

PORTS *and* HARBORS

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Port Khorramshahr
Iran

IAPH Conference Houston April 1977

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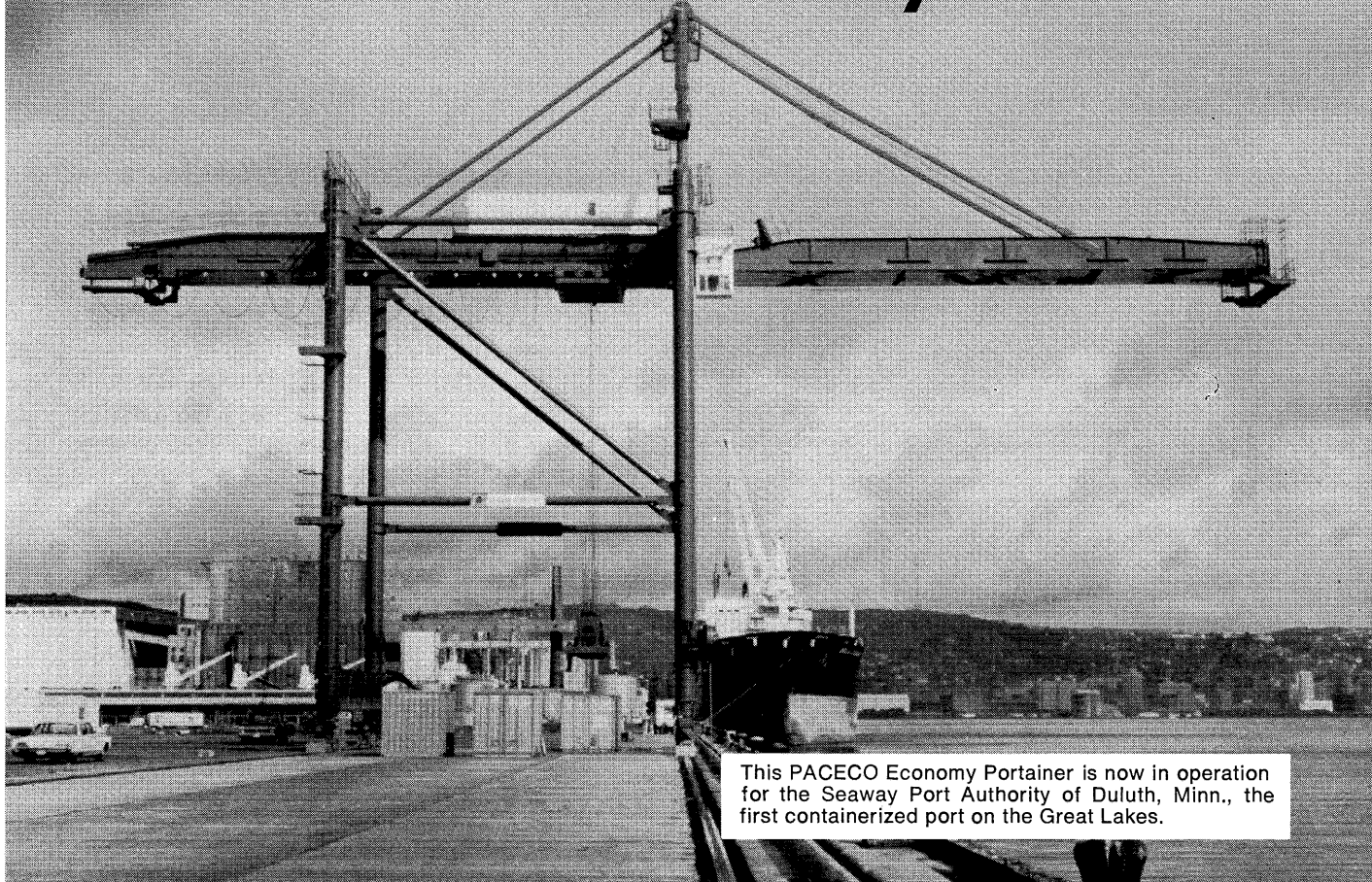
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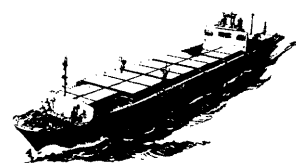


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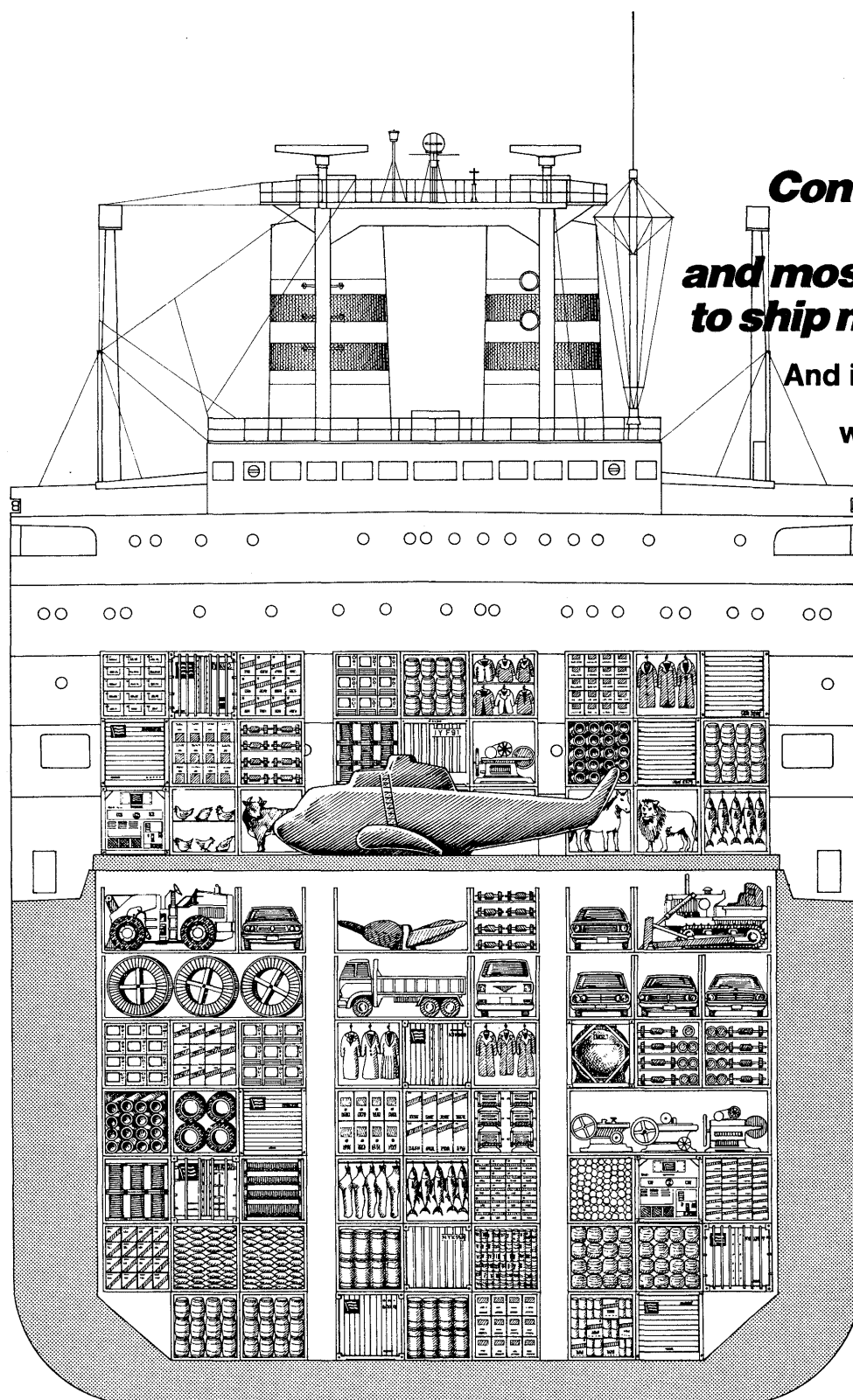
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PORTS *and* HARBORS

Editor: Yoshio Hayashi

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Secretary General:

Dr. Hajime Sato

Head Office:

Kotohira-Kaikan Bldg.
1, Kotohira-cho, Minato-ku,
Tokyo 105, Japan
Tel.: TOKYO (591) 4261
Cable: "IAPHCENTRAL TOKYO"
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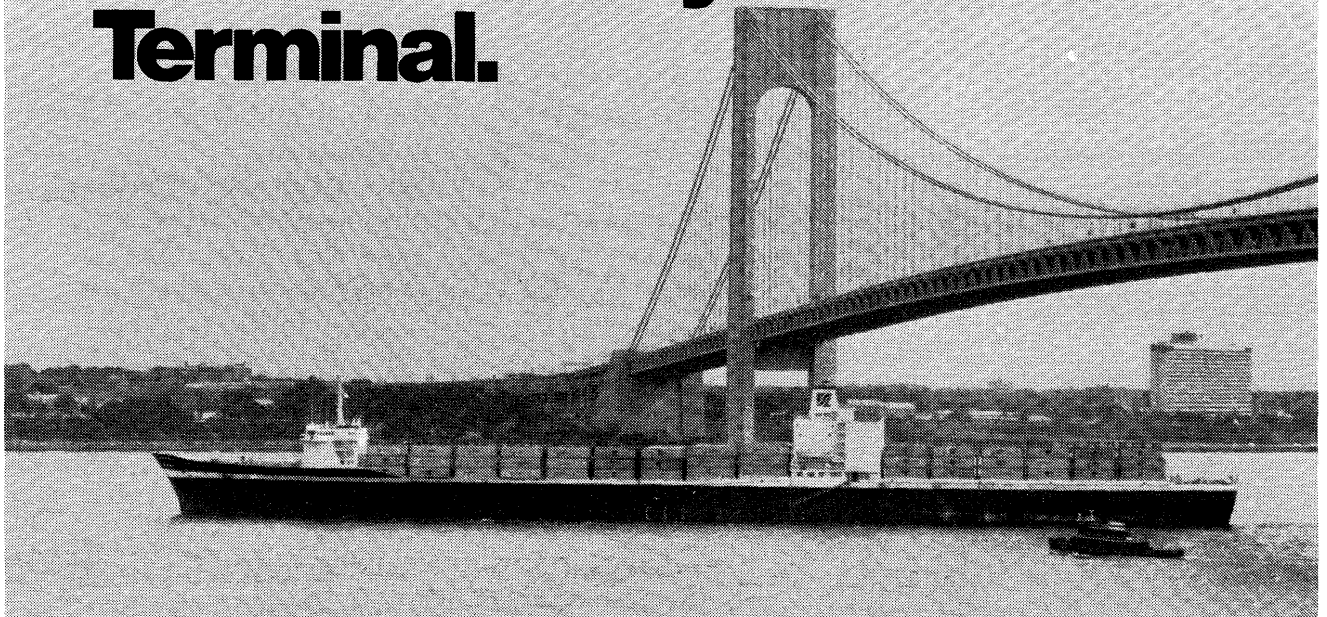
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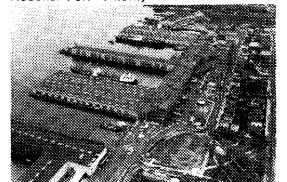
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IAPH Head Office Announcements: Page 7 ~ 19

IMCO Tackles Environmental Problems

Mr. Smith Appeals to Members for Collaboration

IMCO Report

Coming out of the latest IMCO meeting of Marine Environment Protection Committee, Mr. A.J. Smith, IAPH liaison man, appealed to all members of the Association for support by writing to him which topic they are particularly interested in of the 5 he listed up so that he could make his service precise and effective.

The working groups of the IMCO Committee, according to him, seem determined to break into an all-out tackling to the subject simultaneously, going over the physical limit one man can cover alone.

Let's listen to what Mr. Smith says in the report to follow. (MK)

The 4th session of the Marine Environment Protection Committee took place from 20th to 24th October, 1975.

Such is the detailed technical content of the Agenda that the Committee believes that it can best be processed by a number of ad hoc working groups meeting simultaneously. It will be appreciated however that effective representation of IAPH becomes that much more difficult. It would be helpful therefore, if IAPH members having a particular interest and technical expertise in any of the topics considered by this Committee (listed below) were to advise me of that fact. Every endeavour will then be made to provide the necessary written material to make their contribution and that of IAPH generally, the more effective.

Among the topics considered by the working groups were segregated ballast in existing tankers; technical assistance in the field of marine pollution; provision of reception facilities in ports; oily water separators and oil discharge control and monitoring equipment; procedures and arrangements for the discharge of noxious liquid substances; standards and test methods for operational requirements for sewage treatment plants for ships.

Brief reports on matters which I consider to be of specific interest to IAPH members are dealt with under the following headings:—

(i) Status of Pollution Conventions

At the time of the meeting, a further eleven acceptances of the 1969 Amendments to the 1954 Oil Pollution Convention were required to bring them into

force. So great is the importance attached to this matter as an anti-pollution measure by the Committee that it has requested the Assembly of IMCO to encourage urgent action by the Governments concerned.

(ii) Reception Facilities at the Ports

The Working Group has concluded that its main task is to provide general guidelines to assist Governments in providing reception facilities as soon as possible for oily waste, sewage and garbage as required by the 1973 Marine Pollution Convention. Work was begun in preparation of Draft Guidelines and will be continued during the intersessional period.

Several problem areas require additional information from Member States namely:—

- (a) the special ballasting requirements for ships entering cold weather areas;
- (b) the amount of oily solids which has to be removed from cargo tanks on oil tankers.
- (c) the quantities of contaminated ballast water resulting from the ballasting of bunker tanks;
- (d) the amount of oily bilge water which ports would need to accept from ships, especially in ports serving coastwise trade;
- (e) the facilities required at dry bulk loading terminals and oil discharge ports for combination carriers, which ICS agreed to study;
- (f) the technological problems associated with the treatment of the oily water mixtures received from ships and the ultimate disposal of the residue and effluent from the reception facility, and such effluent standards from reception facilities which are within national programmes.

If IAPH members wish to comment on these matters, it would be helpful to do so directly to their respective Governments with a copy to the IAPH Secretariat for collation purposes.

It should be made quite clear that the view of the Committee, and IMCO generally is that even if the 1973 Convention did not enter into force by the effective date, 1st January 1977, all Governments should take all necessary measures to ensure that the prescribed facilities are provided not later than that date.

(iii) Technical Cooperation in the field of Marine Pollution

A special Forum was set up by the Committee wherein there could be an exchange of views between those seeking advice and those with experience and expertise to give advice on the prevention and control of marine pollution.

Problems were identified such as factors having a

bearing on the reliability of navigation and the prevention of pollution by accidental discharge and it was noted that these in some respects are being examined in detail by other bodies. The Forum decided however, to direct its attention primarily to problems associated with combatting and controlling oil spills.

Ways and means were discussed by the Forum to assist the Committee in recommending action in both pollution control and pollution prevention.

Whilst the exchange of views in the Forum was considered to be valuable, those taking part were agreed that if practical solutions were to be achieved in countries without contingency arrangements it would be necessary to identify problems for which guidelines should be developed on a priority basis. It was agreed that information should be submitted, in advance of the next session of the Committee by those indicated in brackets on the following problem areas:

- (a) the action which countries would take with existing resources to deal with a major oil spill off their coasts (all Members);
 - (b) A methodology of a spill response organisation (the United Kingdom);
 - (c) A résumé of equipment capability (the United States);
 - (d) A résumé of dispersant availability, their use and limitations (the United Kingdom and Sweden);
 - (e) A compendium of work by other Committees related to pollution prevention (Secretariat);
 - (f) Submission of case studies and lessons learnt (all Members);
 - (g) Identification of regional cooperation agreements, existing and projected (Secretariat); and
 - (h) Training requirements (all Members)
- (iv) Technical Symposium on Prevention of Pollution from Ships.

There is every indication that the Symposium which is to be held in Acapulco, Mexico from 22 to 31 March 1976 will greatly assist the thinking and work of Governments, local authorities, ports, institutions, industries and individuals in the field of pollution prevention and their attendance will be welcomed.

- (v) Sub-Committee on Bulk Chemicals

The terms of reference and work programme of a new Sub-Committee on Bulk Chemicals was agreed and its first meeting will take place from 17-21 May 1976.

The next meeting of the Committee will take place in London from 24 to 28 May 1976 and the principal items which will be included on its Agenda are technical assistance in the field of marine pollution; segregated ballast system on existing tankers; provision of reception facilities for oily wastes, sewage and garbage; oily water separators and oil discharge control and monitoring equipment; sewage treatment plants for ships; consideration of the procedures for the control of ships; and improved methods of enforcement of convention requirements with particular reference to arrangements for inspection at loading and repair ports.

Container's Statistical Survey Going Well

The questionnaire circulated among the members in October on Container statistics are now being returned to the Head Office in a steady flow, furnishing the Association

with latest information, for which Secretary General Dr. Sato expresses his gratitude to the members through this journal.

The returns received here so far, however, include two types of cases requiring further adjustment to the survey technique. They are,

a) the replies on their own form different from what was circulated, due to difference in statistical compilation.

b) the replies in the negative, due to their being indirect operators and possessing no ready information on hand.

These problems should be solved at the Special Committee Meeting to be held in Curaçao this coming April.

Those returned with information are collated here, as they come in, with the cooperation of Mr. Yamazoe, a member of the Special Committee on Containerization and Barge Carriers for later announcement. (MK)

Iran Contributes for IAPH Fund

Immediately after the announcement of the IAPH Bursary for Port Training in the November issue of this journal, the Secretary General received a check for US\$1,000 from the Ports & Shipping Organization of Iran as a donation to the Port Development Technical Fund, out of which the bursaries for selected trainees of developing countries in developed ports are supposed to be paid.

Mr. John Lunch, Chairman of the Special Committee on International Port Development, and Dr. Sato, Secretary General, respectively wrote to Mr. Parviz Saffari, Managing Director of Ports & Shipping Organization of Iran, expressing their sincerest thanks for the prompt and much encouraging action taken toward the new program of the Special Committee.

The donation is construed here as the first step which might be followed by many others in support of this new program much looked forward to. (TKD)

New Zealand Harbours to Celebrate 43rd Conference

Mr. R.E. Dawson, Chief Executive Officer of Harbours Association of New Zealand in his letter to Head Office informed that the 43rd Conference of the Association will be held at Timaru, New Zealand, during the period 16-19 March 1976. The Association's President, Mr. R.W. Carr of Auckland Harbour Board extended to members of IAPH a cordial invitation to attend the Conference.

According to the information, the Conference will start from March 17, March 16 being kept for pre-conference Executive meetings, and terminate on March 19 followed by choices of alternatives in post-conference functions of port inspection, golf or fishing trip and or a trip to Mount Cook.

This Conference also is the annual conference of New Zealand Harbour Boards Industrial Union of Employers and features such topics like a Forum on the subject "Flexibility in Shipping Operations—How can New Zealand's Requirement to Supply Diversified Markets be met?". It is specifically noted that representatives of operators of container ships, multi-purpose ships and conventional ships as well as producer Boards participating.

Those who IAPH members willing to attend the Conference are requested to write to: The Secretary, The Harbours Association of New Zealand, P.O. Box 1765, Wellington, New Zealand. (rin)

Comments on Memorandum for IAPH Directors from Dunkirk and Karachi

In response to the "Head Office Announcement" of September, many comments reached this Secretariat from IAPH Directors on the Memorandum for the IAPH Directors in View of the 28th Session of the Legal Committee of IMCO" submitted by Mr. A.J. Smith.

Most noteworthy among them were the following two from France and Pakistan.

All the comments arrived here from our Directors were considered in the recommendation presented by the Secretary General of IAPH to the Secretary General of IMCO with regard to the Revision of the 1975 Convention on the Limitation of Mobility of Owners of Sea-Going Vessels and handed over in person to the addressee by Mr. A.J. Smith on November 10, 1975. The recommendation aforementioned was published in the previous January issue on page 9. (MK)

1. Comments from France (By Mr. R. Boeuf, General Manager, Port of Dunkirk Authority)

Dear Dr. SATO,

I have the pleasure of sending you the position held by the Port of Dunkirk Authority as regards the questions asked in the "Memorandum for the Directors of the I.A.P.H. in view of the XXVIIIth Session of the legal Committee of the IMCO" published in the September 75 Issue of Ports and Harbors.

I—The categories of vessels affected by the convention

It is not the Ports' interest to see an extension of the field of this convention to other vessels than sea-going vessels.

Yet, it seems hardly possible to exclude hydrofoils and hovercrafts which are comparable to sea-going vessels.

As for pleasure crafts, some of which are so big that they might cause severe damage, they could benefit from the convention if the minimum amount of the limitation fund was very considerably raised.

Furthermore, inland waterway boats which are not allowed to sail at sea, must be excluded from the field of this convention.

II—Claims subject to limitation

Ports are obviously interested in keeping the number of claims subject to limitation at the lowest possible level.

Therefore:

1°) Expenses incurred by the person liable, for averting or minimizing damage should not be accepted. In fact it seems that the ship-owner must take action in order to preserve his own property and do his best to avert and minimize damage his ships are liable to cause. Remunerating such an obligation seems immoral.

2°) Claims for delays in transporting should also be rejected since they arise from contract and constitute indirect consequences of an accident occurring to the ship.

3°) Were not the compensations for passengers and their luggage going to be taken from a distinct "per capita" fund?

Yet since too many different funds are likely to be objected to too strongly by ship-owners and their insurers, a unique fund could be raised to function as follows:

— priority up to two thirds as regards personal injuries

IFSMA granted Consultative Status by IMCO

Commander B.D.H. Thomson, General Secretary of International Federation of Shipmasters' Associations (IFSMA, London) informed in his letter of November 25, 1975 to IAPH, that IFSMA was granted Consultative Status at the Inter-governmental Maritime Consultative Organization by the IMCO Assembly at the beginning of November 1975.

He commented that this was a considerable step forward for IFSMA, increasing the part it could take in international co-operation for safety at sea. (rin)

IFSMA has new General Secretary

Commander B.D.H. Thomson has now taken up his appointment as General Secretary of IFSMA. The office has been vacant since the death of former General Secretary Capt. W.B. Vickers. (rin)

Visitors

• Mr. Horst-E. Friedrichs, Member of the Board of Hamburg Messe und Congress GmbH, together with Mr. W. Michels, Tokyo Representative of the Free and Hanseatic City of Hamburg and his assistants, visited the Head Office

on December 5th, 1975 and was met by Dr. Sato, Secretary-General.

He presented a 15 minutes movie presentation of Hamburg Messe, the City's conference facility, along with short presentation on the over-all picture of Hamburg and its surroundings. Hamburg is, as reported in the December issue of this journal, one of 3 candidate ports for 11th Conference site in 1979. (rin)

• Mr. Hugh Stanton, Managing Director of Intec Press Ltd., U.K., publisher of the "International Dredging & Port Construction" magazine, accompanied by Foreign Editor Mr. Collin Brisland, visited the IAPH Head Office on December 19, 1975, and were met by Dr. Sato, Secretary General and Mr. Kinouchi, Deputy Secretary General.

Two gentlemen appearing at the Head Office on the following day signed in the application respectively to be Associate Members. Mr. Stanton applied additional two units of Class E members for his other colleagues back home, which he said would make a sensible Christmas present to his friends.

Mr. Stanton and Mr. Brisland were on the campaign tour of South East Asia and Japan for a Convention under the name SEATEC 76 which they are organizing in Singapore October 20-22, 1976 with the theme: "The dredging and construction of ports for developing countries". (TKD)

- (passengers and third party),
- in case this part of fund would run short, the balance of personal claims would amount to the same as property claims,
- if no personal damage is claimed or if personal damage does not amount to two thirds of the fund, the whole fund or its balance would be completely devoted to settling property claims.

III—Conduct forfeiting the right to limit

Ports cannot admit the principle that the right to limit only breaks down with an "intentional fault which is committed with full knowledge of the probable consequences". This restriction would thus be such that the shipowner would never practically lose this right.

On the contrary the idea of shipowner's personal fault must be kept and extended to his agents or representatives on board or ashore.

Furthermore ports cannot follow the reasoning of the insurers who demand that the right to limitation is unbreakable. As a matter of fact the right to limitation is an exorbitant faculty of the common law and it is to be limited to the minimum.

IV—Calculations of limitations of liability

IV. 1—Ports must not accept the reasoning of insurers following which the revaluation for the limitation of liability would not go above double the sums mentioned in the 1957 Convention.

Ports must keep to Resolution number 6 the I.A.P.H. Conference adopted in Singapore in March 1975, i.e.: "waiting for the entire responsibility of the vessel to be acknowledged, the limitations of the Brussels Convention must at least be multiplied by five".

IV. 2—That the sums of limitations should be indexed on the special drawing rights, does not seem to represent an ideal solution, at least at present.

As a matter of fact the general evolution of currencies and therefore of the S.D.R. is towards devaluation. Moreover, the US Dollar is too preponderant in the basket of currencies chosen to establish the S.D.R.

Finally the reference to the Poincaré Franc seems till now to be the best provided it should be brought up-to-date at regular intervals.

IV. 3—See paragraph II—3°

IV. 4—This seems an interesting suggestion which would suitably rule the instance of passenger vessels such as ferryboats, hovercrafts and hydrofoils which have a small tonnage and which nevertheless may cause severe property and personal damage.

The fund of limitation of liability calculated on the basis of gross tonnage (as defined in the 1969 London Convention) could be increased by a sum proportional to the number of passengers the vessel can carry.

V—Subordination of the right of limitation of liability to the establishment of a limitation fund

The principle should be admitted that in the case of an accident, the right to limitation of liability could only be granted to the owner of a sea-going vessel provided he has truly established the fund of limitation according to the ruling law of the concerned country.

VI—Compulsory insurance

Here again Ports must keep to resolution number 6 adopted

New Zealand Government Sympathetic with IAPH On the Resolutions Passed at Singapore

With the permission of Mr. R.E. Dawson, Executive Officer of the Harbours Association of New Zealand, this Head Office introduces to the readers, as follow, an interesting memorandum sent to him from Hon. Sir Basil Arthur, Bart, M.P., Minister of Transport of New Zealand, on the IAPH Resolutions No. 6 through No. 9.

The frank response Mr. Dawson received from the Minister is significant in itself as a news reflecting the views held by the government toward the problems IAPH is trying to solve. But significant as much is the fact that the

(Continued on next page bottom)

by the I.A.P.H. Conference in Singapore in March 1975 and insist that the right to limit liability is conditioned by the production of a certificate of insurance or other financial security.

Yours truly,

R. BOEUF
General Manager.

2. Comments from Pakistan (By Mr. M. D'Lima, Secretary, Karachi Port Trust)

Sub:—XXVIII SESSION OF THE I.M.C.O. LEGAL COMMITTEE.

Dear Sir,

I am directed to invite reference to your letter, dated the 28th July, 1975, on the above subject and to forward herewith my comments as desired of Ports & Harbors:

REMOVAL OF WRECKS:

It is the general tendency among the shipowners to abandon the wrecks, in and around the Ports, to the world at large, leaving it to the ports to arrange removal by using means and resources available with them or alternatively engaging some outside agency for removal of the wrecks involving tremendous cost in foreign exchange. Due to very limited resources most of the Ports of the developing countries cannot afford either of the two above alternatives.

It is, therefore, suggested that an International Agency, having adequate funds at its disposal, should be set up to assist the ports in removing the wrecks abandoned by the Shipowners so that the obstructions/impediments in the smooth flow of shipping traffic are cleared in shortest possible time.

OIL POLLUTION:

The Agency may also examine the extent of oil pollution taking place in the harbours of the ports in the developing countries and the damage that is being caused on this account to the hulls of the crafts and installations and provide necessary assistance in the shape of suitable crafts and equipment to deal effectively with this nuisance.

Yours faithfully,

(signed) M. D'Lima

Port congestion surcharges: Policy issues

Mr. A.N. Taylor, Assistant to Mr. John Lunch, Director-General, the Port of London Authority and the IAPH Liaison Officer with UNCTAD, reported to the Head Office on the progress of the port congestion issue now being discussed by international bodies including UNCTAD. In his letter of December 3, 1975, he stressed the needs to draw IAPH members' attention to the problems of port congestion, and advised to carry in this issue an information which deals with why congestion and port congestion surcharges were levied but from the point of view of ports. This significant paper was prepared by the UNCTAD secretariat and was presented to the seventh session of Committee on Shipping of Trade and Development Board of UNCTAD which was convened in Geneva on November 10, 1975 (TD/B/C.4/130). Mr. Taylor emphatically pointed out that the paper made very important recommendations with regard to consultation which necessitating generate

successful approach to the government by him suggests a similar contact in other countries may lead to the same success in creating a new channel of communication between ports and their central administrations for future programs.

Here, we have the full text of the memorandum above mentioned. (MK)

Memorandum

Dear Mr. Dawson,

Date: October 9, 1975

I have now had a report from the Secretary for Transport on the four Resolutions from the International Association of Ports and Harbors March 1975 Conference which you referred to me on 21 August.

The Harbours Association's comments on these resolutions have been noted and the following remarks should assist the Association in understanding Government's present thinking on these matters.

Resolution No. 6—Resolution Relating to Legal Protection of Ports and Navigable Waterways:

While I could not sanction the principle of unlimited liability as proposed by the Resolution I have some sympathy with the motives behind its formulation. I must concede that New Zealand has failed to keep the statutory liability limits at a realistic level and since taking office I have become increasingly aware of the need for revision. The limits set down in Section 460 of the Shipping and Seamen Act 1952 are based on the 1924 International Convention Relating to Limitation of Liability and although efforts were made in 1963 to implement the 1957 Brussels Convention the Government of the day did not pursue the matter following objections from an interested party. For this reason I have taken steps to have the matter reviewed, the first step being the circulation of the 1963 Amendment with a view to its introduction in 1976. At this point of time the question of the limitation limits gives me some cause for concern. The question is to be considered next year by IMCO. If the Amendment based on the 1957 Convention is enacted it will be only an interim measure

the need for consultation between shipping conferences, port authorities and others for the elimination of port congestion problems. (rin)

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pending the outcome of next year's IMCO meeting. In any event I would appreciate your comments on the draft which I have asked the Secretary for Transport to send you a copy of.

