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Port of Kobe

Port Island

IAPH Conference Le Havre May 1979

The Publisher: The International Association of Ports and Harbors

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PORTS and HARBORS

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The Cover: "Port Island" in the Port of Kobe, Japan's first large scale man-made island, was started in 1966 with the object of providing more port facilities, and also a floating city of 436 ha. Now approximately 90% of the entire project has been completed. 11 container & 16 conventional berths and the port business site with the area of 175 ha. have been put into full operation. In the centre of Port Island is located the city function area of 140 ha. which will be divided into four zones for distribution and processing of cargoes, residential district, International Plaza and park.

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PORTS and HARBORS

IAPH Head Office Announcements: Pages 7~12

Large Ships Committee Meets in Glasgow — Report by Mr. Dixon, Chairman —

The Committee on Large Ships held its second of three meetings on May 16th thru 18th, in Glasgow preparatory to the Deauville Conference. The Clyde Port Authority as hosts provided excellent facilities for the meeting their graciousness will long be remembered by all of the members and guests who attended. The vibrance of the port was further exemplified by a visit to a most modern facility at Hunterston which shortly will take 350,000 tons deadweight bulk carriers of ore or coal. This facility should be the envy of many—the natural deep water, the beauty of the surrounding countryside and the role that this facility can play in improving the economy in the United Kingdom.

Members, attending were Messrs. Dixon, Ribadeau Dumas, Fraenkel, Van Krimpen, Lannou (for Dubois) Masse (for Bauman), Mathews, Monks, Mouland, Orr, Thebaud, Ullman and Young.

The Committee was indeed fortunate also in counting among its attendees:

- O Mr. Alex Smith, the British Ports Association, IAPH's representative at IMCO.
- Mr. Andre Pages-Chairman of the Committee on Legal Protection of Navigable Waterways for IAPH.
- O Captain E. Clothier International Maritime Pilots Association.
- O Captain J. Edmondson Vice President International Maritime Pilots Association.
- Mr. DeJong-from Pianc-Secretary of the International Committee on the Reception of Large Ships (ICORELS).

It is fully expected that the expertise brought to our deliberation by the above mentioned gentlemen will improve the quality of our report and it was evident during the meeting that a better response of IAPH to IMCO hopefully will result in further improving safety in ports.

Attached is a summary of the details of the meeting in two parts:

Attachment I reflects the response or initiatives that IAPH can take at IMCO in further improving the quality of ships calling at ports. These discussions were sparked in large part by Messrs. Pages and Smith.

Attachment II reflects the progress of the task group in developing "Guide-lines for Port Safety and Environmental Protection."

In order to maximize the effectiveness of our committee activity we agreed that the deadline for completion of each of the sections would be <u>September 11, 1978</u>, for submission to each of the members. The individual chapters will be coordinated by the working group chairmen so that those members charged with write-ups should forward them in ample time so that the working group chairmen can send them to members at large. It was also agreed that comments would be forwarded to the committee chairman within the month-October 10th, so that the edited version can be forwarded to members in early November, this will allow ample time for members to review the text prior to the meeting in Sydney on December 5th, 6th and 7th.

Generally, there has been satisfactory progress, we have finished some sections and scoped out the remainder. The next stage will require constructive critique of all members of the committee and associates. We will, at Deauville, in May of 1979 be able to present a guideline to members that will aid in assuring greater safety and environmental protection. COLS with assistance from other committees will endeavor to develop a more effective role with IMCO for IAPH.

IAPH EFFECTIVENESS WITH IMCO

In the review of IAPH effectiveness with IMCO it was the consensus that the port viewpoint has not effectively been brought to the fore, but rather that ship owners have been more dominant in getting their way. It was admitted, however, that many of the environmental agreements that IMCO has promulgated have, a potential for improving ports safety and cleanliness. The mechanism for developing viewpoints to be presented to IMCO on behalf of IAPH were discussed. It was concluded that:

- Alex Smith has been an able spokesman for IAPH but has not been afforded significant instruction by IAPH.
- Other organizations that have consultative of status are able to generate in depth studies of high professional calibre which naturally lead IMCO to the conclusion which the organization wishes. IAPH does not have a mechanism for marshalling resources in this manner.
- A first step in briefing of Alex Smith would be through close liaison with the various committee chairman so that he can reflect the consensus in IAPH on a particular subject. Matters of major importance should be further reviewed through the Head Office and the executive committee.
- The IAPH Bylaws committee may wish to restructure its IMCO consultative role patterned somewhat like that of other consultative members. Mr. Pages will pursue this matter further with the Bylaws committee.
- The matters considered to be of major importance to port authorities at this time are:
 - a. Improvement or elimination of Substandard ships from the seas and ports.

- b. Developing mechanisms to identify critical deficiencies on ships and have assurance that correction will be made.
- c. Assuring sufficient financial responsibility based on damage potential rather than limitation to the value of ship and cargo.
- d. Removal of wrecks, i.e., providing sufficient financial responsibility so that the port authority is not required to pay for removal.
- e. Recognition and dissemination by IMCO of the "Guidlines for Port Safety and Environmental Protection" which the Committee On Large Ships is preparing for IAPH adoption.

There was some discussion on issues such as "Flags of Convenience", requiring twin power plants and rudders on large ships and increasing the effectiveness of Port State versus Flags State in monitoring of vessels. These were considered too controversial and/or political at this time.

A more effective IMCO posture will be developed and proposed. The COLS will participate as necessary in such development.

* Alex Smith is to check with the International Association of Classification Societies (IACS) to see if classification societies are available to increasing their role in this international enforcement of standards.

GUIDELINES FOR PORT SAFETY AND ENVIRONMENTAL PROTECTION

I. Introduction and Prologue

Mr. Dubois tabled a three part paper which could become the basis for the rationale of the report, namely, definition of the broad problem, the Port's initiatives and responsibility in reducing the risks of accidents and consequences if they do happen. The complementary initiative required from the ship owning communities as well as governments (and IMCO) are also covered.

The Guideline is to be a review from the Port standpoint of the hardware, personnel training, procedures and management followup necessary for assuring proper safeguards.

Section I-Vessel Characteristics and Behavior. This chapter had not been progressed in writing since the last meeting, however, Mr. Lannou has the assurance of Mr. Coune of Chantiers De Atlantique that the characteristics of vessels would be portrayed in such a manner as to highlight the physical characteristics of the various type of ships-large and small. Specific items to be featured would include limitations on maneuverability, stopping distances, general reliability, recommended zone of safety, etc. The overview while meant to be reasonably comprehensive may be limited to 25 to 50 representative types of vessels-say 2.0 to 500,000 DWT. It was volunteered by the pilot representatives mainly that they would furnish to Mr. Dubois a review of some of the peculiarities that certain types of ships have either in increased capability for maneuvering or the reverse.

Section II-Pre-Port Entry Vessel Appraisal. Mr. Mouland will take lead on this project and furnish the initial write-up to Mr. Dubois. Much of the information here will be based upon the Eastern Canada Traffic System (ECAREG) which requires, besides the description of the cargo, a listing of defects in the ships hull, main propulsion, steering gear, anchors, cables, radar, compass, or radio communication equipment. In addition, any damage to the ship which may result in pollution must also be revealed. Improper or missing charts, sailing directions must also be indicated.

There was also a consensus that a ship should carry with it a list of major incidents that it has in the previous two year period these would include not only collisions, groundings, and contact damages, but the failure of any major components that would affect navigation such as, rudder malfunction, engine breakdown (blackout), or other listed failures. These can be authenticated by reviewing the log books—a very laborious task. The Port Community (which could include the Coast Guard in some jurisdictions) would then take appropriate compensating actions to assure that the deficiency is corrected prior to Port entry or special safeguards used to mitigate the added risk.

II. Ship Deficiency

Closely allied with port entry vessel appraisal is the cataloging of ship deficiencies with the view of assuring correction. Mr. Van Krimpen has undertaken to write this section of the guide which will concentrate on classifying the types of ship deficiencies which should require a correction before the vessel calls sails or calls at other ports. The first task will be to define the incapacitating type of deficiency, for example, persistent engine or rudder failure and various control system failures. The second task would be to review those deficiencies which may have an inhibiting effect on the safe passage of the vessel, for example, defective radar, fathometer, revolution counter, mooring equipment, anchors, etc. These may require a different means of gaining correction. It was the consensus that identifying "substandard ships" may be a problem because there is no good definition of a substandard ship. It was concluded that use of the phrase "ship deficiency" would be less charged with emotion and could be the means to getting proper correction.

It may be that major (ship deficiencies that are issued by a port this would include Coast Guards) would be sent to the ship owner, the Charterer, the Flag State and the Port State for correction.

There was another possibility which Alex Smith agreed to review with the International Association of Classification Societies (IACS), that is, to take some of the major ship deficiencies and report these to the classification societies with the view that possibly the major deficiencies could be construed to be the same as an accident. In this case an inspector might issue a temporary Seaworthiness Certificate which could only be properly validated when the deficiency is corrected.

III. Port/Harbor Appraisal

This section which will identify the means too assess the physical characteristics of the harbor will be undertaken by Port of Le Havre Authority.

IV. Navigation Aides (Passive)

This section was represented by Messrs. Matthews and Ribideau-Dumas. The text will be expanded to include in a little more detail the use of various electronic/radio navigation aides such as, Decca, Loran, etc. There will also be a review of the quality of lights, the distances under which they would be observable, etc. Other quality guides will be outlined so that a port manager can compare his system with generally accepted practice.

V. Vessel/Harbor Navigation Rules

8 PORTS and HARBORS-SEPTEMBER 1978

This section was completed by work group number 2, and was discussed fully at the meeting. These discussions together with written comments will be incorporated into the next version for distribution to the full committee.

