner of Queensway Development Partners, pointed out that the initial 200 rooms will be complemented with two restaurants and public meeting space for 600 persons. A second phase would double the number of rooms.

An additional hotel of similar size is planned on the northern half of the parcel at an unspecified future date, along with the Quiet Cannon Restaurant, which is now in final planning stage.

The Quiet Cannon Restaurant will be constructed adjacent to the Hilton by Restaurant Adventures, which also owns the Quiet Cannon at Dana Point, The Wind Rose at Long Beach Marina and the Orange County Mining Company. Date of start of construction will be announced shortly.

Principals participating in the ceremonies included Adolph K. Feinberg, president of Feinberg Development Corporation of St. Louis, Lloyd Farwell, Hilton Inns senior vice president, and Henry H. Clock, president of the Long Beach Board of Harbor Commissioners,

who have leased the waterfront site to Feinberg for 60 years.

United California Mortgage arranged permanent financing and construction financing in the amount of \$4,300,000. Bateman Eichler-Hill, Richards were consultants to the formation of the partnership.

Peckham-Guyton, Inc. of Irvine and St. Louis are project architects. Interiors will be done by Arthur Valdes Ltd. of Newport Beach. General contractors are a joint venture of Shirley Bros. of Pasadena and WestAm Builders of Redondo Beach.

## New General Manager

New Orleans, La., January 31 (New Orleans Traffic and Transportation Bureau):—Greg A. Perry, a native of Oklahoma, and a transport and distribution executive for 36 years, has been named General Manager of the New Orleans Traffic and Transportation Bureau, according to an announcement by the Bureau's board of directors today.

Perry, 57, will succeed Louis A. Schwartz, who retires after 42 years with the Bureau. He will continue to be available to the Bureau as a consultant.

The new general manager comes to the Bureau from a year's engagement on a special project for the Board of Commissioners of the Port of New Orleans. He is the former manager of distribution for Jefferson Chemical Co. of Houston. Prior to that, he served for a number of years as general manager of the Houston Port Bureau, Inc., and is a nationally recognized expert in the field of domestic and foreign traffic and transportation. He is admitted to practice before the Interstate Commerce Commission, the Federal Maritime Commission, and the Maritime Administration.

His educational background includes the University of New Mexico, and many years of supplementary evening courses including the conducting of classes in education.

Previously, he has been General Traffic Manager for a major chemical company and has been associated with the Santa Fe Railroad Company with which he began his professional career.

Among his professional affiliations are: Founder Member, American Society of Traffic and Transportation; Association of Interstate Commerce Company Practitioners; Transportation Association of America and numerous others.

## More WTC Tenants

New York, Jan. 31 (News from The Port Authority of NY & NJ): International trade firms representing interests in Austria, Canada, Denmark, France, Great Britain, Italy, Japan, Norway and West Germany are among the recent ad-

ditions to the growing list of tenants at The World Trade Center.

Teijin America, Inc. is the United States representative for Teijin Limited of Tokyo and Osaka, Japan, manufacturer and exporter of synthetic fibers, chemicals and plastics. The firm occupies 5,248 square feet on the 85th floor of One World Trade Center.

Max Gruenhut International, Inc., international freight forwarders based in Hamburg, West Germany, also represents freight forwarders from Denmark, England, France and Italy. They occupy 1,546 square feet on the 9th floor of Five World Trade Center.

Spathodia Development Corporation, a Canadian firm specializing in international real estate investment and development, has opened its first United States office at the Trade Center. Spathodia Development has 1,407 square feet of space on the 14th floor of One World Trade Center.

Other new firms in The World Trade Center are Austrian Food Center Corporation, a new organization founded to promote the import of Austrian foods in the Eastern United States, located on the 22nd floor of One World Trade Center; Sealand Enterprises Corporation, which deals in import-export, shipping and travel services, on the 35th floor; and Western Capital Corporation, representatives for Norwegian shipping and oil companies, on the 46th floor. Anthony R. Martin-Trigona, international business reporters, has taken space on the 22nd floor of Two World Trade Center.

Although the Trade Center is still under construction, more than 400 international firms and government organizations are doing business in the complex, which now has a daily working population of over 18,000.

## Construction Contracts

New York, Feb. 14 (News from The Port Authority of NY & NJ):—The development of 62 acres of distribution space and upland marshalling area at the Elizabeth-Port Authority Marine Terminal moved ahead today when the Commissioners of the Port Authority awarded

two contracts totaling \$1,079,691 for installation of utilities at the site, according to an announcement by Chairman James C. Kellogg, 3rd.

The construction area, on property leased from the Central Railroad of New Jersey, is bounded generally by Bay Avenue, McLester Street, North Avenue and Kapkowski Road.

The Ufheil Construction Company, Inc. of New Milford, New Jersey, will install storm sewers and waterlines on about 31 acres of property located north of North Avenue. Work under the \$694,290 contract will begin immediately and is scheduled for completion in July.

A \$385,401 contract for storm sewers and waterlines on 31 acres of land located south of Bay Avenue was awarded to Almeidas Construction Co., Inc. of Old Bridge, New Jersey. This work is scheduled for completion in August.

Over the past several years, the Port Authority has leased contiguous parcels of land from the Central Railroad of New Jersey which will enable the bi-state agency to provide additional distribution space and upland marshalling areas required to meet future cargo demands at the seaport. Two parcels totaling 127 acres were leased in 1971 from the CNJ, and in July 1972 an agreement for an additional 119-acre parcel to be leased from the railroad was announced.

The Port Authority will develop the combined 246 acres at an estimated cost of \$38.6 million to provide cargo buildings for export-import use and open distribution areas. In addition, a new 4,750-foot-long, four-lane roadway linking Bay Avenue with North Avenue will be built on the leased property, thereby providing improved southerly access to the seaport.

## Record General Cargo Year

Norfolk, Va., January 31 (Virginia Port Authority News):—Virginia Port Authority officials have confirmed that 1973 was a record general cargo year. The port authority records show that 2,839,992 tons of general cargo were moved across the state-owned ma-

rine terminals in Norfolk, Portsmouth and Newport News. In addition, more than 300,000 tons moved across the river port piers in Chesapeake, Richmond, Alexandria, Hopewell and Yorktown. The total general cargo for all Virginia ports in 1972 amounted to 2,884,682 tons ... a figure just slightly above the 1973 figure for Hampton Roads ports alone. For the first time in the port's history, more than 200,000 tons of general cargo moved through Virginia ports every month of the year in 1973.

### Bulkloader Overhauled

San Diego, Calif., February 1 (Port of San Diego News Release):—The Port of San Diego's recently overhauled bulkloader handled 406,382.77 short tons of cargo during 1973.

According to C.R. Campbell, newly appointed Port Commission Chairman, it was the second highest usage of the facility since its construction in 1963. "We are gratified that the bulkloader is continuing to provide a vital service to our customers, Campbell stated, adding that the increased use of the loader also acts "as an added inducement to calls at the Port of San Diego by other vessels."

The bulkloader was down for repairs during most of 1972 when 98,365.41 tons were handled.

Total tonnage handled since 1963 is now at 3,587,002.52 tons.

Statistics were released today by the Unified Port District.

### Golden Gate Shipping Continues Steady Growth

San Francisco, Calif., 1/11/74 (Marine Exchange of the San Francisco Bay Region):—Modest but significant increase in ship arrival marked 1973 Golden Gate vessel traffic, the Marine Exchange reports. 4,465 oceangoing vessels were logged inbound to the regional port complex—a 3% rise over the previous year.

While American flag shipping activity was down slightly—2,242 arrivals versus 1972's 2,290, foreign vessel traffic rose 9% to a high of 2,223 arrivals. U.S. tanker movements (largely serving domestic



Oakland, Calif., 1/4/74 (Marine Exchange of the San Francisco Bay Area):—Latest of the "super ships"—third generation container vessels—was feted recently on her maiden voyage to the Golden Gate. SEA-LAND RESOURCE and her master, Capt. Wilfred E. Franklin, were greeted by Brig. Gen. Robert Tripp, USA (Ret.), (left), chairman of the Marine Exchange's promotion committee, Port of Oakland traffic manager Robert C. Crandall, and Capt. Robert L. Riddle of Sea-Land of California, Inc. Mementos of the event were presented while the 33-knot ship's fully containerized cargo was unloaded at the Port of Oakland's 14th St. terminal.

services) were off 6%, down to 978, while foreign flag tanker activity rose substantially over 1972—302 arrivals compared with 239.

All sectors of American flag shipping showed decreases, with domestic (coastal and intercoastal) arrivals off 11% (1,594 ships in 1973), Hawaii trade down 21% (217 arrivals) and foreign offshore activity decreasing 28% (431 arrivals).

The Exchange noted, however, that ship traffic figures can be misleading in that modern vessels are steadily increasing in size and cargo-carrying capacity. Fewer ships can represent a greater export-import volume—particularly the new generation of American "LASH", container, "RO-RO" and other specialized, efficient dry cargo carriers. Hence, the 3% total increase in

Golden Gate traffic probably signifies a substantially greater growth in the region's commerce.

To illustrate this trend, the Exchange cited U.S. Army Corps of Engineers' statistics for 1972, which showed total Golden Gate cargo traffic of over 44 million short tons—a 13% rise over the previous year, although vessel traffic rose only 6.6%.