As stated above I do not favour a regime of unlimited liability with or without the proviso relating to the availability of insurance. Such a proposal would need to be debated in full in an international forum and I have doubts as to whether it would gain international acceptance.

The question of carriage of evidence of financial responsibility will no doubt be considered at the 1976 IMCO Convention and at this stage I am unable to comment on it other than to say that such a provision has precedent in the Marine Pollution Act 1974.

Resolution No. 7—Resolution Endorsing the Simplification of Documentation for Cargo:

I am pleased to learn of the Harbours Association's support for this resolution although I never doubted it would be forthcoming. Success in this area would clearly be to the advantage of all those involved in the transport of goods and I am sure that the Association will co-operate fully with the officers undertaking this project. Arrangement has been made for regular reports on the progress of SIDAP to be made to the Transport Advisory Council.

Resolution No. 8—Marking of Vessels with Bulbous Bows:

In addition to the IMCO recommendation for identification marks for bulbous bows and bow propulsion units, Government supports a further recommendation for a profile symbol which should be illuminated at night.

Resolution No. 9—Regime of Foreign Vessels in Ports:

I understand that an International Convention is to be held on this subject within the next two years and I have asked the Secretary for Transport to send you copies of all the IMCO documents relating to this matter that have been received by the Ministry.

Yours sincerely,
(signed) BASIL ARTHUR

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Introduction

(i) Port congestion has become a serious problem in maritime transport and the congestion surcharges imposed by liner conferences are a significant part of the freight cost borne by many developing countries. Resolution 6 (III) adopted by the Committee on Shipping at its third session specifically noted the connexion between research designed to improve the productivity of ports and the relief of port congestion "with the consequent avoidance or removal of freight surcharges."¹ The work programme adopted by the Committee includes a section on the study of conference practices and this section concludes with words expressing the desirability of the UNCTAD secretariat dealing with some questions "in more specialized studies".

(ii) The content of the report is based on a detailed study of the application of congestion surcharges which is described in full in another report by the UNCTAD secretariat.² In carrying out this study the secretariat has received information from governments, shippers' representatives, shipping lines, conferences and port authorities all over the world. Special help was received from these bodies in Iran, Kenya, Trinidad and Tobago and the United Republic of Tanzania, in which countries detailed case studies were conducted. The secretariat acknowledges with gratitude the valuable help which made completion of this study possible.

(iii) The information for this study was gathered before July 1974; since then port congestion has become a much more serious phenomenon.³ During 1975 the waiting times of ships in a number of ports have vastly exceeded those obtaining before and during the period in which this study was conducted.

1) See Official Records of the Trade and Development Board, Ninth Session, Supplement No. 3 (TD/B/C.4/55).

2) "Port congestion surcharges" (TD/B/C.4/130/Supp.1).

3) See "Port congestion" (TD/B/C.4/142), and paragraph 15 of this report.

Chapter I

THE CONCEPT

A. What is port congestion?

1. Port congestion arises when more ships or cargo arrive at a port for discharging and loading than the port's resources can cope with efficiently. It results in ships having to wait before being able to proceed to a berth, or in ships having to spend more time than normal being discharged and loaded. In many cases of port congestion, both the above effects can be observed.

2. Because the overall pattern of traffic at a port is irregular, it could not be guaranteed that ships would always be able to proceed to a berth on arrival unless the port provided facilities very much in excess of those required most of the time. Berth utilization would be low and this would prove an uneconomic proposition for the port authority. This logic is generally recognized by both port authorities and shipowners and the latter recognize that even in the most efficient ports there will be times when ships will have to wait, possibly a few days, before being able to proceed to a berth. Thus a situation where an occasional ship has to wait a day or two would not be labelled port congestion.

3. Port congestion is normally thought of as ship congestion, a situation where there are more ships in the port than can be discharged or loaded simultaneously and there are always ships waiting for a berth. However, there can also be cargo congestion—a situation where the storage areas of the port are so cluttered with cargo that there is no longer any space to deposit more import or export cargo. This leads to reduced cargo handling productivity, which increases the length of time ships spend being discharged or loaded. Such a phenomenon can occur in ports where ships rarely have to wait to get on to a berth but it is just as serious as ship congestion. There is little to choose economically between a situation where a ship is able to berth immediately but takes 14 days to discharge its cargo and one where a ship has to wait seven days for a berth but discharges its cargo in a further seven days.

B. How does port congestion arise?

4. Congestion in a port results from an inadequacy of port capacity relative to the traffic demands. This is generally caused in the first place by a traffic rise or a fall in port capacity, but there can be many underlying factors. Not all such factors are under the control of the port management and action to avert congestion might need to be taken by other parties.

5. The main parties with power to influence port congestion are:

- The port, including all organizations operating wholly within the port, such as stevedores and customs inspectors;
- The shipowners, or other organizations responsible for shipping services and ship requirements in port;
- Shippers, who send and receive cargo through the port;
- The government.

6. Some of the more important influences on port congestion are listed below, segregated according to controlling party.

(a) The port

(i) Inadequate planning of resource requirements, leading to short supply of facilities, such as berths, sheds, mobile equipment and labour.

(ii) Poor productivity in the use of facilities, due to lack of control, co-ordination or maintenance.

(b) Shipowners

(i) Overtonnaging—calling at the port too frequently, for low tonnages which can be handled less efficiently than large tonnages.

(ii) Poor stowage, requiring much sorting during discharge or permitting only one or two hatches to be worked simultaneously.

(iii) Inadequate vessels causing low gang productivity or frequent stoppages—for instance not having automatic hatch covers in a climate liable to brief, heavy storms.

(iv) Insufficient use of overtime and other working methods which may call for higher expenditure but bring about better berth utilization.

(v) Late presentation of information which hinders efficient planning of port operations.

(c) Shippers

(i) Late presentation and collection of cargo, leading to poor co-ordination of loading and cluttered storage areas.

(ii) Stipulation of handling methods which limit productivity, such as direct discharge to rail wagon even if this is time consuming.

(iii) Inappropriate packaging and insisting on sorting to marks and any form of presentation of cargo which leads to low productivity.

(d) Government

(i) Insufficient priority to port organization in national planning.

(ii) Sharp variations in trade policies.

(iii) Inadequate co-ordination of the national transport network such that cargo cannot be removed from and delivered to the port at a fast enough rate.

(iv) Stipulation of procedures which prevent speedy removal of import cargo or timely delivery of export cargo at the port.

C. What is a congestion surcharge?

7. Port congestion, in either of its forms, leads to ships having to spend more time in port than necessary. This additional ships' time represents an additional cost to the shipowner. A port congestion surcharge is a specific charge on cargo carried to or from the port, with which a shipping line endeavours to recoup from the shippers the additional costs it has borne due to congestion. It is analogous to demurrage payments provided for in charter parties.

8. If the shipping line is a member of a conference, the levying of a congestion surcharge is always a conference decision. When a conference decides that a port is sufficiently congested to warrant a surcharge, it is announced that a surcharge will be levied on all cargo to or from the port, sometimes both, at a stated level. The surcharge is paid by the shipper and is usually expressed as a percentage of basic freight but is occasionally a fixed rate per ton.

D. What is the objective of a surcharge?

9. In applying a congestion surcharge, a shipping line may have more than one objective. The principal objective is to recoup additional costs resulting from congestion in a port. Three results may be expected to follow from the use of a congestion surcharge rather than a general rate increase:

(a) Shipping lines receive prompt compensation for additional costs incurred due to congestion;

(b) Attention is drawn to the congestion situation and other parties are given an incentive to create an

improvement;

(c) The localized costs of congestion in one port do not affect the freight rates at other ports in the range.

Chapter II

PRESENT PRACTICES

A. How widespread are congestion surcharges?

10. Congestion surcharges have occurred for many years but their incidence has been growing steadily. The average number of congestion surcharges announced⁴⁾ per year in the 1950's was 10, in the 1960's 25 and in the early 1970's 100; in 1974 there were 300 announcements.

11. There has always been a disproportionate distribution of congestion surcharges worldwide. Between 1950 and 1970, 75 per cent of all congestion surcharges were in two world zones, namely, the Caribbean, Central and South America, and the Eastern Mediterranean, Red Sea and Persian Gulf—with a roughly equal split between them. More than half the remainder were in Africa, leaving Asia, Europe and North America with relatively few. Since 1970 the regional concentration has become even more pronounced and two thirds of all congestion surcharges have been in the Eastern Mediterranean, Red Sea and Persian Gulf ports.

12. Because the revenue from a surcharge depends on many factors—such as the level and period of surcharge, the quantity of cargo affected and the normal level of freight rates—it is more difficult to identify the financial significance of surcharges than to count the frequencies. However, for the year of 1974 alone the secretariat has estimated that revenue from congestion surcharges amounted to \$200 million⁵⁾, of which perhaps \$120 million related to ports in the Eastern Mediterranean, Red Sea and Persian Gulf.

4) As published in *Journal de la Marine Marchande* and *Journal pour le Transport International*.

5) Since congestion surcharges are applied only in the liner trades, this is not the total cost of port congestion.

B. When is a surcharge introduced and adjusted?

13. There are no rules, guidelines or customs with regard to when a surcharge is introduced; each decision is taken independently by the conference involved. Certainly the extent of ship delay experienced in the port is a key factor but this may be considered in more than one way. The more important measures of port performance from the point of view of the conferences are average time ships wait for a berth and average time ships spend in port, waiting and working, for a given tonnage of cargo to be worked. The first of these is more commonly quoted as its significance is not dependent on the tonnage of cargo worked. When either measure rises to an unacceptable level a surcharge may be introduced. However, even in a single port different conferences do not implement congestion surcharges at the same time and under the same conditions. Thus it is not possible to predict when a surcharge will be introduced on the basis of port performance alone.

14. No more precise guide can be given regarding when surcharges may be introduced than that they are generally only introduced when ship waiting time rises to a significantly higher level than it has been in the recent past. Published information for the first half of 1974 suggests that average waiting time just before a congestion surcharge

was introduced was 7 days per ship, but varying between ports from 2 to 13 days.⁶⁾ The reliability of this data cannot be checked, but it is clear that large variations exist between the conditions under which different congestion surcharges have been imposed. Eleven cases of congestion surcharges imposed between 1971 and 1973 were examined in detail by the UNCTAD secretariat. The average waiting time when surcharges were introduced was 4 days per ship, with a range from 1 to 7 days in the different cases.

15. On 1 July 1974, the sources used showed that 40 ports were subject to congestion surcharges. Waiting times were reported⁷⁾ for a number of these ports, and the overall average was 5.4 days per ship. In the 11 cases examined in detail by the secretariat, the average waiting times over the entire surcharge period ranged from 1 to 6 days per ship. These figures, covering a few selected surcharges over their whole duration and a cross section of surcharges at one moment of time, suggest that waiting times of 10 days or less are typical of conditions in a surcharged port.⁸⁾

16. For many conferences, the initial introduction of a congestion surcharge is not a routine step. There are several reasons for this. Variations in port performance take place continuously and recognition of significant changes in performance that would warrant a surcharge involves judgement and conference members may have divergent opinions which need to be reconciled. The introduction of a surcharge gives rise to questions of shipper and government opposition and possibly loss of cargo to competitive services, which need to be assessed. Further, in some trades national legislation may require special steps to be taken. Once a surcharge has been imposed, the procedure for an increase appears to be more routine and increases of surcharge often follow quickly one upon another as delays to ships increase.

17. When there are reductions in delays, reductions in surcharges do not usually follow so quickly. Reduction or cancellation of surcharges are often only made following requests or protests from shippers or port authorities after conditions have improved for some time. Sometimes also withdrawal of a congestion surcharge takes the form of suspension rather than a cancellation, the significance of which is that it can be reintroduced at any time just as an increase would be introduced, rather than as a new surcharge.

6) Ship waiting times given in BIMCO Weekly Circular just before surcharges were implemented.

7) Waiting times reported in BIMCO Weekly Circular of June or July 1974.

8) During 1975 conditions have changed dramatically. Whereas in previous years there was rarely more than one port with reported waiting times in excess of 20 days, during the first six months of 1975 there were at least 10 ports subject to such reports.

C. How are congestion surcharges announced?

18. The decision to introduce or change a congestion surcharge is made by the conference members. Once the decision has been made it is normal practice for the conference to announce this to shippers by circular or press notice. However, in some cases shippers may not learn of the surcharge until after its introduction. Further, the conference secretariat may inform the port directly by cable or may ask the local agent to keep the port informed. However, the port authority is not always informed directly, so details of a surcharge may only come to the

attention of the port executive through the press or in casual personal contacts.

19. There is no obligation on conferences to give advance warning of congestion surcharges, but many conferences say that 14-20 days should elapse between notice of a surcharge and its application. This is consistent with the Guidelines on Port Congestion drawn up in 1965 by the Committee of European National Shipowners' Association and the European Shippers' Council. The significance of a warning period is limited since the warnings may not be received by all interested parties; the Guidelines do not say who should be told. The short notice period contrasts with a period of 60-90 days which normally elapses between the announcement and application of a general freight increase.⁹⁾

D. How is surcharge revenue related to costs?

20. The most important element of congestion costs for the shipping lines is extra ship time in port, although the costs may manifest themselves through disrupted schedules or a need to charter additional tonnage. Different shipping lines have different experience of waiting at a port so the costs of congestion vary from shipping line to shipping line. Since the cargo carried also varies between different lines, the revenue from a surcharge also varies between lines.

21. A number of congestion surcharge situations were examined by the UNCTAD secretariat and detailed estimates were made of the surcharge revenue received by the conferences and the costs of additional ships' time in port as a result of congestion.¹⁰⁾ The estimates indicate that when a surcharge is introduced, its level is generally not excessive with regard to costs which have already been incurred and those which might be anticipated. As congestion declines, however, the surcharges tend to remain in force at a level appropriate for an earlier period and a surplus of revenue over costs develops. The way in which this can happen is shown graphically in figure 1.

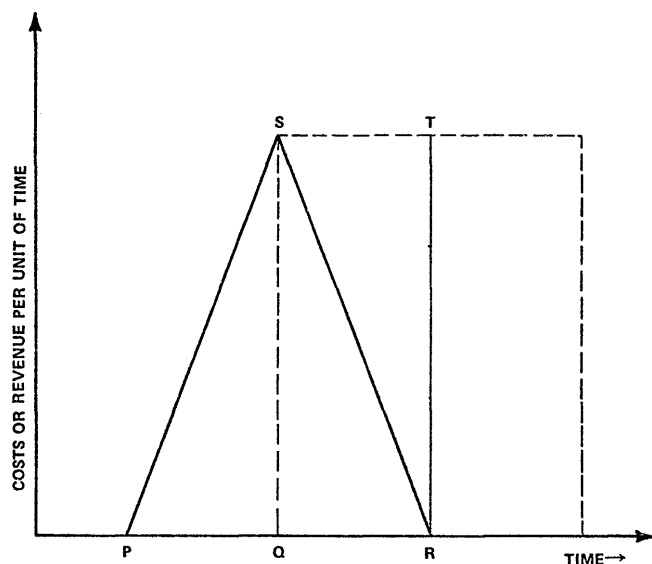
22. Figure 1 refers to a very simple situation in which congestion increases and decreases uniformly. Congestion is shown as starting to increase from time P and reaching its peak at time Q. This is shown by the solid rising line. At time Q, when congestion is at its height, the conference concerned, following what appears to be normal practice, imposes a surcharge from which the revenue just equals the costs due to congestion. Thereafter, in this simple situation, the surcharge continues at its original level, indicated by the dotted line, but the congestion declines. The rate of decline is shown as the same as the rate increase, so that by time R the congestion has disappeared. During the period PQ the conference obviously incurred unrecouped additional costs, equal to the area of the triangle PQS. During the period QR the conference covers its additional costs and recoups the losses from the period PQ (the area of the triangle SRT equals the area of the triangle PQS). Thereafter for as long as the surcharge continues in force, the conference enjoys a surplus of revenue over costs. In less simple cases, where there are irregular variations in congestion and changes of surcharge, the cost-revenue relationship would not be so direct; nevertheless the principal features would be the same.

9) See: *The Liner Conference System*, United Nations publication sales No. E.70.II.D.9.

10) Details of these cases can be found in a supporting document (TD/B/C.4/130/Supp.1).

Figure 1

ILLUSTRATIVE RELATIONSHIP BETWEEN ADDITIONAL COSTS AND REVENUE OVER A CONGESTION PERIOD



23. Of 11 cases of congestion surcharges examined in great detail, the secretariat found that in 8 the surcharge revenue exceeded the additional costs. The ratios of revenue to costs were 1.1, 1.4, 1.6, 1.6, 1.9, 2.0, 3.3, and 4.0. In 3 cases revenues did not exceed additional costs, the ratios being 0.5 and 0.5 and 0.8. The very range of these figures demonstrates that no precise relationship exists between the surcharge level and congestion costs. While not all shipping lines benefit financially from congestion, it does appear that surcharge receipts are generally appreciably higher than the extra costs involved. It is largely due to the fact that surcharges are lifted too slowly that the revenue derived from them exceeds the costs involved.

24. The highest ratio of revenue to costs found was 4.0; this seems to indicate that this congestion surcharge was quite profitable for the lines concerned. In fact the two highest ratios were both recorded for the same conference, but at different ports. The main factor accounting for the exceptionally high ratios is that the surcharges were left in force for very much longer than any other surcharges at the same ports. Indeed, although the conference concerned had given assurances that the surcharges would be lifted automatically as soon as possible, they were only lifted after strong protests had been made—initially by shippers. A few months after both these surcharges were lifted, different charges were introduced on all traffic to both ports. These charges were levied in addition to the standard freight charges and yielded a revenue of the same order of magnitude as the congestion surcharges. The conferences explained that the additional charges were necessary because the costs of serving the ports were not being covered. It seems likely that in these cases the congestion surcharges were supplying revenue required by the conference lines for reasons other than congestion.

25. The conclusion that conferences tend to over-recoup the additional costs incurred through congestion may relate only to a situation in which congestion is not extreme, for example where waiting times are less than 21 days. If congestion reaches extreme levels, especially with waiting times of 60 days or more, it is very doubtful indeed whether the conclusion still applies.

E. Does a surcharge achieve its objectives?

26. Three principal results might be expected to follow the application of a congestion surcharge; these were listed in section D of chapter I. Each is considered in turn below.

1. Prompt compensation to the shipping lines for additional costs

27. It does seem generally that adequate compensation (indeed more than adequate in many cases) is provided for the additional costs incurred by conference members as a whole. However, in view of considerable differences between the performance of different lines, especially the tonnages carried to and from particular ports, it could be that some individual lines receive less compensation than the conference as a whole while other lines achieve more. However, this need not be true when congestion is extreme. 28. Since congestion surcharges are introduced at short notice the compensation is generated more quickly than could be expected from a general freight increase.

2. Drawing attention to the congestion and creating an incentive for improvement

29. Local press comment often follows the imposition of a surcharge. Where this comment appears it gives publicity to the situation, but its effect is limited because:

(a) Any publicity concerns the introduction of the surcharge and not directly the congestion, so it is short-lived;

(b) Comment, especially in developing countries, tends to focus on the conference decision, to the extent that details of the congestion may be ignored.

For these reasons, public attention is drawn to the congestion only to a limited extent.

30. An incentive for improvement is sometimes created but is rarely a strong one. It is shippers who pay the surcharge but they cannot be influenced to reduce congestion independently. Port authorities can be influenced but the lack of formal notification and the fact that surcharges provide no financial incentive to port authorities to act reduces the potential incentive effect of surcharges.

31. Governments do seem to be concerned, once informed, by the imposition of congestion surcharges. In the short term, the government can intervene to improve the flow of cargo in and out of the port, by such measures as providing additional transport means and ordering that unclaimed cargo should be confiscated, and can directly encourage the port management to improve port performance, and so resolve congestion. In the long run, the government can ensure high priority for investment and legislation which influence port efficiency. It is not possible to say, however, whether these results are actually achieved by the incentive effect of surcharges.

3. Avoiding localised costs of congestion affecting freight rates at other ports

32. The spreading of congestion costs over shippers using other ports is generally avoided where congestion surcharges are levied. However, to the extent that surcharge revenue is excessive, the evolution of general freight rates must be affected unless shipping lines take the surplus surcharge revenue as increased profits. The fact that congestion surcharges are introduced at various levels of ship waiting implies that sometimes localised costs are covered to a greater extent than at other times by basic freight rates. Thus the existence of a congestion surcharge

mechanism offers no guarantee to shippers at a port that they will not be affected by congestion costs arising at other ports.

Chapter III

CRITIQUE OF THE CONGESTION SURCHARGE MECHANISM

A. Why congestion surcharges?

33. If congestion arose and congestion surcharges could not be applied, the immediate consequence would be that shipping lines would be forced to absorb increased costs. Subsequently, lines could:

- (a) Tolerate this, ¹¹ or
- (b) Increase overall freight rates to cover the additional costs.

For lines to be able to tolerate the increased costs without taking action to reduce costs or raise revenue would imply that overall freight levels were providing more than a minimum acceptable revenue. In fact, this state of affairs may exist already at ports where there is frequent ship waiting but congestion surcharges are not imposed. At some increased level of congestion the minimum acceptable revenue would have to be higher and if a surcharge could not be applied a general freight rate increase would be enforced.

34. Since congestion is said to exist only when the first option is not acceptable to shipping lines, surcharges are applied as a whole or partial alternative to resolving the congestion or raising general freight rates.

11) While tolerating the existing level of extra costs, they might take action to reduce congestion, either independently or in concert with the other parties concerned in port operations.

B. Advantages of surcharges

35. (a) In the face of an exceptional situation, a surcharge, being temporary in nature, allows trading to continue without fundamental adjustments which could prove unnecessary in the long term. It is easily withdrawn.

(b) The charge levied because of increased costs due to congestion is concentrated on traffic through the congested ports. Thus shippers through other ports do not have to bear the costs which are unrelated to their own trade.

(c) The congestion situation may become more widely appreciated so greater attention may be given to its solution.

(d) National trade is subjected to a direct financial penalty which is frequently of concern at governmental level and provides an incentive for the introduction of measures to reduce congestion.

(e) The shipowner is able to obtain compensation for extra costs at very short notice.

C. Disadvantages of surcharges

36. (a) There can be no direct link between surcharge revenue and congestion costs for individual ships. Thus some lines may profit from congestion and others lose while a surcharge is in force.

(b) A surcharge from which the revenue more than covers the full costs of congestion to the shipowner removes any incentive for the shipowner to take constructive measures to reduce congestion.

(c) A congestion surcharge may have little or no impact

on the port, which is subjected to no financial penalty unless traffic is lost. Even this need not necessarily cause concern to a port management whose problems would be diminished with less traffic. In practice the cessation of a traffic as a result of surcharges would be almost impossible to perceive and diversion of traffic to neighbouring ports cannot occur easily in developing countries, where surcharges are most often applied. Diversion is largely prevented by lack of alternative ports within a single country, difficulties of documentation for crossing national boundaries and generally restricted overland transport facilities.

(d) Surcharges are imposed after a deterioration of performance and can provide incentives only for a redressment of this performance. There is no incentive for further improvements and no incentive for improvements at ports where long term performance is worse than at neighbouring ports.

(e) Shippers may have to pay out higher freight costs at very short notice, without being able to recover these costs in terms of higher prices.

D. Factors which may influence the introduction of a surcharge

37. As indicated earlier, the level of ship delays at which congestion surcharges are imposed varies enormously. There are several factors which may influence the decision to introduce a surcharge at a particular time, including the immediate cause of congestion, action of other conferences, and the need for additional revenue.

38. Limited delays with definite causes, such as a strike of short duration or exceptionally bad weather, usually do not give rise to a surcharge. The likelihood that congestion will continue into the future has an important bearing on expected total costs for the shipping lines and should be an important consideration in determining whether a surcharge will be introduced. For this reason, local reports to conference headquarters may influence the conference decision. The port authority ought to know from where such reports emanate and ensure that pertinent facts are included in the reports.

39. It is noticeable that different conferences frequently impose the same level of surcharge, expressed as a percentage of basic freight rates, in the same congestion situation. But different conferences serve different trades routes, on which freight rates, quantity and nature of cargo, and perhaps type of ship, would all be different, so their revenue from a fixed surcharge, and probably their costs, would be different. Considering this, it is unlikely that similar surcharges would be imposed so often as a result of independent decisions. This suggests that the chosen level is influenced by a notion of acceptability.

40. Not all conferences impose surcharges at times of congestion. There is an implication in this that the need for additional revenue may be greater for some conferences than others. This could be because some conferences have a lower ratio of freight revenue to costs than other conferences, perhaps as a result of the competitive situation in the trade concerned, or as a matter of policy, or due to chance movements in other costs and revenue. In the competitive situation a surcharge may not risk the loss of traffic which a general freight increase would do. In the case of cost and revenue changes, whatever the reason, the fact that congestion surcharges can be imposed at much shorter notice than general freight increases may have a significant bearing on the decision to impose them.

E. Importance of avoiding congestion

41. Levels of congestion surcharge vary from 5 to 200 per cent of normal freight rates, but are rarely less than 10 per cent. The average level of surcharge applied in 1974 was about 25 per cent, roughly equivalent to \$15 per ton of cargo affected. The costs of congestion to shippers are not limited to these surcharges, delays to cargo as a result of delayed or cancelled sailings are also costly and loss or damage of merchandise can increase if storage areas and quays are congested. So the average extra costs to shippers arising in a typical congestion surcharge situation are above \$15 per ton of cargo surcharged.

42. Changes which will reduce congestion can generally be made at the port, even though some causes of congestion are outside port control. Congestion surcharges are applied most commonly at ports of developing countries so it is on these countries that the costs of port improvements would fall. However, in these countries there is a strong tendency for maritime transport costs to be borne by national shippers¹²⁾ so that the surcharges on these ports are normally borne by the national trade and savings made through avoiding surcharges would accrue to national interests.

43. The elimination of congestion once it has developed is very much more difficult than avoiding it in the first place. Congestion generally occurs when port facilities, especially berths, are highly utilized in the long-term. Slight perturbations in operations or increases in traffic can then have a serious impact. If port capacity can be expanded so that on average there is modest spare capacity, for example 20 per cent, average waiting times should fall dramatically and the chances of congestion developing virtually disappear.

44. The cost of achieving a modest expansion of port capacity need not be great. Typical costs for the transit of break bulk general cargo through a port in a developing country, including all capital costs, range from \$5 to \$15. An increase in port capacity, obtained by an equal and proportionate physical expansion of all port facilities, need not increase these costs by more than the corresponding percentage. A 20 per cent increase in capacity should not, therefore, increase costs by more than \$3 per ton. It could thus be expected that in many ports an additional cost of less than \$3 per ton would avoid the possibility of surcharges amounting to \$15 per ton.

45. In practice, operational changes can be adopted to create additional port capacity in the relatively short term and at much less cost than total port expansion.¹³⁾ There are many possible changes to expedite working, which have a certain cost or inconvenience but whose costs endure only as long as the measures are enforced. Any port liable to congestion could draw up a list of temporary measures of this type to be introduced whenever there was a prospect of congestion. Possible measures might be: ordering ships working two or less hatches to work at moorings only; banning direct discharge from ship to truck; introducing 24-hour customs inspection.

12) See, for example, the argument in *Freight Markets and the Level and Structure of Freight Rates*, (United Nations publication, Sales No. E69.II.D.13).

13) Methods of increasing port capacity are discussed in: *Berth Throughput—Systematic Methods of Improving General Cargo Operations* (United Nations publication, Sales No. E.74.II.D.1).

F. The importance of consultation

46. A port authority needs to be informed directly of the imposition of a surcharge—otherwise no reaction will be forthcoming at the port. If the existence of a surcharge becomes known at the port only indirectly it may easily be ignored but if the problems caused by congestion have been discussed between those affected and the port authority, they cannot go unheeded.

47. It is important for two reasons that there should be consultation between the port authority and the parties affected by congestion. First—since the port authority is not financially affected by a congestion surcharge—to encourage action by the port. Secondly, to determine the potential of each party other than the port authority to contribute to the reduction of congestion, which requires understanding between the port and that party.

48. Shippers are not generally concerned with the day-to-day operational efficiency of ports or ships. The shippers hear about port conditions only when congestion has developed; they cannot be expected to initiate discussions about deteriorating conditions. In many trades, importers and exporters are not organized together and may even be situated abroad without mutual contact or knowledge of the port. In such circumstances, even after the pronouncement of congestion, neither consultations nor pressure are likely to be initiated by the shippers. The shipowner, however, has first hand experience of ships having to wait and is best able to engage in consultations at the port, even when congestion does not exist but can be foreseen. With consultations in progress the port authority can learn what level of port performance is considered tolerable by the shipping lines and what level necessitates additional charges. This level itself is unknown at most ports, which is a cause of considerable ill-feeling on the part of port managers. When congestion has never been precisely defined, the imposition of a surcharge often appears arbitrary and this discourages constructive response.

49. Where surcharges are imposed by conferences without prior consultation with port and shipper interests, they will have much less effect in eliminating congestion than when a congestion situation is foreseen and timely consultations, perhaps held under the threat of a surcharge, are held. The threat of a surcharge may be helpful to the port authority in providing solid argument for special government assistance if necessary. The consultations will permit identification of the contributions that all parties can make to reduce congestion.