VI. Pilots and Pilotage

Captain Clothier of the International Maritime Pilots Association prepared a paper on the subject of piloting incorporating many of the elements that were agreed upon in previous meetings into paper. Spirited discussions on the role of pilot brought out the following:

- It is not the purpose of the guidelines to express a preference for any particular form of organization whether private or under port authority control, nor to develop a list of the pre-entry qualifications for pilots, nor to comment on cost or remuneration.
- Pilots are the key people who will carry out the safety aspirations of the port.
- He must know the type of cargo carried aboard the ship so that appropriate actions can be taken in the event of an incident.
- Pilots should not be forced by default to make all decisions some of which should have been preplanned by the port community as outlined in Chapter 5.
- O Special attention needs to be given sharing all known information with the ships Master on the planned passage through the port, enlisting as much as possible, the use of ships people for cross-checking and assistance-eliminating the one man error.

It was further observed that pilots may become very proficient and knowledgeable when brought up through rigorous training in their local area. Refresher courses, observation trips to other similar ports and simulation training may help to improve performance.

On the subject of performance it is not enough to base satisfactory piloting on a "no accident" criteria. Through whatever means is considered appropriate periodic appraisal and feedback should be made of performance. Objective bases for judgment such as appropriateness of speed, rudder engine commands, following course line, relating to masters, using resources available, etc., can all be used by inspectors with a view towards maintaining high quality performance. This should not be construed as punitive action but rather constructive critique. This could perhaps best be handled by the pilot organization itself. A followup could be enrichment training courses to correct problems.

An excellent write-up on Piloting by Captain Thoras Knierim was outlined by Captain Clothier—it is attached for your information. This can be used in part as amplification of some of the section write-ups.

The write-up for this section is to be organized along the lines used in writing chapters V, VII, X, and XI. The decimal system method of organization will allow ready reference and indexing of the final guideline.

VII. Tugs and Mooring Boats

This section was done on a very comprehensive basis by working group two. There were a number of comments made in writing and at the meeting which will be incorporated in the next version. It was also mentioned that OCIMF has a tug towage task force working some of the problems of safety, types of commands "on a standardized basis", and methods of calculating the various forces involved. This booklet may be ready for further consideration by work group two, by the fall.

VIII. Traffic Management (Active)

Mr. C. Van Krimpen will write-up this chapter of the guide with support from the Le Havre port of authority.

IX. Civil Work

Mr. Lannou of the Le Havre port authority will prepare this section drawing heavily on the work of PIANC.

X. Terminal Appraisal

Working group two completed this section and except for further comments from the group is essentially complete.

XI. Harbor Terminal Operators Forum

This section has been completed and will incorporate comments from members as received.

XII. International Laws, Rules, etc.

Alex Smith of the British Ports Association and IAPH's representative at IMCO will prepare a thorough overview of the laws that apply to ships in port.

XIII. Technical Audit (Confidential)

This section on developing objective means for a port authority to determine how well its activities are organized and how effective they are will be rewritten by F.L. Dixon with assistance from Mr. Guy Beaudet.

XIV. Security

The meeting of the Airport/Seaport police will be attended by Alex Smith who will give a review of the subject and preliminary write-up for this section. In addition Mr. F.L. Dixon will write-up the type of security means that should be used by ship board and terminal personnel. Lt. Commander Masse will organize the finished write-up on this subject.

XV. Waste Handling

Lt. Commander Masse will write this section up using IMCO material, that from Pianc, and others that can be researched and developed with members of the committee.

XVI. Crisis Management

Another subject, that of emergency procedures to be used by port authorities in the event of emergencies such as spillage of chemicals and the like will be written-up by Mr. Van Krimpen. This section is considered to be rather important and should give a number of advices on how to cope with major emergencies. The key element in coping with emergencies is pre-planning so that the resources of the port can be marshalled in an optimum fashion.

References

In the write-ups of all of the sections it is recognized that port groups will need to study a particular subject in significantly greater depth than can be put in the guideline, therefore, each of the sections should include an ample bibliography so that the subject can be reviewed intensively. In a sense the guideline is a management digest which, if prepared appropriately, can allow a port manager and his assistants to see that each of the port safety operating systems are organized appropriately. Technical leads should be given so that further research can be done.

September 30th – New Closing Date for IAPH Award

The closing date of application for the "1978 Award Treatise", which was primarily set as July 31, 1978, has been postponed until September 30, 1978.

All men of ambition working in ports and port-related enterprises in developing countries are once again encouraged to challenge for this big chance.

As of the last day of July, 12 applicants-one from Saltanate of Oman, two from Kenya, eight from Nigeria and one from the Netherlands-have turned in their papers.

AWARD SCHEME

How could the efficiency of your port be improved? Your answer could win you US\$500 in cash plus An invitation, including travelling costs up to max. US\$2,000 to attend the 11th Biennial Conference of

IAPH May, 1979, Le Havre, France

Further details of the entry conditions are available in the "Ports and Harbors" (page 11, April 1978 issue) or obtainable from the Tokyo Head Office on request. (TKD)

Countermeasures Considered by IAPH against US Dollar Decline

The crucial outlook of the Association's financial future, which was badly affected by the ever shrinking U.S. Dollar, was taken up by Mr. A.S. Mayne, the First Vice-President of IAPH at his meeting in Tokyo with Secretary General Hajime Sato and President of the IAPH Foundation Toru Akiyama on July 10, 1978.

The Association's membership dues are being collected, based upon the U.S. Dollar, and converted into Yen in Tokyo at the same declining exchange rate as the U.S. Dollar is following from day to day.

The results of this Tokyo Talks, which dealt with this matter for hours from all considerable angles, were agreed among the three top-officials to be passed on to Chairman den Toom of the Finance Committee in Amsterdam personally by Mr. Akiyama immediately so that the situation would appropriately be attended by his Committee for deliberations and consideration of working out an effective countermeasure which can be submitted to the 11th Conference in Le Havre next May.

Mr. Akiyama left Tokyo for Scandinavia the following day. (TKD)

QUESTIONNAIRE on Community **Relations to Members**

Dr. Jack Bax, Chairman of IAPH Special Committee on Community Relations, is now asking for members' cooperation in replying to the questionnaire on the evaluation of Port's Media for community. Members who have not responded to his questionnaire are kindly requested to give their support to the questionnaire, which is reproduced hereunder for the members' easy reference.

QUESTIONNAIRE

We need your cooperation. Would you be kind enough to fill out the following questionnaire. It is easy to complete. And, please, return it promptly to Jack Bax, Port of Rotterdam, P.O. Box 6622, Rotterdam, The Netherlands.

Are in your port the media important [/ important factors in the communication process / 7 not between people and the Port? important

- 1. If important, how do media in your port bring this port and the inhabitants of the port-city together? And in which respect (e.g. economic field, environment, social conditions, industry, etc.)?
- 2. If your opinion is negative, do you know better means to communicate? If yes, mention means
- yes

no

/ yes

7 no

- 3. Do you think that the media gave more coverage to port matters 10-20 years ago?
- 7 yes 7 no
- 4. If present coverage declined, what could be the reason(s)?
- 5. Do you think media coverage coul be increased?
- 6. If yes, how?

4th IALA/IAPH/PIANC Joint Meeting on Port Signals November 8 - 9, 1978 at Paris

Mr. Robert Boeuf, IAPH Representative for the Joint Committee, reported the outline of the next meeting to be held at the IALA headquarters in Paris.

Venue: Head Quarters, IALA

43 Avenue du President-Wilson, Paris 16, France Duration: November 8 and 9, 1978 Provisional Agenda:

- a. Adoption of the Agenda
- b. Notes of the last meeting
- c. Matters arising from the minutes
- d. Definition of "Port" and "Harbour"
- e. Consideration of the Working Group Report a) Meteorological signals (participation by WMO) b) Port movement signals
 - c) Tidal signals
- f. Further action with regard to meteorological signals
- g. Further action with regards to Port Movement Signals
- h. Date and venue of the next meeting
- i. Any other business

According to Mr. Boeuf, the 4th meeting is being call for under the hostship of IAPH.

ECE Working Party on **Facilitation of International Trade** Procedures

(September 28-29, 1978 at Geneva)

Mr. Janez Stanovnik, Executive Secretary, Economic Commission for Europe, in his June 9, 1978 letter invited the Association to take part in the 8th Session of the Working Party on Facilitation of International Trade Procedures to be held in Geneva, by means of providing information needed by the working party for its review of recent progress achieved by relevant international organizations in their work on facilitation of international trade procedures.

Mr. Robert L.M. Vleugels, in response to the invitation, replied that the Special Committee on Trade Facilitation of IAPH was established on occasion of its conference in April 1977, and the Committee's activity was confined so far to the procedures for ships calling and sailing from ports, while no general conclusions were at hand so far, and further commented that the Committee wanted to spread the information on port related trade facilitation subjects over the readership of the Association's journal "Ports and Harbors".

Secretary-General Sato, in his telex communication of July 30, further commented to the ECE Executive Secretary that IAPH found that the significance contained in the matter constituted an essential part of the ports of the world and that the things to be developed by the experts would be very necessary for any one who was involved in the international trade, therefore, it would be highly appreciated if the E.C.E could consider the possibility of giving the Association a chance of learning any achievements that might affect the international trade practices. (rin)

UNCTAD Meetings for the remainder of 1978

(Extracts)

The following meetings pertaining to the trade and shipping are being scheduled to be held by UNCTAD (Extracted from UNCTAD Notice TD/B/INF. 81).

- a. International Preparatory Group on a 18 September– Convention on International 6 October Multimodal Transport, 5th session
- b. Committee on Economic Co-operation 2–13, October among Developing Countries, 2nd session
- c. Ad hoc Intergovernmental Group on 20 November-Container Standards for International 1 December Multimodal Transport, 2nd session

New Organization Introduced – Port of Tokyo

To cope with the demands of the new age, and to tackle positively the task of promoting the business of the Port of Tokyo, a new organization was introduced by Mr. Koichi Yada, Director of Bureau of Port and Harbor, Tokyo Metropolitan Government, effective July 1, 1978, according to his recent communication to the head office. The Port Management Division is the newly adopted organization to fulfill the demands from the various industries using the Port of Tokyo.

Port Management Division is composed of three sections, namely Port Management, Promotion and Guidance & Control and charged with duties of a) port promotion, b) community relations, c) environmental protection, as well as d) operations of various terminal facilities.