While ocean-going barging under American flag dropped to 130 arrivals in 1973—a 38% decrease—foreign barges increased from 9 to 41 arrivals last year.

Ships of 36 nationalities served regional ports last year, the Exchange's records indicated, including 39 arrivals of Soviet vessels—a big jump from 1972's 13. Among other nations with a substantial





**San Francisco, Calif., 1/21/74 (Marine Exchange of the San Francisco Bay Region):—GIFTS GALORE—The maiden voyage arrival of the MV AIDA was recently feted in special ceremonies on board the Wal-lenius Line vessel. Marine Exchange Board Director Franklin J. Ewers of Marcona Corporation (right) presents Captain R. Thernsjo with a commemorative tray depicting an historic San Francisco Bay maritime scene. Also on hand making presentations were Jim Hagan of the Marine Committee and Miriam Wolff, Port Director of the Port of San Francisco. Fred Noonan Co. is the local agent for the combination bulk cargo/auto carrier.**

increases in shipping activity were Great Britain, Canada, Cyprus, Greece, Japan, Liberia and Singapore. Only significant decline occurred in arrivals of Norwegian vessels.

### Higher Cargo Tonnage in 1973

San Francisco, Calif., February 1 (Port of San Francisco News): —Port of San Francisco cargo tonnage rose more than 16 percent to a total of 3,677,020 tons for 1973 over the previous year, Port Director Miriam E. Wolff announced today.

This represented a 516,000 ton increase over the 3,161,970 tons logged in 1972 and a husky 1,202,585 margin above the 1971 figure of 2,474,435 tons.

Miss Wolff attributed the rise to several factors, including heavy use of the port's grain terminal, which handled a quarter-million tons of grain and allied products and good newsprint tonnage.

Cotton for China and other Far East countries also moved through the port in sizeable quantities during the year.

Ships of forty-four shipping companies regularly call the Port of San Francisco to deliver and receive cargo, plus a number of chartered vessels and tramps. As the Bay Area passenger port, San Francisco also welcomes passenger ships of a dozen lines, which made some 250 calls here in 1973.

### New Commissioners Appointed

Stockton, California, January 8 (News from Port Stockton):—Five new commissioners and two incumbents have been appointed to serve on the Board of Port Commissioners at Port Stockton. The City Council reappointed Robert W. Foy, who was then elected to the position of Chairman of the Board of Port Commissioners by his fellow commissioners. Commissioner Foy is Vice-President for the Pacific Storage Company of Stockton and General Manager of Bekins Moving and Storage Agency Division. He is an Executive Committee Member of the San Joaquin Development Agency, Member of the Board of Directors of the San Joaquin

County United Way, the Downtown Lions Club and the San Joaquin County Mental Health Association. Commissioner Foy began his first term on the board in June of 1972.

### Able Chairman Steps Down

Toledo, Ohio, January 21, 1974 (Toledo-Lucas County Port Authority):—W. W. Knight, Jr., chairman of the Board of Directors of the Toledo-Lucas County Port Authority, has stepped down from that position and is now vice chairman of the port board. Rene C. McPherson, chairman and chief executive officer of the Toledo-based Dana Corporation, was elected to succeed Mr. Knight as chairman for 1974. The action was taken on January 17 at the port agency's Board of Directors' meeting.

Mr. Knight, 69, has been associated with the Port Authority since the agency was established on July 18, 1955. As a member of the original board, he served as vice chairman until January 1, 1956 when he became chairman. He succeeded Paul Block, Jr., of Toledo, the agency's first chairman.

During his tenure as chairman, Mr. Knight launched and directed many development programs and projects that brought the Port of Toledo into prominence as a major Great Lakes port and world shipping center.

In 1963, the United States Department of Commerce recognized the Port Authority for its excellence in fostering U.S. export expansion by presenting a Presidential "E" Award to the agency.

The Port of Toledo received international attention in 1966 when Chairman Knight received the title of Commander of the Swedish Orders of Vasa by decree of King Gustav Adolf of Sweden, for developing trade relations between Sweden and the Midwestern U.S.

In 1970, President Nixon appointed the Toledo port official to the five-man Advisory Board of the St. Lawrence Seaway Development Corporation, the Federal agency responsible for operating the U.S. portion of the St. Lawrence Seaway.



Mr. W. W. Knight, Jr.

He continues to serve on that board.

A graduate of Yale and the Harvard School of Business Administration, the Toledo industrialist will continue to remain active in numerous business and civic affairs. He is presently president and director of the Knight Land Company, Inc., and Bimini's Blue Water, Ltd. He also serves as a director of the Toledo Trust Company and the Dana Corporation. In addition, he is a director of the Development Council for the Medical College of Ohio at Toledo and a member of the board of trustees of the International Oceanographic Foundation, School of Marine and Atmospheric Sciences, Miami, Florida.

### Bi-monthly on Dredging

"International Dredging and Port Construction" is a bi-monthly 44-page publication (format 21×29.5 cm) at a subscription rate of £3.50p. per annum by surface mail, with airmail being available at the appropriate extra cost. Write to the following address for subscription:

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The newly organized Editorial Advisory Board of the journal has



Tarpon Springs, Fla., 2/12/74 (San Francisco Customs Brokers and Freight Forwarders Association):—Key national international cargo expeditors met in February at the first national convention of the National Customs Brokers and Forwarders Association. On hand with nearly 300 others in attendance to congratulate association president-elect Roland ("Bud") Hummel, Jr. (right), president of Taub, Hummel & Schnall, Inc., New York, were Ted Dubienny, national vice president, Frank P. Dow Co., Inc., San Francisco, and Leonard Shayne, president of Leading Forwarders, Inc., New York, whom Hummel will succeed, and Jacques Dervieu, president, International Federation of Forwarding Agents' Association (FIATA), Paris.

the following members: Prof. Ir. P. Th. Velzeboer, Technological University at Delft; S. E. M. De Bree, Mineral Technological Institute; Ir. J. G. H. E. Diephuis (Delft Hydraulics Laboratory); J. van Dixhoorn (Rinkswaterstaat); and Ir. J. de Koning (Ballast Nedam). The board members provide editorial services on an entirely non-commercial basis.

### New Vade-mecum

Antwerp (Antwerp port news, November 1973):—Providing the port customers at home and abroad a general introduction into the various customs, rules and regulations governing port activities in Antwerp and to make them acquainted with the various branches of activity, their professional associations and enterprises active in the port, this is the aim of the new quadrilingual Vademecum of the Port of Antwerp which just came out.

This publication, realized under the patronage of the General Management of the Port of Antwerp and of the Port of Antwerp Promo-

tion Association (Assiport) is made up of two chapters.

—Chapter I is designed to be a "Who's who" in Antwerp, subdivided into 5 sections, viz. Antwerp Port Authorities—Public and semi-public services—Associations, Chambers, Committees and Councils—Private companies—Regular sailings from Antwerp. —Chapter II gives a survey of the regulations, tariffs and port customs, arranged according to the main subjects concerned (vessel—goods—inland traffic) and according to the bodies from which they emanate (City—State—Private sector). In order to facilitate the looking up of a specific regulation, thus still increasing the usefulness of the publication in the four languages of the Vademecum (Dutch—French—German and English) an index has been added.

Apart from complete data in Dutch and French, for the first time port regulations are published unabridged in English and/or German, by which this publication may be considered as unique of its kind.



**The maiden voyage of the 16,800 tonne dwt vessel "Kashii Maru" ends at Leith with the discharge of Japanese oil pipeline. The pipe sections will be treated and coated in the dockside plant of Bredero-Price, then shipped out to the North Sea to form the link that brings crude ashore from Phillips Ekofisk field. (George Hodge Associates, Edinburgh)**

(Vade-mecum 1973/74—220 pages—bound—BF 250/ex.—Publishers: Publitra, 33 Brouwersvliet, B-2000 Antwerp.)

### Iron Ore from Brazil

Ghent, Belgium (Port of Ghent Information periodical, 3-73):—On May 20th, 1973, the new Belgian bulk carrier, m.s. "Mineral Marchienne" called at the port of Ghent, carrying iron ore from Tubarao, Brazil, for the steel plant Sidmar in Ghent.

Since then this latest acquisition of the Belgian merchant fleet has many times berthed at Ghent a.o. coming from Narvik, Norway, with Swedish iron ore.

The "Mineral Marchienne" was ordered by the "Compagnie Maritime Belge" at the Cockerill Yards, Hoboken. The construction of the first parts was started on May 23rd, 1972. The ship was launched six months later, namely on November 21st, 1972.

This bulk carrier, destined to shipments of ores and coal, has following characteristics: 234.80 m length over all, 32.00 m width, 13.24 m draught. The construction of this vessel, under the supervision

of Lloyds Register of Shipping, corresponds to classification+100A1+LMC/UMS. Its loading capacity amounts to 66,300 tons. The total volume, 78,359 m<sup>3</sup>, is divided in 9 holds.

As the "Mineral Marchienne" is bound to sail many times the ship-canal to Ghent, special attention was given to the steering. The rudder was built to this effect. On technical field, this bulk carrier may also be put as an example owing to the Diesel engine of the Sulzer 6RND90-type, the most modern navigation appliances, the automatic remote control of the main engine.

With this acquisition the "Compagnie Maritime Belge" contributes to assure the regularity of ores and coal transport by sea for the Belgian metallurgy of iron.