50. Consultations about surcharges are dealt with in the United Nations Convention on a Code of Conduct for Liner Conferences.¹⁴⁾ However, the position of port authorities in the consultations is not specified. The relevant clauses can be summarized as follows:

(a) There should be consultations between conferences and shippers' representatives, if so requested, on the imposition and changing of surcharges. Other parties affected should be entitled to participate;

(b) Prior to consultation, conferences should present data justifying the surcharge;

(c) At the moment of imposition, conditions for an increase, reduction or cancellation should be indicated.

It is shortcomings in precisely these areas that at present cause so much concern in the ports and even jeopardize constructive action.

G. The need for information

51. Conferences say surcharges are imposed because of congestion in the port, but congestion is not defined in specific terms. Whether the surcharge is adequate depends on the costs incurred and revenue received by individual lines—data which could be available only to conference members. Often port management cannot even say whether a surcharge might be justified, because the basis for the cost calculation is unknown and reliable data about port performance on a conference basis is not kept.

52. The port manager needs to know what constitutes satisfactory performance; he needs to be able to measure service to ships on this basis and continually calculate the performance of vessels of different conferences. This is vital information for protecting the shippers from unwarranted surcharges, but is also valuable for general control of port efficiency since it is desirable to recognize the problems of particular trades and resolve them in co-operation with the lines concerned.

53. To monitor congestion, the minimum information which should be recorded at the port for each visiting ship is: conference; route being followed; type and size of ship; waiting time and service time; tonnage of cargo loaded and discharged.¹⁵ Since the data may be used in communications with outside organizations, including the conferences, care must be taken that a widely meaningful definition is adopted for each item and that the data are recorded accurately.

54. More generally, surcharges need to be assessed in relation to their size and the adequacy of existing shipping services. This requires knowledge of tonnages carried and revenue generated by conference vessel visits to the port; it requires study of such factors as the frequency of conference vessel visits in relation to shippers' requirements and the adequacy of tonnage available. These matters are beyond the scope of the port manager, but have an important bearing on congestion surcharges and related consultations.

14) See: United Nations Conference of Plenipotentiaries on a Code of Conduct for Liner Conferences. Final Act and Annexes. (TD/CODE/13, Vol. II, United Nations publication, Sales No. E.75.II.D.12) articles 11 and 16 of the Convention.

15) This information is also required for other purposes. See for example the UNCTAD secretariat reports Port Statistics (United Nations publication, Sales No. E.72.II.D.1) and "Port Performance Indicators" (TD/B/C.4/131 and Supp.1).

H. Slow removal of congestion surcharges

55. A basic reason why the revenue which shipowners derive from congestion surcharges usually exceeds the additional costs involved is that the surcharges remain in force longer than necessary. This can happen simply because no party other than the conference members is fully aware of the prevailing situation: shippers may know that a surcharge is being paid but not that congestion has passed; port management knows that congestion has passed but may not know that a surcharge is still in force. The conference which imposed the surcharge, however, has access to all relevant information. There is nothing to prevent the conference from reducing the surcharge in accordance with improvements at the port and cancelling it when congestion has finally disappeared, as is required in

the Convention on a Code of Conduct for Liner Conferences.¹⁶

56. So long as conferences do not reduce and cancel surcharges promptly, it is important that some national body takes the responsibility of continuously recording the existing surcharges and the level of congestion in the port. The objective would be to demand a reduction of the surcharge as soon as evidence exists that ship turn-round has improved. In the absence of a shippers' organization, the responsible body could be the port authority; it could equally be the Shippers' Investigation Unit discussed further on in paragraph 59.

57. The knowledge that surcharges are often removed only reluctantly contributes to a lack of trust by port management in the good faith of conferences. This in turn discourages initiative to resolve congestion because the link between congestion and surcharges is thrown into doubt. Thus quick removal of congestion surcharges in response to port improvements would encourage port authorities to respond positively to congestion surcharges.

16) See article 16 of the Convention.

I. Are decisions to surcharge taken objectively?

58. When conference members decide to enforce a congestion surcharge, full details of the supporting argument are never published. The question therefore exists as to whether any detailed supporting case is ever prepared. If it is not, it is doubtful whether the conference decision can be objective. Several arguments suggest this may be the case:-

(a) Since few, if any, shippers' organizations would have adequate information with which to refute a conference claim, there is no reason for the conference to prepare detailed support for the claim.

(b) Conference members each have a different experience of waiting and of revenue collection from port visits. Thus each member will have different surcharge needs to cover costs. Conference members may not wish to reveal their costs and revenue to one another and whilst a surcharge level agreed upon by conference members would be a compromise between different requirements, there is no reason why this should represent a balance of costs and revenue.

(c) Shipowners say that the cost of congestion has many elements, some of which are quite unquantifiable. In this case the lines may refrain from trying to calculate any costs. In any case, fears of retaliation or competition in the trade may diminish the importance to lines of accurately balancing costs and revenue expectations.

(d) Different conferences serving a port will frequently impose identical surcharges. Since their cost and revenue expectations must differ enormously, given the different ships used and routes served, the extent to which costs are covered will vary greatly.

If the decisions are not taken objectively can hardly be surprising that congestion surcharges are frequently labelled arbitrary and fail to generate the urgent action which congestion requires.

59. It would help to prevent arbitrary conference decisions if an organization took responsibility for protecting the national interest with regard to port congestion and surcharges. The responsible organization would best be a shipping investigation unit as described in another report by the UNCTAD secretariat.¹⁷ In this case, all aspects of shipping services with a bearing on congestion could also be

analysed and brought up in negotiations with the different parties involved.

17) See: "Protection of Shipper Interests" (TD/B/C.4/127 and Supp.1 and Supp.3).

J. Despatch discounts

60. As mentioned earlier, one of the objectives of congestion surcharges is that costs associated with congestion in one port should not affect freight rates to and from other ports in the range. Thus congestion surcharges are a step—albeit a small one—away from the general practice of averaging of freight rates over a range of ports and towards a freight rate structure which reflects differences in costs between different ports.

61. The major disadvantage of the averaging of rates is that it provides no incentive for a port to be really efficient and to turn round ships as expeditiously as possible, since the benefits from so doing would either rest with shipowners or, in the event that this delayed a freight rate increase, be shared with all other ports in the range. Unless some of the benefits from port improvements can be seen to accrue to the country investing in such improvements, governments are likely to be reluctant to make scarce funds available for this purpose.

62. Surcharges can act—although in practice such action is rarely efficient—as a spur to curing port congestion. However, liner conferences offer no inducement for a port to turn ships around at a rate faster than that which will just avoid a congestion surcharge; there is absolutely no incentive at present for a port to be really efficient.

63. One way in which this situation could be remedied would be to end the averaging of rates. An alternative, which would avoid the complications of having freight rate tariffs constructed on a port-to-port basis, would be for shipping companies to offer discounts or bonuses for quick turn-round. This would enable governments to include savings in ship turn-round times as benefits to them in considering port investment plans. This idea is not new and it is normal in charter parties for charterers to be offered despatch money as an incentive for quick turn-round of ships in ports. However, it is virtually unheard of in liner shipping. If some or all of the discount were fed to the port authority, it would also provide a direct incentive for the port authority to increase efficiency.

64. Port congestion is one of the most serious problems affecting the efficiency of maritime transport and has never been so great as it is today.¹⁸⁾ The extension of the principle of despatch money to liner shipping could well prove the most significant single action which any party could take to improve the overall efficiency of port operation. Further, the whole practice of congestion surcharges would be rendered more palatable, while the surcharges themselves would be more effective as a result of opening up the possibility for discounts for quick despatch.

18) See: "Port Congestion", a report by the UNCTAD secretariat (TD/B/C.4/142).

Chapter IV

CONCLUSIONS AND RECOMMENDATIONS

65. Congestion surcharges are a rather blunt instrument for resolving the problems posed by congestion in ports. Nevertheless, in the absence of a liner freight rate structure which reflects differences in costs between different ports,

they are a small step in the direction of more rational freight charges.

66. Given that the use of congestion surcharges has sufficient utility to justify the retention of the practice, the following recommendations would be likely to improve their effectiveness and prevent abuses:-

(a) The port authority should be informed what, in the opinion of the liner conference, constitutes congestion warranting a surcharge;

(b) Once this level of congestion is being approached, liner conferences should demonstrate this by presenting data to port authorities, and shippers' organizations where they exist, and should indicate that the situation might soon warrant the imposition of a surcharge. At this time, consultations should be held between conference representatives, shippers, the port authority and the Government, if it wishes to participate, to determine the contribution which each party could make to the alleviation of the congestion and thus to the avoidance of the need for a surcharge;

(c) If the situation does not improve, the congestion surcharge which is imposed should be no higher than necessary to cover the extra costs of ships' time in port due to congestion;

(d) On imposing the surcharge, conditions for its increase, reduction or cancellation should be indicated;

(e) The surcharge should be reduced as quickly as improvements warrant and removed as soon as conditions return to normal; and

(f) In the event that congestion becomes chronic, the surcharge should remain in force rather than being subsequently incorporated in a general freight rate increase.

67. The question of despatch discounts in liner trades could not be fully covered in this report. The Committee may consider that the idea is one which merits further study by the secretariat.

Cardiff breakthrough in Far East trade

By Gerald Farmer
British Transport Docks Board

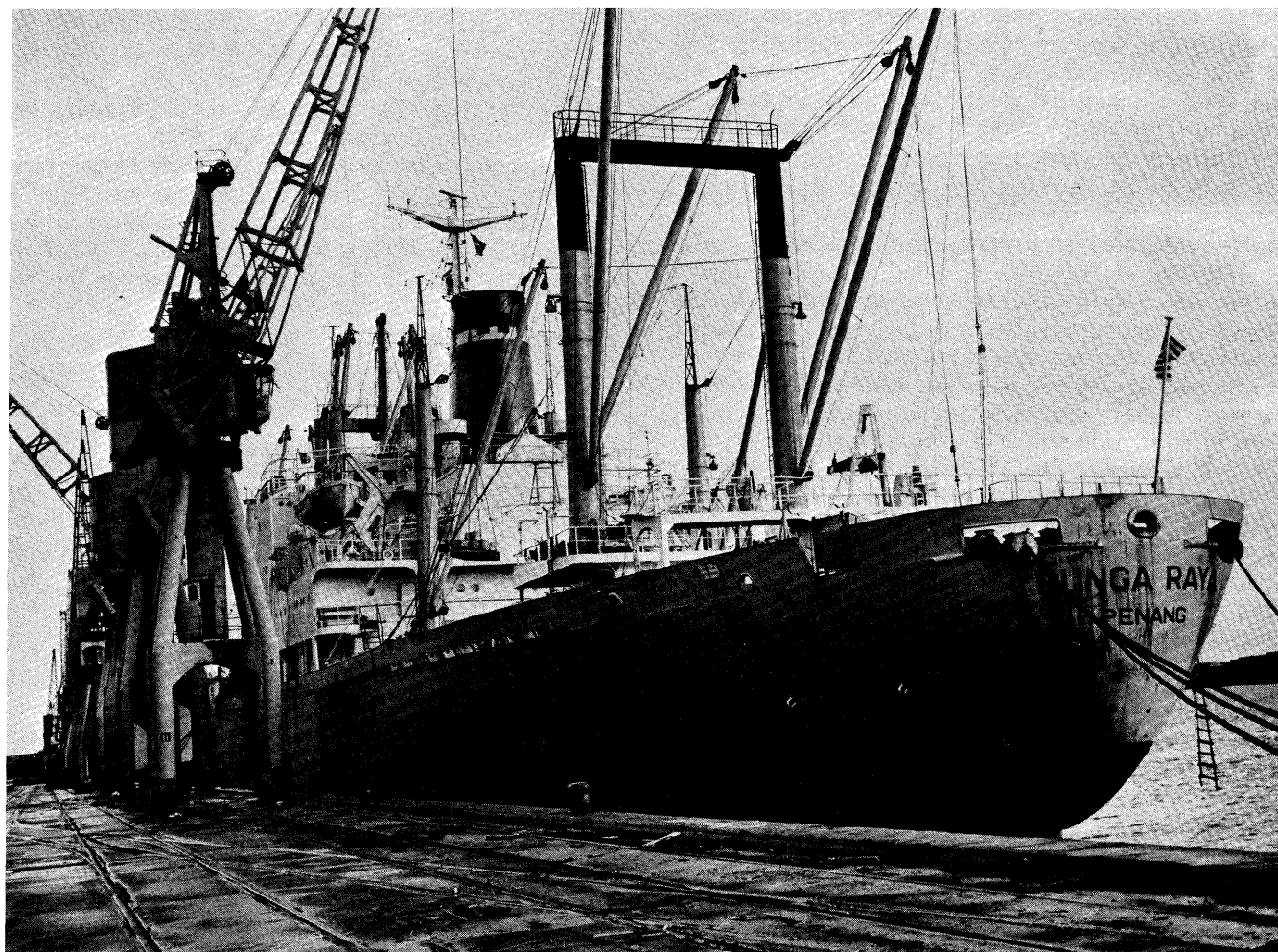
London, 17 November, 1975:—When the Far Eastern Freight Conference made known its decision earlier this year that no surcharges at all would apply to cargoes from a large area of the Far East imported into the UK through the port of Cardiff, this was fairly regarded by officials of the British Transport Docks Board in South Wales as a just recognition of the port's performance since it began handling substantial amounts of Far East traffic two years ago. It was also seen as an important breakthrough in their efforts to establish Cardiff as a leading contender for the non-containerised sector of the Far East trade.

Even with a major operation like Trio Lines' 17-vessel container service based at Southampton, there still remains a substantial conventional trade with the Far East as the prize for the port which can give the required standard of

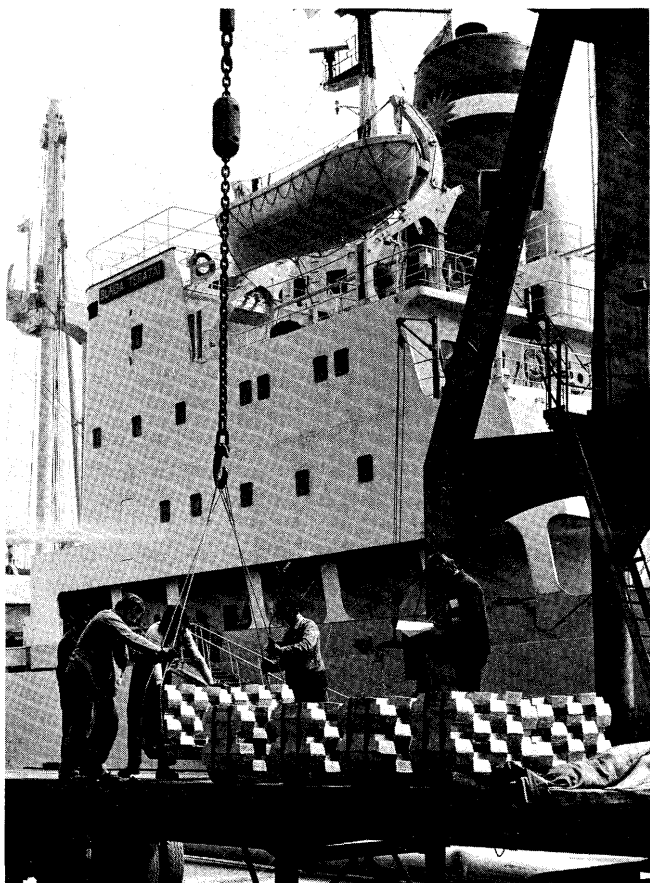
service, and already this has meant well over 100,000 tonnes of new business a year for the Welsh port.

At present Cardiff is served by two ships a month of the Malaysian International Shipping Corporation, sailing from the Straits ports, East Malaysia, Bangkok, Hong Kong, and Japan, and including a Panama service with a 28-day transit time direct to Cardiff from Japan. There is also a monthly service operated by the Retla Steamship Company. Both companies have been accommodated at the large deep-water Queen Alexandra Dock, where labour and berths can normally be made available without delay.

MISC vessels such as the Bunga Raya (14,687 tons deadweight), Bunga Teratai, Bunga Tanjung, and others of comparable size, bring mixed cargoes of timber, plywood and general goods—usually of about 2,500 tonnes in all. Berthing on the north side of the dock, either at an open berth for timber discharge or alongside a shed for the piece goods, they provide employment for about 50 men over a



Malaysian International Shipping Corporation's 'Bunga Raya', one of the vessels operating the regular inwards service to Cardiff. (Docks Board Public Relations, 17 November 1975)



Malaysian tin being discharged at Cardiff from the 'Bunga Teratai'. (Docks Board Public Relations, 17 November 1975)

period of 3-4 days, which is the typical turnaround time.

Security Precautions

The general cargo tends to be low on weight, and high on volume, and correspondingly labour-intensive. Consignments cover a wide range, and include natural rubber, footwear, cotton goods, canned goods, dowels (for furniture, etc.), and such items as binoculars, and toys—which require special lock-up facilities. Another important commodity is tin for which the Docks Board have provided exceptionally tight security arrangements and installed sophisticated electronic systems to back up the docks police.

This month the Docks Board brings into operation a new £300,000 transit shed which will make available a further 60,000 square feet of covered accommodation and release some of the pressure on shed space during the port's busy citrus fruit season.

Established Lead

Cardiff is now also handling substantial quantities of the Far East traffic brought to the UK by the Retla Steamship Company and has clearly established a lead over other UK ports in terms of total transit costs to final inland destination.

The monthly Retla service brings both forest products and steel coils for discharge at Cardiff. The Docks Board has provided a regular berth for the hardwood imports by extending the forest products terminal area on the south side of Queen Alexandra Dock at a cost of about £80,000; and carries out a highly mechanised operation of discharg-

ing the packaged timber and sorting it into the hundreds of individual bills of lading which go to make up an average 4/6,000-tonne cargo.

Asked the significance of the FEFC decision regarding MISC cargoes to the port's customers, Mr. Ray Wareham, Cardiff's docks manager explained that it could give a 15 or even 25 per cent freight cost advantage compared with other ports where the FEFC had been forced to impose a surcharge.

"Naturally, we are delighted that the shipper in Malaysia selling his goods CIF will have an added incentive to route them through Cardiff, and that the FOB buyer in the UK will have a financial benefit," he said.

Why had Cardiff been selected? Mr. Wareham felt certain that the ready availability of a berth and labour was a major factor. "We have a very efficient labour force who have proved their ability to turn ships round without delay, and this means that shipowners are not faced with the queues and frustrations they may meet elsewhere.

"Once the cargo is discharged, then it is delivery that becomes the prime consideration, and here again we have our good points," Mr. Wareham continued. "Inland communications are of obvious importance. We are within easy reach of the motorway network; the docks are close to the Cardiff Freightliner terminal; and we have a good in-dock railway system. A transport consortium which includes British Road Services, Freightliners Ltd., Glyn John Transport Ltd., and Quay Pak Ltd., has been formed to deliver traffics the length and breadth of the UK," he said.

What of the future? Clearly the port hopes for a further build-up in its Far East trade as a result of its recognition by the FEFC and the new facilities which have been provided by the British Transport Docks Board. An obvious possibility in the long term would be an outward service.

Correction

In reference to the article titled "The Port of Le Havre; Crossroads of Europe" in this journal, January 1976, page 13, the note in parentheses preceding the text should have read as follows: (Mr. Bastard has since been promoted to the position of Directeur des Ports Maritimes et des Vois Navigables, Ministère de l'Équipement.)

The new ore harbour of Narvik

**by Paul Soros, President
Soros Associates
Consulting Engineers
New York, N. Y.
U. S. A.**

HISTORY

The iron ore port of Narvik in Northern Norway operated by LUOSSAVAARA-KIIRUNAVAARA AB (LKAB) is located in the upper reaches of the Ofot Fiord, and although North of the Arctic Circle is ice-free all year. Iron ore from Kiruna, Sweden was first shipped out of Narvik in 1903, and quays built in 1907 were in continuous use until the war in 1940. (See Fig. 1)

After the war, a major expansion was undertaken by LKAB which consisted of finger pier reconstruction and plant modernization to increase annual throughput tonnages and shiploading rates. The existing two berth finger pier and four travelling shiploaders provide an annual shiploading capacity of slightly over twenty million metric

tons. (See Fig. 2)

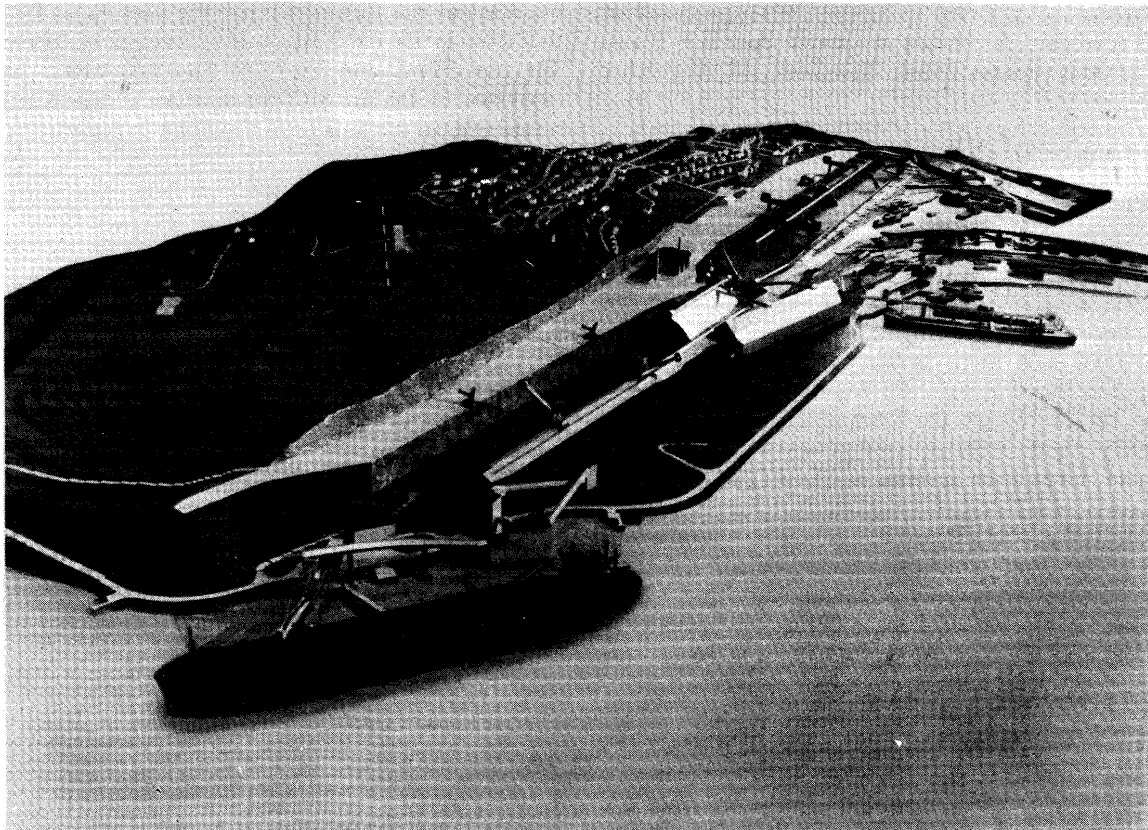
A long range expansion programme is now implemented by LKAB to raise the annual ore and pellet output from the Kiruna area. After extensive operation research studies by LKAB established the feasibility of transporting these capacities across the existing Kiruna-Narvik railroad link, it was evident that a major expansion of the entire port facilities at Narvik would be necessary.

Soros Associates, Consulting Engineers of New York, were entrusted with the task of studying the expansion requirements of the existing stockpiling, reclaiming, sampling, screening and shiploading facilities. On completion of these studies, and working in close cooperation with the LKAB Narvik and Stockholm Project Groups, Soros Associates were then given the consultant responsibility for the development of the entire programme called "Project Kala".

POLICY OBJECTIVES

The criteria for the expansion programme were:

1. Accommodate increased throughput.
2. Accommodate large bulk carriers.



MODEL OF NEW NARVIK PORT

Model of Narvik expansion engineered by Soros Associates will add a new Linear Loader berth for 350,000 DWT vessels, ore yard and screening plant. Overall capacity will be 30,000 TPH with utmost flexibility. Different products can be stockpiled and at the same time 3 vessels can be loaded simultaneously with different products originating from 3 storage areas.

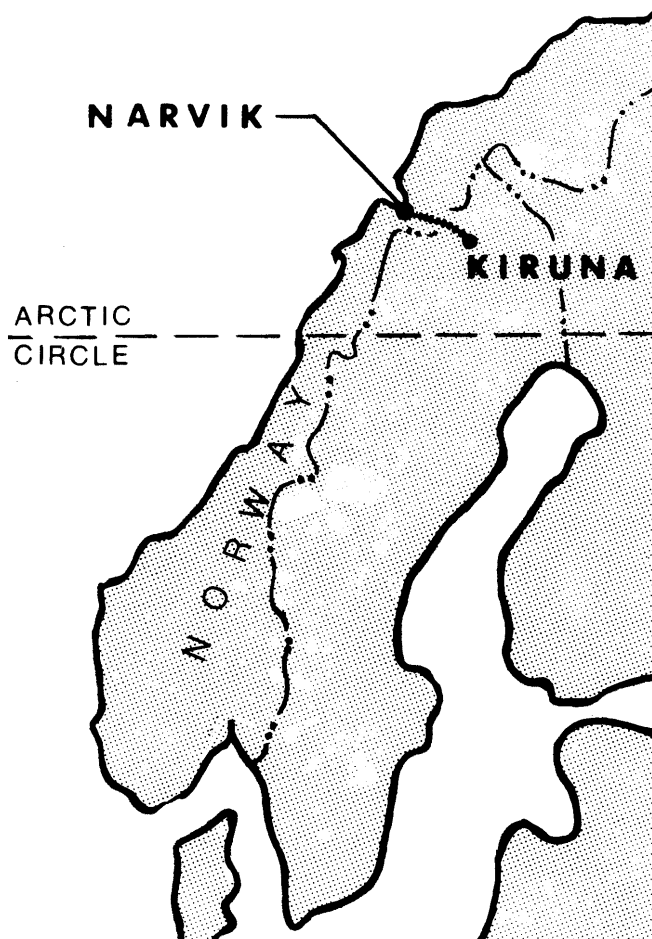


Figure No. 1
Iron ore from Kiruna, Sweden is shipped through the ice free port of Narvik.

3. Uninterrupted shipments during construction.
4. Staged programme of investment.
5. Advanced standards of performance, reliability and flexibility.
6. Minimum operating and maintenance cost.
7. Minimum capital cost.
8. Prevention of cost over-runs.
9. Minimum construction time.

THE MASTER PLAN APPROACH

The problems associated with the development of an operational installation were compounded at Narvik by the complexity of the installation, the limitations of space, and the necessity to continue with the uninterrupted shipping of ore during each phase of construction.

To overcome these problems, designs corresponding to the ultimate Master Plan were first developed, after which, based on forecasts of future requirements of the ports, the interim stages of construction could be selected.

Another important feature of this approach is the flexibility available to the top management of LKAB in deciding on the size, timing and sequence in which various phases could be selected for construction, depending on marketing and other business considerations.

The objective that shipments should not be interrupted during construction applied to the existing installation and to each development phase up to and including the ultimate

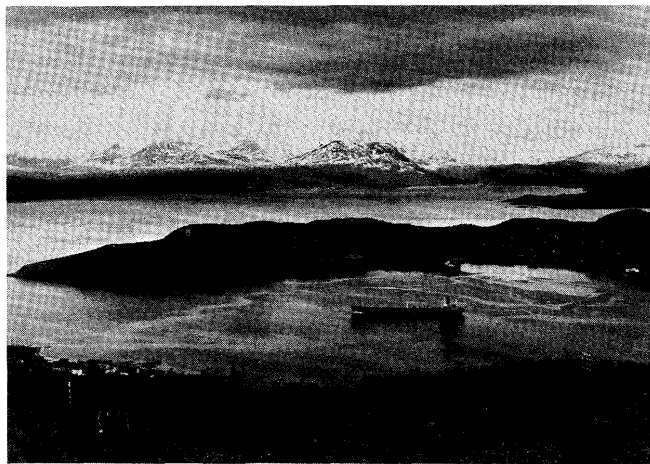


Figure No. 2
View of Narvik showing rock excavation for new storage yards.

Master Plan, thus all clearances and loads for the future requirements were taken into account in the design for the first construction phase, and where foundations or foundation preparation could not be built in the future without interruption to the operational system, these too were designed for construction in the first phase.

A brief description follows of the major features of Project Kala Master Plan as well as the first phase of construction.

MASTER PLAN

Ore Loading Capacity

A new ore loading berth with max. 22,000 T.P.H. loading rates will accommodate 40,000 DWT to 350,000 DWT vessels. Combined with the existing finger piers capacity to handle vessels upto 80,000 DWT, this will provide a total overall loading rate of nearly up to 30,000 DWT, this will provide a total overall loading rate of nearly up to 30,000 T.P.H. over the three berths.

New Ore Berth

The new berth will be located at the North West side of the harbour and oriented to provide safe and convenient approach and departure of the large vessels. (See Fig. 3)

Minimum water depth is 27.5 meters, with a mean tide range of 2.5 meters.