Thus, the organization of the Bureau of Port and Harbor is to be as follows:-

Director

Dy. Director (Administrative)

Dy. Director (Technical)

General Affairs Division (5 sections)

Planning Division (7 sections)

Port Management Division (3 sections)

Tokyo Port Management Office (4 sections) Development Division (4 sections and 2 field offices) Construction Division (6 sections)

Tokyo Port Construction Office (5 sections) Tokyo Port Tidal Disaster Prevention Office (4 sections)

Division for Port Facilities in Remote Islands (3 sections)

Visitors

- On July 10, 1978, Mr. A.S. Mayne, Chairman of Melbourne Harbor Trust Commissioners and the First Vice-President of IAPH visited the Head Office. Mr. Mayne was on the way back from New York, where he attended the assembly of World Trade Center Club the preceding week.

- On July 20, Mr. Hugh Stanton and Mr. Colin Brisland of a U.K. magazine "Dredging and Port Construction" and associate members of IAPH, visited the head office during their business trip to the S.E. Asia, and were received by Mr. Kusaka, dy. secretary-general and his staff. Visitors were here to disseminate and discuss about Marinetec Asia 79 which will be held at Singapore in June 11-16, 1979. This event, to be organized by Mr. Stanton's Intec Press, is designed to amalgamate interests of shipping, port constructors, ship-repairers in addition to port authorities within the region to discuss about the future of the marine transportation. It is disclosed by Mr. Stanton that ESCAP (Bangkok), ICHCA had expressed their sponsorship to the event.

- From 23 to 29 July, a 4-men delegation from Port of Tauranga, New Zealand visited Japan. They were Mr. J.W. Syme, Chairman, Mr. R.A. Owens, Deputy Chairman, Mr. F.M. Williams, General Manager and Mr. G.H. Wilson, Marketing Officer of Bay of Plenty Harbour Board. During their one week stay, they visited Ports of Kobe, Osaka and Tokyo and also met people of local shipping and trade companies as well as IAPH Secretary General Dr. Hajime Sato.

- On July 25, Mr. Julio Rodolfo Moctezuma, President of Consultoria Externa de Mexico, visited the head office, accompanied by Mr. Ingnacio Pichardo Pagaza, Advisor to Mr. Moctezuma, and Mr. Abel Jaime Navarro, Director-General of Interruptore de Mexico, and were received by Dr. Sato and his staff of the association.

Mr. Moctezuma, ex-Minister of Finance of Mexico, was visiting Japan to observe the ports and industrialization on the water-front areas. During the party's one week stay, they visited Mr. Kiichi Okubo, Director-General of Bureau of Ports and Harbours of Ministry of Transport of Japan, Mr. Koichi Takabayashi, President of Keihin (Tokyo Bay) Port Development Authority, Mr. Takashi Hirota, Director of Social Development Cooperation Dept. of Japan International Cooperation Agency, Mr. Hayashi, Director-General of Port and Harbour Research Institute, and Mr. Yoshio Takeuchi, President of Overseas Coastal Area Development Institute of Japan to learn about the development of industrialization on the coastal areas as well as the engineering involved. They also visited Kashima Industrial Port on July 27, Tokyo Fishery Products Cold Storage Complex and Ohi Container Terminal Complex on July 25. On July 27, Prof. Barthélémy Mercadal, Professor of Rouen University, being accompanied by Mr. Alain Viandier, the assistant, visited the head office and was received by Mr. Kusaka and his staff. Prof. Mercadal is a specialist of laws and economies and was visiting Japan to attend a (Continued on next page bottom)

Industrial Ports and Economic Transformations

Series No.5

By Paul Hanappe and Michel Savy

CHAPTER III

RECENT TRENDS IN PORT ECONOMICS (Part 2)

- 3.2. THE TREND TOWARDS SPECIALISATION IN TRANSPORT
 - 3.2.1. Maritime transport-specialised

vessels

3.2.1.1. Bulk carriers

3.2.1.2. General cargo

experts' meeting on securities. He observed Port of Tokyo on the same day and visited Ministry of Transport to study about the technical assistance scheme for the developing countries.

- On July 29, Mr. Omar Jiacontini, Senior Officer, Planning & Design Dept. of Administracion General de Puertos, Argentina, visited the head office and met Mr. Kusaka, dy. secretary-general and discussed about the future development of communication between the two organizations. Mr. Jiacontini was in Japan for one month attending the second senior seminar on port & harbour engineering organized by Japan International Cooperation Agency.

Membership Notes

New Members

Regular Member

Port of St. John's, Newfoundland P.O. Box 1820, St. John's, Newfoundland AIC 5P9 Office Phone: (709) 737-4664 (Mr. Robert W. Innes, Chairman)

Associate Member

Port Management Association of West and Central Africa (Class B) 12 Park Lane, Apapa, Lagos, Nigeria Office Phone: Lagos 41149 (Mr. Paul-Raymond Olomo, Secretary General)

CORRECTION

On page 15 of the July-August issue, the registration fees for Associate Members (Class A/D) for Alternative B was errorneously given as FF2,500, while it should have been FF2,000.

3.2. THE TREND TOWARDS SPECIALISATION IN TRANSPORT

For many years most maritime traffic consisted of what is today called "general cargo", carried in multi-purpose vessels and unloaded under conditions which were similar from one port to another. Cargo vessels were the typical vessels used. Dockers, cranes and warehouses were the essential components of port activity.

Several transformations then followed, successively, to complicate and fragment the organisation, up till then unified, of the maritime transport chain. First of all certain cargo vessels were fitted out to carry bulk products such as coal, various metal ores, phosphates, etc. in their holds. At the same time there appeared tanker vessels for carrying petroleum products which, until then, were carried in barrels as general cargo. Whilst they had some specific equipment for carrying particular products these specialised vessels retained the sea-going characteristics of multipurpose vessels.

It was this specialisation, which relates only to a small part of the total maritime traffic, which can be seen up to the Second World War: when it was launched in 1937 the Emile Miguet oil tanker had a total deadweight tonnage of 21,340 tons. After the Second World War the dominant factor was the move towards gigantism which was shown by the size of the large bulk carriers: oil tankers (from 50,000 tdw in 1950 to 500,000 tdw in 1974), ore carriers (from 60,000 tdw in 1954 to 280,000 tdw in 1973 for a tanker-ore carrier). Simultaneously specialised port installations or terminals of increasingly high performance were built.

To these trends, characteristic of the long ascendant phase of the economy after the Second World War, and analysed in the second part of this work, there then succeeded a series of new developments; in the following pages we will be looking at those concerning vessels (sect. 3.2.1.), port installations (sect. 3.2.2.), and the land transport associated with ports (sect. 3.2.3.), trends towards increasing specialisation and hence towards an increase in the types of vessels and port installations, and an attempt will be made to identify the structuring characteristics.

3.2.1. Maritime transport: specialised vessels

When examining the movements towards specialisation which affected vessels we may distinguish between bulk carriers and vessels carrying general cargo.

3.2.1.1. Bulk carriers

The number of types of bulk carriers is fairly high, and is still increasing. Before examining the modes and reasons for this increase we should look at the relative importance of world maritime traffic in the main bulk products: in 1971 traffic in hydrocarbons alone represented 74% of the total traffic in bulk carriers as against 14% for iron ore, 5% for coal, 4% for grain and 2% for bauxite-alumina and phosphates¹.

The transport of hydrocarbons is therefore three times larger, in tonnage, than all other bulk goods taken together.

Rather than examine it in isolation it will be looked at, associated with other traffic, under the category of "large bulk carriers".

¹ cf. Ch. VERLAQUE-Geography of maritime transport-Ed. Doin, Paris 1975, 437 p (in French)

3.2.1.1.1. Large bulk carriers

The trend towards increasing size in bulk carriers, oil tankers and ore carriers, with the principal causes and consequences of this, have already been studied.

In the more recent period there are two trends which have modified this evolution towards gigantism and specialisation: the levelling out of the size of new tankers, and the more widespread use of multi-purpose bulk carriers.

a. The halt in the move towards gigantism in oil tankers arises from the absolute levelling out of scale economies which previously justified the increase in size, from the general economic situation marked by the growing cost of petroleum and hence the lower growth in consumption and, as a result, of its transport, and from a certain reorientation of the geographical flow patterns.

The flattening out of scale economies should not occasion any surprise¹. For many years, and even at the time when the increase in size was taking place, it was envisaged that the shift towards oil tankers considerably larger than half a million tons would necessitate technological leaps such as nuclear propulsion and the installation of two engine shafts, always provided that new techniques relating to giant maritime barges, to floating "sausages" and so on, did not reach the stage of commercial application.

¹ cf. P. HANAPPE and M. SAVY: Industries in Europe No. 46, Prospective research work 1973, Paris, Documentation Française, Chapter V, Shipbuilding (in French)

The economic situation gave even less reason for the launching of tankers of very large size as the construction programme continued, following the sudden changes and the start of the "oil crisis", after which the growth of world consumption of hydrocarbons began to slow down. The present situation of excess oil transport capacity on an international scale, shown by the laying up of many vessels, including some which have never entered service after leaving the shipyard, is no encouragement to build large vessels which would represent a very heavy load on the ship-owners for every day that they are immobilised for lack of freight, whilst freight tariffs also showed a falling trend.

Finally, certain recent geographical trade flows go in the opposite direction to the extension of the transport distances of the previous decades: China became an exporter of oil to south-east Asia, the reopening of the Suez Canal shortened the voyage between the Persian Gulf and Europe as compared with travelling round the Cape of Good Hope, the entry into production of the North Sea deposits opened up nearby sources of supply to western Europe. According to the economic calculations of the carriers the optimum size of a vessel corresponds to the point of equilibrium between the reduction in actual transport costs linked to the increasing size of the vessel and the reduction in the costs resulting from reductions in loading and unloading times (increasing speed of turn-round of the vessel), linked primarily to the limited size of the vessel.

A giant vessel is therefore competitive on long voyages where the travelling time is predominant, a medium-sized or even a small vessel is competitive on shorter voyages where immobilisation during loading and unloading is more important. Independently of the problems linked to the limitation of the draught allowable in the North Sea the transport of British and Norwegian oil is therefore more efficiently carried out by medium-sized tankers than by super-tankers.