### Staff Changes

Edinburgh (Forth Ports Authority):—The Board of the Forth Ports Authority, recently reconstituted to include the General Manager and two Senior Executives among its members, has now defined the responsibilities of these Executive Board members.

Mr. J. H. D. Sutton, as General Manager, has overall responsibility for the management of the Authority.

Mr. W. J. Leaman, B.Sc., F.I.C.E., formerly Chief Engineer, now designated Manager (Port Facilities), is responsible for dock operations and maintenance, and commercial and planning matters. The present Secretary of the Authority, Mr. I. H. McDonald, C.A., now designated Manager (Finance and Secretarial) is responsible for the financial, legal and secretarial affairs of the Authority.

A further new post, that of Senior Harbour Master, Firth of Forth, responsible to the General Manager, has been filled by the promotion of Captain D. H. Gray, O.B.E., D.S.C. at present Senior Harbour Master and Towage Superintendent, Leith. The creation of this post reflects the greatly increased importance which the estuary of the Forth will have in the future with the completion of the Hound Point tanker terminal in 1975. Captain Gray will retain his responsibility for the Authority's towage services.

### New External Affairs Department

London, 22nd February (PLA News):—The Port of London Authority today announced new measures to improve and strengthen their activities in trade development and customer and public relations.

These measures stem from the growth of the PLA group in the last year and the increasingly international nature of the seaport business.

### External Affairs Department

This new department will be responsible for public relations and the communication of information throughout the world and in this it will continue and further develop work previously carried out by the Port Promotion Department.

To lead the new department, Mr. Geoffrey Morgan will be joining the PLA on 1st March, 1974 to become head of External Affairs Department, responsible to the Director-General, Mr. John Lurch, on

External Affairs policy and practice. Mr. Peter Bennett, currently Executive Assistant, Director-General's office, will become Manager of the new department.

### Trade Development and Customer Relations

In August 1973, Mr. William Caunter was appointed Co-ordinator of Marketing and Operations with responsibility for ensuring that marketing and operational resources are matched. Trade development and customer liaison will now be intensified through the strengthening of Mr. Caunter's department by the appointment of Mr. Roger Nation as Assistant Co-ordinator Marketing and Operations and Mr. John Collins as an assistant to the Co-ordinator of Marketing and Operations.

Mr. Caunter will continue to report to the Director of Docks, Mr. R. H. Butler, and be functionally responsible to Assistant Director-General, Mr. William Bowey, who is responsible for marketing co-ordination throughout the PLA.

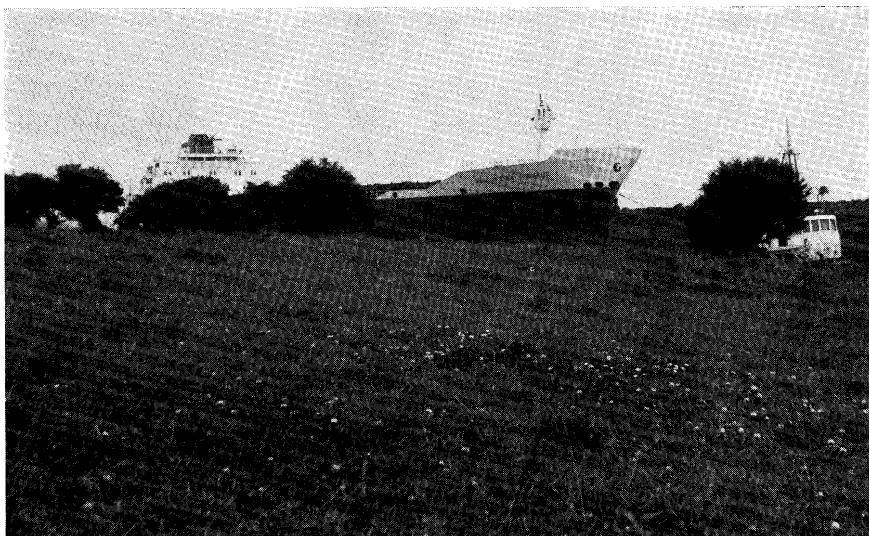
### Another Record Year for Bulk Wine Department

London, 12th February (PLA News):—For the third year running the Port of London Authority Bulk Wine installations at India & Millwall Docks and Garnet Street, London Dock, set a new record in the volume of wine handled. The total throughput in 1973 of 9.5 million gallons was 17% higher than the 1972 throughput of 8.1 million gallons. This was itself higher than the 1971 record throughput of 7.1 million gallons.

In 1973 5.1 million gallons were dealt with through PLA storage tanks with a further 4.4 million gallons of wine and grape juice pumped direct from ships' tanks to road vehicles at the quayside.

New traffic was attracted during 1973 and with these growth trends consideration is being given to an extension of the PLA Bulk Wine facilities.

Another feature of the wine traffic through London last year was the return of cask and cased wines through conventional berths in In-



**Manchester (Manchester Ship Canal Company):—“Ship in Fields” Container Vessel “Manchester Courage” moving along the Manchester Ship Canal.**

dia and Millwall Docks where the speedy discharge of wine in butts and palletised cases of sherry won favourable comment from the trade.

### Port of Le Havre Flashes—December, 1973 January, 1974 (Extracts)

**New tanker berth:** The Compagnie Industrielle Maritime, a private company which holds the concession for the storage of oil products, has decided to go ahead with the construction of a new tanker berth. Like its neighbours, berths 8 and 10, the new Number 9 berth, which had been under consideration for some months, will be able to accommodate tankers of between 200,000 and 250,000 tons dwt. It will come into service in September 1974.

Concurrently, the C.I.M. is to undertake the construction of new storage tanks with a unitary capacity of 5,300,000 cut. ft, partly to cope with the ever-increasing demand, and partly so as to have storage space in hand for the oil that will later be brought from Antifer by pipeline. The tanks will be 315 ft in diameter and as high as seven-storey building (i.e. 79 ft).

**3,260 cars for Italy via Le Havre:** At the end of October a record 3,260 Renault and Simca Chrysler cars, with a total weight of 2,591 tons,

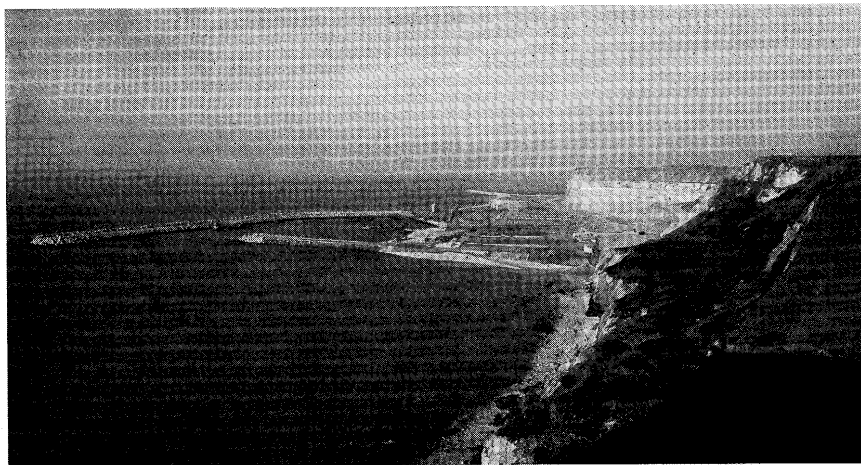
were put aboard Hoegh-Ugland's Hoegh Trader at the Quai de l'Europe. This was over 700 more than the previous record of 2,526 vehicles, held since December 3rd 1968 by another Norwegian ship, the Kollgeir.

**The boom continues:** During the first ten months of the year, total traffic amounted to 73 million tons, an increase of 39% over the 52.6 million tons handled during the same period last year. Passenger traffic was 16% up, while general cargo continued its advance with an increase of 24%.

The port now seems well on its way to a total of 86 million tons for 1973 (against 66 million tons in 1972), although the target set at the beginning of the year was only 71 million tons. In the container field, a final total of 120,000 boxes is now expected, against 93,000 last year.

**Anglo-French meeting:** The Port of Le Havre believes that it has a very special part to play in the trade relations between Britain and France and it is trying to establish regular contacts between the various sectors of industry that could profitably make use of the facilities it offers as a port of entry to the Continental part of the Common Market.

After welcoming on June 14th a party of French industrialists particularly interested in the British



**Port Autonome du Havre:—A recent photograph on the work going on at LE HAVRE-ANTIFER.**

market, the Port Authority invited British manufacturers to visit Le Havre on October 23rd, together with representatives of the French subsidiaries of British companies and a number of French industrialists who had intimated their desire back in June for further contacts with their British opposite numbers.

**The Messageries Maritimes tanker:** On October 15th the new Messageries Maritimes tanker *Licorne Atlantique*, which is 1100 ft long and 174 ft wide, arrived in Le Havre, her first French port of call, with 256,903 tons of crude on board. This was the largest cargo ever brought to Le Havre. Each of the ship's three anchors weighs 20 tons and the propeller 50 tons!

**The biggest lock in the world—for 90 Centimes:** The 33rd new French stamp of the year featured Le Havre's *Francis-1er Lock*, which enables ships to pass from the commercial harbour into the industrial zone. It was put on sale on October 27th, a year to the day after the lock's official opening.

The stamp was designed by Forget and shows an ore-carrier passing through the lock, with a super-tanker in the foreground and the port installations behind. The Port of Le Havre Authority emblem appears in the top left-hand corner, making it the very first stamp to incorporate a company badge.