The berth has been designed for the operation of two Soros Linear Loaders, each with a max. capacity of 11,000 T.P.H. This resulted in a substantial reduction in the capital and potential maintenance cost of the loading installation, compared with the cost of a deepwater pier with conventional travelling shiploaders. (See Fig. 4 and 5)

For the Kala installation, the deepwater wharf structures consist of 5 concrete caissons of 13.7 m diameter supporting an 8.25 m wide, 208 m long runway upon which the shiploaders linear track is mounted. At this location, bedrock level is at elevation minus 27.5 m. The rear of each of the shiploaders is supported on a turntable bearing mounted on a concrete structure built on bedrock at elevation minus 10 m. (See Fig. 6 and 7)

So that maximum standby capacity is provided and scheduled maintenance can be performed, each linear loader has the capability to load and trim a 150,000 DWT vessel without moving the ship.

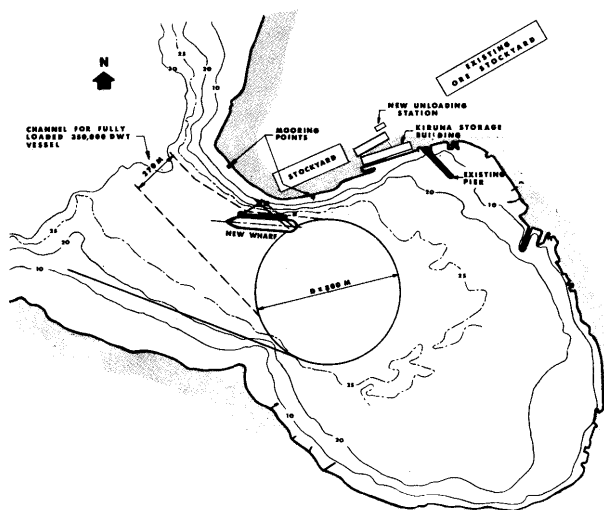


Figure No. 3

A new loading berth with 2 Linear Loaders will have a maximum capacity of 22,000 T.P.H. and accommodate 350,000 DWT vessels.

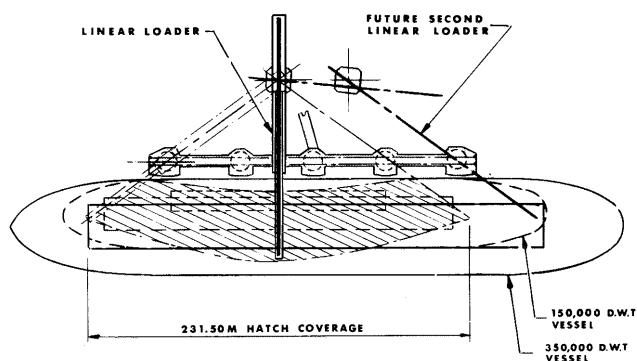


Figure No. 4

The patented Linear Loader reaches any point of the vessel by rotation of a bridge supported at a pivot and a straight track, combined with the horizontal and vertical motion of the loading boom on top of the bridge.

Kala Ore Yard

The new Kala ore yard is divided into two areas, upper and lower, the upper being blasted out of a 27 m hillside with the blasted rock being used to form the lower storage area. The two areas have a total capacity of 1,200,000 tons made up of several grades of ores and pellets and screen house fines. (See Fig. 8)

The ore yard can be fed simultaneously with three different materials: two from the rail car unloading station by two travelling stackers plus fines from a 6,000 TPH screening station by a swivelling stacker.

Material from the Kala ore yard will be reclaimed by two 9,000 TPH bucketwheels with 50 m boom length.

Each of the bucketwheel reclaimers incorporates a surge bin which discharges to two reversible feeders, thus making it possible to split the output of any reclaimer between two 10,000 T.P.H. reversible ore yard belts.

This arrangement allows any desired combination of two materials to be sent from the Kala yard to the two linear

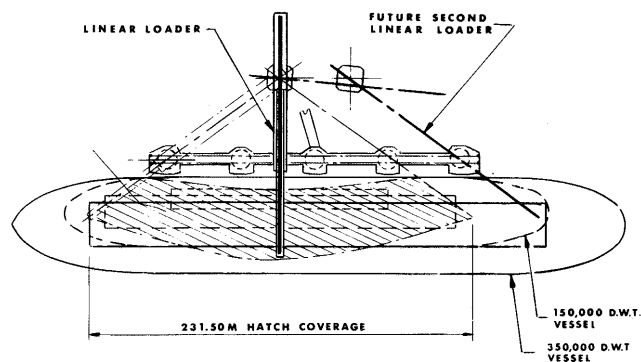


Figure No. 5

Marine construction of the Linear Loader berth for 350,000 DWT vessels has been reduced to five 137 m diameter caissons plus two pivots, resulting in substantial savings in capital cost.

loaders at the new berth, or to one of the linear loaders and one of the finger pier loading berths, or to both of the finger pier berths, or to any of the above in combination with either the existing or new screening stations. (See Fig. 9)

Master Plan System Feasibility

A high percentage of the vessels loaded at Narvik carry cargoes made up of several ore grades. This requires an installation capable of loading a ship with two different ore grades simultaneously, at any one of 3 loading berths.

There will be three storage areas, one covered and two open. Products from all three areas must be able to reach any of the shiploaders on the three berths and, if required, to pass through one of the two screening stations.

All operations can be performed simultaneously, and with different materials.

In addition to providing the required flexibility, the interface between the existing and expansion programme was also planned and designed so that material can continue to flow over each successively completed phase without interruption.

Sampling Station

Each of the two 11,000 TPH material streams pass through automatic sampling systems on route to the Kala berth, designed to sample and also analyze particle size, moisture content and chemical composition of the material being shipped.

In addition to recording the contents of the shipment, quality control of the chemical composition and particle size are achieved by continuously and instantaneously computing the total cargo composition and fines content which is maintained within the required limits by screening or selective reclaiming.

Weighing System

The Kala weighing system will have a certified accuracy of 0.002 or better, utilizing the many years of proven experience of LKAB. The high degree of accuracy is achieved by incorporating the scale into a material handling system that provides constant full load at the scale, minimizes fluctuations in belt tension and deflections between scale supports.



Figure No. 6
The 13.7 m diameter caissons, to be installed at a minimum water depth of 27.5 m, are fabricated with domed bottom.

Certification and frequent calibration of the weighing system accuracy during a ship loading operation is achieved by repositioning of a chute box, (there are no flop gates in the installation) and passing 500 tons of material over the scales into a collecting bin supported on load cells. The weighing accuracy of the collecting bin can be checked by discharging the 500 tons in increments of 40 tons into a check weigh hopper supported on a mechanical scale, the accuracy of which has been approved by the Norwegian Bureau of Weights and Measures.

The economic importance of this weighing accuracy is indicated by the fact that a positive weighing error of 0.005, on an annual output of 35 million tons results in the loss equivalent to a 175,000 ton shipment.

Operation Description

Selection of material, material flow routes, size of cargo to be shipped and communications are under the control of the Central operator located in the Central Unloading Station.

The weight and material quality to be loaded into each hatch is preselected by the central operator, the reclaiming machines are interlocked so that they cannot run unless correctly located in the area for the selected material quality.

The shiploading operation is started by the Linear Shiploader Operator. When the weight selected to be loaded into a hatch has passed over the scales, all conveyors upstream of the scale conveyor automatically stop allowing cell weighed material to be loaded into the ship. If it is required to change material quality before restarting shiploading, the material left on the conveyor system can be diverted into clean up piles, from where it can be reclaimed at 1,000 TPH.

The communication center in central control includes a comprehensive fault monitoring and alarm system, from which the operator can read the type of fault and its location, enabling repair crews to be directed to the problem area without delay, thus holding plant downtime to a minimum.

STAGE I INSTALLATION

Kala Stage I Description

The Master Plan was developed on the basis of four

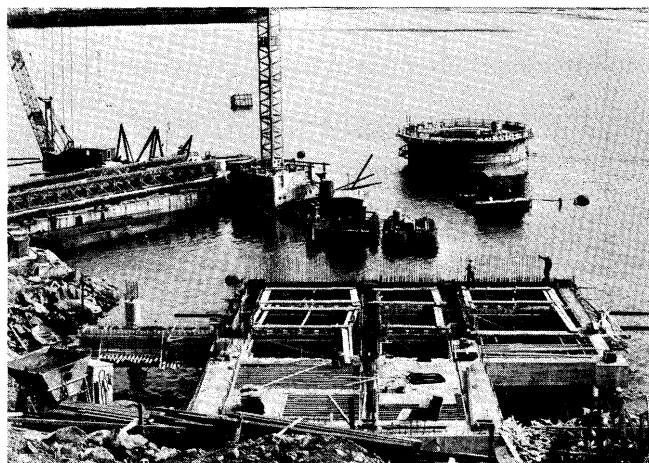


Figure No. 7
The concrete caissons are floated out before setting. Conveyor transfer foundations in foreground will permit adding second loading line without interruption in operations.



Figure No. 8
The new 1.2 million ton ore yard is carved out from the hillside.

separate construction stages. It is possible for parts of the individual stages to be transferred to adjacent stages.

Construction of Stage I of the Kala Master Plan was started by LKAB in August 1974, and will provide a design loading rate of 11,000 TPH at the new berth, with the construction of a Linear Loader, an integrated conveying, weighing and sampling system, and preparation of new storage yards, with associated roads and services. (See Fig. 10)

The linear shiploader will have the coverage to load ships in the 40,000 DWT to 150,000 DWT range without moving the ships at the berth. Larger ships can be accommodated but until the second shiploader is added at a future stage, some warping will be necessary to obtain full hatch coverage.

As discussed earlier, two of the objectives in the Master Plan approach are that shipments of ore should not be interrupted during any stage of construction, and that construction costs should be minimised. As future marine construction may interfere with the operation of the berth, and would also involve duplication of mobilization costs, it was decided to construct the marine foundations in stage I

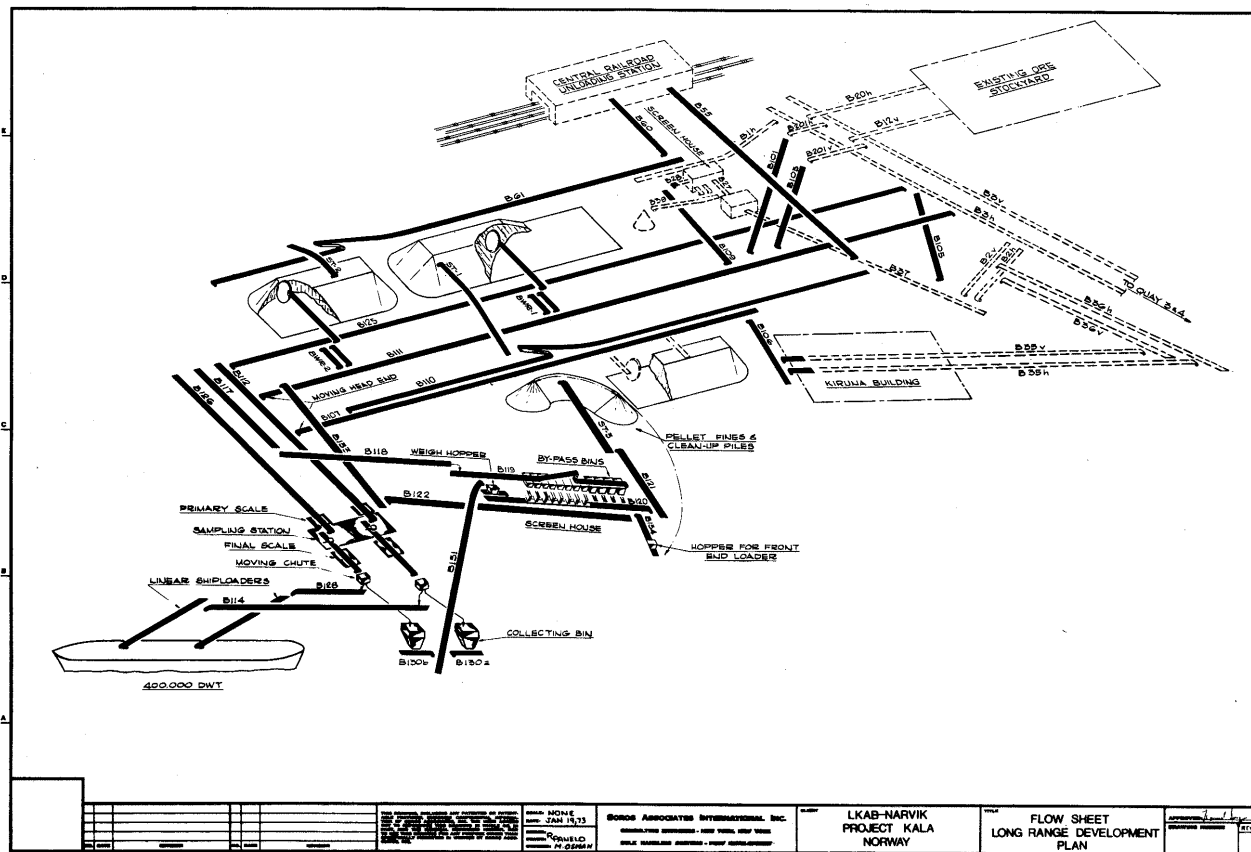


Figure No. 9

There will be 3 loading berths, each with 2 loaders, so as to load 2 different materials simultaneously. Products from 3 storage areas can simultaneously reach any of the loaders on 3 berths and, if

required, pass through one of two screening stations.

Two different products arriving by rail plus the lines from the screening plant can be stockpiled at the same time.

for both shiploaders so that no further marine construction work will be necessary after the berth is operational.

The 6,000 TPH screening system is not included in the construction of Stage I, but the screened product conveyor will also handle the reclaimed clean up pile material, (which is part of Stage I) therefore this conveyor will be suitable for the future requirement so that the screening system can be added in the future without interruption of shiploading operations.

Two electrical substations will be built in Stage I with sufficient transformer capacity for Stage II, and sufficient spare space for transformers, switchgear and cables for the Ultimate Master Plan. Cables between the East and West ends of the site are routed through a cable tunnel under the reclaimer runway, incorporated in Stage I, with sufficient space for maintenance personnel to walk through as well as for all cables to be installed in the future development stages.

PROJECT ORGANIZATION

The entire engineering effort, from design through construction supervision was integrated with a total project management plan. The construction for Stage I of the KALA project was organized into three separate contracts. Each contract was in line with the activities of qualified specialized manufacturing and construction firms, making it possible to obtain competitive firm price quotations from world-wide bidders, subject only to escalation. The following contracts were let:

Contract No. 1 — Civil and Marine Foundations and Storage Area Preparation.	} Kalabygg, Consortium of Swedish and Norwegian firms.
Contract No. 2 — Integrated Conveyor System Including Weighing & Sampling.	
Contract No. 3 — 11,000 ton per hour Soros Linear Shiploader.	} Consortium of Nordstroms Linbanor (Sweden) and Five-Cail Babcock (France)

All three contract specifications were independent of each other, but allowed the formation of joint ventures. Interfaces between the three contracts were clearly defined, inclusive of a coordinated construction program, monitored by CPM.

The material handling system was completely developed by the consulting engineers working with LKAB prior to the letting of any contracts, inclusive of final dimensions and loads that in normal practice became available from the suppliers of equipment some six to twelve months after receipt of order.

This approach produced several benefits:

1. The LKAB project group as well as all the operating and maintenance departments could participate in complete and systematic monthly reviews of all details of the

(Continued on page 28 bottom)

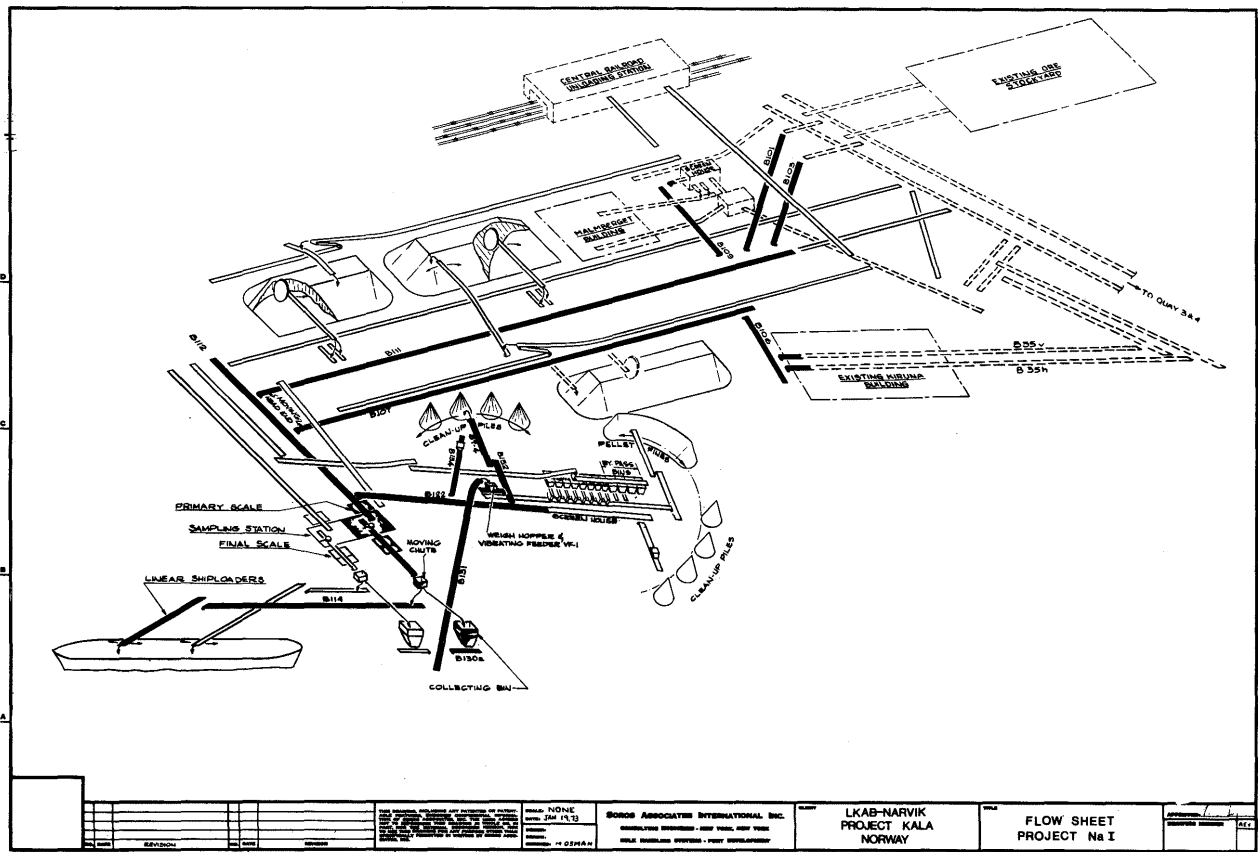


Figure No. 10
Stage I, under construction, includes a new 11,000
TPH Linear Loader berth, interconnection from the

existing open and covered storage as well as all
preparations for future stages.

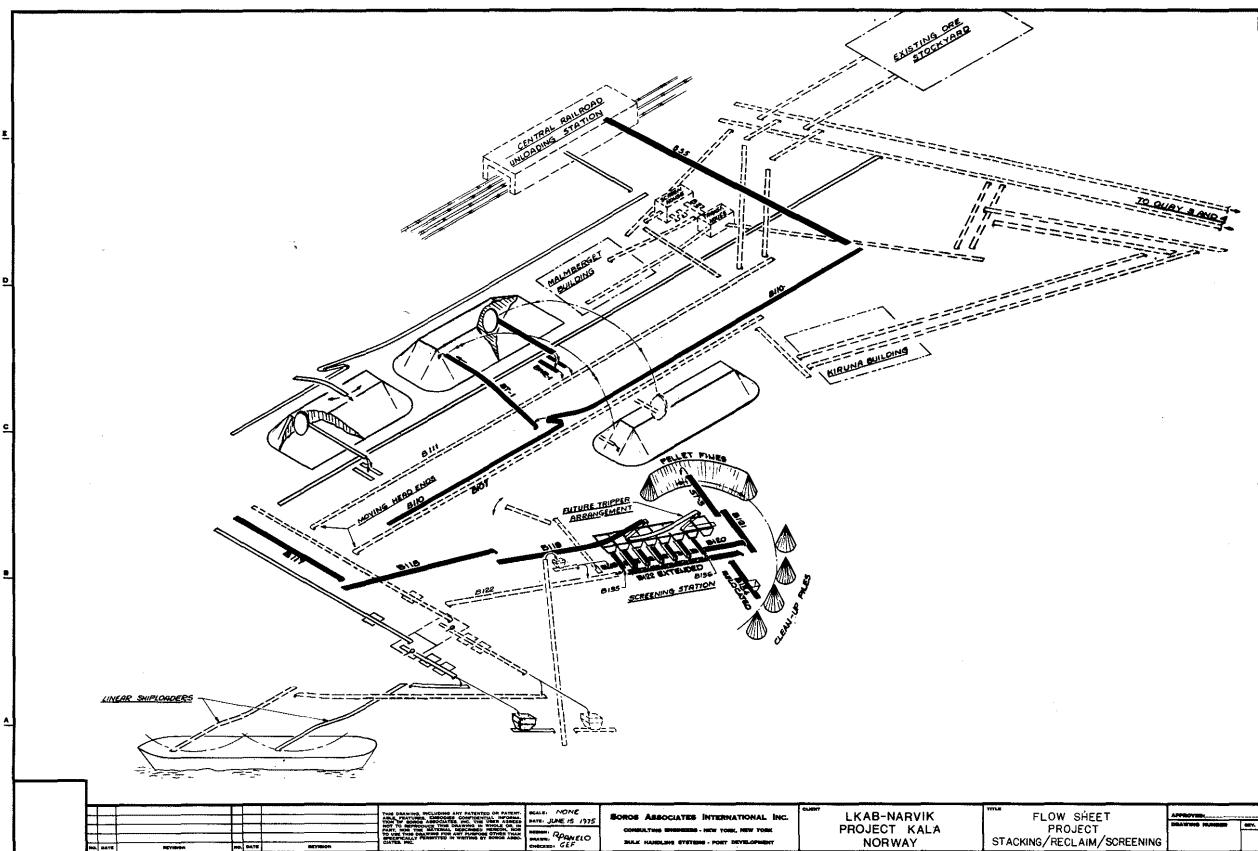


Figure No. 11
Stage II and III, currently out for bids, will add

stockpiling and reclaiming in the new ore yard and a
screening plant.

Port of Fremantle

Extracts from Port of Fremantle Handbook, 1975

PREFACE

This handbook has been compiled by the Fremantle Port Authority for the information of those using or interested in the Port of Fremantle. Some of the matters referred to do not come under the jurisdiction of the Port Authority but are closely connected with the port, and are included to make the information as complete and comprehensive as possible.

Information regarding depths of water, facilities and equipment available and charges for services is current at the time of publication but is subject to variation.

Because several nations of the world have not yet changed or have only partially converted to the metric system of weights and measures, details of wharf berths, transit sheds and navigation channels have been shown with imperial equivalents in parenthesis alongside the metric measurement.

In a book of this size many important items receive only brief reference. The Port Authority will be pleased to supply further information on these matters on receipt of specific enquiries from readers.

(Continued from page 26)

- design during its development, eliminating the need for changes after contract award and during construction.
2. The details of civil and marine designs of Contract No. 1 could be 100% completed prior to LKAB making any commitments for contracts 2 and 3.
 3. All three contracts could be let and started simultaneously, resulting in a substantial reduction of the total construction period, with corresponding benefits in reduced escalation and interest costs during construction.
 4. LKAB was able to establish a firm KALA Stage I project cost of N. Kr 300 million, subject only to escalation, before committing any funds for construction, thus avoiding the problem of construction costs exceeding allocated funds.

CURRENT STATUS

The construction of KALA Stage I is well underway. The engineering of KALA Stage II and Stage III has been completed and is currently out for bids, utilizing the same project management approach. (See Fig. 11)

CONCLUSION

The Narvik port expansion represents the combined experience and expertise of LKAB and Soros Associates, incorporating advanced concepts of technology and project management. It can be considered a prototype for a new generation of ore ports with annual capacities measured in the tens of million tons.

All enquiries should be addressed to the Secretary, Fremantle Port Authority, 1 Cliff Street, Fremantle, Western Australia, 6160.

EARLY HISTORY AND DEVELOPMENT

Fremantle derived its name from Captain Charles H. Fremantle, of H.M.S. "Challenger", who on 2nd May 1829, landed at the little bay between Anglesea Point and Arthur Head just southwards of the mouth of the river, and hoisting the British flag on Arthur Head, took possession of this portion of the continent of Australia in the name of His Majesty King George IV.

On 2nd June 1829, Captain James Stirling and a party of sixty-eight settlers arrived in the transport "Parmelia" and founded a settlement on the banks of the Swan River. Sixteen days later the first proclamation was issued, annexing the colony to the British Empire.

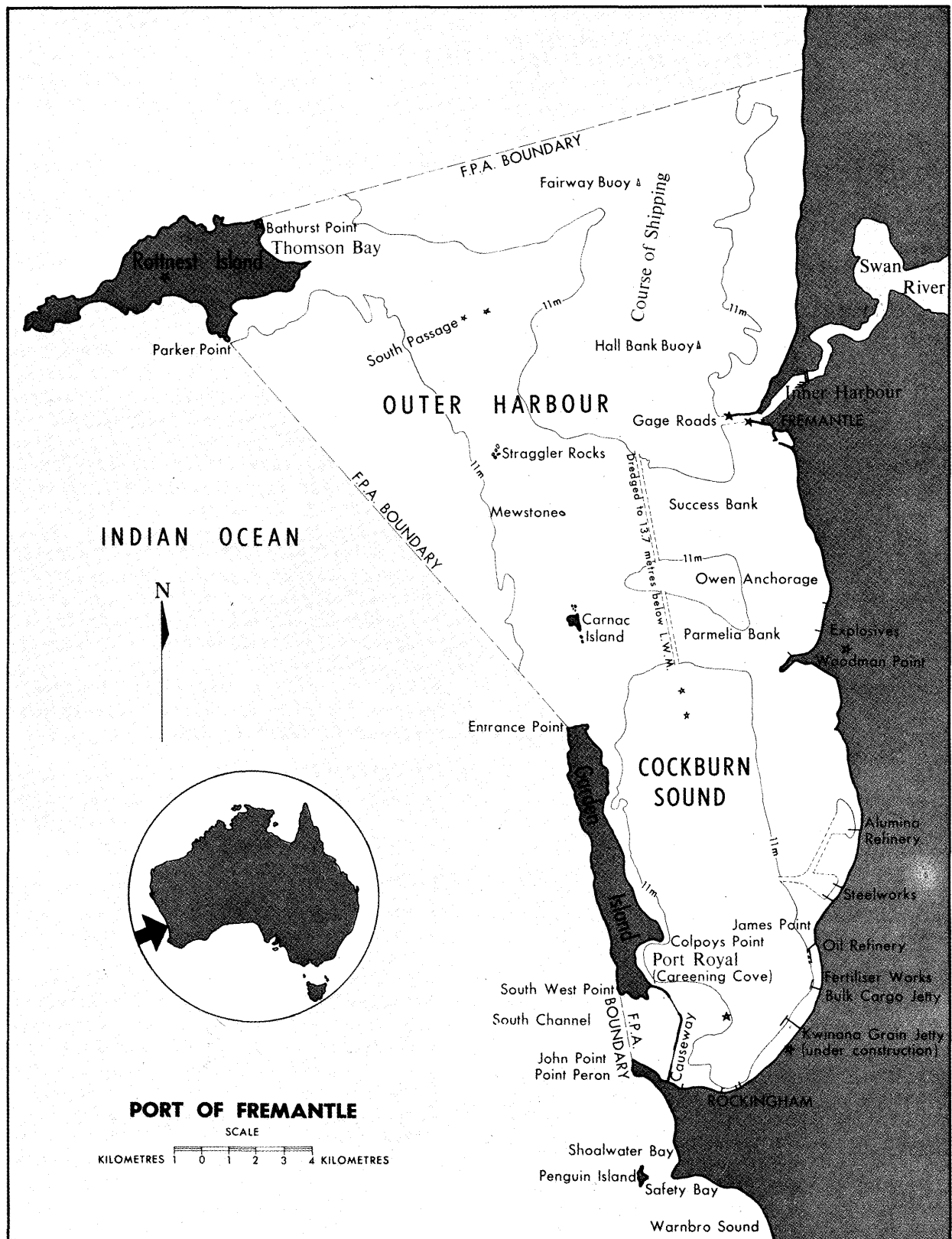
The history of Fremantle as a port commenced with the foundation of the colony. During 1829 twenty-one ships arrived, the majority of which were trading ships. The development of the settlement made possible the export of the first consignment of wool in 1834, and of timber in 1836. In January 1840, the ship "Shepherd" left for London with the first full shipment of the colony's produce, while in 1845 the first shipment of sandalwood was made. In December of the latter year H.M.S. "Driver", the first steamship to visit the port, arrived.

Owing to the existence at this time of a rocky bar across its mouth, entry to the Swan River for vessels of any size was not possible, and the earliest port facility was a small jetty situated in the bay near Arthur Head. In 1837 a tunnel was excavated through this rocky headland to give more convenient access to the jetty.

The small jetty referred to was replaced by a much longer one, known as the sea jetty, the first section of which, about 426 m in length, and running in a south-westerly direction from Anglesea Point, was completed in 1873. The structure was subsequently extended in a westerly direction to a total length of 1,167 m. After the removal of the rock at the mouth of the river in 1897 this jetty gradually fell into disuse, and was eventually closed to traffic, being for some years used only as a promenade. Its demolition was ordered in 1921.

The necessity for providing well sheltered harbourage for ships at Fremantle had for many years exercised the minds of those concerned with the welfare of the port. Even as far back as 1839 a design for an outer harbour was submitted by the then Surveyor General, but it was not until 1856 that the suggestion of opening the mouth of the river was seriously considered. This suggestion contemplated a narrow channel leading from Gage Roads to the deeper reaches of the river, the intention being that ships should proceed to Perth to load or discharge cargo.