Finally it should be noted that this limitation of the size of tankers is also linked with the intensification of trading in refined products and chemical products, as has been described above.

b. The movement towards large multi-purpose bulk carriers also arose from the hazards of the economic situation and from a compromise between the financial advantages relating to opposed trends.

Fluctuations on the international freight market encouraged the ship owners to equip their vessels for more flexible utilisation, so as to be more easily adapted to variations in the market. This led to the appearance of the bulk ore carriers, the tanker-ore carriers and the tanker-bulk-ore carriers (OBO: oil, bulk, ore)¹ of increasing size, but considerably smaller than those of a pure tanker: 245,000 tdw in 1972 for an OBO as against 400,000 tdw at that same time for a tanker. The principal solid bulk goods carried are, as we have seen, iron ore, coal, grain and sometimes bauxite and phosphates.

¹ Multi-purpose carriers are encouraged by the development of handling techniques, for example the transport of ore as a suspension in water, or the pneumatic handling of grains, which then become similar to fluids.

Apart from the advantages of the flexibility (to operate on markets where the demand is greatest) the multi-purpose bulk carrier allows a higher level of loading, often carrying freight over all or part of the return journey (simple voyages $A \stackrel{\text{oil}}{\rightarrow} B \stackrel{\text{wheat}}{\rightarrow} A$) as in the case of agreements recently concluded between the Soviet Union and the United States, or triangular voyages ($A \stackrel{\text{oil}}{\rightarrow} B \stackrel{\text{bulk}}{\rightarrow} C \stackrel{\text{empty}}{\rightarrow} A$, for example) as compared with the "straight" oil tanker ($A \stackrel{\text{oil}}{\rightarrow} B \stackrel{\text{empty}}{\rightarrow} A$)¹. The increase in transport costs on the outward

journey, because of the smaller size of the vessel and its higher effective cost (larger amortisation level per tonne carried) is therefore compensated for by the gain of return freight. For this reason Japanese iron and steel plants are increasingly using OBO's for their ore supplies.

¹ Consideration has been given to filling tankers with fresh (if not drinking) water on their return to Saudi Arabia.

Compared with the specialisation of large vessels in the transport of certain products, a characteristic of recent decades, we therefore see some trend towards the re-establishment of traffic in large bulk loads.

3.2.1.1.2. Small and medium-sized bulk carriers

Whilst the number of types of "large bulk carriers" (considerably larger than 100,000 tdw in the case of the largest and most recent vessels) is fairly limited the category of small or medium bulk carriers covers a much wider range of types of vessels.

We have already seen the traditional use of specialised vessels, of comparatively small size, for the transport of certain bulk products: non-ferrous minerals (manganese, nickel, chromium, pyrites), phosphates, potash, sulphur, clays, gypsum, limestone and salt as the main mineral products and cereals (wheat and flour, maize, rye, sorghum and millet), sugar and wool as the principal agricultural products.

Certain of these products, such as wheat, can be carried in large bulk carriers, frequently of the multi-purpose type. Most however continue to be carried by vessels of medium size, frequently less than 50,000 tdw. The volume of international trading in bulk products such as grains or non-ferrous minerals is much smaller than that of the hydrocarbons or even iron ore and coal, and frequently does not justify either vessels or port handling and storage facilities of a comparable size.

However if the vessels used are normally of about 20,000 tdw one should note the heavy loads corresponding to industrial supplies programmed over several years: as, for example, a salt carrying vessel of 160,000 tdw between Mexico and Japan.

In the face of such a shift in the case of new traffic towards the large bulk carrier category the most noticeable movement in the last decade is the appearance of new specialised bulk carriers, using vessels of a distinctly smaller size than the large oil tankers and ore carriers. This traffic often corresponds to the intensification of international trading in industrial semi-products, resulting from the new international division of activities which has taken place: papermaking pulp, wood chips, fertilizers, iron and steel products, chemical products, etc. It is therefore possible to distinguish between gas carriers, tanker vessels and dry bulk carriers. Finally we should mention the possible arrival, often referred to but not yet observed, of factory vessels.

- a. Gas carriers, in the construction of which the French shipbuilding industry has specialised, are of relatively recent appearance (mostly later than the fifties, and with some acceleration towards the end of the sixties). Unlike the difficulties experienced by the oil tankers gas carriers continue to be the object of sustained demand on the world market, since they are a new technique allowing traffic which it was impossible up to the present time with traditional techniques. It is necessary to distinguish between the liquid gas and ammonia carriers (60,000 tdw for the largest units in 1973) ethylene carriers (14,000 tdw) and methane tankers (60,000 tdw). Apart from methane tankers the development of these vessels is fairly directly linked with the evolution of oil production, the geography of refining and steam-cracking and, finally, to changes in oil prices which make the maritime transport of certain gases to their downstream utilisation point either economically justified, or not, as compared with their destruction or use at the point of extraction.
- **b.** Tankers, unlike the oil tankers to which they are technically similar, are the subject of considerable demand since the "energy crisis". These are small tankers, capable of carrying certain groups of chemical according to their constructional characteristics: international regulations distinguish three classes of vessels capable of carrying products which are more or less dangerous. The development of these vessels has resulted

from the development of the petrochemical and chemical industries, multiplying trading in intermediate products which are capable of absorbing transport costs as raw materials prices have, over several years, risen. The generalisation of this type of transport permits new locations for the chemical industries, less dependent on the immediate contiguity of upstream and downstream establishments.

c. The new dry bulk carriers, finally, are vessels of the size of a modern cargo vessel, fitted out for the specialised transport and handling of the product. The development of this type of traffic corresponds, as in the case of the chemical products which have already been dealt with, with the delocalisation of certain basic industrial units towards certain Third World countries, and with the intensification of international trading in semi-products.

The appearance of this type of specialised transport is an indicator of the economic objective to which it corresponds: when the flow of transport in a product reaches, on any given route, satisfactory levels of volume and regularity it may justify the installation of specific transport. A specialised vessel is characterised in practice by better filling of the hull, adapted to the dimensions and characteristics of the product (for example the suppression of intermediate decks which divide up a traditional cargo vessel), by handling facilitated by openings adapted to the product, so allowing the suppression of multi-purpose equipment such as partitions, loading masts, etc. The cost of development and construction of a specific vessel is certainly compensated for by better productivity of the vessel and reduced immobilisation. Some multi-purpose facilities in the vessel do, however, remain necessary in order to allow return freight, without which the commercial profitability of the operation of such a vessel could not be assured.

A typical example of this recent development is the transport of paper to Bremen using special vessels with a hull section which is practically rectangular, with vast openings and holds without intermediate decks, so that the reels of paper can be stacked vertically one on another throughout the entire height of the hold and without subsequent horizontal handling inside the vessel: all the loading and unloading is carried out by crane (LO-LO), with a special grab which allows the simultaneous handling of six reels. The hull of the vessel nevertheless has a double wall so as to allow return freight of a large range of products, of high or low density and including continers stacked in the holds.

In the same way certain European and Japanese ship-owners have put into service car-carrier vessels, holding 500 vehicles for the international coastal traffic of European exporters or up to 2,500 vehicles for the Japanese exporters¹, and capable of accepting general cargo or even containers or dry bulk (grain, scrap iron, etc.) as return freight.

This list of "new bulk carriers" cannot be exhaustive since the existence, on any given route, of a regular and high tonnage trade in one type of product may give rise to the construction, or at least the fitting-out, of a specially adapted vessel. Without going as far as the construction of technically specialised vessels, the Japanese iron and steel companies have, in this way, modified their exports of steel to Europe: instead of

¹ cf. the first phase of this research work. op. cit.

sending 1,000 tonnes by liner they now send 4,000 tonnes by chartered cargo vessels. In the same way there are vessels specialising in the transport of cement, iron and steel products, papermaking pulp, logs, pipes for pipelines, wood chips, sugar, wool and paper and cars, as we have already seen. Variations in world industrial geography will no doubt give rise to new types of specialised vessels in the coming years.

d. Factory vessels, in which certain stages of the production process of the products being carried will take place on board the vessel, have recently received attention in specialised circles. The Japanese car manufacturers have considered carrying out certain assembly operations on vehicles during their transport between Japan and the United States or Europe.

In a more realistic manner consideration has also been given to industrial operations requiring very reduced labour: slow chemical reactions, for example, which could take place during transport in a tank-vessel to reduce the total immobilisation time. At the present time none of these projects has reached fruition. The only example is that of vessels for waste destruction which carry out, at sea, operations which would be intolerable for the environment of an inhabited zone.

Finally one should mention the construction of certain factories on board a vessel, not be produce what is strictly a factory vessel but to reduce manufacturing costs by erecting the factory in a developed country, near the suppliers of equipment and with skilled labour (the erection of turnkey factories in certain nonindustrialised Third World countries often involves three times the erection costs in a developed country); or to retain a certain mobility in productive equipment, since it is only necessary to tow the vessel away to remove it from possible risks of nationalisation, for example. Such a factory vessel is being built at Ghent, on a laid-up oil tanker, for towing to Indonesia. In the same category of ideas we may expect considerable development in the construction of floating pontoons to carry nuclear energy factories, sea desalination plants, and so on.

3.2.1.2. General cargo

The trend towards multiplication of the types of vessels is also contemporary with various restructurings in the transport of general cargo, capable of bringing gains in productivity comparable with those sought by the specialisation of vessels.

For many years the transport of general cargo was, far more than in the case of bulk carriers, free from technical change: a cargo vessel of 1960 is largely comparable, with the exception of the propulsion unit, to one of 1930. However there is a trend towards an increase in size, but this has remained of the order of 15,000 tdw although, in the opinion of those responsible for the port of Bremerhaven, for example, the general use of cargo vessels of 30,000 tdw has been expected for several years.