**Le Havre is now the third Port in Europe (1973=89 m. tons)**

**Pilots by helicopter?:** The increase in traffic and the ever-growing size of modern vessels have combined to create a number of quite new problems, among them that of getting pilots aboard incoming vessels in good time. When the Antifer oil terminal comes into service, pilots will be required very much further out to sea than is the case at present, and the possibility of taking them out by helicopter is now under study. Though no final decision has been taken, one brave man has already been experimentally lowered on to the deck of a super-tanker.

**Pollution and noise:** A great effort is being made by firms in the industrial zone to reduce the amount of pollution they cause.

★ Lafarge Cement is changing the electrodes on its electrostatic filters, so as to cut down the amount of dust produced. The company's current expansion programme will lead to a 30% increase in capacity by the end of 1974.

★ Goodyear is to invest heavily in methods of processing waste water at its factory in Le Havre, which will then be a leader in the field.

★ The Société Normande de l'Azote is to install special apparatus during 1974 that will reduce noise pollution from 150 to 40 decibels.

**Le Havre goes to Switzerland:** The economic importance of Swit-

zerland has continued to grow steadily over the last few years and in recognition of this the Port Authority held meetings in Zürich and Basle on November 19th and 20th for forwarding agents, shippers, carriers, shipping line representatives and the press. Arrangements are being made for a similar get-together in Geneva fairly soon for firms based in the French-speaking part of the country. Le Havre is now proud to claim Switzerland as part of the area it serves.

**Le Havre for heavy loads:** November was an outstanding month for heavy loads:

★ On November 7th the Dutch freighter *Nedlloyd Niger* sailed for Douala, Cameroon, with a 52-ton diesel-electric locomotive on board.

★ On November 13th another engine of the same type for Douala was put aboard the French freighter *Saint Louis*.

★ On November 8th the Dutch coaster *Peter Vinsemius* sailed for Ghent to deliver a crane with a total weight of 260 tons.

★ On November 20th the Russian freighter *Novozybkov* left for New York with a 50-ton trawler aboard, to be used for salmon and tunny fishing in Nova Scotia.

★ On November 28th three sulphur condensers weighing 55, 59 and 73 tons were put aboard the *Borodine* for the USSR.

★ On November 30th the *St Paul* sailed for Cameroon with yet another 52-ton locomotive.

**Le Havre and the seven seas:** A glance at the following table shows just how closely Le Havre is linked to every corner of the globe:

	Services
U.S. East Coast . . . . .	10
Canada, Great Lakes . . . . .	10
U.S. Gulf Ports . . . . .	12
North Pacific . . . . .	7
Central America . . . . .	11
West Indies	
& French Guiana . . . . .	9
South Atlantic . . . . .	9
Chile, Ecuador, Peru . . . . .	3
North Africa . . . . .	4
West Africa . . . . .	9
East and Southern	
Africa . . . . .	4
Madagascar, Réunion,	
Mauritius . . . . .	3



Far East .....	17
Australia, Pacific Islands .....	9
Portugal, Spain, Azores, Canaries .....	10
North Sea, Baltic .....	9
British Isles .....	12
Miscellaneous .....	3
	151

Yet this list takes no account either of passenger lines or of services using Le Havre only for inward traffic.

### Africa-Rouen Regular Service

Rouen (Information Bulletin of the Port Authority of Rouen, October 9th 1973, International Issue):—Irrespective of the certainty that Rouen-West Africa maritime links are particularly well developed to the extent of attaining the figure of forty sailings per month (an European record), the fact remains that, systematic service in the direction on the other hand, there exists no systematic service in the direction West Africa-Rouen; in so far as it is relatively difficult in Rouen to satisfactorily organize importations of tropical products. Unless advantage can be taken of an occasional north-bound sailing such items as prime wood, coffee, cocoa, palm oil, fruit juice and other African products destined for our port are generally forced to lower hold stowage for routing through Northern ports which, normally, precede the call in Rouen for the following outbound voyage.

The Société Ivoirienne de Transport Maritime proposes to contribute to an improvement in this situation by inaugurating a regular service between the ports of Douala, Cotonou/Lome, Abidjan and the port of Rouen; with Rouen as its terminus. Rouen being the most Northerly port in the rotation of the service. The table below shows the sailing dates of the S.I.T.R.A.M. schedules; from which it will be noted that the first vessel to reach Rouen from West Africa is announced as the Mossou for the 21st October.

The S.I.T.R.A.M. will continue as in the past to ply Rouen for exports on the outbound service. Our port will be in an advantageous posi-

tion for it will be situated on the route of two of the services which have been set-up by the company, viz:

—Netherlands, Antwerp, Dunkirk, Rouen, Le Havre, for Dakar, Abidjan, Lome, Cotonou, Douala: fortnightly service assured by the freighters Korhogo, Kossou, Aboisso and Tonkoui.

—Rouen, Le Havre, Nantes, Bordeaux for Dakar, Abidjan, Lome, Cotonou, Douala: service assured every three weeks by the freighter Agou, Tabou and Mossou (being the return of the line West Africa-Rouen).

Since the 1st July the S.I.T.R.A.M. is represented in Rouen by Messrs. Somarco, 3, rue de Fontenelle. P.O.B. 515. 76005 ROUEN CEDEX (telephone: (35) 70.55.70; telex: 77.939). Vessels will continue to operate from the Sermacoa sheds on the quai d'Afrique. The first ship to be consigned under the agency of Somarco was the Korhogo which called Rouen on the 20th July.

### Port-Jerome, Centre for Petroleum and Petrochemicals

Rouen (Port Authority of Rouen):—The Port-Jerome region, thirty-five kilometres up the Seine from the sea, has always had a role as a port. In ancient times Lillebonne ("Julio-Bona") was the most important Roman settlement in what is now Normandy, and an active trading port specialising in dealings with Great Britain.

Dormant for many centuries, the area is returning to its traditional role as a port, with the building of two oil refineries in the early thirties and the influx of important petrochemical industries since 1958.

Port-Jerome, under the control of the Port of Rouen Authority, has now become one of the three main centres for industrial development in the Lower Seine.

The initial stage of development is almost complete. According to the present plan almost all the available building space in the zone will soon be completely occupied. However, further land has been made available for medium term development and another area for longer term

projects.

### "Containers Materialized at the Right Time"— Gerhard Beier

Bremen (Bremen International 10/11-1973):—In the leading West-German economics newspaper "Handelsblatt" the chairman of the board of the Bremen/Bremerhaven port operating company BLG, Gerhard Beier, examines the question: "Has the Container Led the Ports into the Red?"—and has come up with the following ascertainments in the issue dated 25th September 1973: "Clearly there is a strong reduction in personnel costs in the container-terminal. This can be illustrated with the following example: a gang of 10 to 16 men are able to handle about 100 tons general-cargo per shift by the conventional method. This includes operating with a 3-ton capacity general cargo crane and with from two to four localized conveyance appliances of comparable capacity. A working column of 16 men on a container-ship manages to handle 200 containers per shift, which means 2,400 tons. This feat is accomplished with the aid of a 40 to 50-ton capacity container bridge and massive localized conveyance appliances of adequate efficiency".

This example is typical, says Beier, for the substitution of human labour with capital. "The industrialization of service-efficiency production in the port is clearly discernible. Thereto must immediately be said, however, that the profitable working of this service-efficiency operation depends upon fullest use being made of the capacity". It can, with circumspection, be said "that all told, container handling in the seaport can prove to be more economical than conventional general-cargo handling". This must, in general, also be confirmed for infrastructure investment. In this connection Beier offered a further calculation: "Over a long period of time the maximum utilization per running metre of quayage per annum in conventional general-cargo handling amounts to 750 tons. This evaluation is subject to a fluctuation allowance consideration of

plus/minus 20 percent. The comparable evaluation for container-handling is many times greater. A berth of 300 metres in length which has been especially tailored technically and organizationally for the third-generation container ship can cope with 100,000 containers having a total weight of approx. 1.2 million tons. This represents an utilization of quays per running metre and year of about 4,000 tons—or five to six times that of the conventional general-cargo quay”.

Beier calls attention to the relatively minor expenditure—extent for quay construction as far as the container is concerned (no warehouses), although it is true that larger open-area requirements and the decisive relationship between full utilization and profitability of the installation, are factors. Then he points—his most striking argument against the earlier doubts of the expertise world—to the rapid increase in the transatlantic freight trade in most recent times; which moreover is shortly also to be expected to arise between Western Europe and East-Asia. “The doubt may justifiably be voiced”, he writes in the renowned publication, “whether the European seaports on the Northsea coast would have been at all in the position, with their conventional installations, or, respectively, to so extend their conventional handling capacities to such extent at short notice, as to master that trade increase of high-valued commodities. Even if one were to suppose that great exertions in this direction were to be crowned with success, fantasy boggles at the contemplation of the measures which would be required to produce the necessary personnel for that growth of handling-volume.