The question of an inner or an outer harbour for Fremantle occasioned considerable debate, and eminent authorities on harbour construction came forward in support of each of several proposals. It was not, however, until 1891 that Mr. C.Y. O'Connor, who in that year had accepted the office of Engineer-in-Chief for Western Australia, submitted designs and proposals which were eventually adopted and became the basis for the construction of the present Inner Harbour. Work was commenced in accordance with these plans in 1892, and on 16th No-



member of that year the first truckload of stone was tipped into the sea as the beginning of North Mole.

Construction and excavation went ahead steadily until on 4th May 1897, the rocky bar was sufficiently cleared to enable the first steamer to enter the new harbour. This was the S.S. "Sultan", a ship of 2,062 tons gross register, engaged in the Fremantle-Singapore trade, and the occasion marked the official opening of the Inner Harbour, which

was gradually being developed into a deepwater basin.

On 8th October, 1897 the S.S. "Cornwall", of 5,500 tons gross, the first freighter from Britain to enter the new basin, arrived, while the first mail steamer to berth in the Inner Harbour was a German ship, S.S. "Gera", on 10th August 1898, followed by the "Prinz Regent Luitpold" on 4th October of that year.

It was not until 13th August 1900 that the first British

mail steamer, the R.M.S. "Ormuz" of the Orient-Pacific Line, entered the new harbour, and she was followed by the R.M.S. "India" of the P & O Line on 20th August. These two ships marked the change for these lines from Albany to Fremantle as the port of call for mail steamers in Western Australia.

INTRODUCTION

The Port of Fremantle, situated on the western coast of Australia in the vicinity of the 32nd parallel, is the major port of Western Australia, and is well known as the western gateway to Australia.

It is the first and last port of call in Australia for ships from or to the United Kingdom, Europe, South Africa, India and parts of South East Asia. It is directly connected to both State and Australia-wide road and rail transport systems, is adjacent to the City of Fremantle, and only 19 km from Perth, capital city of Western Australia.

The State of Western Australia, extending from latitude 13° 15' in the north to latitude 35° 2' in the south, covers almost two and a half million square kilometres, approximately one-third of the entire Australian continent. However, of the total population of 1.2 million, more than two-thirds reside in the metropolitan area, within a radius of 40 km of Perth. It is understandable therefore, that the Port of Fremantle is the main commercial port of the State.

Perth, Fremantle and surrounding districts enjoy a "Mediterranean" climate with an annual rainfall of approximately 890 mm, the bulk of which falls in the winter months between May and September.

Fremantle is an all-weather port, little troubled by storms or fog, is virtually tideless, and provides the most modern facilities for ships and passengers.

THE PORT AUTHORITY

The Authority controlling and administering the Port of Fremantle was originally constituted under the Fremantle Harbour Trust Act, No. 17 of 1902, as the Fremantle Harbour Trust Commission. By an Amendment Act passed in November 1964 the Act became the Fremantle Port Authority Act, No. 35 of 1964. The rights, powers, functions, duties and liabilities set out under the old Act were preserved, and the name of the body corporate was changed to the Fremantle Port Authority.

The Authority is a statutory corporation with common seal, power to hold land, and perpetual succession.

The Commissioners, five in number, are appointed triennially by the Governor of the State of Western Australia, and the principal executive officer is the General Manager.

The Authority is charged with the control of the port and its facilities, and the maintenance and preservation of all property vested in it.

Unlike other Port Authorities in Australia, the Fremantle Port Authority acts as wharfinger for the port and carries out shore handling of cargo within the Inner Harbour for which it employs labour and provides and operates mechanical and other equipment.

The Port Authority also provides for the mooring and unmooring of ships, is responsible for the buoyage and navigation systems of the port, operates the pilotage and signal services, and undertakes the construction of wharf structures, transit sheds, roads and railways in the port area.

GENERAL DESCRIPTION OF THE PORT

The Port of Fremantle covers an area of 450 square kilometres and includes an Outer Harbour and an Inner Harbour.

OUTER HARBOUR

The Outer Harbour, extending westward from the mainland to the eastern shores of Rottnest Island, and southward to Mangles Bay in Cockburn Sound, is protected from the westward by islands and reefs and embraces three main anchorages.

The most northerly is Gage Roads, a safe anchorage in close proximity to the Inner Harbour.

Centrally situated between Success Bank and Parmelia Bank is Owen Anchorage while Cockburn Sound, the largest and most protected anchorage lies to the south.

In all, these three areas of the Outer Harbour provide 182 square kilometres of deep water.

Access to Owen Anchorage and Cockburn Sound was originally limited to ships of shallow draft which could navigate safely over Success and Parmelia Banks. Some channel dredging was carried out during World War I, and extended during World War II but it was 1954 before the channels were deepened to provide a channel 11.5 m deep at low water. Tankers of up to 32,000 tons, and drawing up to 10.3 m were then able to proceed fully laden to the deep water berths serving the Oil Refinery at Kwinana on the shore of Cockburn Sound.

In 1967 the channels were further deepened to a minimum of 13.7 m to accommodate larger tankers and bulk carriers in the 70,000 ton class.

(a) Owen Anchorage:

In Owen Anchorage a special berth—Woodman Point Jetty—is provided for loading and unloading explosives, and is still used exclusively for this purpose.

(b) Cockburn Sound:

A reinforced concrete jetty at which three tankers can berth simultaneously has been constructed to serve the oil refinery at Kwinana.

A steelworks adjacent to the oil refinery is served by two jetties, one a general purpose jetty equipped with wharf cranes for the rapid loading and unloading of steel and steel products, and the second a bulk cargo jetty fitted with a bulk unloader and belt conveyor for the rapid loading and unloading of bulk products such as iron ore, coke and limestone, used in the steel smelting process.

An alumina refinery adjacent to the steelworks is served by a jetty specially constructed and fitted with machinery for the bulk loading of refined alumina and also equipped for the discharge in bulk of caustic soda, large quantities of which are used in the refining process.

Immediately to the south of the oil refinery jetty the Port Authority has constructed a bulk cargo jetty, initially fitted with machinery for the bulk unloading of rock phosphate and other materials required for the nearby fertilizer works, and designed for possible extension to permit the bulk loading of mineral ores and similar cargoes.

(Continued on next page bottom)

No race between LASH and containers

Bremen, 10.11.75 (BremIn):—As has, in shipping, always been the case and will be so in the future, each of various traffic systems fulfills its own specific function according to its particular ability. It is thus incorrect to say that a 'race' is taking place between modern ocean-traffic systems. In their own way all systems strive towards a shortening of port-laytime for the costly ships—for a quick turnaround. So spoke the renowned Bremen shipping expert and shipping-company consultant, Captain Helmuth Möncke. "And all the modern systems are characterized by a circumstance which, up to now, has received far too little attention: they not so much reduce the ship's port-laytime by an acceleration in loading and discharging as, far more, with subdivision of these processes. The respective landing of a

INNER HARBOUR

The Inner Harbour is constructed within the mouth of the Swan River and is protected by two breakwaters, North Mole and South Mole, 1,474 m and 622 m long respectively.

The approach from Gage Roads is through a short entrance channel protected by the breakwaters and dredged to a depth of 11 m at low water.

The fully protected Inner Harbour is safe for ships all the year round. It is the hub of general cargo trade and encloses nearly 80 ha of water dredged throughout to a depth of 11 m at low water.

It has 20 land-backed berths—eight at Victoria Quay and 12 at North Quay. With the exception of H Berth, all berths at Victoria Quay are equipped with transit sheds which give an aggregate of 26,622 square metres of covered storage space.

H Berth, recently reconstructed in reinforced concrete, is backed by an open stacking area instead of a transit shed and adjoins a heavy-duty section of wharf specially designed and constructed to permit heavy lifts to be unloaded direct from ship to multiwheeled road transport.

At North Quay Berths 1, 2, 3, 4, 5 and 10 are equipped with older style transit sheds which give a total of 22,753 square metres of covered storage space.

Berths 6, 7 and 8, recently reconstructed for utilisation by conventional, unit load, roll-on/roll-off and container ships, are backed by an extensive storage area including two modern clearspan transit sheds, one 85 m long by 46 m wide and the other 77 m long by 46 m wide.

Berths 11 and 12 were specially designed and constructed to accommodate modern container ships from interstate and overseas. No. 12 Berth, equipped with a Portainer crane, is in regular use by container ships and is backed by an area of land which has been leased to container operating companies for operations involving the stacking, marshalling and distribution of containers.

Each Inner Harbour berth is well served by roads, railways, lighting, quay cranes and other mechanical equipment to ensure rapid handling of cargo and speedy turn-round of shipping, and is adjoined by paved areas for the open storage of cargo.

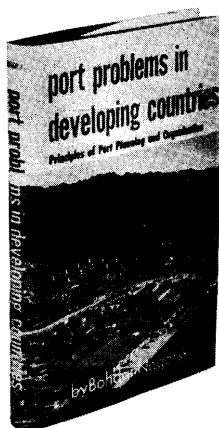
container within two to three minutes certainly frees the ship 'in a jiffy' for taking on new cargo—undoubtedly a considerable advance—but the container is by no means emptied. This is effected in a second procedure, independent of the vessel. Similarly with barges. In the initial process the barge-carrier sets the barge to water. The actual discharging procedure is postponed and takes place later at the particular handling installation. Only the carrier is again free for new cargo within a few hours. From the one original discharging and loading operation have developed two operations, an increase in output specially for the relief of the deepsea ship. The actual loading and discharging, such as stowing and stacking still requires its time. Such current favourite references to "25 tons in 3 minutes" for containers, or "1,500 tons per hour" for barge-carriers, are deceptive".

But despite their similitude (short port-laytimes) why are these modern ocean traffic systems not comparable? Möncke:

"The container—ancient in principle and new only in its internationally standardized form—is a forwarders' idea, of a rolling case across a continent until roads and rail cease and which then is loaded to ship and which then, when once more on land, can as soon as possible again be 'set rolling'. The barge-carrier is a ship-owners' idea for separating the hold from the ship, so making the ship independent of port and avoiding the expensive waiting and laytimes. The container requires an extensive port organisation and is dependent upon modern terminals. The barge-carrier can set her lighters to water off the port, with their discharging and loading being effected under normal and often unpretentious conditions. But the container surmounts the coastal traffic-break, in that it can continue its travels by rail or road without commodity-handling. The barges are confined to the waterways. Their trading on rivers and canals are restricted due to draught (2.70 m) and time limitation until the arrival of the following carrier. The cross-country road and rail facilities of all the continents are likely to open up more and more to the containers in coming years, whilst the barges will be able to reach all the medium and small-sized ports unattainable for the containers. A comparison of the two systems is thus impossible. They master quite different problems in their, just as different, manner".

And the effort to combine both systems?, we asked.

"Up to now, experiments with unsuitable objects", replied Capt. H. Möncke. "Containers have also been transported on barge-carriers. Result: The containers had to wait until the barges had been unloaded and then the barge-carrier had to wait for the discharge of the containers. This led to costly time-consumption. Thus today, of the two lines which handled this mixed traffic, the one—Prudential Grace Line—only still takes a few containers and the other, Pacific Far East Line, no more whatever. A new form of fusion is meanwhile being considered, undoubtedly an improvement: containers are set on a barge-platform and then loaded on a complete platform whereby, for instance, nine 20-foot containers, or maybe 25 VW-beetles, can be taken on in one normal lash-process. The barge carrier can well be accepted as the most modern of general-cargo ships, but there are still always ever-new problems to resolve, even for this ship-type.



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ANNOUNCING !!

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Orbiter Probe

Kyoto Convention Handbook

Brussels, Belgium, November 1975 (Customs Co-operation Council):—On 18 May 1973, at its 41st/42nd Sessions in Kyoto, the Council adopted the International Convention on the simplification and harmonization of Customs procedures (Kyoto Convention) and three first Annexes relating to Customs warehouses, drawback and temporary admission subject to re-exportation in the same state.

The purpose of the Kyoto Convention is to simplify and harmonize Customs procedures as a whole by means of the Standards and Recommended Practices contained in the Annexes to the Convention. It is expected that there will be approximately 30 Annexes each dealing with a different aspect of Customs work.

The Kyoto Handbook contains the body of the Convention which applies to all Contracting Parties, the three first Annexes which were adopted by the Council and the commentaries on these Annexes and on the body of the Convention. It is in loose-leaf form and there are separate English and French editions.

As new Annexes, and the commentaries thereon, are prepared or as any amendments are made these will be incorporated into the Handbook. Two binders are supplied on purchase in order to accommodate the additional texts.

The price of the Kyoto Convention Handbook is 700 Belgian francs (same for English or French version) plus 70 BF for packing and postage (flat rate per copy) surface mail. Send orders to the following address:

Secretariat
Customs Co-operation Council
Rue Washington, 40
B-1050 Bruxelles
Belgique.

“FIATA World Wide”

Zurich, Switzerland:—According to FIATA News 75/3, the 14th World Congress of FIATA (=International Federation of Forwarding Agents Association, headquartered in Zurich) was held during 14th through 18th September 1975 in Rotterdam, The Netherlands, where it is claimed that nearly 1000 participants coming from 47 countries of all 5 continents attended with the Slogan “FIATA World Wide”.

Mr. C.W. Kjellberg was elected President of the Association in succession to Mr. J. Dervieu who served as President for the last 4 years.

Manual of Maritime Statistics

The Hague, The Netherlands, September, 1975 (Maritime Economic Research Centre):—The Maritime Economic Research Centre of the Hague have just published their second fully revised Manual of Maritime Statistics covering

the whole world. All the maritime nations are tabulated with information on well over 400 regularly issued publications relating to seaborne trades, shipping and shipbuilding. This edition is priced at Dfl. 120,—per copy, postage paid.

The manual is split into two loose-leaf covers, so that any additional statistics may be inserted.

The Manual of Maritime Statistics has been compiled in such way as to give you the best possible directory of information.

Subscribers of the first manual will be compensated with a price reduction when ordering the second edition, due to changed objectives with the compilation of the second manual.

For further information write to:

Dr. H.J. Molenaar, Director
Maritime Economic Research Centre
Division of Netherlands Maritime Institute
1c, Javastraat
P.O. Box 7640
The Hague
The Netherlands.

Jane's Freight Containers 1975/76

Edited by Patrick Finlay

EASTERN BLOC CONTAINER FLEETS COMPETITION?

London, 27th November, 1975 (Jane's Yearbooks Press Release):—The Eastern Bloc container fleets may present a threat to stable freight rates on the world's trade routes, particularly in the Pacific, since their policies may be dictated on political rather than economic grounds, according to reports quoted in the latest edition of JANE'S FREIGHT CONTAINERS published in London today (27th November) by JANE'S YEARBOOKS price £19.50. (and simultaneously in New York by FRANKLIN WATTS Inc.)

The Editor feels that because the bases for determining fleet operating costs, capital depreciation, and prices are so different between Eastern and Western trading nations, comparisons as to what are, and what are not, trading ventures are almost impossible but undoubtedly these different criteria are to the disadvantage of the West. The question is posed as to the possible strength of the Soviet container and roll-on fleet in 1976. Mr. Finlay attempts to assess this in a special note following his Foreword.

Except in Pacific trade where the first of a series of fully cellular lift-on carriers will be introduced, a great deal of cargo flexibility is being built into the Soviet general cargo fleet by the provision of numerous roll-on vessels fitted

with stern quarter ramps or swivelling bow ramps, capable of carrying forest products, export vehicles etc. as well as containers. As with the U.S. merchant marine the military logistics value of this new fleet should not be overlooked.

The Soviet bloc is not the only area in which expansion seems to be taking place. The Caribbean is under rapid development at present. This is illustrated by the growth of such ports as Miami and Port Everglades in the US Gulf, San Juan, Rio Haina, Port au Prince, Willemstad, Port of Spain and Kingston. Ports in the US Antilles, East and West Coasts of Central America are also involved. The planned introduction of the Europe/Caribbean (CAROL) Service is speeding up port development in that area.

Expansion in South Africa could result in Johannesburg becoming the largest inland container transfer point in the world. There have been reports that by 1979 Johannesburg could expect to be receiving between 650 and 1,110 20 ft. equivalents per day, of which about 40 per cent will be LCL (less than container load) units.

Growth is also anticipated in the Persian Gulf where there are signs that this area will be accepting containers or roll-on cargoes within the next three years or so. Reports have been received from both Iran and Iraq that container terminals are at the planning stage for construction in 1977/78. At present operators and planners put forward the view that general cargo, heavy engineering and structural equipment moves inwards to the Persian Gulf while nothing suitable for containers moves outwards, and therefore unitised services will be very slow to develop. The Editor suggests that the recent Scandinavian designs for container/ore carriers may provide the answer with containers outwards from Europe and ore for the return voyage from India or East Africa after a short ballast voyage.

Roll-on ships may be the solution to the difficulties being experienced in some developing countries due to soaring costs and loss of time caused by congestion at their ports. The increased traffic in and out caused by demands for raw materials from these countries may strain existing facilities at ports which can normally cope efficiently with their designed throughputs. To build new port facilities requires great capital outlay, and takes time. A better solution, which is being proved in the Eastern Mediterranean is to use roll-on ships. It may not be long before roll-on vessels are operating through some West African ports.

A 'do it yourself' roll-on vessel is described in the 'Trends for the Future' section of the book. A prototype of a 14 knot 4000 dwt roll-on vessel developed by Rederiaktiebolaget Transatlantic will come into operation this Autumn with Trans-Container Service. The vessel has no moulded plates and can be built without shipbuilding ways or dry docks. This design could provide developing economies with fleets of home-built low cost roll-on carriers with angled stern ramps to operate on their own liner services within a relatively short time scale.

Inland waterway container services may be coming into their own. This year has seen the introduction of scheduled container services on the Rhine. Two operators, one with specially designed, self-propelled craft, and the other with push or towed barges now offer services between the Benelux countries and Germany. There are signs also that Hungary and Bulgaria will use the Danube for container movements, and the opening of the Rhine/Danube link will

offer greater opportunities for this mode of transport in future. The Soviet Union has built at least four medium-sized river ships capable of carrying containers. Moderately sized vessels can, of course, move from the Arctic Ocean to the Black Sea through Soviet waterways.

The latest edition of JANE'S FREIGHT CONTAINERS includes information from 250 ports, 60 airports, 75 railway organisations, over 300 operators, some 60 lessors and 200 manufacturers of containers and handling equipment. It is, as always, invaluable as a reference work for all those with interests in this area of transportation.

Map and fact sheet brochure

Toronto, Ontario, October 15, 1975 (Toronto Harbour Commission):—The Toronto Harbour Commission has just published a new map and fact sheet brochure which tells the Port of Toronto story.

The four-colour map (condition plan) shows the total waterfront area under the jurisdiction of the Harbour Commission. The reverse side of the map contains a wealth of information including general history, port charges, St. Lawrence Seaway facts and shipping statistics.

It also lists consulates, trade missions, steamship lines, steamship agents, stevedoring companies, lake vessel operators, port facilities and key agencies on the waterfront.

Charge for the publication is \$2.00. It is distributed free to companies in the shipping business, port customers, the media and government agencies.

9-month container record

Baltimore, Md., November 24, 1975 (News From Maryland Port Administration):—A record total of more than 1.7 million tons of containerized freight moved through Baltimore's Dundalk Marine Terminal during the first three quarters of 1975.

According to figures just compiled by the Maryland Port Administration, Dundalk handled 149,612 boxes registering 1,722,534 tons through September of this year. These totals represent increases of 22,680 boxes and 70,371 tons over the terminal's previous record for the first three quarters, set in 1974.

As Baltimore's center for container activity, Dundalk usually handles about two-thirds of the port's overall annual container tonnage. In 1974, Dundalk accounted for 2.23 million out of a portwide total of 3.4 million tons of containerized freight, the second highest total among all U.S. Atlantic and Gulf coast ports.

The increase in the terminal's container tonnage thus far in 1975 is regarded as significant since the statistics run counter to the overall business slump and economic depression which has affected much of the world's maritime industry for most of this year.

Containers are among the most valuable and desirable of all types of maritime cargoes. A study released by the University of Maryland earlier this year indicated that containers handled in Baltimore are worth about \$257.64 each in primary economic impact on the state of Maryland.

Translating this into dollar figures for 1975, Dundalk's container totals have resulted in an economic impact of over \$38.5 million for the first three quarters of the year.

The 550-acre terminal's container handling capabilities



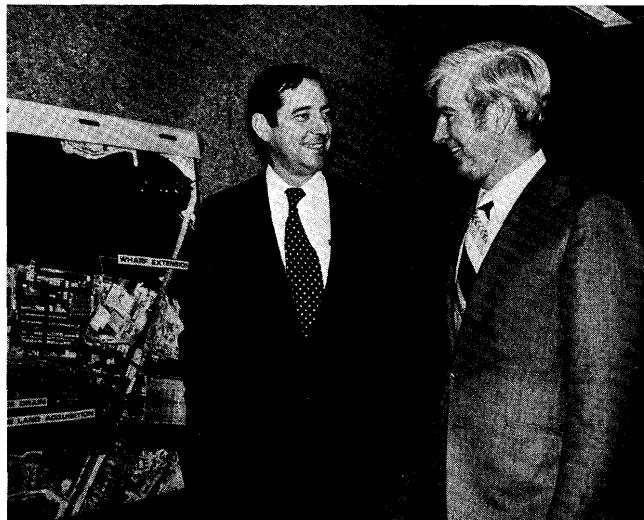
Massport Executive Director David W. Davis, right, presents a Paul Revere Bowl to Captain Cecilio A. Yutadco aboard the "MV Universal Giant" in honor of that vessel's arrival at the Port of Boston during its maiden voyage. It arrived at the Castle Island Terminal laden with 1,400 foreign automobiles. The Castle Island Terminal is the largest automobile importing facility at the Port of Boston, handling 39,690 automobiles in 1974. (Massachusetts Port Authority)



Massport Executive Director David W. Davis recently welcomed the officers of the automobile carrier "MV Universal Giant" to the Castle Island Terminal when the vessel called at the Port of Boston during its maiden voyage. From left to right are Chief Mate Edwin Cunada, Captain Cecilio A. Yutadco, Mr. Davis and Chief Engineer Adolfo Derder. The Castle Island Terminal is the Port of Boston's major automobile importing facility, handling 39,690 automobiles in 1974. (Massachusetts Port Authority)

include five specialized container berths, seven 40-ton capacity container cranes and over 120 acres of heavy-duty paved open storage.

Dundalk is owned and operated by the MPA, an agency of the Maryland Department of Transportation.



Thomas F. Moakley; right, with Massport Executive Director David W. Davis; was appointed port director of Massport today (December 18). At left is a photograph of Massport's Boston-Mystic Container Terminal. (Massachusetts Port Authority)

Boston Port Director named

Boston, Mass., 121875 (News from Massport, Massachusetts Port Authority):—Thomas F. Moakley was named port director of the Massachusetts Port Authority today by the Massport Board.

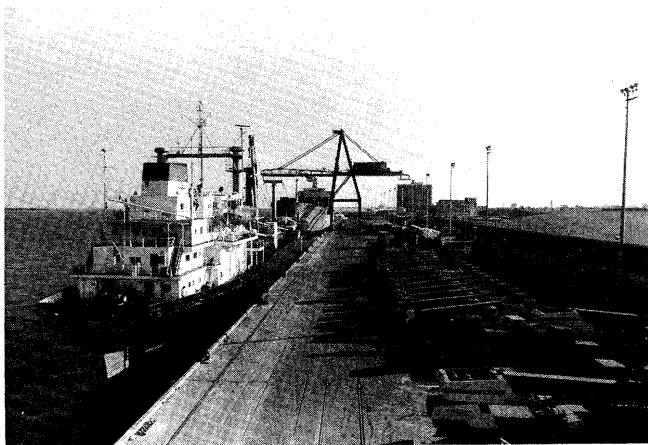
Mr. Moakley, 48, has held this position in an acting capacity for the past four months. Reporting to Massport Executive Director David W. Davis, he is responsible for the operation of, and solicitation of cargo for, the Port of Boston's public general cargo facilities, including the Boston-Mystic Container Terminal, the Castle Island Terminal and East Boston Pier One. He is also involved in the study of future projects to enhance the Port's contribution to the regional economy, and he represents Massport in labor negotiations regarding Port activity.

Mr. Davis, who has made the maximization of the Port of Boston's handling potential a key priority of his administration, cited the appointment as a positive step toward that goal: "The Port of Boston is an important link in the area's economy, generating 14,000 jobs and \$150 million in payrolls annually. It is equipped with modern cargo handling terminals and equipment. Yet there is a great deal of cargo from its primary market area which is still shipped via other East Coast ports.

"Massport is faced with the challenge of regaining this cargo. We must maintain a stable labor relationship, act to minimize the costs and rates to shippers using the Port and take a hard look at future investments and the problems faced in attracting additional cargo to Boston.

"For the first time since February (when former Port Director Thomas T. Soules accepted a similar position with the Port of San Francisco) Massport has a permanent port director. Mr. Moakley has worked aggressively on these problems for the past four months. He has a thorough knowledge of modern cargo handling techniques and a solid reputation among the port community."

Mr. Moakley is currently engaged in studies to determine



CASE HISTORY—The movement of these 87 units of heavy equipment aboard the Algerian Vessel "Ibn Badis" was a history-making event for the J.I. Case Company and the South Carolina State Ports Authority. The loading of the 2,282,224 pounds of cranes, back-hoe diggers and tractors began the initial shipment in a \$12.5-million order from the Government of Algeria and was the largest single export movement in Case's history. All follow-up shipments under the new contract are scheduled to move through the Port of Charleston. (From: The South Carolina State Ports Authority)

the feasibility of several projects to enhance the Port's physical capabilities. These include the implementation of a Foreign Trade Zone, the dredging of the harbor and the addition of eight acres of cargo handling area and a roll-on, roll-off ramp at the Boston-Mystic Container Terminal.

Prior to assuming the responsibilities of port director, Mr. Moakley served Massport as assistant treasurer and as general superintendent of the Castle Island Terminal. In the former capacity he supervised the Authority's computerized operations and directed the implementation of the Boston-Mystic Container Terminal's computerized inventory system.

Before joining Massport Mr. Moakley served as a U.S. Postmaster, founded a personnel consulting firm and managed the United Fruit Company's electronic data processing.

Recently elected to the board of directors of the American Association of Port Authorities, Mr. Moakley is a resident of Whitman and a graduate of Bentley College.

"International Cargo Transportation" seminar

Charleston, South Carolina, December 15, 1975 (Trade News from South Carolina State Ports Authority):—A seminar entitled "International Cargo Transportation" will be held in Greenville, S.C., January 14-15 at the Sheraton Palmetto Inn, 4925 Augusta Road.

Seminar sponsors are the U.S. Department of Commerce, Greenville Technical College, Greenville-Spartanburg International Trade Club and the South Carolina State Ports Authority.

The sessions will cover containerization, break-bulk shipping and export packing as related to shippers, carriers, manufacturers and port warehouses and terminals.

Registration fee is \$40 per person, or \$30 each for two or more persons from the same firm.

Seminar contact for further information is Thomas D. Walker, director of career development, Greenville Technical College, Post Office Box 5616, Greenville, S.C. 29606, or telephone (803) 242-3170, ext. 244.

Territory trade development manager

Charleston, South Carolina, December 17, 1975 (Trade News from South Carolina State Ports Authority):—Dudleigh C. Johnson has been named to the new post of general manager in Australia and New Zealand for the South Carolina State Ports Authority.

Johnson, whose appointment was announced by Ports Authority Trade Development Director Charles A. Marsh, will be responsible for servicing existing customers in his territory and developing new business there for the Port of Charleston and the South Carolina State Ports Authority.

Johnson will make his offices at 53 Countess Street, Mosman 2088, New South Wales, Australia. This is the sixth out-of-town trade development office to be opened by the Ports Authority. Others are located in Greer, S.C.; Chicago; New York; Brussels, Belgium; and Tokyo, Japan.

In announcing the appointment, Marsh said, "We are extremely fortunate to have Mr. Johnson join us at this time, when our port's Australian and New Zealand business is growing rapidly. His extensive background and experience in the fields of exporting and transportation should enable us to provide even better service to Australia and New Zealand."

The new Ports Authority representative, who has spent most of his career with William Angliss & Company, served the past 10 years as chairman of the Australian Bulk Tallow Shippers Association. He is also a long-standing member of the New South Wales Meat Exporters Association, the Australian Overseas Transport Association and the Australian Export Shippers Association.