Whereas certain traffic falls outside the category of "general cargo" and becomes "specialised bulk", as already mentioned, three changes have modified the units for carrying general cargo: the widespread use of transport by drive-on vehicles in various forms (RO-RO, car ferries, etc.) the "revolution" of the container (according to the expression now current) and, possibly tomorrow, the revolution of the barge. It should be noted that, unlike various bulk carriers which are specialised around a product or a range of products, general cargo vessels specialise in relation to the packaging, storage, or handling techniques used with the products carried.

a. Transport by RO-RO vessels (horizontal handling) takes various forms: open ship, suitable for rapid loading and unloading from many decks, for example by the use of fork-lift trucks for an entirely palletised cargo; a vessel fitted with sets of special trailers (one loaded on the vessel; others at each end of the voyage, being unloaded at the last port visited, being loaded at the next port to be reached); car ferries, for the transport of trailers and road assemblies on short journeys (Great Britain to the continent, Japanese archipelago).

In addition to the major technical and commercial organisation differences in transport (the car ferry, for example, makes it possible to carry as a single unit the goods, the truck, the customs and commercial documents, etc., and the driver) the various methods of transport of general cargo with horizontal handling is characterised by fitting-out of the vessel which allows a very considerable reduction in the time and cost of handling, together with rapid connecting to the land transport terminals (the case of the car ferries being the extreme case of merging maritime and terminal land transports).

b. The transport of goods packed in **standardised containers** will be the subject of a special section (section 3.3.2).

This method of packaging makes it possible to reduce packaging costs and the risk of deterioration and theft, and of considerably reducing handling times and costs. For this reason there is a considerable increase in the amount of general cargo carried in containers through the major world ports.

c. Finally transport by **barge-carriers**, involving vessels of the Lash or Seabee type, pushes to the extreme the trends seen with the containerships: packaging of goods in a container of standardised dimensions and the reduction of the time and cost of handling and immobilisation (expensive vessels carrying goods of high specific value, containerships and barge-carriers justifying a high speed of navigation at the expense of increasing fuel costs).

Within the trends and general consequences linked to the appearance of the containerships and barge-carriers which do not constitute, at least in the case of the first, that specialisation in the transport of general cargo characteristic of recent years, we see in the most recent period an intensification of the development: the multiplication of types of containers and, more recently, of types of barges. In addition to the normal 20 and 40 foot containers there are now half-height containers of the same floor area. However the internal fittings of the containers themselves are changing: containers at controlled temperatures, the investigation into "submultiples" allowing groupage within a standard container at lower charges and, if necessary, adapted to air transport, tank-containers for the bulk transport of food products (coffee, whisky) and certain chemical products. In this way are combined the advantages linked to standardisation where handling and optimum filling of the available space on the vessel are concerned, and those linked to the "mini-tank" which the container can form. This reasoning applies even more in the case of (Continued on next page bottom)

PORTS and HARBORS-SEPTEMBER 1978 15

Port of Long Beach Annual Report 1977

Extracts

The Board of Harbor Commissioners of the Long Beach Harbor Department administers the tidelands trust encompassed within the Harbor District for the welfare of all the people of California, to whom the tidelands belong.

The Commission is continuing the traditional role of previous Boards in making every effort to assure that the greatest economic benefit accrues to the City, State and Nation—at the same time addressing the many vital environmental concerns of our citizens.

As a case in point, the Port joined with Sunkist Growers and Salen Reefer Services seven years ago to create a new express export service for fresh citrus fruit. Prior to that time, Sunkist had moved its produce via rail to Eastern Canada for transshipment from there by sea across the North Atlantic to markets in the United Kingdom and on the Continent. Since 1970, these exports have been routed entirely by sea direct from Long Beach through the Panama Canal to Europe.

At the same time, Sunkist tapped the vast potential of marketing California-Arizona produced citrus in the Far East, with the result that this vastly expanded export trade returned \$150,000,000 to local ranchers last year alone.

During the past seven years, 100,000,000 cartons of Sunkist citrus have been exported via Port of Long Beach, and the more than 7,500 members of Sunkist Growers have earned over \$900,000,000 from this single market source.

Perhaps even more important to the economic well being of the United States is the fact that every dollar of any commodity which is exported reduces the nation's balance of payments imbalance by the same amount ... thus counteracting America's growing trade deficit.

It is through joint efforts like this that Long Beach has become both foreign commerce and general cargo leader on the U.S. West Coast and is the first major Western port to be awarded the coveted President's "E" for Export Service.

As another example of how the Port of Long Beach anticipates a need and then works to meet it, the Commission and Staff have for the past two years been deeply involved in trying to assist in moving North Slope Alaskan Oil to the American consumer, thus reducing the country's present dependence on foreign petroleum.

This concentrated effort, with its voluminous environmental and engineering studies, reports and public hearings, has convinced us that a three or four berth petroleum terminal south of Pier J is the most feasible answer to meeting the critical needs of energy-short mid-America, and that this can be accomplished without adversely affecting our present quality of life.

The commitment by the Port of Long Beach remains the same as it has since early in the 20th century to become and to remain "America's Most Modern Port," and more important, to be a leader in world commerce, and through this posture to help provide a better life for all.

> Richard G. Wilson President

Board of Harbor Commissioners

What started out in 1909 as a local effort to build a docking area where the San Gabriel River met the Pacific Ocean has today turned into the Western United States' most active and efficient international maritime commerce center-the Port of Long Beach.

From the first ton of lumber unloaded over 68 years ago, the Port of Long Beach has consistently expanded in both facilities and tonnages handled until 1976-77 figures total an alltime high of 32,753,171 revenue tons of cargo of all descriptions from all parts of the world.

Totally man-made, the Port of Long Beach harbor district encompasses 11.2 sq. miles (29.1 sq. kilometers). All berths are located from one to four miles of the open ocean. With a main channel 700 ft. (213 meters) wide, providing a depth of 60 ft. (18.3 meters), the Port of Long Beach is the major deep water port in America.

The City of Long Beach in 1931 established the Long Beach Harbor Department and gave exclusive jurisdiction over its operations to a five-member appointed Board of Harbor Commissioners. As an agency of the City of Long Beach, the Harbor Department collects revenues for various services and facilities and meets all its own expenses without requiring tax dollar support–unique among most American ports.

A great deal of the success of the Port of Long Beach can be attributed to the careful planning and concern for

(Continued from page 15)

barges which are being fitted-out with new systems such as plastic tanks for corrosive products and air conditioned tanks, and which therefore tend to give bulk transport the flexibility which is characteristic of general cargo transport.

In this way we can see a shift in transport from specialised bulk carriers to transport by barge-carriers or containerships: the first trans-Atlantic crossings, followed by final river transport of the barges, were for the purpose of importing American paper into Europe, in the same way as we have seen the development of specialised ships for the transport of paper.

If these are effectively the distinctive traits in the evolution of vessels, in particular in the most recent period, the specialisation of vessels should not be regarded as an absolute trend. Economic and technical developments may, in the general movement of specialisation, justify the recomposition of certain traffic, coupling the advantages of multi-purpose vessels with those of fragmentation.

At the present time, and as far as general cargo is concerned, the traditional cargo vessel will not disappear, despite the appearance of more sophisticated and productive vessels: for example heavy over-size packages, such as the component elements of turnkey factories, can only be carried by a cargo vessel. Furthermore the tendency of ship-owners is to reduce as far as possible the number of ports of call of the containerships. Further traffic, sometimes maritime, for distribution from the larger trans-shipment ports is therefore necessary, in which traditional cargo vessels, capable of lashing containers on their decks, may play an indispensable role. the proper interplay of maritime activities with the environment. Today, the Port of Long Beach is not only regarded as one of the fastest growing commerce centers but also as an innovator in developing facilities and technology that protect, preserve and enhance the environment while looking forward to fulfilling world trade future needs.

With the development of new cargo handling methods and as the world's modern merchant fleet changes configurations and capacities, the Port of Long Beach must be prepared to offer required specialized facilities and services. At the same time, the Port of Long Beach must continue to conserve and protect the environment for the benefit of man.

Recognized as the leader in maritime environmentalism, the Port of Long Beach has not ignored the recreational and human elements necessary in a total harbor development. Specialized facilities for sportsfishing and harbor cruises are available within the Port. Expansion of public recreation opportunities continue, with areas being set aside for parks, fishing and view points. Restaurants and hotel accommodations complement the busy Port area, with the Hyatt Queen Mary and Queensway Hilton hotels and Adolphs, the Quiet Cannon and Reef restaurants offering a variety of fare. Plans also are underway for the development of public marina areas within the Harbor District.

The Port of Long Beach is dedicated to continued modernization and revitalization of its facilities and services to meet the demands of tomorrow's world commerce—with environmental awareness and credibility.

With foreign tonnages leading the way, the Port of Long

Beach lists 23,608,480 tons for this year, with the Far East accounting for 13.7 million tons or 58%, followed by the Middle East with 2.9 million or 12%, Latin America and Europe both 2.5 million or 11% and Africa 1.3 million or 6%.

Over the last decade, foreign tonnage values have increased 295% to today's \$6,210,030,754. Japan with 5.1 million tons of high value commodities continues to be the most active trading country with the Port.

The Port of Long Beach today handles cargoes, both foreign and domestic, that exceed \$7,656,000,000 in value. This vital economic force radiates beyond the primary market of Southern California to directly affect the 14 western states, as well as all major market centers throughout the country.

The Port of Long Beach operates with principal income being generated from port operations. Although revenues available for capital improvements have been steadily increasing, revenue bonds were sold in 1970 for the first time since 1928. The total assets of the Port facilities ten years ago were \$190 million, which has increased 34.2% to a level of \$255 million in total assets today.

Incomes Statement

	Ju	ne 30, 197	7 Ji	ine 30, 1976
Port Operating Income	\$	23,340,80	1 \$	5 21,145,274
Port Operating Expense		16,287,284	4	15,188,422
Income from Port Operations	\$	7,053,51	7 \$	5,956,852
Other Income and (Expense)		2,531,78	5	710,759
Net Income	\$	9,585,30	2 \$	6,667,611

Port of Wellington Annual Report

(Extracts) Wellington, New Zealand

Trade of the Port:

The total manifest tonnage of inward and outward cargo through the Port amounted to 5,848,992 metric tons an increase over last year of 342,307 tons, or 6.2%.

The net tonnage of shipping arrivals totalled 7,335,468 tons, 288,784 tons, or 3.8% less than last year.

A total of 128 cellular container ships worked at the Thorndon Container Wharf during the year.