The truth is, however, that the personnel situation has practically not been increased as a result of the rise in the external-trading tonnages via the seaports; although certainly the qualitative demands upon the handling personnel in the seaports have increased not inconsiderably—which is thus also the case relative to the expenditure per employee. From the point of view of political economics it may thus rightfully be asserted that the container trade

materialized at the right time to enable the quantitative problems as well as the qualitative demands to be mastered and thus, insofar, the investments made in the German seaports have ‘been worthwhile’, from the aspect of the rôle having fallen to their lot of being the centre of service-efficiency for the external-trade traffic”. Whether—and to what extent—the trading economy, which the container traffic brings to the seaports, is already today producing a profit to the full extent equivalent to the depreciation—or whether it is still in that phase of high initial costs—cannot even indirectly begin to be determined; and this can only be answered individually from location to location.

### Port Management on Purely Commercial Principles

Bremen (Bremen International 10/11-1973):—The finding of a 6-metre long flat-bottomed Viking boat during dredging operations, aimed at a further deepening of the Outer-Weser off the Bremerhaven Container-Terminal, in the August of 1973, has acted as a kind of prelude for a review of the most interesting last 10 years of Bremen/Bremerhaven port development under the new type administration. The Viking ship find (which was downstream to that of the 1390 Hansa-Cogge) originates from around the year 1000 and calls to mind the import to Bremen of North American timber in the year 1016—5 centuries before Columbus—which was effected by a Viking shipowner in Drontheim/Norway. The people of Bremen, from at least this point in time, have been practicing and perfecting the arts of shipbuilding and port construction.

Seen from this perspective of centuries, the most recent review certainly appears modest. It covers merely the 10 years as from the 4th of September 1963: and yet this specific date is deserving of notation. On that day the City of Bremen changed by covenant the, up to then, purely port operating company—BLG (Bremer Lagerhaus Gesellschaft)—into an operating and capitalized company; to now

operate on a solely private-economy basis “whereby purely commercial principles are applied with the maintenance of general trading interests”. From then on all investments made within the managing organization were to be financed by its own economic efforts. Today everything stands clear: September 4th 1963 saw the start of an enterprising initiative for which Bremen owes its present ranking among the circle of international ports.

During these 10 years the BLG has invested more than DM 320 millions in the Bremen ports, in addition to the DM 400 millions supplied by the city of Bremen in this period for the infra-structure of the ports. Result: the Bremen/Bremerhaven port-group was not only able to keep pace with the rapid technical development, but able also to take up the leading position in various branches of this development, such as those of the container, Lash and Ro-ro trades and with a new highly-modernized grain-elevator plant etc. In these 10 years the general-cargo handling has risen from 7 to 10 million tons; the container-handling from 0 to 2.4 million tons; the number of employees of the BLG, however, only from 3671 to 4089. Indeed the number of wage-earners even decreased—which reflects the fact of the enhancement of mechanization and automation, right through to the computer-steered container handling, in the port management.

The most recent example of enterprising initiative within the Bremen ports is the placing on private basis of the linesman-service, which secures the vessels upon arrival in the port. Up to now this service has been performed with the aid of subsidies supplied from the public funds of the state-run ports’ commission. Then, in 1970, a private firm styling itself ‘Festma’ assumed this work firstly in Bremen and subsequently, in 1973, also in Bremerhaven. At the same time this ‘Festma’ is a highly modernized type of firm; whereby 22 former seafarers have each taken a DM 4,000-share in the business as, so to speak, independent contractors. These 22 employers-

(Continued on Page 50)



$$c^2 = b^2 + a^2?$$

Exactly. The square on the hypotenuse equals the sum of the squares on the other two sides. You see NKK is a kind of right-angled triangle insofar as it has three sides to its business, and the activities of two of them are closely related to those of the third.

Thus the world's sixth largest shipbuilder occupies

one side, with heavy industries on the second side and steelmaking on the hypotenuse...three NKK divisions converging at an angle but working in parallel.

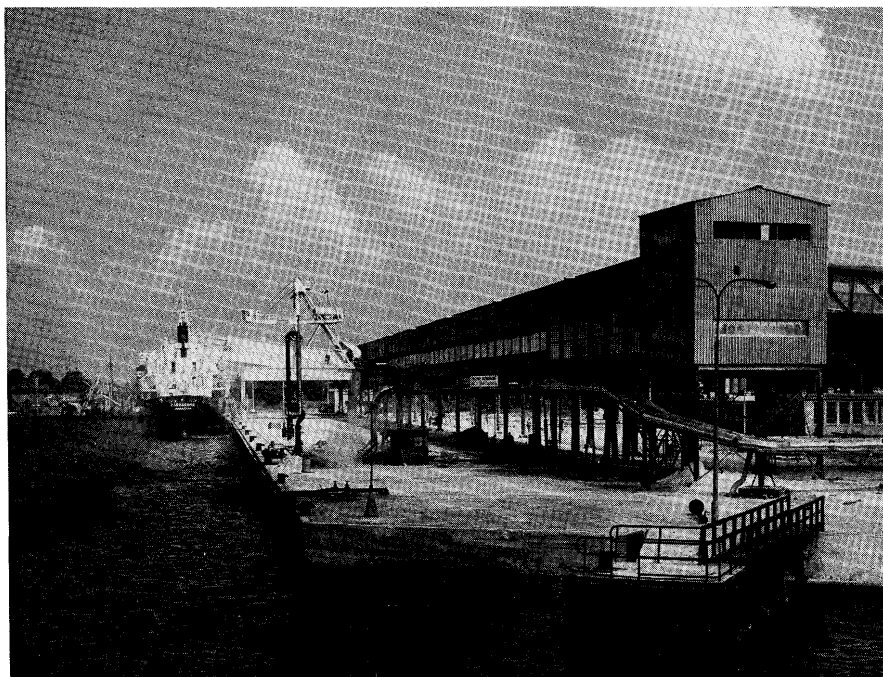
Sharing their individual expertise, they have helped to mould NKK in its present form—a strong, rectilinear structure and the world's fifth largest steelmaker.



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**Port Gdansk, Poland:—Top-modern terminal for handling-storing of sulphur, transshipments of sulphur in bulk and liquid sulphur.**

(Continued from Page 48)

cum-employees enjoy equality of status, a 42-hour week, employee savings-contribution, sick-insurance allowance, holidays, paid-overtime and regulated free time. Just as interesting, moreover, as is the form of this new undertaking, is the circumstance that the private 'Festma' firm is able to operate far more economically and with only half the personnel as when it was previously run by the state-controlled ports' office—with the result that the port of Bremen now makes an annual saving of DM 1.5 millions in subsidies and the linesmen, now working on their own account, are earning better than ever before.

### Lash Coming-up to the Million Mark

Bremen (Bremen International 10/11-1973):—Kept in the shade by the universal container-boom, the little-remarked transatlantic Lash-trade, already being run in the meantime with 3 lines, has already proved itself and multiplied on the route connecting the American ports in the Gulf of Mexico and—at the European end—the Bremen/Bremerhaven port-group. Since Sep-

tember 1st 1970 well over 100 Lash-ships and some 4,000 barges have been handled in Bremen/Bremerhaven. Tonnage figures of Lash-handling in the Weser estuary are now approaching the million mark. Just as in the case of the container trade, Bremen/Bremerhaven was, as a group, the first Lash-port and has, up to now, remained the only Lash-port. The reason: Both Bremen and Bremerhaven command uniquely efficient barge-terminals. Shortly after these special installations were put into operation in the Bremen 'Overseas Port' last summer, the extensive new Lash-handling berths were completed in Bremerhaven (cost: fully DM 10 millions)—whereby several parent-ships can now simultaneously unload the barges they bring: thereafter immediately being able to lift the already waiting barges previously filled with export goods and to take them back across the Atlantic. This implicitly corresponds to the conception of the American Lash shipping companies, the Central Gulf Contramar Line, the Combi-Line and Lykes Lines, all of which ply between the main Gulf ports and Bremerhaven.

### Trade with a Thousand Ports

Bremen (Bremen International 10/11-1973):—The Bremen/Bremerhaven port-group in 1972 maintained trade connections with over a thousand ports spread around all the quarters of the globe. Last year a total of 12,960 ships, representing 35.8 million NRT berthed here. A sign of the times for shipping in general was the fact that whilst the number of ships, in comparison with the previous year, increased only slightly, their capacity (net registered tonnage) increased by nearly 16 percent.

### EEC Seaport Policy Lacking in Concept

Hamburg (Hafen Hamburg Report, 4/1973):—The central association of German seaport operators has come out strongly against a precipitate EEC seaport policy based merely upon the addition of sectoral policies. Association spokesman Dr. Jolmes told journalists on 19th September: "We shall not be able to talk about the meaning and possible aims of a common seaport policy until it has been proved that in the European economic and transport system a supra-national seaport policy, to be borne by all memberstates; is objectively necessary and founded in fact. The first precondition for this, however, must be the long overdue establishment of equal competitive conditions, in particular with regard to incoming and outgoing traffic of inland carriers with the European seaports."

In its 1973/74 annual report the Association deals in detail with one of the most important competitive distortions at the expense of German seaports. According to this, since the beginning of 1969 there has been an increase in the fiscal burden on West German long-distance road traffic of over 44%, so that the gap compared to Dutch and Belgian road transport undertakings has further widened. To describe the increase in oil taxes as a "contribution towards harmonizing oil taxes within the EEC" displays either ignorance or naiveté. The opposite is the case: The basis for

harmonization of this kind progressively diminishes if the disparity with fiscal burdens of foreign businesses in the Federal Republic constantly rises.

At the same time the Association stressed that the German seaports were not seeking confrontation with Brussels but close contacts, albeit on a voluntary basis and subject to fair competition. The present sectoral port policy pursued by Brussels cannot be approved by either the German or the other European seaports.