Port Everglades News

Hollywood-Fort Lauderdale, Florida, November 24, 1975 (Port Everglades News):

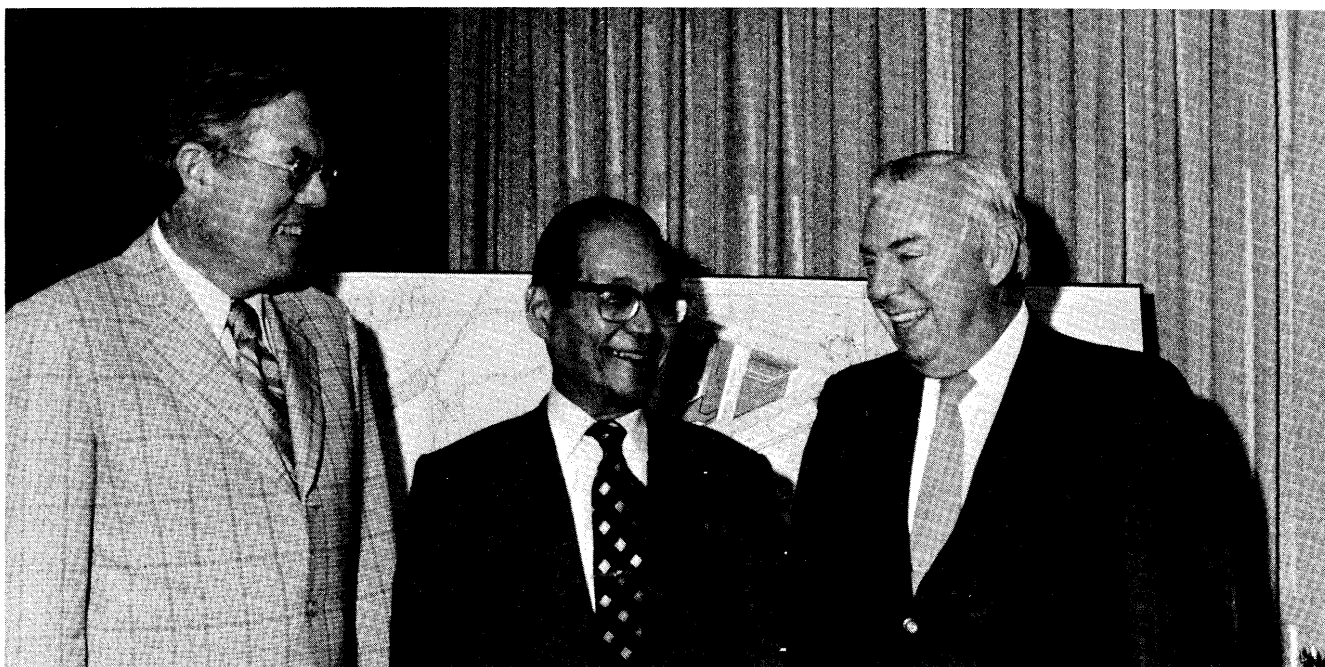
- Port Everglades Authority Vice Chairman Michael Marinelli said that waterborne commerce through October remained six per cent below the corresponding period a year ago.

The continued slump in building materials was reflected in tonnage for the 10-month period which totaled 9,939,408 tons, compared with 10.5 million tons for the same period in 1974.

Domestic cargo was up 13 per cent or almost 900,000 tons for a total of 7,662,146 tons but the gain was offset by a 45 per cent decline in imports, Marinelli said. Imports fell from 3.1 to 1.7 million tons in the year to date.

- Port Everglades Authority Director Paul D. deMariano has been appointed to the National Defense Executive Reserve, according to an announcement by U.S. Secretary of Commerce Rogers Morton.

As a member of the NDER deMariano will be assigned as Port Controller for Port Everglades in the event of a national emergency. The Maritime Administration has approximately 350 Executive Reserve members, primarily



Long Beach, Calif., 112575 (Port of Long Beach News):—IAPH SECRETARY GENERAL IS LONG BEACH VISITOR—Among recent visitors to the Port of Long Beach was Toru Akiyama, Secretary General Emeritus of IAPH, the International Association of Ports and Harbors, who

inspected the newly-completed container-auto complex of the West Coast's busiest harbor. Mr. Akiyama is pictured, center, as he was greeted by Harbor General Manager Thomas J. Thorley, right, and Harbor City Attorney Leslie E. Still, Jr., left.

in ship operations, repair and maintenance, ship construction and port operations.

Extending container terminal

Jacksonville, Florida, December 19, 1975 (Jacksonville Port Authority):—The Jacksonville Port Authority today (December 19) awarded an \$857,000 contract to expand containership docking facilities at its Blount Island Terminal and provide two full 900-foot berths to accommodate the rapidly growing container shipping business.

The contract for the 250-foot easterly wharf extension went to Wood-Hopkins Contracting Co. of Jacksonville, lowest of six bidders. The contractor will have 270 days to complete the work which is scheduled to coincide with the erection of a second 40-ton container crane, now under construction at a cost of \$2.45 million.

JPA Managing Director James J. Scott, Jr. said the twin 900-foot container berths and both cranes will be in operation before the end of 1976 in anticipation of a continuing increase in the container trade, which has mushroomed at Blount Island from 29,000 tons in 1973 to 92,000 tons in 1974 and 303,500 tons in fiscal 1975 (ending September 30).

At the same time, Scott announced that engineering studies have been started for another 300 foot extension of the westerly end of the Blount Island Terminal wharf.

"When we built the 400-foot westerly addition in 1974," Scott said, "we installed container rail foundations into the wharf. Now when we complete the new 300-foot section, we will have another 700-foot container berth at the west end of the terminal ready for a third container

crane should we have the need for one."

Scott said cost of the planned westerly extension will not be known until soil borings have been made, but the work, like all other improvements made at the terminal, will be financed with current operating income and the construction time schedule will be governed by the Authority's financial status at the time.

Construction of the additional 250 feet to the east and the planned 300 feet to the west will provide a total of 3,550 feet of marginal wharf at Blount Island, including berthing spaces for both containerized and general cargo vessels with two or three container cranes and two gantry cranes on rails available the full length of the wharf.

Scott said no further extension of the wharf is anticipated now. He said there is no room for construction to the west and the future plans for extending the east end nearly 1,200 feet will cost in the neighborhood of \$9 million.

"Our general port traffic is increasing rapidly," Scott reported. "We feel the with our expanding trade development activity and the general growth of the State of Florida, the container business should continue to improve and we plan to continue to invest funds as they become available in the expansion of our facilities on Blount Island."

1974-75 fiscal year records

Long Beach, Calif., 121175 (Port of Long Beach News):—The Port of Long Beach, which in recent years has assumed official tonnage leadership among U.S. West Coast ports, recorded its second busiest year in history in the fiscal period ending June 30, according to the Port's



Long Beach, Calif., 112575 (Long Beach News):—CAR CARRIER NOPAL VERDE MAKES MAIDEN LONG BEACH CALL—NOSAC's huge car carrier MV Nopal Verde has just made its maiden call at the Port of Long Beach enroute to the Far East with a load of U.K., European and American-built automobiles. The 3800-car capacity vessel, one of the largest in the world, offloaded cars at the MSI Terminal in Long Beach before loading aboard General Motors and Ford products for delivery to ports in Japan. Seen at port presentation are, left, Atila A. Mossi, Axel Johnson Line supervisor of special carriers, Captain Arvid Angelsen and Port Administration Director Loren T. Cornish.

recently published annual report titled "Harbor Highlights."

Despite a 13 percent decrease of more than two million tons in crude petroleum imports, due to America's determination to lessen its dependence on foreign oil sources, Long Beach registered a 3.2 percent increase in general cargo handled during the past year, and a 19.3 percent gain in liquid bulk other than petroleum.

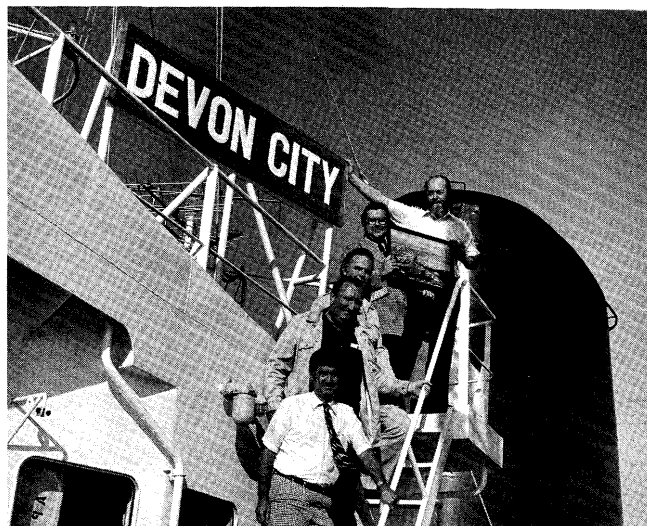
Total tonnage moved in and out of Long Beach reached 27,675,888 tons in 1974-75, which was 7.1 percent less than in the record-breaking fiscal year previous. Value of cargo handled is estimated at over \$6 billion, highest in harbor history.

Bulk petroleum led all imports with 12,030,150 tons offloaded from both foreign and Southern Alaskan sources. Petroleum also led all exports with 3,381,572 tons shipped. The latter figure includes movements to other American ports, including Hawaii, and also to U.S. military bases overseas.

General cargo processed via Port of Long Beach during 1974-75 registered a new high of 7,130,220 tons, more than 4-million tons of which was carried in containers. Long Beach's four container terminals boast a dozen high speed, high capacity gantry cranes serving ten specially-designed container berths in the Southeast Basin.

Total investment in Long Beach Harbor facilities has reached \$236 million. The net operating income of \$6,179,000 will be used to further improve the cargo capability of "America's most modern port."

With a 62 foot main channel, the Port of Long Beach provides shiplines with the deepest dredged fairway in the



Long Beach, Calif., 112575 (Port of Long Beach News):—Maiden arrival of Celtic Bulk Carrier's MV Devon City at the Evans Products Company terminal on Pier A in the Port of Long Beach found Captain James Stuart Murray atop ladder to flying bridge as he was presented with aerial portrait of Long Beach Harbor by George H. Stein, Director of Property Management. Other on ladder are Ross L. Randall, Jr. of Salen Shipping Agencies, Captain John M. Flanagan, Celtic's West Coast Operations Superintendent and John C. Green, front, Evans Marine Terminal Manager.

United States, and supertankers up to 135,000 tons are being routinely handled at the Atlantic-Richfield and Texaco terminals.

Environmental and engineering studies are presently proceeding on plans to provide these existing facilities with the capability to accept vessels of the 165,000 ton class now being designed to offload Alaskan North Slope oil.

Additional studies are being conducted by Long Beach Harbor Engineers, the U.S. Army Corps of Engineers and the government's Computer Bank at Los Alamos, the Allan Hancock Foundation and eight private consultants to determine the best possible design for additional terminals required for the future offloading of crude petroleum from not only foreign production but also from Alaska's North Slope fields at Prudhoe Bay.

Cost of these studies to the Long Beach Harbor Department is \$2.2 million, all of which is being paid for out of Port revenues.

Energy Conservation Award

Long Beach, Calif., 121775 (Port of Long Beach News):—The Port of Long Beach is among 20 Southern California recipients of the Federal Energy Administration's first Energy Conservation Award for having achieved more than 30 percent reduction in energy use in 1974 over the year previous.

Presentation of the award to officials and representatives from 16 industrial and commercial firms and four governmental agencies was made at the Port Administration Building by FEA Regional Administrator William C. Arntz. Harbor Commission president H.E. Ridings, Jr. accepted

the scroll on behalf of the Port of Long Beach.

In achieving an overall energy saving of 31.78 percent last year, Long Beach Harbor encourages and enforces voluntary reduction of light level in offices during daylight hours, with only sufficient illumination at night to maintain building security. In addition, heating and air conditioning are turned off when the building is unoccupied. Thermostats are adjusted for 68 degrees maximum heating and 77 degrees maximum cooling.

Savings in energy costs to the Harbor Department amounted to nearly \$20,000 last year, and are presently at similar levels.

In making the award, Arntz noted that these first awards were designed to better familiarize energy users with the vital role of this volunteer effort to use energy more efficiently. "Every barrel of oil saved is just the same as a barrel of oil produced. The 26 statewide awardees saved some 235 million KWH, or 138,623 barrels of fuel. That's 380 barrels every day of the year," Arntz concluded.

"Critical Choices Ahead," a new energy conservation film produced by the U.S. Department of Commerce, was premiered following the presentation. A copy is available for showing to interested groups and can be obtained by contacting Dr. Donald B. Bright, Director of Environmental Affairs, Port of Long Beach, P.O. Box 570, Long Beach, Ca. 90801.

Sohio Alaskan oil receiving terminal

Long Beach, Calif., 121975 (Port of Long Beach News):—The Port of Long Beach today announced that it has been identified as the preferred location for Sohio's West Coast Alaskan crude oil receiving terminal.

Thomas J. Thorley, General Manager of the Long Beach Harbor Department, said that according to Sohio the facility is projected to receive much of the 1.2 million barrels-a-day of North Slope crude oil production expected by early 1978.

It is anticipated that the facility will deliver crude in excess of West Coast needs to a proposed west to east pipeline system and provide facilities for distribution to local area refineries. He said Sohio expects a West Coast domestic crude oil surplus of as much as 400,000 barrels a day by 1978.

Both the planned three-berth crude oil receiving facility and the previously announced West Coast to Mid-Continent pipeline will be common carriers, according to Sohio, Thorley said.

Much of the 1.2 million barrels-a-day Alaskan North Slope crude production, which will be shipped to the West Coast in American flag tankers, is expected to supplant foreign crude oil now arriving on the West Coast by tanker. The Alaskan crude oil will also replace declining West Coast domestic crude production, and will meet a projected increase in West Coast crude oil demand created primarily by diminishing natural gas supplies.

The indication of Sohio's port preference follows in-depth feasibility and environmental studies of potential sites, both outside and inside San Pedro Bay. Thorley said that, according to Sohio, their preference for Long Beach Harbor is based primarily on the advantages leading from already existing deeper channels and Harbor. While studies indicate that an environmentally sound dredging operation

can be conducted in Los Angeles Harbor, there is concern that dredging and subsequent soil disposal should be minimized, especially where an alternative requiring significantly less dredging is available.

Sohio also related, Thorley added, that the lower costs associated with less dredging and a much shorter trestle to an existing land area assisted the Long Beach Harbor alternative.

Sohio announced last May that Southern California had been selected as the western terminus for the West Coast to Mid-Continent pipeline project, and that indication of their port preference would follow later in the year.

Computers to be used

Los Angeles, Calif., November 26 (Port of Los Angeles):—Computers are expected to save Los Angeles Harbor Department and U.S. Army engineers considerable time and expense, under an agreement with the Army Corps of Engineers authorized today (Wednesday, November 26) by the Los Angeles Board of Harbor Commissioners.

The agreement would provide for a \$43,500 study to analyze, through computers, certain wave oscillation characteristics of Los Angeles Harbor.

Similar uses of computers have been perfected recently at the Massachusetts Institute of Technology. These techniques have greatly improved the reliability of predicting water movement under certain conditions.

Normally, testing for this oscillation is carried out at the Corps' Vicksburg, Mississippi Waterways Experiment Station. There, a scale model of the Harbor area is subjected to hydraulic pressures representing various water movements to determine the effects of altering channel and land configurations.

However, the model program as authorized by the U.S. Congress does not include the hydraulic design of private slips and other isolated areas, but does allow for analysis of all slips in the total Harbor area.

Harbor officials expect that future slip planning and construction, including small craft marinas, would be greatly facilitated through development of this accurate alternative method of water movement on proposed land fill areas and berthed vessels.

Effect of cold water discharge

Los Angeles, Calif., November 26 (Port of Los Angeles):—The Los Angeles Board of Harbor Commissioners today (Wednesday, November 26) approved an agreement with the U.S. Army Corps of Engineers for a hydraulic model study to determine the effect that cold water will have when discharged from a proposed liquefied natural gas (LNG) facility at Los Angeles Harbor.

To be conducted at the Corps of Engineers' Waterways Experiment Station in Vicksburg, Mississippi, the experiment would study the discharge of cooled ocean water used to regassify LNG. Natural gas, when shipped by tanker, is lowered to -260 degrees to reduce its volume to one-six-hundredth. The resulting liquefied natural gas must be "heated" with ocean water upon delivery before it can be distributed as natural gas.

While not contaminated by the regassifying natural gas, the ocean water would be cooled 3½-4½ F degrees and

would re-enter the Harbor waters at lower temperatures than surrounding water.

The effects of this cooler discharge, combined with a Board of Public Works' sewer outfall, must be reviewed by Harbor officials before a permit could authorize the discharge.

New container crane

Los Angeles, Calif., December 3, 1975 (Port of Los Angeles):—The Los Angeles Board of Harbor Commissioners today (Wednesday, December 3) authorized purchase of a multi-million dollar container crane for installation at one of the six Port of Los Angeles container terminals.

To be manufactured by the Northern California firm of Paceco, which recently submitted the lowest responsible bid, the crane is expected to cost \$2.2 million. Once this 40-ton capacity crane and two others currently on order are installed, they will bring the total lifting capacity of the West Coast's largest commercial harbor to 7,500 tons per hour.

Prior to completion of the crane's maximum 600-day manufacturing schedule Harbor officials will make a determination as to which terminal will receive the new crane. This will depend upon the terminal most in need at that time, either American President Lines' Berth 89 or Matson Navigation Company's Berth 206.

1974 trade figures

Los Angeles, Calif., December 15, 1975 (Port of Los Angeles):—Cargo handled by the Port of Los Angeles during calendar year 1974 had a Customs-assessed value of \$9.3 billion, according to figures released by the Los Angeles Harbor Department.

Of this amount, domestic cargo (that shipped between United States ports) accounted for \$4.1 billion, while foreign cargo—goods either imported from or exported to foreign ports—constituted the remainder.

The foreign valuation figures of \$5.2 billion were based on "U.S. Ports' Foreign Trade 1974", a Federal Maritime Administration study reporting on foreign commerce. Compiled from information provided by the United States Bureau of Census and Customs Office, the MARAD report attached a dollar per-ton value to each of three classifications of foreign cargo: general, liquid bulk and dry bulk.

During 1974 the Port of Los Angeles handled 24.3 million tons of domestic and foreign cargo, with liquid cargo, primarily petroleum products, topping the list at 16.5 million tons. Next in line was general cargo, with 5.3 million tons, followed at 2.3 million tons by dry bulk.

Other leading commodities handled at Los Angeles Harbor were, on the export side, iron and steel scrap, iron ore, crude minerals, cotton and animal feeds. On the import list were iron and steel plates and sheets, bars and rods, pipes and tubes, and motor vehicles.

Dredging projects approved

Los Angeles, Calif., December 17, 1975 (Port of Los Angeles):—The Los Angeles Area Chamber of Commerce has gone on record in support of dredging projects at the Port of Los Angeles.

Proposals approved by the Chamber's board of directors

include deepening of the Main Channel at the Port from 35 to 45 feet; deepening of the Outer Harbor to 82 feet, and deepening of the waterways leading to the proposed Liquefied Natural Gas (LNG) facility on Terminal Island to 45 feet.

According to Chamber President Robert R. Dockson, "The Port of Los Angeles must deepen its waterways if it is to remain competitive with other West Coast ports, and to continue in its vital role in the economic well-being of the entire Los Angeles area."

"The proposed dredging projects are in keeping with the current evolution in shipping which is toward larger vessels in international commerce," he said.

Fred B. Crawford, general manager of the Port, said that if the waterways are not deepened the Port of Los Angeles will not be able to accommodate large modern container vessels, oil-bulk carriers, LNG tankers and large crude tankers.

"The result will be a loss of this vital traffic to other ports and the financial loss to the Port and the surrounding area will be severe," Crawford noted.

"With natural gas in short supply in this area," Crawford pointed out, "the only immediate hope for alleviating the shortage is by waterborne LNG tankers. These tankers can only operate economically in channel depths of 45 feet."

"And with the completion of the Alaska pipeline in 1977, the major portion of the crude petroleum from that source will be destined for Southern California. The sizes of tank vessels to be used in that run now exceed the Port's current limits."

Environmental Impact Report

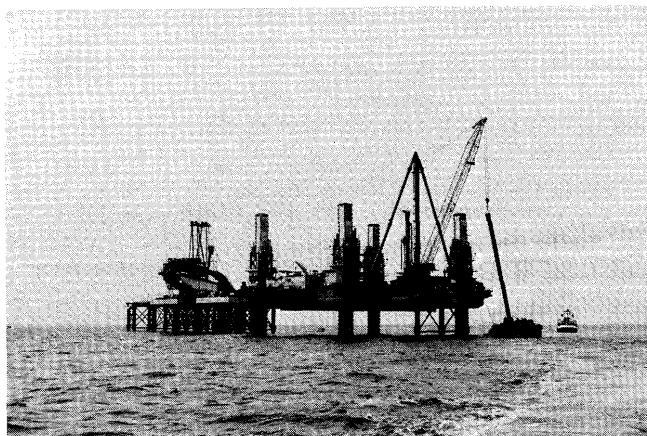
Los Angeles, Calif., December 17, 1975 (Port of Los Angeles):—Preparation of an Environmental Impact Report to study the feasibility of redeveloping a terminal area in Los Angeles Harbor was authorized today (Wednesday, Dec. 17) by the Los Angeles Board of Harbor Commissioners.

The EIR, and supplemental engineering work by Harbor Department personnel, will be needed in the proposed conversion of Berths 231-232, a 50-year-old general cargo facility, to one capable of handling modern containers and imported automobiles. Additionally, according to Lawrence L. Whiteneck, chief harbor engineer, a slip between Berths 231 and 233 would be filled in, 1,300 feet of concrete wharf constructed and certain backland improvements made.

"Through this proposed project, estimated to cost \$10 million," Whiteneck explains, "we would be able to tie together the container terminal facilities at Berths 228D through 230 to those at Berths 233-235. This would result in a modern wharf 3,800 feet long.

"When completed, and with the addition of a container crane now under construction, this area will be served by three cranes."

First multiple oriented mineral terminal in Argentina



New York, N.Y., December 5, 1975 (Soros Associates):—Construction is proceeding on an open-sea pellet loading terminal at Sierra Grande, Argentina. Designed by Soros Associates, the loading berth, located 900 meters from shore will load vessels with North to West headings, to suit varying wave, swell and wind conditions.

The construction is carried out by a consortium of Hochtief, Krupp and Sade with Soros Associates providing construction supervision.

Packer Avenue Marine Terminal

Philadelphia, Pa., 11/7/75 (News from Philadelphia Port Corporation):—Chairman of the Board of the Philadelphia Port Corporation, Frederic A. Potts, announced today that a two million dollar Vehicle Service and Gear Locker Building has just been completed at Packer Avenue Marine Terminal. The building of 37,000 square feet will provide the operator, Lavino Shipping Company, with greatly increased flexibility and efficiency in servicing the numerous support vehicles used in speeding the movement of cargo between ship and shore. Substantial increases in the cargo moving through the 105 acre terminal made construction of the building a necessity.

Harry R. Belinger, City Representative and Director of Commerce for the City of Philadelphia, noted that the project was financed by City of Philadelphia General Obligation Bonds and is fully self-supporting. Rent, which the Philadelphia Port Corporation collects from Lavino, covers all bond service costs. Belinger stated that "this is another example of Philadelphia's sound financing policy in which eligible improvements advance the best economic interests of the City".

The Packer Avenue Marine Terminal has five marginal berths and one slip berth. Three of the marginal berths handle breakbulk cargo and the other two, equipped with two giant container cranes, handle container cargo. The slip berth has a roll-on/roll-off platform on the inshore end. The terminal has 360,000 square feet of transit shed, 200,000 square feet of dry warehousing and a freezer building with 1,500,000 cubic feet. One of the most modern terminals in the world for the handling of general cargo, it has helped Philadelphia regain its prominence as a major sea port.

In 1974, Philadelphia led the nation in international



San Francisco, Calif., (12/9/75) (Marine Exchange of the San Francisco Bay Region):—The maiden voyage arrival of the CALIFORNIA RAINBOW was recently feted in shipboard ceremonies at Alameda's Crescent Wharf and Warehouse facility. Welcoming vessel master Captain H.P.B. Thorsen was Frank Ewers (Marcona Corp.) of the Marine Exchange of the San Francisco Bay Region. The steel carrier, owned by Tokai Shipping Co., will maintain regular scheduled visits to Japan, Honolulu, San Francisco, and Los Angeles. Bakke Steamship Corp. are the local agents for the service.

waterborne commerce. Available statistics thus far this year show Philadelphia is continuing that lead.

Francis H. Muldoon, President of Lavino Shipping Company, declared that the new building was the finest facility in the nation for the servicing of terminal vehicles. Muldoon added that Lavino was placing a million dollars worth of specialized equipment in the building to provide the best service possible in the field of marine terminal operations.

Grain loading record

Toledo, Ohio, November 25, 1975 (Toledo-Lucas County Port Authority):—A new single season grain loading record has been established at the Port of Toledo according to figures released by the Toledo Board of Trade. A record 91.5 million bushel total has been loaded so far this season by the Andersons, Cargill, Inc., and Mid-States Terminals, Inc., the port's three waterside grain elevators.

The new record was reached late yesterday when 888,000 bushels of corn were loaded on the Canadian laker COMEAUDOC while at The Andersons elevator. It topped the port's old record of 91.2 million bushels set during the 1971 Great Lakes/St. Lawrence Seaway shipping season.

Last year, the port exported only 51 million bushels for the season. In 1971, the last grain vessel sailed from the port on December 18.

"We expect at least eight more ocean vessels and possibly twelve more lake boats to load grain this year," said Virgil McNamee, chief grain inspector for the Toledo Board of Trade. "We should load in the neighborhood of 105 million bushels before the season is over," Mr.



San Francisco, Calif. (San Francisco Customs & Freight Forwarders Association):—**EXPERIENCED TEAM** of officers has been elected to lead the newly-incorporated San Francisco Customs Brokers and Freight Forwarders Association. At a recent World Trade Club meeting of its new board of directors, the Northern California professional group chose Marshall Brownfield (left) as president. Brownfield is also president of BBC International. John A. Sundfelt, 1973-75 president of the group, was elected 3rd vice president. He is vice president of Frank P. Dow Co., Inc. Also elected were William F. Bosque (center), J.E. Lowden & Co., as 1st vice president; Ted L. Rausch, president of Ted L. Rausch, Co., in the 2nd vice president position, and Robert Langner of the San Francisco Bay Region Marine Exchange, as secretary-treasurer. In addition to the election of officers, the Golden Gate-based association's membership elected new directors: Bonnie Beijen, W.J. Byrnes & Co.; James Burns, Thornley & Pitt, Inc.; Arthur J. Fritz, Jr., A.J. Fritz & Co.; Michael Rabette, Hecny Brokerage and Donald J.H. Sinclair, Walter Plunkett & Co.

McNamee predicted.

This year, the Seaway will close on December 18 and the Welland Canal will close on December 30.

Port grain officials attribute this year's record grain business to three main factors: an excellent grain crop, favorable weather conditions and a plentiful supply of vessels calling in the Great Lakes/Seaway system.

Frank E. Miller, Toledo-Lucas County Port Authority seaport director, said, "The new grain record is very important because of the economic benefits it has generated to all of those in our community involved with grain and grain shipping. We will continue to do all in our power to achieve a longer St. Lawrence Seaway navigation season to keep these benefits coming."

Practically all of this year's grain shipments went to Canadian and overseas destinations. There was one 750,000 bushel shipment of oats that went to Duluth, Minnesota. Corn, soybeans and wheat are the port's three principal export grains.

The COMEAUDOC is a 730-foot lake vessel owned and operated by N.M. Patterson and Sons Ltd. of Thunder Bay, Ontario. She is a frequent caller at the Port of Toledo.

Future of the Port of Ghent

Ghent, Belgium (Port of Ghent Information Periodical, 6-75):—On May 26th, 1975, Mr. J. Chabert, minister of transport, paid a visit to Ghent, accompanied by members of his cabinet.

After a welcome in the town-hall by the burgomaster, Mr. G. Van den Daele, in the presence of various aldermen,

a trip was made aboard the yacht «Jacob van Artevelde» through the harbour-docks and on the ship-canal. The lunch was followed by a workshop during which several items were treated with regard to the present output and the future of the Ghent port. The minister's attention was drawn on the maritime gate to Ghent which necessitates regular dredging-works, on the section between Flushing and Terneuzen, at the bar of Borssele.

The extension to Ghent of the projected radar on the Western Scheldt will be the subject of negotiations, which are due shortly. Instead of equipping the shipcanal entirely with radar, the aim is to integrate only the lock-complex at Terneuzen in the radar system. For the canal proper, the possibilities of a T.V. control network will be studied, in cooperation between the involved ministries and the port office.

Mr. G. Van den Daele further attracted attention on the admission of larger ships in the Westsluis at Terneuzen, considering the dimensions of the lock. At present access is given to vessels measuring 245 m long, 33 m wide and having a draught of 12.25 m. The minister promised to discuss this matter with his Dutch colleague. Negotiations will be carried on as to the approval of police regulations on the ship-canal on Dutch and on Belgian territory.

The ministry of transport will consider the possibility of increasing the number of pilots.

With regard to a new connection of the port to the sea for 125,000—tonners, Mr. Chabert stated that he would be ready to put this subject down for discussion during the next meeting between the Netherlands and Belgium. After this workshop, the minister of transport viewed the airport of Ghent/Sint-Denijs-Westrem.

On June 2nd, 1975, the committee of port problems of the consultative interparliamentary Benelux-board paid a visit to Ghent in the framework of a round of visits effected to the harbour cities and their hinterland in the Benelux region.

The committee, led by its president, the Dutch senator, Mr. M.C. Verburg, was greeted in the town-hall by Mr. G. Van den Daele, burgomaster.

During a workshop the burgomaster stressed the fact that in view of securing navigation possibilities to the port of Ghent, especially with regard to bulk cargo, measures have to be taken already now to make Ghent accessible to 125,000—tonners. At present vessels of up to 60,000 tons can be received. Port and hinterland concerns should be able to receive or forward cargo by means of larger vessels, from now on.

According to the burgomaster, negotiations should start on short term between the Netherlands and Belgium regarding the new maritime connection with the Western Scheldt required for above-mentioned purpose. The Belgian government should discuss the justified Ghent requirement, that concretely comes down to a new lock near Terneuzen and a new canal, during the very next official contacts with the Dutch authorities.

The exposition of the burgomaster was followed by lively discussions during which the situation of other ports came up, as well as the stops on the French-Belgian border, which hinder inland navigation to the hinterland.