The loaded container tonnage inwards and outwards via cellular container vessels totalled just over 1,000,000 metric tons, an increase of 300,000 tons over the previous year.

Financial Results:

The Income and Expenditure Account shows that Income for the year amounted to \$13,217,721 an increase of \$3,218,012. Expenditure in the Working Account was \$11,669,437 an increase of \$1,860,014. The balance transferred to the Appropriation Account was \$1,548,283.

The total assets of the Board are now \$56,435,034 and the liabilities \$39,073,478 the excess of assets over liabilities being \$17,361,556 an increase of \$1,544,414 from last year.

The Board's loan liability now stands at 36,074,123 of which 12,016,863 is repayable on a table basis and 24,057,260 by the Sinking Fund method. At the end of the year Sinking funds held amounted to 2,262,566.

Conspicuous figures on the Annual Report 1977

(year ended 30 September)

		1977	1976
Cargo Tonnage	Return 1,000 tons		
	Total	5,848	5,506
	Coastal	3,591	3,532
	Australia	474	485
	Other Overseas	1,783	1,488
Fixed Assets	\$ 1,000	43,294	37,618
Income	\$ 1,000	13,217	9,999
Surplus on Ope	eration	1,548	190
Composition o	f Income & Expenditure	%	
Income:	Wharfage & Harbour		
	Improvement Rate	35	
	Plant & Facilities	27	
	Shipping Services	16	
	Cargo Services	15	
	Rents, Interest, etc.	7	
Expenditure	e: Shipping & Cargo		
-	Services	53	
	Loan Servicing	23	
	Repairs &		
	Maintenance	10	
	Administration	5	
	Depreciation	9	

PORTS and HARBORS—SEPTEMBER 1978 17

PLA Annual Report and Accounts 1977

London, 4th May 1978 (PLA News):—The PLA incurred a loss of £8 m. in 1977, £1.25 m. more than in 1976. The loss on day to day trading in 1977 of £2.4 m. was £0.7 m. greater than in 1976.

The overall trade of the port increased for the second successive year by 2.4 million tonnes to 51 million tonnes. However, increases in bulk grain, containers and river traffic were offset by a reduction of 140,000 tonnes of conventional cargo handled by PLA. This loss can be attributed, at least in part, to a further and accelerated shift to containerisation.

Three years of operating losses have contributed to the dramatic reduction in PLA's reserves. In 1974 they stood at $\pounds 54$ m. At the end of 1977 they had fallen to $\pounds 2$ m. and the PLA has continued to make losses in the first quarter of 1978.

In his Statement to the Report and Accounts, PLA Chairman, John Cuckney says: "very drastic steps will have to be taken if PLA is to have a chance to recover. Discussions with the Department of Transport about possible solutions to the problems relating to the PLA's structure are in their initial stages and, in due course, it will be necessary for us to announce how we see the way forward for PLA.

"Because of the current uncertainties the Auditors have

considered it necessary to refer in their report to the fact that the Accounts have been prepared on a basis which is dependent on the successful conclusion of the discussions with the Department of Transport.

"It is obvious that asset valuation in this situation poses difficult problems, as does the question of an adequate sum for provisions to take account of what might have to happen. No organisation likes to have their Accounts qualified in any way but there are occasions, and this is one, where the Auditors and the Board are faced with a difficult task in forecasting the financial implications of a restructuring operation which is so dependent on obtaining a constructive response from the many parties involved."

Despite all the problems, PLA has achieved some notable successes, particularly at specialised berths. Given a greater willingness to adapt more quickly to change London can build on these successes and exploit its many natural advantages of location in relation to the South East, the Midlands and Continental Europe.

With the Accounts PLA are publishing an information paper entitled "The Challenge of the Future".

This document sets out the problems and opportunities faced by the Port. It will be distributed to everyone having a direct interest in the port, reflecting the Chairman's belief in open management.

Port of Melbourne Annual Report 1976-77 (Extracts from)

Chairman's Review

(Chairman: Mr. A.S. Mayne, F.A.S.A., F.C.I.S., F.C.I.T.)

It is pleasing to report in this Centenary year of the Trust that total trade through the Port increased by 6% to an overall tonnage of nearly 18 million tonnes of which over 14 million tonnes was general cargo. Asia continued to be the principal growth area with 44% whilst Japan remains our principal trading partner with 27% of the total overseas trade.

Containerised cargo advanced 9%, bringing the total number of containers handled to 425,000, an increase of approximately 40,000 containers over the past year. It is interesting to note that 64% of the general cargo was shipped in containers.

Financially the Trust experienced a satisfactory year earning a surplus of \$353,000 after providing for the necessary appropriations and State appropriations and State Government levies.

Capital works amounted to \$14.5 million During the year, an additional container berth at West Swanson Dock was completed and the first half of 1978 will see the completion of the third berth and container crane at East Swanson Dock. The Port will then have a six berth six twin lift crane container complex at Swanson Dock capable of handling an annual throughput of 10 million tonnes of cargo. Construction commenced on the first of the new multi-purpose general cargo berths in Victoria Dock. It is anticipated that this project will be the largest in the history of the Trust estimated to cost a minimum of \$40 million. Commissioning of the new bucket dredge this year will improve the deepening and widening programme in the river. It is worth noting that night navigation in the Port provides for ships up to a length of 249 metres (817 ft.), and within a few years we will finalise on a depth of water of 14.0 metres (46 ft.) enabling a draft of 12.7 metres (41 ft. 6 ins.) to Swanson Dock.

The proposed World Trade Centre project at North Wharf is currently under consideration by the Government and it is hoped that a final decision on this matter will be given shortly. The Commissioners are appreciative of the co-operation and efficiency shown by the executives and employees of the Trust over what, at times, has been a frustrating and trying year industrially.

Despite every effort to contain costs to a practical minimum, expensiture continued to escalate. The Trust has not increased its principal charges, wharfage and tonnage dues, since February 2nd, 1976, however, with continuing cost pressures and the need to constantly improve the present standard of facilities, it will be necessary to review these charges in early 1978.

Trade Review

Trade through the Port of Melbourne for the year ended 30th June, 1977 totalled 17, 676,000 tonnes, an increase of 1,039,000 tonnes (6%) on 1975/76. General cargo throughput recorded a significant gain, increasing 1,157,000 tonnes (9%) to 14,033,000 tonnes. This is the highest throughput of general cargo recorded for the Port of Melbourne in any financial year. Total bulk cargo trade declined 118,000

tonnes (3%) to 3,643,000 tonnes.

Overseas imports in 1976/77 totalled 6,433,000 tonnes, an increase of 517,000 tonnes (9%) on 1975/76.

Overseas exports in 1976/77 increased 489,000 tonnes (10%) to 5,351,000 tonnes.

There was a significant shift to containerisation in this sector during 1976/77. The proportion of general cargo exports shipped in containers increased from 69% in 1975/76 to 77% in 1976/77.

Total coastal imports in 1976/77 were 3,009,000 tonnes, up 123,000 tonnes (4%) on 1975/76.

Coastal exports in 1976/77 totalled 2,883,000 tonnes, down 91,000 tonnes (3%) on 1975/76.

Container Cargo

Throughput of containerised cargo in 1976/77 totalled 8,204,000 tonnes (excluding empty containers), an increase of 9% on the previous financial year.

Total container traffic increased 39,574 TEU's (10%) to 425,843 TEU's. Empty container movements accounted for 12% of the total container traffic in 1976/77 compared to 11% in 1975/76.

Shipping Review

The total number of ship calls to the Port of Melbourne during the 1976/77 financial year was 2,496, an increase of 2.5% over the corresponding 1975/76 period.

Financial Review

Operations for the year 1976/77 resulted in a net revenue surplus of \$2,353,000 compared with \$3,539,000 for the previous year. After appropriations totalling \$2,000,000 the surplus reduced to \$353,000. Total Revenue at \$31,096,000 was 11.4% higher than the previous year whilst Revenue Expenditure at \$28,743,000 was an increase of 17.9% on last year.

The surplus was higher than expected, due largely to two factors:

- 1. Total trade for the year at 17,676,000 tonnes was 6% greater than 1975/76; and
- 2. The rate of increase in wage and salary costs was not as high as anticipated;

as a result the Trust was able to avoid an increase in the major revenue items of wharfage and tonnage rates which were last revised on 2.2.76. These sources of revenue were responsible for 66% of total revenue. It should be mentioned, however, that a further review of these rates may become necessary during the coming year.

The financial result of operation for the year is regarded as satisfactory and was obtained after providing a total of \$6,434,000 depreciation (\$5,754,000 last year).

The Port incurred significant expenditure providing services connected with security, the net cost for the year of providing Port Emergency, Port Security and First Aid Services within the Port being \$2,890,000, in addition the Trust contributed \$257,000 towards the cost of maintaining a Police force in the Port area.

Capital Expenditure

Capital Expenditure totalling \$14,462,000 was incurred during the year. Approximately 59% of this amount was financed from the surplus earned and other internal resources, the balance being met from additional loan funds borrowed and contributions made by other parties which were mainly in the form of subsidy payments relating to the construction of the new dredge.

Revenue Account for the year ended 30th June 1977

	1976/77	1975/76
Revenue	\$000	\$000
Charges on Ships	4,247	3,849
Charges on Goods	18,663	16,470
Charges for Services	2,817	2,599
Other Revenue	5,369	5,000
	\$31,096	\$27,918
Expenditure		
Payments to Consolidated		· · ·
Fund-State of Victoria	1,250	1,117
Operating Expenses	7,547	7,127
Maintenance	6,604	5,023
Other Expenses and		
Provisions	13,342	11,112
Total Expenses and		
Provisions	28,743	24,379
Net Revenue before		
A ppropriation	2,353	3,539

Balance Sheet as at 30th June 1977

	1976/77	1975/76
Liabilities	\$000	\$000
Loan Capital	61,303	56,018
Reserves retained in the		
Undertaking	55,218	50,167
Liabilities and Provisions	14,880	13,878
Sinking Fund	3,077	3,064
Trust Accounts	45	44
	\$134,523	\$123,171
Assets		
Works of Construction and Plant	166,818	153,570
Less Provision for Depreciation	46,836	43,213
Other Assets	10,405	8,997
General Reserve Fund	2,374	1,709
Sinking Fund	2,077	2,064
Trust Account	45	44
	\$134,523	\$123,171

by P. C. Shukla^{*}, Extracts From ``Indian Shipping'' Journal of Indian National Shipping Association, Bombay, India

The impact of containerisation in the maritime trades particularly between the industrially developed countries has been truly revolutionary. Massive investments have been made in acquiring new container ships and in providing matching facilities for handling containers at ports and for their transportation on rail, roads and rivers from and to the doors of producers and consumers. Containers provide an integrated transport system which expedites movement of cargo, appreciably reduces the hazards of damage, pilferage, claims etc. and bring down considerably the requirement of labour at ports and at points of loading and unloading of cargo. Containerisation has thus resulted in transforming the general cargo handling from labour-intensive to capital-intensive business.