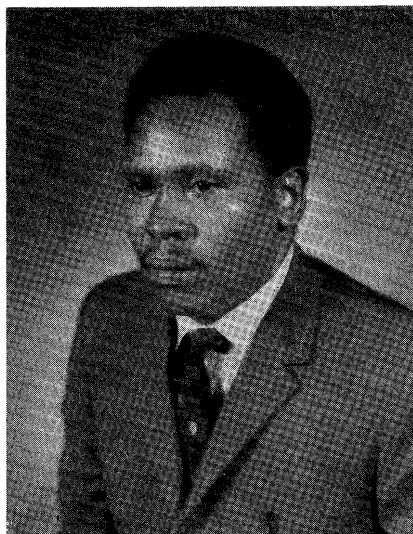
### **Appointment of Acting Deputy Port Manager, Mombasa**

Mombasa, Kenya (News Release from East African Harbours Corporation):—The East African Harbours Corporation has announced the appointment of Mr. E. A. Karanja, 33, Acting Deputy Port Manager, Mombasa Port with effect from 11th December, 1973. He has been Port Manager, Tanga since 1970 until this new appointment. The new Acting Deputy Port Manager is not, however, a stranger to the Shipping circles in Mombasa.

Mr. Karanja was educated at the Alliance High School Kikuyu and at Nairobi University College where he graduated in June 1967 with a B.A. (honours) degree in Economics and History. Following his graduation he joined J.H. Minet Insurance Brokers as a Management trainee where he worked for three months.

In October 1967 he joined the Port department of the former East African Railways and Harbours Administration as a Cadet Administrative Assistant, based at the Port of Mombasa. Since then Mr. Karanja has worked in all aspects of Port operations in all the Corporation's four Ports, namely, Mombasa, Dar es Salaam, Tanga and Mtwara on various capacities, including one year in 1968 in Dar es Salaam as an Administrative Assistant, Operations and then came back to Mombasa in 1969 as Administrative Assistant, Commercial.

During the same year (1969) Mr. Karanja went for a short seminar in Port Management in Nor-



**Mr. E. A. Karanja**

way, sponsored by the East African Harbours Corporation.

Following his successful participation in the seminar coupled with excellent academic back-ground and extensive knowledge and experiences in Port operations, Mr. Karanja was appointed Port Manager, Tanga in March, 1970. The following year he attended a three weeks Senior Management course in Nairobi, organized by the Kenya Institute of Management.

In 1972 the Acting Deputy Port Manager went to the United States of America where he attended a three months high powered Management Development course at the Harvard Business School in Boston, Massachusetts.

Commenting upon his appointment, Mr. Karanja modestly described it is a very big challenge and he looked forward to doing his best.

Mr. Karanja who is married with three children, comes from the Subukia location of Nakuru District and his hobbies include playing chess, snooker, swimming and reading.

### **Abu Dhabi**

Abu Dhabi (Gray, Mackenzie & Co. Bulletin—January, 1974—extracts):—24 vessels called at Abu Dhabi during the month of December with 21,428 deadweight tons of cargo for discharge. Imports consisted of 14,582 tons general, 4,539

tons cement, 1,175 tons pipes, 111 tons timber, 602 tons flour and 419 tons steel.

Delays of nil to two days were experienced during the month owing to congestion, and this position is not likely to ease for some time to come.

It is now learnt that the decision to put into commission the three additional berths has been deferred until about end-January/early-February when it is hoped that additional equipment and trailers will arrive. The general position in the port area has not improved.

Five Arab states in the Gulf have decided to co-ordinate trade with the outside world, especially in connection with imports in order to improve their bargaining position. Officials of the Chamber of Commerce, Customs Departments and state-backed import corporations from the U.A.E., Bahrain, Kuwait, Oman and Qatar decided at a meeting held in Bahrain to institute this co-operation in order to control the soaring prices of goods reaching the Gulf area. The meeting also decided to keep a close watch on world markets with regard to production costs, prices, charges and agreed to adopt a unified stand in relation to other economic groups. A committee has been set up to implement these decisions.

Work on the \$300 million gas liquefaction plant to be built on Das Island was inaugurated on the 4th of December, 1973, and the economy was attended by H. E. Shaikh Zayed, President of the U.A.E. The plant is being constructed by Eastern Bechtel Corporation of the United States and Chiyoda Chemical Engineering & Construction of Japan. It is expected to be complete in March, 1976, with an output of three million tons of liquefied natural gas (LNG) a year. The plant will be operated by the Abu Dhabi Liquefaction Company, formed by BP, Compagnie Francaise des Petroles, Mitsui & Company, Bridgestone Liquefied Gas Company and Abu Dhabi National Oil Company. Liquefied Natural Gas will be supplied to the Tokyo Electric Power Company (TEPCO) for



20 years beginning in June, 1976, under a \$300 million deal.

### Swanson Dock Extended

Melbourne, Australia (Melbourne Harbour Trust Port Gazette, December, 1973):—A contract has been let by the Trust for the first phase of a project that will extend No. 2 West Swanson Dock by an additional 200 feet.

The initial work calls for 286 timber and 155 steel piles to be driven at the rear of the sheet piling. After completion of phase one of the project, tenders for the construction of the concrete wharf apron will be called early next year.

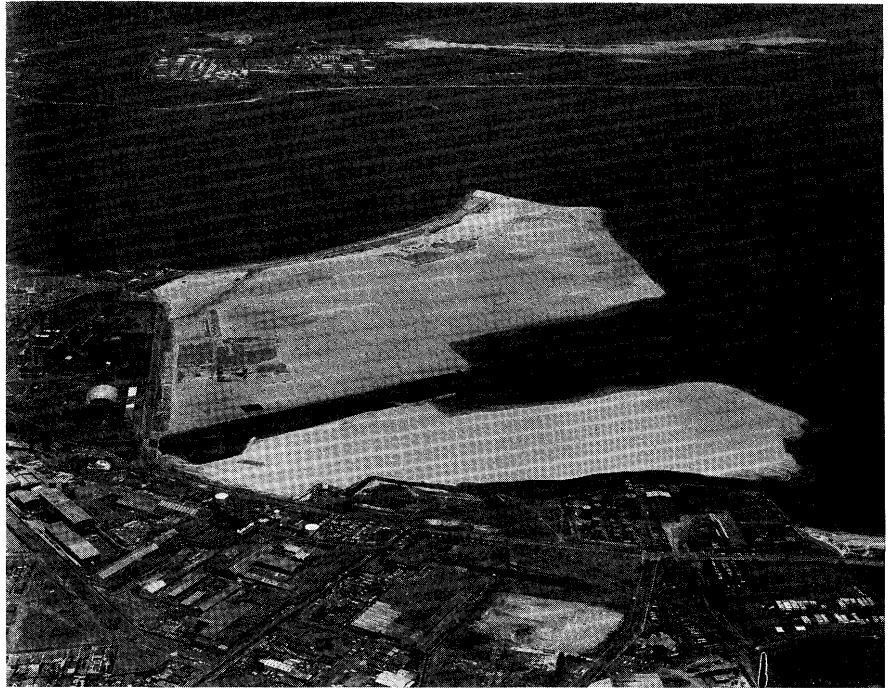
Estimated cost to the Trust of the extension work including dredging is approximately \$750,000. The two container berths on the West side of Swanson Dock, which at present totals 1,600 feet will, after completion of the work be increased to 1,800 feet.

The request for the additional 200 feet of wharf was made by Seaintainer Terminals Ltd., a consortia of Australian and U.K. shipping companies formed in 1966, to operate terminals and depots throughout Australia. STL have first call rights to Nos. 1 and 2 West Swanson and are lessees of approximately 33 acres behind the two berths on which they have built a multi-million dollar terminal to work container ships on the Interstate, Europe-U.K. and Japan trades.

The Commissioners have also agreed to lease an additional 6½ acres of land, fronting McKenzie Road between Gibbon Street and Coode Road, to the company.

Mr. R. W. Merry, Divisional Manager of STL in Melbourne, disclosed to the Gazette that work will begin immediately to convert the new area into an empty container cargo handling facility at a cost of about \$200,000. "The re-siting of the empty container park at present located behind No. 1 West Swanson Dock, to the new area, will release prime land for full container operation.

"In addition to the abovementioned new projects STL have also called tenders for a third container wharf crane, expected to cost in ex-



Reclamation Area, Botany Bay (The Maritime Services Board of N.S.W.)

cess of one million dollars.

"The day-to-day operations of the company's terminal will not be interrupted in any way, while the new works are being carried out," he said.

The principal reasons for the extension works to the company's terminal on the West Side of Swanson Dock are:

- To achieve an increase in berth occupancy. The 200 ft. extension north of No. 2 West Swanson Dock will permit two large container ships of the Bay class type to berth simultaneously.
- The third crane will accelerate the exchanges of containers between ships and the terminal, thereby improving the company's service to their clients.

### Botany Bay Port Development

Sydney, 22nd February (The Maritime Services Board of N.S.W.):—Progress made in the development of Botany Bay as a supplementary port to the Port of Sydney was outlined to-day in a statement made by Mr. W. H. Brotherson, President of the Maritime Services Board. Points made by Mr. Brotherson included:—

- (a) the first bulk berth will be

available to shipping at the end of 1975;

- (b) the first lessees, Companies engaged in industries using materials imported in bulk cargo vessels, will be entering the reclaimed land within the next few months; and
- (c) the expanding container trade can be catered for, by the provision of wharfage and terminal facilities as necessary at Botany Bay within two to three years.