The committee decided that the requirements put by Ghent regarding a new lock and a navigable way to the

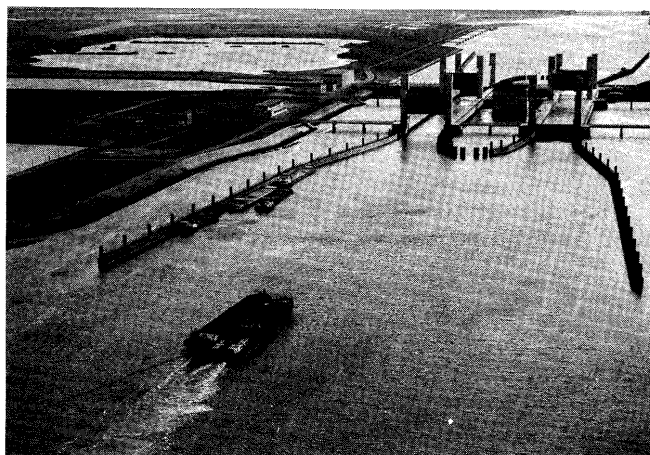
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NEW SCHELDT-RHINE LINK

General Management of the Port City of Antwerp

→
Map of the new Scheldt-Rhine canal. Below the port of Antwerp with Zandvliet lock; in the center the locks at Kreekrak—see photo—and on the top the link with the Rhine in the Netherlands (Volkerak).

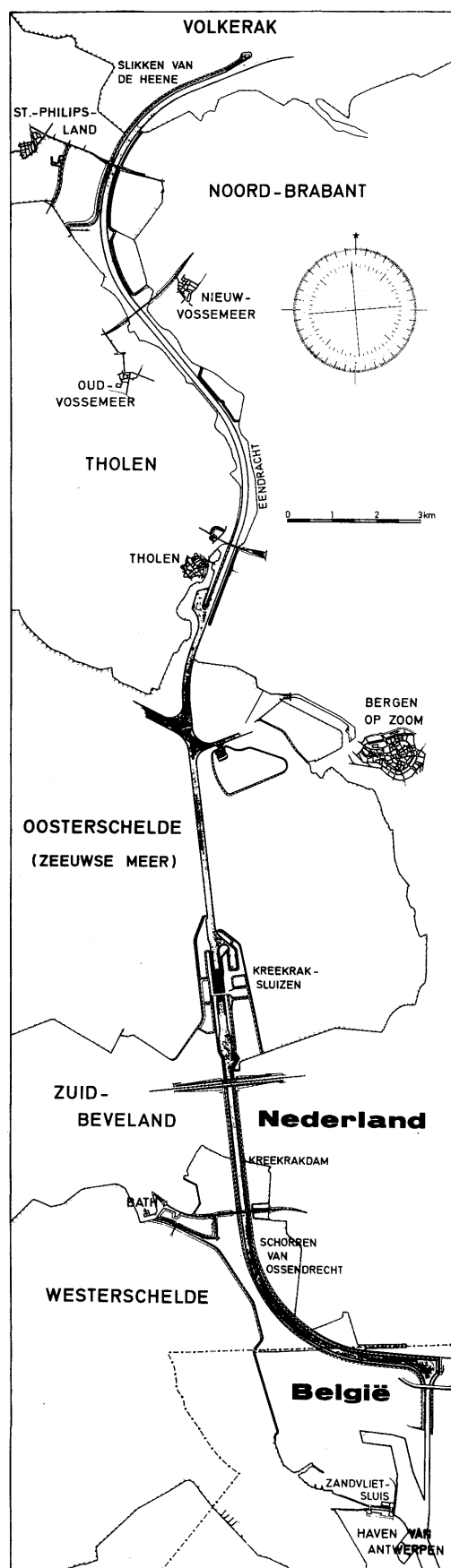
Antwerp, 3rd December, 1975:—On the 23rd of September a new canal linking the Port of Antwerp with the Rhine was opened for inland navigation. This was a great event for the port of Antwerp, in fact the realization of a wish that existed for more than a century. Indeed in 1867 the natural link between the Scheldt and the Rhine, which was so important for the Rhine traffic in Antwerp, became closed by a railroadam in the Netherlands, and the barge traffic between Antwerp and the Rhine had to take a much less favourable route via narrow canals with smaller locks. Ever since Belgium and the Netherlands discussed and negotiated a new inland navigation link. Negotiations were
(Continued on next page)



The Kreekrak locks on the new Scheldt-Rhine link



New Scheldt Rhine canal with one of the bridges



only concluded in May 1963 when an agreement was signed, providing for the construction of a new link.

The new waterway shortens the distance between Antwerp and the Rhine by 38 kilometers. Its length is 38 kilometers, it has a bottom width of 120 meters and a water line width of 170 meters (as against 32m and 63m for the old waterway).

Very important is also that the barges on their way to the Rhine no longer must pass the Scheldt river where up to now 40,000 seagoing vessels and 80,000 river vessels had to cross each other yearly. The new inland waterway ending directly in the docks thus not only serves inland navigation, it will also ease navigation for the seagoing vessels between the Antwerp port and the sea.

Furthermore the four locks on the old link to the Rhine will be reduced to only two. Each lock complex consists of two up-to-date equipped locks having a length of 320m and a width of 24m against a length of 152m and a width of 10m on the old waterway. The consequence of these limited dimensions was that the pushconvoys had to be uncoupled. The new link will allow convoys of 9,000 tons to reach their destination without uncoupling nor loss of time. Consequently it may be anticipated that, thanks to the new Scheldt-Rhine link, Antwerp will consolidate its position as second Rhine seaport.

In 1974 the Rhine traffic in the port of Antwerp totalled almost 15 million tons (9.3 million tons of cargo arrived by Rhine barges and 5.4 million tons of cargo was transhipped in Antwerp from seagoing vessel into Rhine barge). These tonnages may illustrate the importance of the Rhine traffic, and thus of the new link for Antwerp. This explains why Belgium invested almost 10 billion B.Fr. (\$250 million) for this new waterway of which only 5 kilometers are on Belgian territory (the other 33 kilometers are on Dutch territory). For the port of Antwerp the opening of the new link to the Rhine may be the most important development since the completion of the 10 year programme for port expansion in 1965.

Port of Ghent

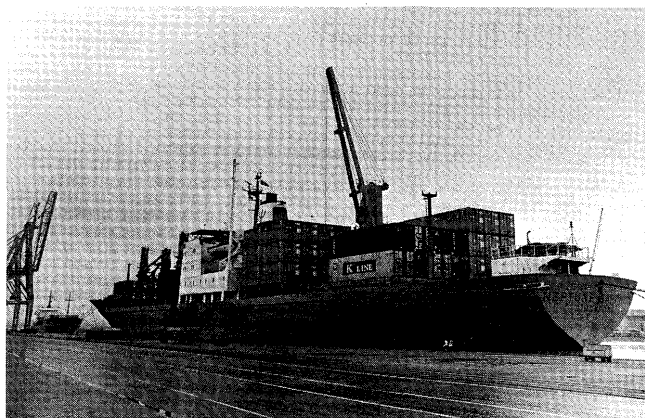
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Western Scheldt, will be discussed with the governments in the next full meeting of the Benelux board, to be held at The Hague in the fall.

Mr. G. Van den Daele also drew the attention to the connection of Ghent to the Rhine, which now runs via the Hansweert-Wemeldinge canal. Regarding this waterway, question marks rise at present pertaining to the solution that will be given by the Netherlands to the problem of the closing of the Eastern Scheldt.

The discussions were continued during a lunch on board the yacht «Jacob van Artevelde»; in the afternoon the committee sailed through the port of Ghent. Views about the subjects of employment and ecology were also exchanged.

All container ship "Neptune Sapphire"



London, 27th November (PLA News):—The newly converted Neptune Orient Line ship "Neptune Sapphire" discharged and loaded containers at the PLA multi-user container berth Tilbury Docks, on her maiden, outward voyage as an all container vessel.

"Neptune Sapphire", a regular caller at Tilbury on the Neptune Orient Line conventional service now begins a regular container service to Singapore. London agents for both services are Cory Bros., a member of the Powell Duffryn Group.

PLA Director of Tilbury John Black recently returned from a business visit to the Far East during which he had talks with Neptune Orient Line in Singapore. Welcoming "Neptune Sapphire" to the container terminal he said, "I am delighted that London was chosen to handle Neptune Orient's first all container ship, and we at the PLA wish them every success in this new enterprise."

Tea discharge time more than halved

London, 28 November (British Transport Docks Board):—Sixty-nine thousand chests of tea were unloaded from the Scindia Steamship Company's motor vessel "Jalamorari" in only 2½ days at Newport Docks this week.

The rapid discharge—twice as fast as normal for a tea cargo of this size—was made possible by the fact that the entire cargo had been palletised before shipment. A total of 4,150 pallet units was involved.

The "Jalamorari" began discharge on Monday morning (24 November) direct to road vehicles at a berth on the south quay of Newport's South Dock and completed work early on Wednesday afternoon, sailing on the p.m. tide the same day. The average rate of discharge achieved was 44 pallets per gang hour.

Newport is now used regularly by the tea trade, and the success of this trial palletised cargo will no doubt lead to further shipments of this kind.

Overseas trade missions

Bristol, December 3rd, 1975 (Portfolio, A Newspaper for the Port of Bristol):—The Port Authority is formulating plans for a number of overseas trade missions and the first one began at the end of November.

The missions will be concerned both with improving trade for the existing docks and seeking new trade in connection with the West Dock, due to open in the late summer of next year.

On November 29th the P.B.A.'s Commercial Manager, Mr. Cyril Jones, and the Docks Manager, Mr. David Taylor, departed for India and Sri Lanka on a three-week tour.

In Calcutta they will be concerned with increasing Avonmouth's share of the Indian tea trade to the U.K., currently running at just over a third. Talks with stevedores, tea shippers and the Port Authority will also seek to improve documentation and stowage of the chests with a view to minimising the sorting procedure at Avonmouth.

The mission will be contacting shipowners, agents and the Port Authority in Bombay, and also shippers of animal feeding stuffs.

In Madras they will be particularly concerned with the hides and skins trade, in which the Port of Bristol serves the Midlands.

The Port's share of Sri Lanka tea for the U.K. is less than in the case of India and Mr. Taylor and Mr. Jones will visit Colombo in an effort to improve it. Coir is another commodity from the island in which the Port has an interest.

The principal initial traffic at the West Dock will be forest products, arising from North America, and it is proposed to send a team in the early months of the New Year to cover the ground previously explored by the General Manager, Mr. Gordon Lowery, and the Assistant General Manager (Marketing), Mr. Stanley Whittington. They will also look at other potential sources of trade.

The tour will not take place until operational plans have been completed, and details of working arrangements on the berth together with rates and charges for handling forest products at the new terminal are available for customers' information.

Other areas of possible trade are being carefully evaluated with the object of further visits to market the whole port facilities.

Port of Le Havre Flashes

Le Havre, France (Port of Le Havre Flashes, August-September 1975—this arrived later than October issue):

● International Maritime Conference

Trade experts and delegates from the world's leading seaports will be meeting in Le Havre from October 21st to 24th for a symposium on "Shipping and International Trade", organised by CESTRAL, the Transport and Logistics Research Centre. The idea originated with the Institute of International Transport Law and has been warmly encouraged by the Institute of Shipping Economy, the European Professional Training Institute, the Havre Chamber of Commerce and, of course, the Port of Le Havre Authority.

The first day will be devoted to the role of the transit trade in international seaborne trade, and the second



The world's finest Port Control Centre of Le Havre

day to international payments and to ways and means of simplifying formalities. The third day will be taken up with the effect of exchange rate fluctuations on shipping transactions, while the fourth and last day will be concerned with the elaboration of a new international maritime code. In addition to these working sessions there will be two dinner-debates on the themes of "The effect of port dues on a port's attractiveness" and "Reflections on legal policy in relation to carriers' responsibility".

Shippers and anyone else interested in this symposium, which will include papers by many leading European experts, are invited to contact CESTRAL as early as possible at Tour Horizon, 52 Quai National, 92806 PUTEAUX. (Tel.: 776-43-24. Telex: 63794 aft PUTAU).

● Creation of local port users' federation

UMEP, the Union Maritime et Portuaire, is a professional association of companies connected with the port of Le Havre, which was founded to defend their common interests, represent them in negotiations with third parties and enable them to define and carry out a common marketing policy for the port.

In order to widen the membership and make the association fully representative of all the professions connected with the port, the governing committee of the UMEP felt that it was desirable to transform the union into a Federation of Trade Associations. This took effect on July 1st and UMEP is now a vast association of port users catering for all activities and interests connected with the Port of Le Havre. It has three sections: a marine section covering shipowners, agents, shipbrokers and underwriters; a trading section covering industry, trade, forwarding agents and Customs agents; and a handling section.

We offer our very best wishes to the new federation, which will undoubtedly lead to important new trading developments designed to promote the port both at home and abroad.

"Eurexport": the services to the export service

Rouen, France (Rouen Port International Issue, August 13th 1975):—For the second time, from the 6th April to the 10th, 1976, the Salon «EUREXPORT», intended to bring to the notice of both the public and executives the complete range of services to the export service, will be

held in Rouen.

At national level, its interest lies in putting on view the full weight of these services which are very specialised in an economy always turned towards Foreign Trade. «EUREX-PORT» by that alone, should allow the quality of French services (that must compete with highly organised foreign competition) to be highlighted.

At trade level, the Salon gives French industrialists the opportunity of getting to know the complexity and the constraints besetting the functions of this third sector so often little known, and to give them a chance of grasping them better. Several get-togethers are envisaged by the organisers.

During this Salon week, and for the first time, a sizeable number of Commercial Counsellors of France who are posted abroad, will be available to visitors to give them maximum information on the outlets possible in the countries they are attached to.

«EUREXPORT» is open to all those employed in the export field; to give examples—chambers of commerce, banks, insurance companies, customs people, transport brokers, charterers, warehousemen, international transporters (water, air, rail, sea and road), forwarders, maritime agents, French and foreign ports, international marketing consultants, companies involved in foreign trading, industrial packaging companies . . . etc. . . .

«EUREXPORT» is chiefly sponsored by Messrs. Norbert SEGARD, Minister for Foreign Michel d'ORNANO, Minister for Industry and Research, and by the Centre Français du Commerce Extérieur. The Commercial Service of the C.O.M.E.T. (B.P. 1080, 76016 ROUEN CEDEX; Tel. (35) 72.59.69) will furnish all details on request.

Looking towards the "Gulf"

Rouen, France (Rouen Port International Issue, August 13th 1975):—A reception was organised at the Palais des Consuls on the 12th June on the occasion of the second departure of the new regular line from Rouen to the Arab-Persian Gulf of the Navale et Commerciale Havraise Péninsulaire.

In a short address, Mr. Chuat, Commercial Manager of the N.C.H.P., expressed his hope that the shipping and forwarding agents will lead their fullest support to the Company to develop this service, which begins under difficult economic circumstances, but brings to the port of Rouen a service which neatly rounds off Rouen's series of regular runs. Rouen people had replied in great numbers to the kind invitation of the N.C.H.P., and one is led to believe that this exhibition of friendship will be followed by the efforts of all the community to develop trade with the Middle East.

The first sailings of the line were carried out by the VILLE DE VALENCE (on May, 15) and the VILLE DE GENES (on June, 13). Next ship scheduled on the service is the VILLE DE STRASBOURG (on her maiden trip); she will leave Rouen on August, 19 for Khorramshar, Abu-Dhabi, Dubai, Doha, Kuwait and Dammam. The N.C.H.P.'s agent in Rouen is Worms C.M.C.

Container traffic is constant

Bremen, 5.12.75 (BremIn=Bremen International):—In the train of international recession cargo-handling in the Bremen/Bremerhaven port-group fell sharply in 1975, compared with the 1974 record year. The Bremen senator for ports anticipates a total of 21.5 million tons for 1975. The cargo handled in the first 10 months was 17% below that for 1974 (general-cargo minus 14.3%, bulk commodities minus 20%). Against this container handling remained approximately constant with 344,831 units (350,541 units for first 10 months of 1974) and 2.67 (2.82) million tons.

October cargo traffic high

Bremen, 22.12.75 (BremIn=Bremen International):—With the October 1975 cargo-handling increase the Bremen/Bremerhaven port-group again topped all the German ports. This port-group secured half the handling-increase of the ten largest West German ports. With 1.9 million tons Bremen came near to the October handling figure, 2.1 million tons, of the 1974 record year.

According to information issued by ports senator, Oswald Brinkmann, the Free Hanseatic City of Bremen has, over the past 30 years, invested some DM 1.5 milliards in the Bremen and Bremerhaven port installations and traffic infra-structure. Whilst fully 20 ships berthed in Bremen/Bremerhaven in 1945, there are now annually 13,000. During the 30 years Bremen again reached peak handling figures of 8 million tons in 1951, 17.5 millions in 1960, about 23.5 millions in 1970 and—in the record year of 1974—some 26.7 millions, of which 14.6 million tons consisted of general-cargo. 1975 will not reach the '74 record, nevertheless the high general-cargo proportion remains. Brinkmann: Primarily the general cargo handled indicates the significance of the political economics of a port. With 346 liner services and 455 monthly sailings to 1000 ports throughout the world, by ships from 70 countries, the universal port picture is indicative of Bremen. Further port development planning for the next ten years is based on a cargo-handling figure of some 38 million tons for the year 1985.

Hapag-Lloyd at Bremen

Bremen, 5.12.75 (BremIn = Bremen International):—Germany's biggest shipping company, Hapag-Lloyd—4th position in international liner-ship listing—is bent on diversification in order to have 'additional legs' for the undertaking. 80-percent of total turnover falling to liner-shipping bring considerable risks no longer acceptable for a firm which has developed from being a shipping company to an international transportation concern, declared board-member Dr. Horst Willner. He referred to Hapag-Lloyd's latest subsidiaries which are all based in Bremen and Bremerhaven. Bremen, for Willner, is 'the place of the future'.

For the air-branch of the undertaking is there. 1974 annual turnover: DM 62 millions—1975 expectations: DM 85 millions. Hapag-Lloyd has adapted to the drift of freight away from the sea and towards the air. The favourable

(Continued on next page bottom)

International Forwarding Not Bad in 1976

Bremen International

Bremen, 22.12.75 (BremIn):—Klaus-Michael Kühne, Chairman of the Board of Directors of Messrs. Kühne & Nagel Spedition-Aktiengesellschaft (a leading concern in the transportation branch, judges the position of international forwarding at the turn of the year to be more favourable than was the previous, mid-year, stage and the development for 1976 as "generally somewhat positive". There would, however, be no steep upward trend as experienced in '73/74, that also was pretty certain. One must also calculate with differing regional results and varying demands upon the traffic routes and conveyance systems. However after 1975 had proceeded, all in all, surprisingly well he—supported by the latest prospects forecast—was relatively optimistic about the immediate future: 1976 should, in fact, not run badly. In this he is hopeful of a further recession in the international rate of inflation—a tendency which already has had positive effects in most recent times.

The market displacement phases for the forwarding branch, resulting from the time-lapse between receipt of orders by the trade and production output by industry have to be taken into consideration when judging the situation. The slump trend in world economy could be eased for the service-producing organisations in the traffic and transportation sphere, in contrast to other branches, with

entrée into air operations was by way of air-tourism, in which the undertaking already employs 1000 is West Germany.

Together with air-freight and air-tourism, passenger-shipping has long had its home in Bremen. The last remaining passenger liner of Hapag-Lloyd, the "Europa", has enjoyed her best ever results this year. Willner: Passenger shipping indeed is now only a relatively small, but by no means unprofitable branch of the business. When a favourable opportunity occurs the intention is to buy another passenger liner.

Also for mention in Bremen are: the tug business, with 32 vessels, as well as the shipyard in Bremerhaven (one of the most effective repairyards on the Continent)—and then, arising from the Unterweser Shipping Company, which Hapag-Lloyd acquired at the beginning of 1975, the Kosmos Bulkschiffahrt GmbH., w.e.f. 1st January 1976, which is for breaking into the bulk-commodity trade. Here, in addition to four own vessels, come two chartered ships. Another three bulk-cargo freighters are currently being built for Hapag-Lloyd in Brazilian shipyards. Certainly a bad time has occurred for embarking on tanker shipping and in the off-shore sphere concentration will solely be on the supply-ship sector.

Willner, on the purpose of these diversification activities: 'One day' the liner-shipping side will be participating with only 60 percent of the total Hapag-Lloyd turnover.

reductions on the expenses side. Transportation undertakings in general, particularly the international ones are not so sensitive to crises as other sectors, Whilst, for instance, the ports—decisive factors for the traditional export markets—are now feeling the full force of the lull (visible also in over-capacity of tanker and container shipping), international forwarding profits from the boom in the busy, and in part over-burdened, land routes from, say, Europe into the oil-producing countries, or through the Soviet Union to East-Asia. Kühne & Nagel, the world's first transport undertaking to be recently accredited in Moscow, enjoys an 11 percent participation in the container movements over the trans-Siberian land route, which is a some 8000-km shorter connection between Europe and East-Asia than is the sea-route.

The Kühne & Nagel organisation (Bremen, Hamburg, Pfäffikon/Switzerland with its head-office in Bremen) is currently running 285 branches in 210 towns of 55 countries—and in 1973 had a gross turnover of 1.9 and in 1974 of 2.5 milliard DMarks. The 1975 turnover-results are expected to be nearly DM 3 milliards, whereby account has been taken of the weakness in individual areas, particularly in the German export and air-freight fields. KN have expanded systematically over the past 8 years, with a foothold being secured in many new markets. This activity is now, to an increasing degree, making itself felt positively, also in the mainly stagnant home-market. This unusually-animated upward trend is not, however, typical for the forwarding branch as a whole. The long-term diversification-program employed here, from the operative function to the storage function, through to the carrier function, has resulted in a wide utilisation of the market which now, despite an, in part extremely low, profit-margin, has paid off in marked growth and in considerable stability. KN, as first forwarding concern, has logically now established a planning department which concerns itself with international trade offerings and long-term structural variations; producing analyses of trends and also specific market studies.

There is, according to Klaus-Michael Kühne, no 'Secret of Success'. KN prefers to lay the cards on the table: such a service-chain around the globe, plus increasing diversification, naturally places enormous demands upon the management, which is only able to fulfil its tasks because, for its part, it is able to rely upon a first-class corps of assistants. "To enrol the right people, train, advance and send them out to gather worldwide experience is the most important pre-requisite. He who will gain and hold trust, must offer quality. In each individual instance sterling work is the key to success. Top people are scarce and the personnel policy one of the hardest and simultaneously most important tasks. After all we do not have machines, no mass-production such as in industry. In a service-offering concern the human factor is dominant, decisive—right down to the last, smallest cell of the undertaking. That is the reason for the firm's high participation in training our staff. To apply the right, the best specialists—that is what makes us strong, also in the face of wealthy competition".

Half-time for the Elbe Lateral Canal

Port of Hamburg expecting 12 million tons transshipment rise

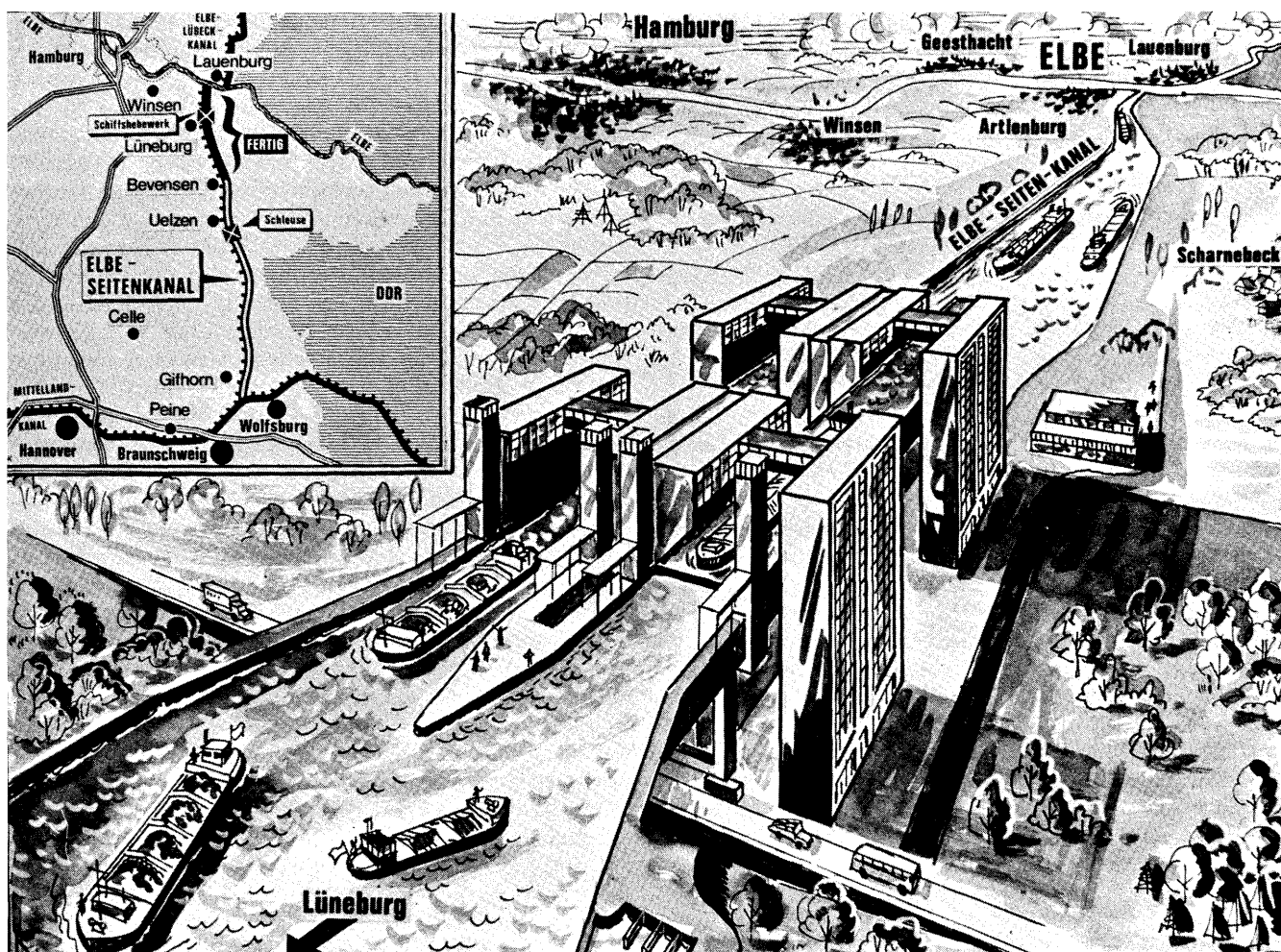
Hamburg, 5th December, 1975 (Hafen Hamburg Press Service):—The Lüneburg Heath saw two “wet” premieres on 5th December which are of considerable significance for the Hanseatic City of Hamburg: opening of the northern section of the Elbe Lateral Canal and of the new Lüneburg Port. This means that within a few months, following the Köhlbrand-Bridge and the new Elbe Tunnel, the third construction project of the century is clear for action, albeit on the instalment plan. At the moment the canal has been flooded only as far as the area north of Uelzen. It will be completely navigable at the end of next year.

As early as the 1950's Hamburg port experts had painted wide strips on the maps—from the Upper Elbe to the Mittelland Canal. “It should look something like this”, they commented. Scrawlings of this kind were the very first beginnings of the Elbe Lateral Canal, long since reduced to the German abbreviation of “ESK” (Elbe-Seitenkanal).

The River Elbe has its shallowest section, of all places, between Lauenburg and Magdeburg. For the greater part of

the year inland vessels are unable to navigate it fully loaded. In the hot summer weeks the fair-way is only 80 centimetres deep. The situation could have been eased by a series of dams above Lauenburg, but this would have involved astronomical expenses. Thus the idea of the ESK was born—to by-pass the shipping route from Hamburg to Magdeburg, and thus also to Berlin, by 128 kilometres. The saving on the route from Hamburg to the Ruhr industrial areas is even 250 kilometres. In 1968 earth moving machines began to cut the fair-way through the heath—115 kilometres long, 53 metres wide, four metres deep. Deep enough for the standard Europa-Ships (1,350 tons). In 1968 the overall cost was estimated at 760 million Marks. But in actual fact up to 1976 the total will have risen to 1,300 million Marks. Two thirds are paid by the German Federal Government, the remaining third by Hamburg.

The ESK overcomes the 61 metres difference in level between Upper Elbe and Mittelland Canal with only two stages. The northern stage is the ships elevator at Scharnebeck, north-east of Lüneburg—the biggest ships lift in the world. Two gigantic chutes (100 metres long, 12 metres wide) manage the 38 metres between the “valley”



and "summit" station in only three minutes. Counterweights maintain the balance. The plant has been ready for weeks and test lifting has been carried out every day. But officially the first chute downward run was on 5th December.

The second stage near Uelzen copes with the remaining 23 metres—the biggest high-lift lock in Europe. This is not yet in operation.

Spin-off products of the ESK, so to speak, are the harbours of Wittingen, Uelzen und Lüneburg. The last-named, a Middle ages town once most famous for salt, has the biggest port, with 800 metres of quays for over 30 firms. Lüneburg is expecting an annual turn-over of 800,000 tons.

Helmuth Kern, Hamburg's Economics Senator, estimates that the ESK will mean additional cargo for the Hanseatic city of 12 million tons per year. This also includes the inland vessels transporting via Hamburg imported iron ore to the Salzgitter steel works when in 1977 Salzgitter, for financial reasons, will cease working the comparatively low grade German ores. A precondition for this, however, is deepening of the Lower Elbe to 13.5 metres. This depth would enable fully-loaded 110,000 tonners to come right to Hamburg. River deepening operations have already got under way.