The factors that helped the rapid containerisation like shortage and steeply rising cost of labour, heavy delays at ports, availability of technological and financial resources for providing the necessary port facilities like cranes, warehouses and for acquiring high-speed fully or semicontainerised ships and the necessary infrastructure for movement of containers within a country have not been equally applicable to developing countries in bringing about rapid containerisation. Exports of these countries mainly consist of primary commodities which require low-freight transport and cannot absorb higher cost of movement by containers. Despite the lower productivity of labour, labour availability and costs are still not prohibitive in most of the developing countries. Heavy capital investments required for creating the infrastructure for containerisation at ports and inland centres have to compete with more pressing demands for investment in agriculture, industry and the infrastructure needed for their growth. In India at present highest priority is being given to the development of agriculture and small and medium scale industries and provision of related facilities. Naturally, containerisation which requires extensive capital investments has either to be deferred or taken up in stages. As such a mixed policy has been adopted; containerisation is being progressed along with conventional movement of general cargo. It is true that a mixed system does not provide the full benefits of containerisation, but the exigencies of financial constraints do not leave any other course open.

India is a vast country having an area of 3,280,000 sq. kilometres with an extensive coast line, running to over 5,700 kilometres. While vast industrial complexes initially developed in and around the port towns of Calcutta, Bombay and Madras, an increasing trend now is to locate new centres of industry and trade in the interior. A domestic transportation system based mainly on rail and road serves rather adequately these inland centres including moving their cargo to and from the ports. The integration of this system with overseas shipping has not taken place on account of several inhibiting factors. India's exports are dominated by primary products of agriculture and plantations and manufactures of jute and coir which do not profitably and readily lend themselves to containerisation. However, increasing exports of textiles, light engineering goods and marine products are susceptible of containerisation. Indian imports of machinery chemicals and manufactured goods would also benefit if an intermodal containerised transport can be provided from the overseas centres of production to our inland centres of consumption.

MOVEMENT BY RAIL

India has world's third largest railway network. Its 60,000 route kilometres are evenly divided between two track gauges—one Broad Gauge 1,676 mm (5'-6'') and other Metre Gauge 1,000 mm (3'-3.3/8''). The main industrial and commercial centres, however, are served by Broad Gauge tracks and, therefore, the problem of moving inland ocean-going containers has to be examined within the parametres of Broad Gauge system. ISO-size containers which are largely utilised in the overseas trades should have no difficulty in moving on the Broad Gauge system of In dian Railways. In fact, the position is that Broad Gauge moving gauge permits 3,250 mm (10'-8'') width of vehicle. The moving gauge limitations would, however, not permit ISO containers to be transported on the Metre Gauge system of Indian Railways.

MOVEMENT BY ROAD

Movement of ISO containers by road poses serious problems. Although India has 4,500,000 kilometre of service roads, their condition is not uniform throughout the country. Axle-loads, gross vehicle weights and permitted moving dimensions vary from State to State. Even on National Highways speeds more than 45 km per hour are not permitted for heavy duty freight vehicles. Whilst axle-loads and gross vehicle weight are restricted because of factors like road bed strength and strength of bridges and culverts, vehicle dimensions are restricted by headroom in tunnels, under electric and telegraph wires and underpasses, lane and road widths and traffic conditions. The range of permitted weights and dimensions for operation of vehicles on Indian roads is limited to maximum vehicle height between 3,353 mm (11'-0") and 3,400 mm (11'-2"), width between 2,286 mm (7'-6") and 2,440 mm (8'-0") and length between 10,670 mm (33'-0") and 15,250 mm (50'-0'').

Container carrying road vehicles are required to operate in congested areas of large Indian cities where industries are located. The use of extra-heavy duty vehicles of oversize dimensions in these congested areas is at times physically not possible and is in any case viewed with disfavour by the traffic regulating authorities. It is, therefore, doubtful if even a $8' \times 8' \times 20'$ contrainer would be cleared by Authorities for regular inter or intra city road movement.

^{*} Executive Director (Commercial), Shipping Corporation of India. This is the text of the speech delivered by the author at the Container Industry Conference held in London from 30th Nov. to 2nd Dec. 1977.

Movement of ISO container by road is therefore ruled out for the present.

DOMESTIC CONTAINER

Keeping in view the constraints indicated above and the preference of local industry and trade for moving their goods in smaller lots, Indian Railways have developed a 5-ton container, which is getting very popular for the movement of domestic cargo between big industrial and commercial centres like Bombay, Delhi, Calcutta, Madras, Bangalore, etc.

Problems of Containerisation in Indian Context

A major problem with many developing countries is the necessity for the co-existence of both the old and the new systems for some more time to come so that the development of any system can achieve a compromise between the capital intensive, sophisticated handling facilities of most of the developed world and the wide variety of labour intensive cargo handling methods in existence in the developing world. Within the developing countries financial, organisational and social constraints tend to hinder the extension of containerisation and other unit loading concepts. Within these parameters containerisation in the Indian context calls for:

- 1. Container handling ports-so that container handling facilities can be concentrated at a few selected ports where proper infrastructure and equipments can be provided for handling containers;
- 2. Inland Depots-cum-Dryports-creating inland depotscum-dry ports where containers can be moved from ports by Broad Gauge railway system.
- 3. Acquisition of semi-container vessels-shallow draft semi-container vessels which can carry both break-bulk and container cargoes.

CONTAINER HANDLING PORTS

With a coastline extending over 5,700 kilometres and having 10 major and 16 small ports serving the overseas trade, it has been felt that we should avoid dispersal of containers over large number of ports. Initially only three ports, viz. Bombay and Cochin on the West Coast and Haldia on the East Coast are being developed to handle containerised cargo.

Facilities at Bombay Port

The Bombay port has not been developed to handle a regular container system which requires deep drafted berths with a large apron and a large back up area for storage of containers. The port, however, has one or two berths which are having the capability of handling containers though in a limited manner only. The ancillary facilities like mobile shore gantry cranes with adequate capacity, straddle carriers, trailers, etc., are not available with the result that ships bringing containers have to be selfsustaining at least in relation to handling containers in and out though there are several private agents who provide mobile gear for handling of containers. It is, however, learnt that the Port Authorities are in the process of acquiring the requisite mobile gear and two mobile heavy cranes to work container vessels. Containers with import cargo are stripped at one shed within the docks, soon fully loaded and sealed containers would be permitted to leave the dock area. In respect of exports, the container freight station is situated close to the container berth where stuffing of all containers is carried

out by the local stevedores. All facilities and office space for container operators are provided in a nearby two-storied block on the east side of the present Container Shed. American President Line was the pioneer in bringing containers to Bombay. It has been allotted a special berth for bringing cargo for containerisation all the month round. The Bills of Lading are, however, handed over to the shippers only one the loading of containers on board the vessels. At present their vessels pick up between 150/180 containers per sailing.

The existing facilities are not considered inadequate in the context of the present container traffic handled by the port. Since the scope of expansion of the existing port facilities is very limited, a scheme for developing a new port complex at Bombay which is expected to handle all deep drafted vessels particularly those bringing large loads of bulk cargoes, fertilizers etc. is being given shape. The new port complex known as "Nhava Sheva" will be located on a separate island across the channel and it is in this new complex that regular and proper container facilities are expected to be provided. This complex may take about 5 to 7 years to operate.

Facilities at Haldia

The only port in India which can be termed as having regular container facilities is the new port at Haldia, the ancillary port to Calcutta, which represents the first instance of planned investment in this country for container vessels. A full container berth with back-up area for storage of containers, mobile cranes for lifting containers, etc. is available. The ship operators will not, therefore, be required to make any additional investment except for chassis-loading in port at their option. This complex is expected to be fully operational in the first quarter of 1978.

At Cochin

The facilities provided for handling containers are still in the infant stage. Therefore, vessels calling at this port with containers must have their own handling gear for working containers. The stuffing of containers is done in the port transit shed or on board the vessel.

INLAND DEPOT-CUM-DRY PORTS

A proposal to provide a dry port near Delhi, the capital of India, is under active consideration. Similar depots may be created at other inland centres where necessary facilities for stuffing and discharge of containers will be provided. It is proposed to provide the facility of through-Bill of Lading for the entire journey of the container inland as well as overseas. The question of making this through-Bill of Lading negotiable by banks has still not been resolved, but a decision is expected shortly. An integrated agency in which the Shipping Corporation of India and the Indian Railways participate may be created to deal with various problems involved in the movement of containers between the dry ports at the one end and the coastal ports at the other end.

ACQUISITION OF SEMI-CONTAINER VESSELS

Keeping in view the nature of India's imports and exports and the constraints about the inland movement of containers along with lack of facilities at ports to deal with fully containerised ships, the Shipping Corporation of India decided to acquire some semi-container vessels which are capable of carrying break-bulk cargo along with containers. The Corporation has so far seven low-drafted semicontainer vessels and another sixteen container-oriented vessels are on order. These semi-container vessels will draw a draft available at the main Indian ports. These have been provided with necessary gears on the ships itself capable of handling containers at Indian ports.