Mr. Brotherson said that more than 128 hectares (370 acres) of land have already been reclaimed and the core of the embankment to protect the reclamation from wave action has been completed for a distance of over 1,500 metres.

He said that, resulting from one of the largest dredging projects ever undertaken in this country, involving the removal from the bed of the port of 16 million cubic yards of filling, the entrance channel and the channels within the port itself have been dredged to a depth of 19.2 metres (63 feet), making Botany Bay, at low tide, the deepest port in Australia and as deep as any port in the world. The port will be capable of accommodating ves-

sels of 250,000 tons deadweight capacity.

Having satisfied the requirements for land by industries handling bulk cargoes, Mr. Brotherson said the Board is now in the advanced stages of the planning which would provide for the construction of general cargo and container facilities in the port to cater for the expansion of these trades, as necessary.

He pointed out that the investigations into the feasibility of developing Botany Bay as a major deep water port commenced in 1962 and a vast amount of planning was required prior to the letting of the first stage contract to the Atkinson Leighton Joint Venture in 1971.

The cost of the first stage development, including roads, sewerage and initial wharfage is estimated at \$42 million.

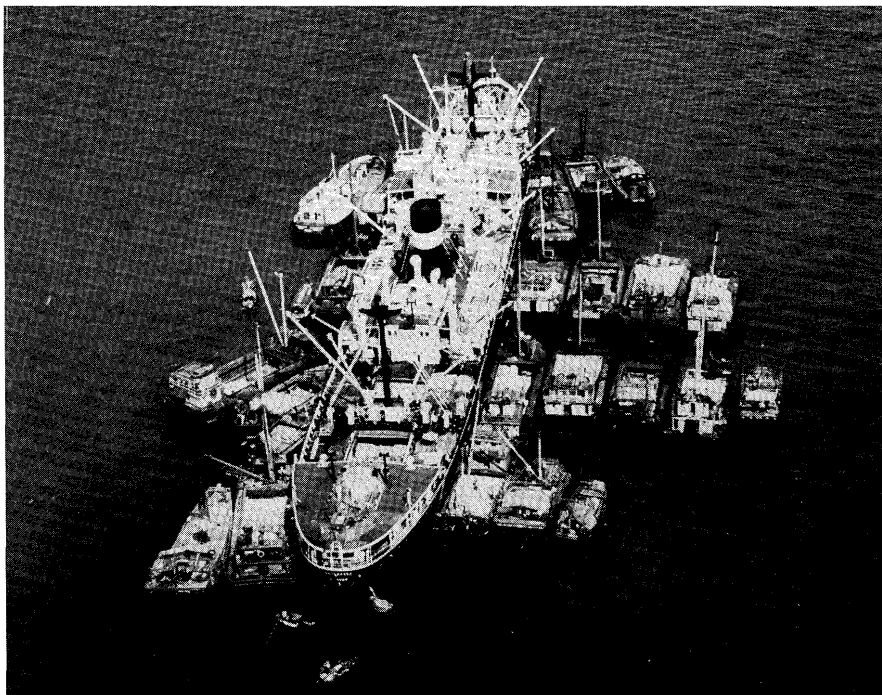
Mr. Brotherson said that a feature of the Botany Bay development was the dredging pattern at the entrance of the port designed to refract waves generated in the south and south east during storm periods into the off-shore breakwater so that the port built in the lee of the breakwater would become a stillwater area.

He said this is the first time that the dredging technique has been employed in the world.

### Increase in Port Activities

Hong Kong, February 5 (The Week in Hong Kong):—There has been a general upward trend in port activities in the last three years, according to statistics released by the Marine Department today. Although the number of ocean-going ships entering Hong Kong has been decreasing, the amount of cargo throughput has been steadily on the increase.

In 1973, 7,358 vessels entered port, 469 less than the previous year, while the cargo throughput, including all types of oil imports, was 15,940,120 long tons, an increase of 11.5 per cent or 1,643, 554 long tons over 1972. Commenting on the statistics, a spokesman for the department explained that the decrease in the number of ships entering port was due to the advent of 'third generation' containerships.



**Hong Kong's famed 'fragrant harbour' is not only one of the most beautiful in the world but also one of the busiest. Last year something like 6,565 ocean going vessels entered the Colony, landing more than 26,000 passengers and well over 7,000,000 tons of cargo.**

**Most cargo ships moor in the harbour and visitors will always see a flotilla of junks surrounding them. These junks are 'floating warehouses' transporting hundreds of tons of goods to the godowns on the eastern fringes of Victoria on Hong Kong Island every day.**

**For passenger liners, there is the Ocean Terminal which was completed in 1966. Jutting 1,250 feet into the harbour, it boasts the largest shopping centre in Asia with a total of 120 shops in 'air conditioned' streets.**

**PICTURED: Floating warehouses swarming around a cargo ship. These junks handle several hundred thousand tons of cargo every year. (Photographed by David Ching Government Information Services)**

### Hong Kong Has Large Commercial Fleet

Hong Kong, Jan. 21 (The Week in Hong Kong):—Hong Kong shipowners now control one of the largest merchant fleets in the world, totalling 20 million tons deadweight. According to Mr. Frank Chao, chairman of the Hongkong Shipowners Association, the fleet is expected to grow to between 35 million and 40 million tons dwt by the end of 1978. Hong Kong's fleet, he said, now ranks among the top six in the world and was second largest in Asia after Japan.

### Hong Kong Annual Report

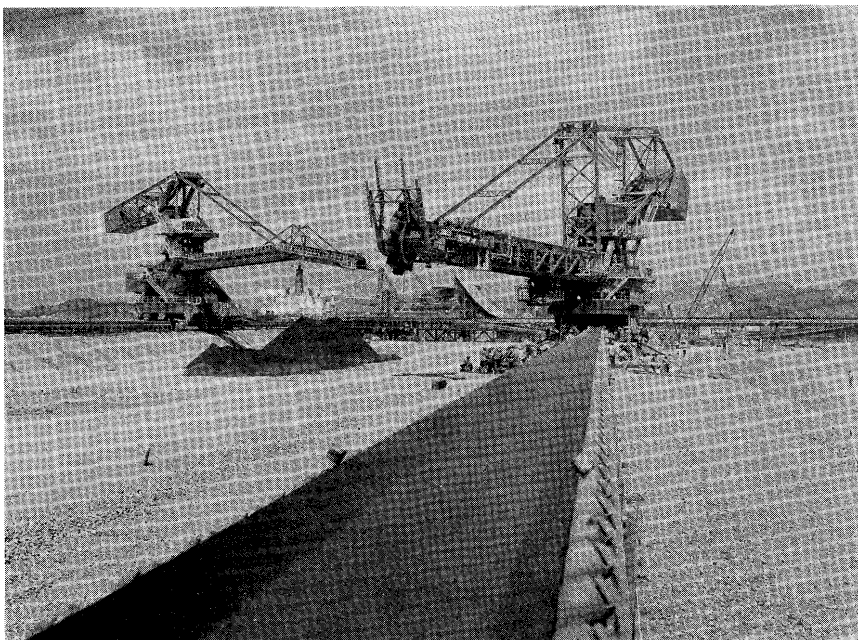
Annual Departmental Report by Hong Kong's Director of Marine (Mr. A. Fletcher, J. P.) for the

Financial Year 1971—72 (1st April 1971—31st March 1972) is a handy 122-page book (Code No.: 0344772) just published and available at a price of \$HK 16.00.

### Ore Loaders for Tubarao Port

Tokyo, (IHI Bulletin, December, 1973):—IHI has recently completed the erection work on two sets of the three 8,000-t/h reclaimers which were ordered and one set of the 16,000-t/h stacker at Tubarao Port for Companhia Vale do Rio Doce (CVRD), Brazil.

These equipment, including two sets of 16,000-t/h shiploaders which we completed in May this year, are among the orders which IHI received from CVRD in Aug., 1971, for a large scale iron ore handling and shipping plant.



IHI is carrying out engineering and manufacturing of the equipment, and the installation work is undertaken by the Christiani-Nielsen Ingenieurose Constructores S.A. of Brazil under IHI supervision.

The new facilities are being constructed under an expansion plan to increase the iron ore shipping capacity of the port to 6,000,000 tons a year.

The remaining 8000-t/h reclaimers and the three lines of conveyors will be completed in spring, 1974.

### Federal Minister's Visit

Kota Kinabalu, Sabah, Malaysia (Berita Pelabuhan, Lembaga Pelabuhan-Pelabuhan Sabah, April-June 1973): — The Federal Minister of Communication Tan Sri Sardon bin Haji Jubir paid a short visit to Sabah Ports Authority Headquarters, the Ports of Kota Kinabalu and Sandakan at the end of June, 1973.

On his arrival at the Authority's Conference Room the Minister was given a briefing relating to the activities of the Sabah Ports Authority by the General Manager Encik Hussein bin Haji Mohamed. Following this the Minister was taken for a visit to the site of the new port of Kota Kinabalu, currently under construction.

Earlier the Minister had paid a similar visit to Tawau where he toured amongst other places the Authority's oil pumping jetty at Tanjong Batu. He was shown around by the Authority's Chairman Y. B. Tuan Haji Kassim Kamidin.