The ESK is a structure of superlatives—a gigantic concrete "bath tub" stretching right across the Lüneburg Heath. It is crossed by 54 roads, eight railways lines and 31 waterways—some going over, the others going under. North Germany's longest railway tunnel (just under 1,000 metres), which runs under the canal, was recently released for the Hanover to Berlin route.

The ESK will also be a mecca for amateur skippers. Several boating harbours are already under construction. Nature-lovers will also get their moneysworth—each side of the new waterway, in lonely heathland, romantic lakes are forming—ideal for bathing, angling and canoeing.

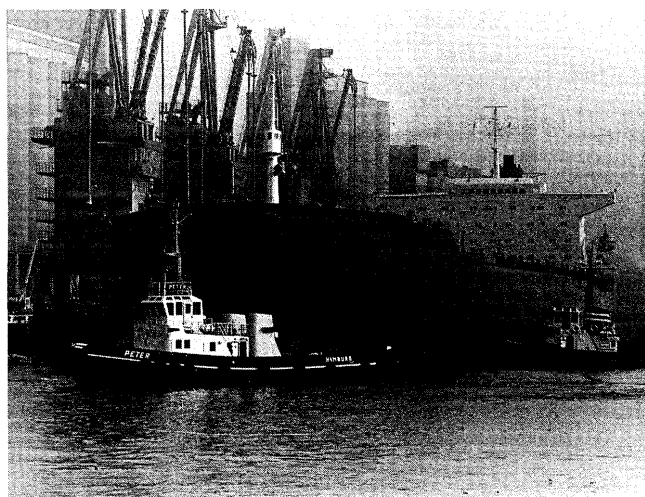
Biggest grain cargo ever discharged in Port of Hamburg

Hamburg, November 5th (Hafen Hamburg Press Service):—80,000 tons of grain and feeding stuffs have just been discharged in the Port of Hamburg (Neuhof), the biggest complete load ever transshipped in the Hanseatic port. The bulk carrier MV "Fernhill" (64,077 GRT) required exactly 17 days to transport this weighty cargo from the U.S. gulf to the deepsea terminal of the Neuhof Hafengesellschaft mbH. The owners of the vessel, which was launched in summer this year and which tied up in the Port of Hamburg for the first time, are the Norwegian company Fearnly & Eger.

The greater part of the cargo is destined for East Germany. The remainder of the grain and feeding stuffs will go on to other Comecon-countries and to Austria. The importer and broker for the entire consignment is the Hamburg firm of Alfred C. Toepfer.

Leading Transshipment Point for Pneumatically-handled Goods

The transshipment of grain, oilseeds and feeding stuffs in the Port of Hamburg has continually risen over the past years, and in 1975 will most likely exceed the 12 million



Safely escorted through thick fog by the world's longest radar chain (148 kilometres): MV "FERNHILL". The Norwegian bulk carrier (64,077 GRT) discharging in the Hanseatic city's port 80,000 tons of grain and feeding stuffs—the biggest complete cargo of pneumatically-handled goods ever transshipped here.

ton mark.

Suction Cargo Transshipment in the Port of Hamburg

	1970	1971	1972	1973	1974
Incoming:					
Grain	2013,0	2355,7	3104,6	3110,1	2755,5
Feeding stuffs *)	2083,7	2222,3	2022,0	2210,7	3735,6
Oleaginous fruit and seeds	1599,0	1775,1	1779,1	1896,3	2277,4
Various imports (non-oleaginous seeds, legumes, flour, malt, milled products)	55,6	44,7	47,4	43,3	34,2
Vegetable oils	125,7	166,9	177,5	176,8	176,3
	5877,0	6564,7	7130,6	7437,2	8979,0
Outgoing:					
Grain	351,1	196,5	275,0	425,5	758,7
Feeding stuffs *)	528,8	419,4	437,7	691,2	980,3
Oleaginous fruit and seeds	65,7	109,5	117,3	98,8	103,8
Various exports	125,1	134,1	129,6	230,1	170,9
	1070,7	859,5	959,6	1445,5	2013,7
Total:	6947,7	7424,2	8090,2	8882,8	10992,7

*) including molasses and tapioca

The strong position of the Port of Hamburg among the European grain ports is based less on direct goods exchange between the Federal Republic and the neighbouring economic areas than on transit traffic and thus transit trade. This through traffic is mainly from and to East Germany, Czechoslovakia, Hungary, Austria and the Scandinavian countries.

Biggest Storage Capacity in Europe

Externally the growing importance of Hamburg as a grain port can be mostly clearly seen from the steady expansion of transshipment facilities and silo capacities. As opposed to other seaports where grain transshipment is concentrated at one spot, there are several efficient

terminals in Hamburg with discharge capacities of 10,000 tons per hour, and berths for bulk carriers up to 80,000 tons carrying capacity. Most of the silo companies, as well as the two grain elevation companies are amalgamated in the "Working Committee of Hamburg Transshipment companies for Grain, Oilseeds and Feeding Stuffs." These firms cope with some 85% of pneumatically-handled cargoes in the Port of Hamburg.

The port's silos, warehouses and other storage places can accommodate some million tons of goods. Hamburg thus has the biggest storage capacity in Europe.

Port of Hamburg still West Germany's most important coffee handling centre in 1975

Hamburg, December 5th (Hafen Hamburg Press Service):—Hamburg is one of Europe's most important coffee centres. Since October, 1973 permits for coffee bean imports are required nor import declarations on contracts concluded, so that the quantities of coffee beans ordered via the Hansestadt can only be estimated. However, a reliable guides as to volume is provided by statistics covering sea-borne cargo. With a transshipment total of 319,443 tons (1974) the Port of Hamburg is still the most significant coffee transshipment centre of all German seaports, and it will maintain this position in 1975. According to estimates by the German Coffee Association in Hamburg, this year will see an increase in coffee bean imports into the Federal Republic of Germany via Hamburg of 4 to 5%.

Coffee Bean Transshipment in the Port of Hamburg

	Incoming	Outgoing	Total
1972	257,277 t	43,087 t	300,364 t
1973	279,123 t	48,489 t	327,612 t
1974	272,785 t	46,658 t	319,443 t
Jan.-May 1974	129,344 t	24,550 t	153,994 t
Jan.-May 1975	132,266 t	17,855 t	150,121 t

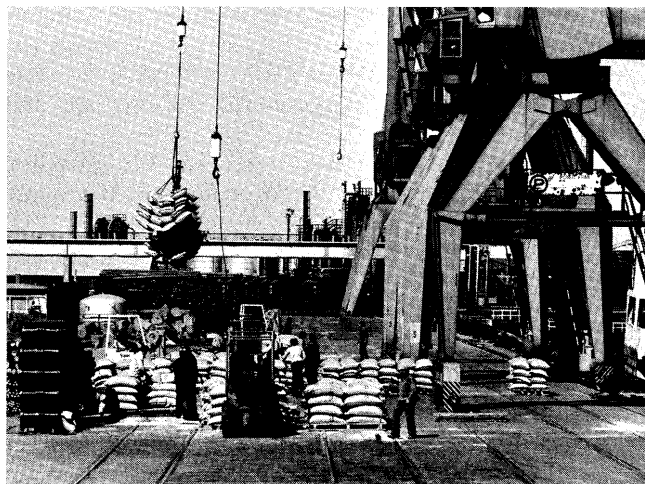
Colombia the chief coffee bean supplier

Hamburg's inhabitants like their cup of coffee, just like all the other West German citizens who in 1974 consumed exactly 4.9 kilogrammes of coffee beans per head. The figure for 1973 was 5.2 kilos per inhabitant—an indication of how closely coffee consumption is linked to general economic developments. After the Scandinavians the Germans drink the most coffee in the world, and the highest grade quality in Europe.

Traditionally Colombia is the most important coffee bean supplier via Hamburg. Kenya takes second place and El Salvador third.

Coffee bean quantities imported via the Port of Hamburg in 1974 according to countries of origin

Colombia	48,265 t
Kenya	30,778 t
El Salvador	29,476 t
Guatemala	25,197 t
Costa Rica	14,853 t



Nicaragua	13,005 t
Ivory Coast	11,209 t
Ecuador	10,139 t
Brazil	10,047 t

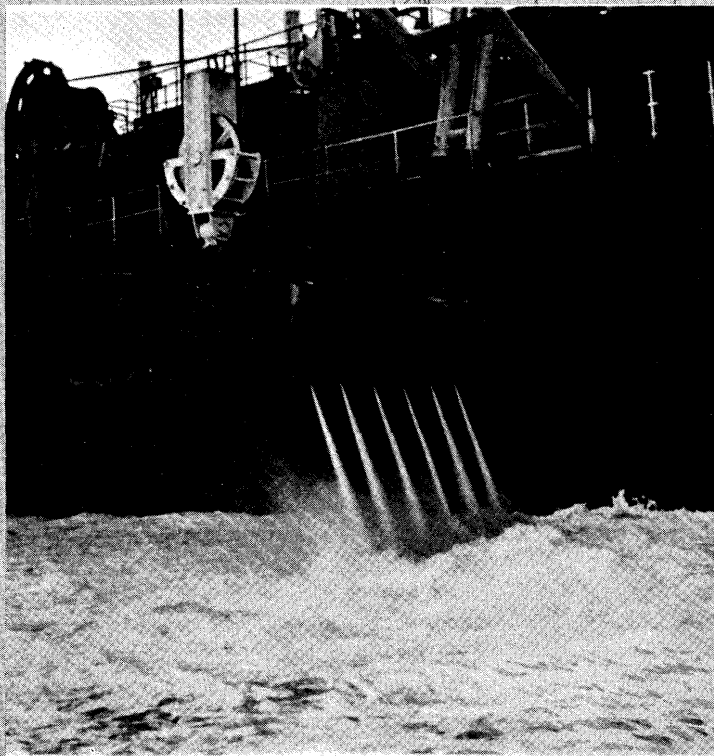
Free Port ensures expert coffee bean storage

The wide-ranging store and warehouses in the Free Port, which covers 16 square kilometres of surface, are available for temporary storage of the incoming coffee beans. With a roofed in surface of some 500,000 square metres they form the biggest connected warehouse complex in the world. Quay warehouse A—with 40,500 square metres gross area—is even situated alongside deepsea vessel berths. This means that import cargoes can be discharged directly from the seagoing ship into the storage depots.

Manual labour is restricted to a minimum in the silos and warehouses these days. Quayside cranes, heavy duty lifts and electric stackers carry out all the necessary cargo movements. It goes without saying that experienced depot foremen with well-trained tallymen carefully examine all consignments immediately on arrival, sort, supervise and look after the goods until they are again taken out of storage.

Furthermore the coffee beans enjoy all the advantages of the Free Port regulations. They can be stored and even further processed without any customs when they pass the boundary into German customs territory. Thus transit goods and re-exports reach their port of destination via Hamburg without ever having come into contact with the customs here.

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



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Ports of Iran Today

Ports & Shipping Organization of Iran

Tehran

(See front cover also.)

General Information on Iranian Ports and Shipping

A—Merchant Fleet Capacity:

No. of Vessels	Net Capacity	Gross Capacity	Loading Capacity
31	163,716Tons	281,480Tons	385,349 Tons

B—Number of Existing Commercial Jetties:

Ports' Name	No. of Jetties
Khorramshahr	9
Shahpur	6
Bushehr	3
Abbas	6
Pahlavi	4
Nowshahr	3

C—Number of Jetties under Construction:

Khorramshahr	4
--------------	---

Shahpur	28
Bushehr	4
Abbas	22
Chah-Bahar	3

D—the maximum existing capacity of the commercial ports of the country amounts to 10 million tons annually which is fastly increasing.

Note: "All the figures and statistics indicated in these tables do not cover figures and statistics on oil."

Contract signed for Bandar Abbas

(News released by Ports & Shipping Organization)

Iran signed a \$800 million agreement yesterday with an Italian consortium to build the nation's largest integrated port and harbour facilities on the outskirts of the Persian Gulf city of Bandar Abbas.

The turnkey agreement is the biggest boost to the development of marine transportation in Iran and should solve a major infrastructure bottleneck by increasing capacity at the important southern port by almost 15 times.

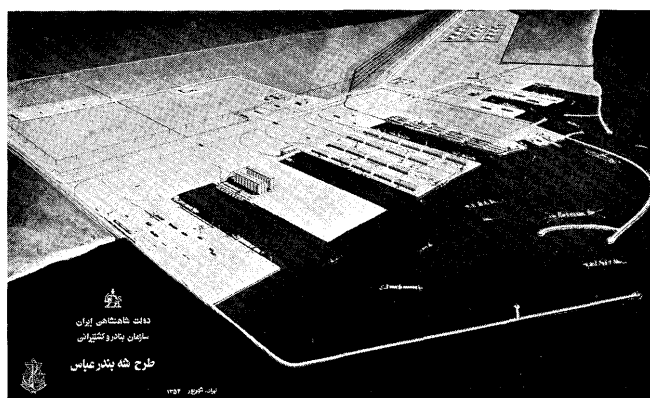
The accord was signed in Tehran by Ports and Shipping Organisation managing director Parviz Saffari, and Loris Corbi, chairman of the Italian consortium, Condotte.

The projected Shah-Bandar Abbas harbour city will be built 15 kilometres west of the present thriving town.

When completed port capacity at Bandar Abbas, which is presently 1.3 million tons, will be raised to 16 million tons per year.

The agreement envisages the building of 22 jetties, 10 piers at a depth of 11.5 metres and length of 1,920 metres; and five container docks for large oceangoing container ships at a depth of 14 metres and length of 1,440 metres.

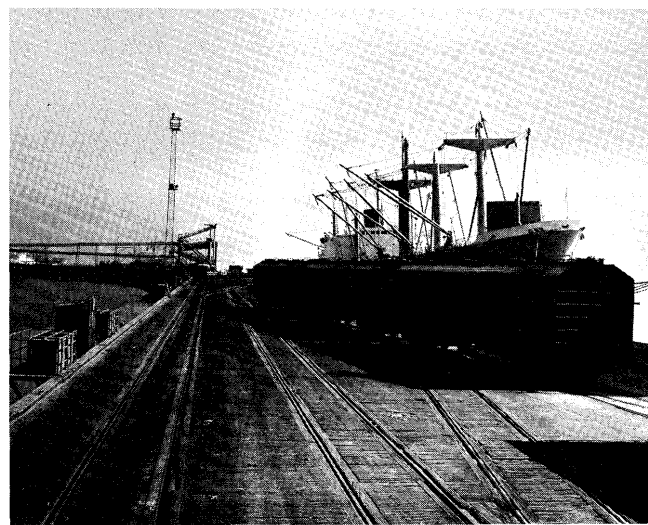
There will also be a special pier capable of handling



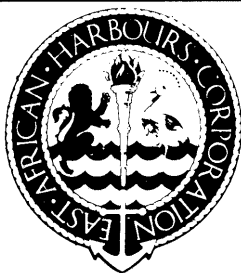
Port of Shah-Bandar Abbas, Model



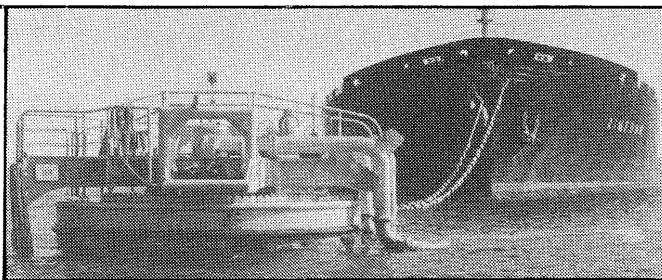
Pahlavi Port in north of Iran



Shahpur Port, in south of Iran



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100,000 tons at a time for ships carrying grain, and five more piers 1,140 metres long for mineral ores.

The agreement also provides for a complete repair shop for ships, administration buildings, hotels, a free port and fishing port, workers housing complex, clubs, railroad network, and other facilities such as warehouses and a mammoth silo.

Saffari said at the signing that the huge project would be completed in four years.

He said that the Ports and Shipping Organisation had studied the credentials of 140 other international consortiums and the winning Italian group was selected from a final field of 14 companies.

New Secretary

Sydney, 11th December (The Maritime Services Board of N.S.W.):—Mr. J.E. Bradstreet has been appointed as Secretary of the Maritime Services Board of N.S.W.

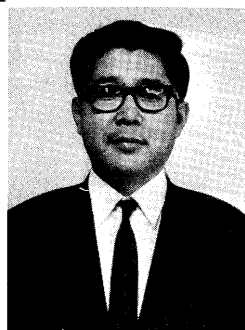
This was announced in Newcastle today by the President of the Board, Mr. J.M. Wallace, who said "Mr. Bradstreet will take up duty in his new position immediately to fill the vacancy caused by the appointment as a Commissioner of the Board of the former Secretary, Mr. H.B. Cadell."

"Mr. Bradstreet commenced duty with the Maritime Services Board in March, 1940 and was appointed Deputy Secretary in January, 1970."

"He is a Solicitor by profession and prior to his appointment as Deputy Secretary, had been the Board's Assistant Solicitor since March, 1963" Mr. Wallace said.

New General Manager

Osaka, Japan (Port and Harbor Bureau, City of Osaka):—Mr. Hideo Onishi has been newly appointed as General Manager of Port of Osaka, succeeding Mr. Osamu Takamura who has recently been promoted to Managing Director of Hanshin (Osaka Bay) Port Development Authority. Graduating from Faculty of Civil Engineering, Tokyo University in March 1950, Mr. Onishi was enrolled as a recruit in the Port and Harbor Bureau and since he was promoted to Director of South Port Development Division in April 1970, he has been taking charge of planning and construction of South Port. He was succeeded by Mr. Yohei Sakurai, former Chief of Planning Department and later transferred to Managing Director of Osaka Ferry Terminal Corporation.



**Mr. Hideo Onishi
New General Manager**



**Mr. Osamu Takamura
Former General Manager**

Strategic Port Plan 1975 – 2000 at Port of Tauranga, New Zealand

Tauranga, The Central Port of the North Island

Reprinted from "GATEWAY" (June 1975), Journal of the Port of Tauranga, published by the Bay of Plenty Harbour Board

Mount Maunganui, New Zealand:—On May 9th, the wraps came off a strategic port plan, recently adopted and published by the Bay of Plenty Harbour Board, which is to provide a broad basis for the phased development of New Zealand's youngest and fastest growing Port at Mount Maunganui, through the next quarter century.

This plan is the culmination of several months intensive research by the Board's Port Planning Unit, under leadership of an internationally recognised specialist in port and transportation marketing, Mr. L.H. Brueton, Resident Consultant to the Board.

The strategic Port plan has received tremendous acclaim and support from the many local authorities and organisations throughout the Port's hinterland to whom it has been presented by a Board Executive team and Mr. Brueton.

Mr. F.M. Williams, General Manager, says "the plan has everywhere engendered considerable discussion, and it is evident that the Board can expect to receive enthusiastic support and co-operation from a wide cross-section of organisations so far visited in achieving the objectives set down."

STRATEGIC PORT PLAN AIMS

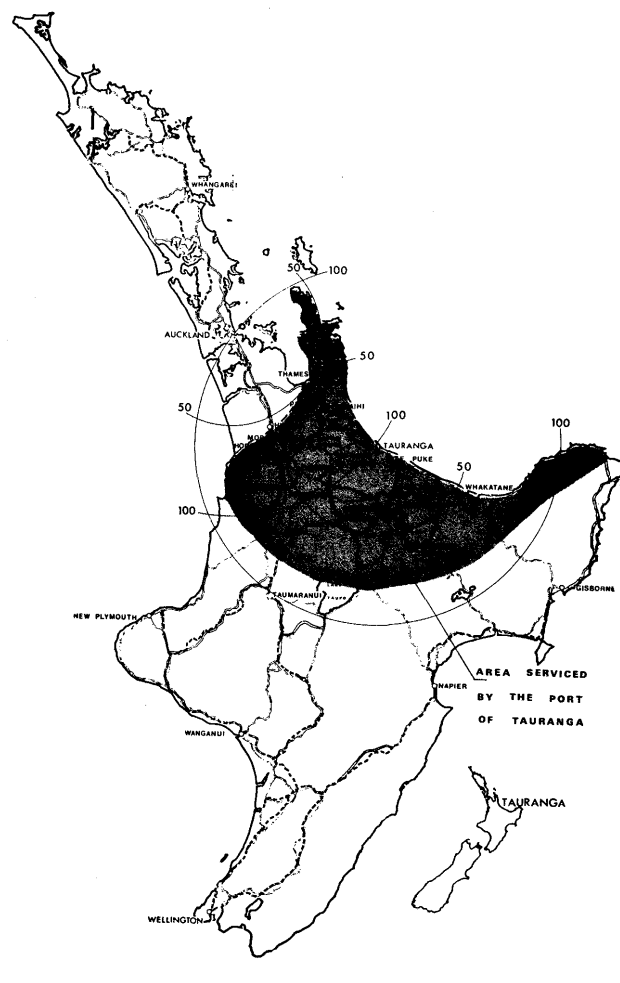
The principal short term marketing aims of the strategic port plan are:

- to replace present conventional cargo trade loss,
- to establish container, roll on/roll off and other unitised cargo services at the earliest date, and
- to achieve, with forecast changes in type and handling of port trades, a throughput of up to 4M tonnes by 1980.

In the longer term through 1980–2000, the plan envisages container berth and cargo handling developments. Combined with the growth of production and industry within the Port hinterland the dramatic improvement in cost distribution economics consequent on the opening of the Kaimai Tunnel in 1977 should ensure a Port throughput of 6M tonnes, possibly reaching 8M tonnes, to be efficiently handled by the year 2000.

PORT GROWTH

The past 10 years of unprecedented trade growth from 900,000 tonnes to over 3.3M tonnes has proved how very wrong were the pessimistic predictions of those many organisations which in 1966, at a public inquiry before the Transport Commission, strenuously opposed proposals for full development of the Port as an unrestricted final outlet for primary exports originating in the South Auckland/Bay



of Plenty region.

The "green light" subsequently given the Port to go ahead with its development plans finally endorsed in every respect recommendations of earlier hearings associated with development of the Bay of Plenty and its port . . . the 1950 port inquiry, the 1958 Kaimai Tunnel report, the 1961 Trotter report on cool storage and the 1963 McKillop report on port access.

CENTRAL PORT LOCATION

So too in this decision emphasis was drawn to the undesirability of "placing too many N.Z. eggs in one basket" and the need for an alternate Port at Mt. Maunganui to provide greater flexibility in the organisation of the country's export trade from the North Island.

The Port's central location to major areas of export production and import consumption has in point of fact saved shippers many millions of dollars in transportation costs alone. There is no doubt that completion of the Kaimai Tunnel project will confer even greater economic benefits through the more direct, shortened and speedier rail links envisaged.

PORT OF TAURANGA TRADE

The Port of Tauranga is NEW ZEALAND'S LARGEST EXPORT PORT handling more than 47% of the North Island's 1973-74 overseas exports, and 34% of New Zealand's total overseas exports. In the 12 months ended 31 May, 1975, the Port has handled in excess of 2.3M Tonnes.

In the 5 years ending 30 September, 1974 the Port of Tauranga has handled over 14.84 Million tonnes of trade, of which 10.14 Million tonnes (68%) were exports to more than 50 countries.

DISTANCES IN MILES TO MOUNT MAUNGANUI BEFORE & AFTER KAIMAI RAIL TUNNEL

	BY RAIL			BY ROAD
	BEFORE	AFTER	DIFF:	
AUCKLAND	186	154	32	136
THAMES	77	95	18	73
PAEROA	59	77	18	53
MONRINSVILLE	82	50	32	60
TE AROMA	69	63	6	66
HOROTIU	107	75	32	85
HAMILTON	99	67	32	77
WAIHI*	46	29	17	37
CAMBRIDGE	108	76	32	58
WAHAROA	98	37	61	39
TE AWAMUTU	116	84	32	71
MATAMATA	102	40	62	34
TE KUITI	141	109	32	95
PUTARURU	120	58	62	50
TAURANGA	8	8	—	12
TOKORO*	133	71	62	65
KINLEITH	138	76	62	69
RANGIURU	16	16	—	15
ROTORUA	151	89	62	53
TAUMARUNUI	190	158	32	148
TAUPO***	138	76	62	105
EDGECEMBE	46	46	—	40
KAWERAU	52	52	—	60
WHAKATANE**	50	50	—	56
MATATA	38	38	—	40

* KATIKATI

** AWAKERE

***KINLEITH

NEAREST RAILHEAD

In this day and age when world wide cargo handling trends are to sophisticated means of more rapidly loading and discharging intermodal road, rail, sea and airborne unitised cargoes it is essential that without delay the Port of Tauranga should provide adequate facilities, as it has done in the past, to meet the changing requirements of international trade, backed by the world acclaimed production records of its Port labour force.

Loaded with salt-cake from Antwerp these first eight 20ft I.S.O. containers were discharged from "Mirrabooka" at the Port of Tauranga in July, 1967, and railed to the Kinleith Mills of N.Z. Forest Products Ltd.

(Continued on page 56)

PALEMBANG PORT ADMINISTRATION

1. General:

The port of Palembang is situated on the Musi River in the middle of the city of Palembang. It is under the supervision of the Port Administrator, who is in charge of and responsible for the Port activities and whose office acts as the coordination agency, the Port Administrator is Mr. J. TIRANDA.

Address: Jalan Blinyu Nr. 1, Boom Baru, Palembang-Indonesia. Telex No. 027-45. Phone 20718. This Port is available for general Export and Import. The Port is about 54 miles up river from the Musi River outerbar. The bar and river have recently been dredged to 7M and 6M respectively thus permitting ships to proceed either inbound or outbound on one tide at a draft of about 8M (26 feet).

Keel clearances required are 3 dm on a rising tide and 5 dm on a falling tide and the tide ranges up to maximum of 3.3 M. Normally the size of vessels is limited to about 175 meters (575 feet) in length, but recently a 184 meters ship successfully navigated the river unassisted without incident and to the satisfaction of all concerned. The Port operation about 450 meters of 6M depth berthing at Boom Baru and offers fast services with minimum waiting time for most ships.

2. Services available:

- Radio—Call Sign P.K.C. frequencies guarded 500/448 KC A1 8706 KC and 8799 KC A111. VHC channel 16-20, VHF-Direct Pilot-22.26 and 28. Master channel—12-14. Schedules as appropriate.
- Approach—Indonesian chart Nos. 41, 48, 60, 160, 103, 104, 38 and 4. Indonesian Pilot Volume 1. tide diurnal.
- Anchorage available at outerbar for ships waiting for highwater.
- Maximum size of vessel: Length 185, draft 7.5M.
- Tug boat, berthing, stevedore, labour from UKA (labour pool), fresh water, coal wharf, bunkering, repairs, port health centre, fire brigade, bank and other maritime offices are available in this Port.
- Pilotage: The ships owner/agent has to inform the Port Administration of the ships arrival 24 hours in advance.

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(Continued from page 55)

CONTAINER PORT PROPOSALS

It is now nationally known that the Port of Tauranga is making determined efforts to achieve container port status and to this end detailed indepth submissions seeking consent to expend \$5.5M in the next 3 years to provide a container berth operation at Mt. Maunganui by October 1976, are presently being considered by the N.Z. Ports' Authority and the Treasury.

Once again dissident voices are being raised in protest that there may be a third container port to service North Island trade requirements.

"It cannot be too strongly stressed that the case prepared by the Port of Tauranga is based solely on handling a specific trade not yet in existence," says Board Chairman, Mr. K.S. Calder, "and it is not the Board's intention to halt or interfere with the development of existing container ports. Having studied the economic benefits of a new container ship service which will start in October 1976," he continued, "the Board believes that irrespective of other container ports' planning, the service should be handled at Mount Maunganui."

COST SAVINGS

The total cost savings to the nation for the studied three container ship service starting late 1976 would mean annual cost saving between \$1.50M and \$2.25M, all of which could well be reflected in improved overseas sales of the com-

modities produced in the Port's hinterland, closer to Tauranga than to any other North Island port.

The Board has sought an urgent decision from the N.Z. Ports' Authority so that if successful in its application immediate orders for equipment may be placed enabling the Port to be operationally effective by the stated date.

The Port already has 54ac. of consolidated land available for a container terminal, an extremely costly reclamation project to duplicate at existing N.Z. terminals, and is seeking authority to provide:

★ container crane and installation	\$2.10M
★ plant	\$1.02M
★ buildings	\$1.06M
★ electrical works and contingencies	\$.30M
★ hardstanding and sealing	\$1.02M
	<u>\$5.5M</u>

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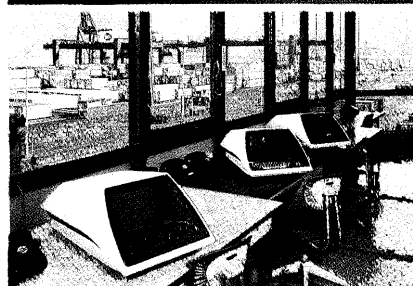
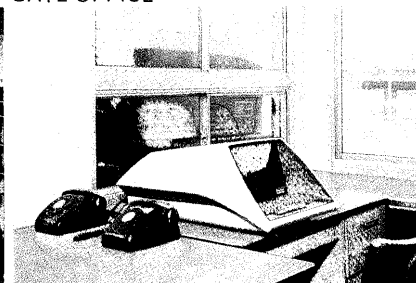
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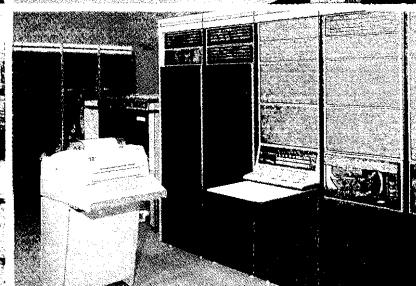
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