### World Bank Officials

Kota Kinabalu, Sabah, Malaysia (Berita Pelabuhan, Lembaga Pelabu-

han-Pelabuhan Sabah, April-June 1973):—Two experts from the World Bank recently paid an appraisal visit to the Sabah Ports Authority from 2nd to 6th April, 1973. They were Mr. John Burns a financial analyst and Mr. T. Akatsuka, an engineer.

While in Kota Kinabalu they had discussions with Senior officers of the Authority relating to the port expansion projects now being undertaken at Kota Kinabalu and Sandakan. This project is financed partly through a loan obtained from the World Bank.

Before returning to America, both gentlemen were taken to the proposed site for the Kota Kinabalu oil jetty project. Mr. Akatsuka accompanied by Mr. Hussein bin Haji Mohamed, the Authority's General Manager and Mr. Schiffman of King & Gavaris also paid a short visit to the existing port of Sandakan and the New Port Site at Karamunting before returning.

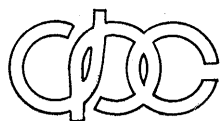
### Penang Annual Report

Penang, Malaysia (The following is a reprint of General Review section from the Seventeenth Annual Administration Report for the year ended 31st December 1972):—



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1972 was a year of satisfactory progress for the Port of Penang. A throughout of 3.32 million freight tons of cargo was handled in the port compared to 3.21 million tons in 1971. Although the increase in the volume of traffic has not been spectacular, the change in the types of cargo moving through the Port of Penang, as reflected in the 1972 figures, served to indicate the rapid growth of cargo traffic that can be anticipated in the coming years with the growth of industries in the hinterland.

The Penang Port Commission increased its share of the general cargo tonnage of the port from 52% in 1971 to 56% in 1972. Butterworth Wharves continued to attract more of the port's tonnage and achieved an average utilization rate of 75% while at the same time establishing itself as the main area of cargo activity in the Port of Penang.

With the accelerated growth of industries and the increase in the

cargo traffic, the Commission decided to construct a modern bulk cargo terminal for both wet and dry bulk cargo at Prai Industrial Estate, and ground work on this project has already commenced.

The Penang/Butterworth Ferry Service conveyed a record 2.6 million traffic units of vehicles and 16.9 million passengers compared to 2.2 million traffic units and 15.4 million passengers in 1971. Planning and design of the proposed expansion of the ferry service was completed and tenders were called for the construction of additional terminals at Butterworth and George Town. Orders were placed for three double-decker vehicular ferry vessels.

The Commission took over the pilotage service in the Port of Penang on 1st April 1972 and continued to provide an efficient pilotage service to ships. Pilotage has been made compulsory in the pilotage district of Penang.

The Commission took delivery of a self-propelled grab hopper dredger on 13th October 1972. This dredger will help to provide adequate depth of water at the wharves by providing improved dredging services.

The Commission's Security Service acquired two patrol launches and introduced marine security patrols within the Port of Penang on 1st June 1972.

The Commission's financial result was again favourable as in previous years and a surplus before tax of \$4,422,920 was earned.

### **Traffic Department Re-organised**

Penang, Malaysia (Publication of the Penang Port Commission, October, 1973):—To meet the increasing level of activity in the Port of Penang, the Traffic Department of Penang Port Commission has been re-organized with greater emphasis on functional responsibilities rather than on responsibilities by areas of

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operation. Under this organization the Department is divided into two major divisions: — the Planning Division headed by the Assistant Traffic Manager (Planning) and the Operating Division headed by the Assistant Traffic Manager (Operation).

Previously, the Organization was divided into two areas of operations with one Assistant Traffic Manager in charge of Swettenham Pier and another in charge of Butterworth Wharves. While this arrangement was satisfactory with a lower volume of cargo moving through the Port, it was found that with the increase in the volume of cargo a more effective organization was necessary to undertake more intensive planning work for daily operations.

Under the present arrangement the Assistant Traffic Manager will

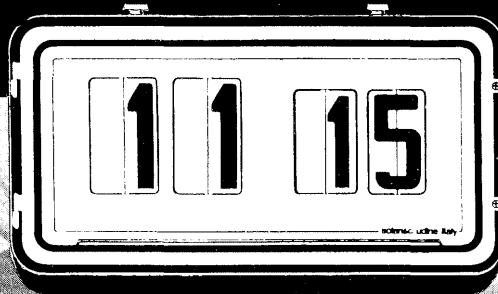
prepare plans for the daily operations in the port. He would be assisted in this task by Officers who are responsible for the various resources available in the Port such as, lighterage, equipment and staff. Knowing the sources available and the requirements of each day, the planning division ensures that all the resources available in all the Commission's port installation are used effectively and with greater flexibility. The operating division then undertakes operations according to the plans prepared daily by the Planning Division. To strengthen this organization, four new Senior Traffic Supervisors were appointed. Two of these Senior Traffic Supervisors assist the Assistant Traffic Manager in operations at Swettenham Pier, and Butterworth Wharves. The third Senior Traffic

Supervisor is in charge of Container operation at Butterworth Wharves. The fourth Senior Traffic Supervisor in charge of all matters related to claims will be directly responsible to the Traffic Manager.

Together with this re-organization, the Traffic Administration has been transferred to Butterworth Wharves from Swettenham Pier since the greater part of Traffic Operations and activities are now controlled at Butterworth Wharves. Only Officers involved with operations at Swettenham Pier are now stationed there.

This re-organization has been implemented with effect from 10th October 1973 and it is hoped that greater emphasis to planning of daily work and proper co-ordination can be achieved by this re-organization.





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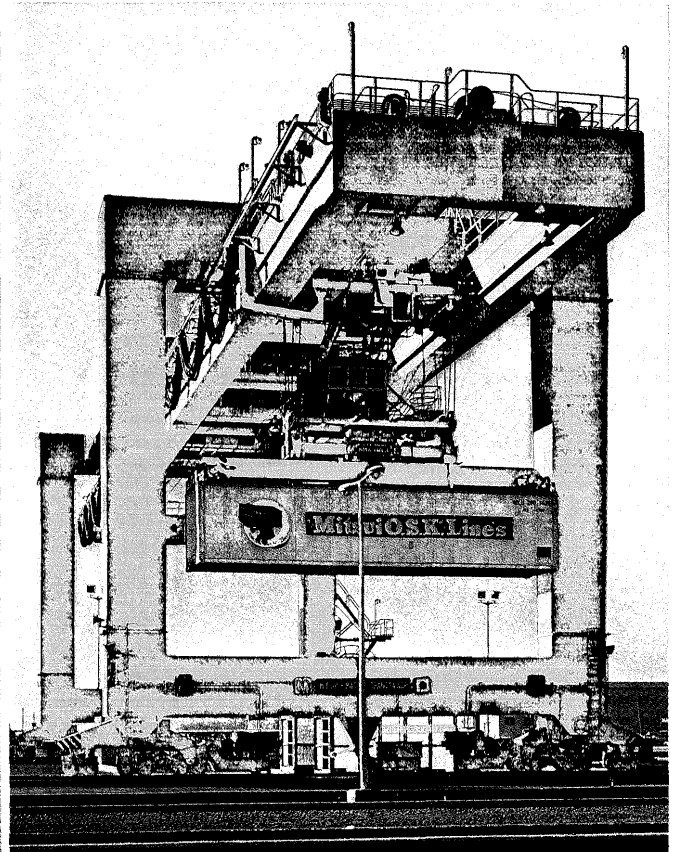
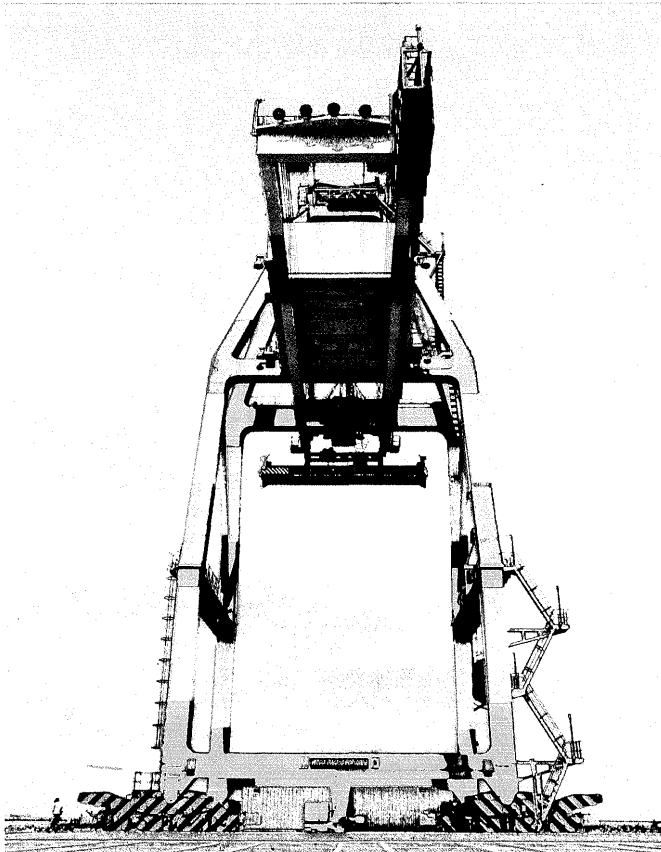
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