CUSTOMS PROCEDURE AND BYE-LAWS

In the absence of development of an inter-modal transport system for ISO-sized containers, the need for a change in the existing Customs procedures and bye-laws has not been pressing. However, in order to enable the container to be taken for loading/discharging outside the port area, certain facilities have been given by the Customs Authorities. On an application being made by the shippers accompanied by authorisation from the shipping company or their agents, the containers can be permitted to be taken outside the port area for loading or discharging provided they are returned to the port within 2 months' time. Stuffing of export cargo is permitted to be done outside the port area. Supervision by Customs Officials has to be arranged on payment of overtime fees during the movement of containers outside the port and they are required to be escorted under protective supervision.

DOCUMENTATION

The Indian Shipping Companies and Indian National Shipowners' Association are taking keen interest in drawing up suitable international convention in respect of multimodal transport and also a combined transport document which is internationally acceptable. It is hoped that as soon as these documents are finalised, the process of clearing containerised goods will be simplified.

MANUFACTURE AND REPAIR FACILITIES

Lack of adequate manufacturing capability and ready availability of containers can be a major constraint on full scale container operation since this would involve hauling of large scale empties from areas where they are in abundance.

In recent times, some manufacturers have evinced interest in manufacturing containers. M/s. Trans Freight Containers are manufacturing about 50 units per month, though their total capacity is about 1,000 units per year. There are two other firms which are busy putting up similar plants and the country can be self-sufficient as far as empty boxes are concerned within 3 to 5 years. The facilities for maintenance and repair of containers are also being developed at the container handling ports.

ATTITUDE OF DEVELOPED COUNTRIES

India's general overseas trades are mainly covered by Conferences. Based on the attitude taken by these Conferences on such matters as provision for rental charges for containers and for the reduction of freight rates for containerised cargo, the Shipping Conferences can be divided into following categories;

- a) passive type
- b) reluctant type
- c) promotive type

The passive type includes those shipping conferences which assess rental charges on containers and do not reduce freight rates for containerised cargoes. These Conferences assume container transport by conventional cargo liners and not by container ships. Accordingly, they are not keen to promote container traffic but inevitably undertake container transport at shippers' or consignees' request as an unavoidable burden because of the problems which arise in transporting containers by conventional cargo liners such as—

- a) inefficency in handling
- b) loss of space in stowing containers and
- c) additional cost of carrying back empty containers.

The shipping conferences of reluctant type do not levy any rental charge on containers but do not reduce freight rates for containerised cargoes. These usually use containers for collecting cargoes or making the container system consistent with conventional and container ships.

The promotive type includes Shipping Conferences that do not impose rental charge on containers and offer reduced freight rates for containerised cargo. In these conferences, regular container services are encouraged.

The Conference covering the trade from U.K. and West Europe to the North Atlantic seaboard of U.S.A. and Canada and the Trans-Pacific Conference from Far East to the West Coast of USA and Canada and the Conference between Far East and UK/West Europe could be termed as falling within the promotive type; these Conferences accept the container concept as best suited to their trade.

Conferences covering Indian Trades

The Conference covering the Indian trades generally fall under the "Reluctant" category. They realise the mevitability and long term utility of containerisation. Partly due to the nature of trade, partly due to fear of obsolescence of their rather old vessels operating profitably in these trades, they have not shown marked enthusiasm towards introduction of containers. Despite this attitude, some of the enterprising non-Indian lines who are operating containers in third country trades have started container operation at Indian ports. This has put the Indian lines at a disadvantage. With their world-wide container services they have the flexibility for loading containers in such a way that empty haulage is kept to the minimum. Their large container pool enables them to keep down the costs. Some of them operate feeder services from India to join their main container services. All these add to the disadvantage of Indian shipping lines who do not enjoy corresponding benefits. It would be better if these foreign lines, particularly those which are owned by the governments of their countries, would work in co-operation with Indian shipping lines so that the idea of containerisation and its extension to inland ports do not cause any apprehensions or reservations. In the initial stages, Indian shipping would find it too difficult to bear the financial burden of owning of its own pool of containers and operating them in a few selected sectors which would involved considerable empty haulage. On the other hand, if the containers carried by Indian vessels are pooled with those carried by foreign lines and they operate in Indian as well as third country trades, the situation would be beneficial to both trade and shipping.

SUMMING UP

 Having discussed containerisation as it applies to India, it must be said that the developing countries, India not excluded, have necessarily to adopt a cautious approach in introducing large scale containerisation in their trades. At the same time, they cannot overlook the need to unitise their cargo through containers or other methods.

2. There is a tremendous gap between the position achieved by the developed and the developing countries in regard to containerisation and unless the developed countries adopt a more flexible and cooperative attitude and appreciate the complexity of the problems faced by the developing countries, fast expansion of containerisation particularly as an inter-modal system in developing countries will receive a set back.

RECOMMENDATIONS

This highlights the need for greater cooperation and understanding between developed and developing countries and towards this end, I would venture to make the following recommendations:

- 1. An agency initially covering shipping and railways should be created in India to extend the use of containers as an inter-modal system of transport between the inland producing and consuming centres located in India and those in other countries.
- 2. In view of the several handicaps with which the developing countries are faced, a willingness on the part of the shipping lines of the developed countries who have acquired the experience and expertise in containerisation to cooperate and assist the shipping lines of developing countries are faced, a willingness on the part participate in joint operations is called for. This alone can extend containerisation as a support to trade and shipping of developing countries.
- 3. The shipping companies of developed countries should resist the temptations of taking away a larger share of the national cargo of developing countries by recourse to containerisation etc. and thereby proving detrimental to the growth of national shipping lines of the two groups of countries appears necessary to resolve various problems that arise in this context.
- 4. Experience of containerisation in developed countries has shown that the concept of consortia combining of several operators works to the overall betterment of trade and shipping. This concept of consortia has so far remained limited to the developed countries only. It would be of great assistance if this concept can be extended to embrace those shipowners in developing countries who are willing to participate. This would also help accelerate the growth of containerisation in such developing countries.

Expansion of containerisation and other forms of unitised transport has a vast potential in developing countries provided their peculiar problems and compelling constraints are appreciated and resolved by mutual cooperation between the shipping lines of the developed and developing countries.



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Orbiter Probe

New IMDG Code published by IMCO

London (IMCO News):-A completely new edition of the International Maritime Dangerous Goods Code (IMDG Code) has been published by IMCO.

The Code is designed to assist compliance with the requirements regarding the carriage of dangerous goods by sea which appear in the International Convention for the Safety of Life at Sea. It is also intended to serve as a basis for individual requirements, in order to provide harmonization between countries engaged in the carriage of dangerous goods.

The new edition includes all amendments to the Code, up to and including number 13 (1976), as well as Annex I, which deals with packing details. It also includes an updated and expanded new General Index of dangerous goods and a table of UN numbers with corresponding IMDG Code page numbers.

The contents of the four volumes were arranged as follows:

Volume I

List of abbreviated units

General Introduction to the Code

- Annex I Packing recommendations. Glossary of packagings. Illustrations of packagings.
- Class 1 Explosives

Volume II

List of abbreviated units

- Class 2 Gases: compressed, liquefied or dissolved under pressure.
- Class 3 Inflammable liquids.
- Class 4 Inflammable solids, substances liable to spontaneous combustion and substances emitting inflammable gases when wet.
 - Class 4.1 -Inflammable solids.

Class 4.2 – Substances liable to spontaneous combustion.

Class 4.3 – Substances emitting inflammable gases when wet.

Volume III

List of abbreviated units

- Class 5 Oxidizing substances and organic peroxides. Class 5.1 – Oxidizing substances.
 - Class 5.2 Organic peroxides.
- Class 6 Poisonous (toxic) and infectious substances. Class 6.1 – Poisonous (toxic) substances.

Volume IV

List of abbreviated units

- Class 7 Radioactive substances.
- Class 8 Corrosives.

Class 9 – Miscellaneous dangerous substances.

General Index of dangerous goods. Table of UN numbers,

with corresponding IMDG page numbers.

The price for a set of four volumes is $\pounds 30$, plus packing and postage by surface mail ($\pounds 2.00$ for UK and $\pounds 3.00$ elsewhere). Volumes cannot be sold separately.

Orders can be sent to the Publications Section, 101-104 Piccadilly, London W1V OAE, and should be accompanied by a remittance for the full amount.

Customers wishing to receive future amendments should inform the Publications Section, who will send all the necessary information as soon as it becomes available.

ILO prepares new safety standards

Geneva, 26 April 1978 (ILO News):-The big increase in seaborne shipping-from 389 million metric tons of dry cargo in 1937 to 1,450 million tons in 1974-the growth of containerisation and the introduction of ships of entirely new design have profoundly changed the international shipping industry and equipment and methods of cargo-handling.

They have also changed the work of the world's dockers, and for this reason the next session of the International Labour Conference (from 7 to 28 June, in Geneva) will take steps to revise International Labour Convention No. 32 concerning the protection of dockers against accidents adopted in 1932, and since ratified by 38 countries.

Revision of the 1932 Convention was suggested by an experts' meeting in 1976, following which the ILO sent a questionnaire to member States on various aspects of the proposed new standards. Governments' replies have now been published and the conclusions proposed can serve as a basis for discussion at the Conference.

Following this first discussion, the ILO will prepare one or more draft instruments based on the Conference conclusions, for further examination and decision by the Conference in 1979.

Loan and Technical Assistance by ADB, 1977

Asian Development Bank has disclosed the Annual Report on the operations and policies of the Bank in 1977, from which highlights of the loan and technical assistance by ABD for port projects are summarized below.

1. Project loans in general

THE BANK achieved steady growth in its assistance to the region in 1977. Project loans totalled \$887 million, nearly one-third of which was on concessional terms to the poorer countries. Significant advances were made in cofinancing and in cooperation generally with other aid agencies. Technical assistance expanded sharply, much of it designed to increase the capacity of the poorer countries to accelerate their development efforts. Special attention was given to improving loan implementation and to strengthening the social impact of project loans.

A total of 45 loans for 45 projects in 16 developing member countries (DMCs) was approved during the year,

LOAN APPROVALS BY SECTOR TO END OF 1977

(amounts in \$ million)

Sector	19	76	19	77	1968-1977	
Sector	Amount	%	Amount	%	Amount	%
Agriculture and Agro-Industry						
Agriculture	198.39	25.57	254.00	28.66	799.28	18.83
Agro-Industry	2.50	0.32	5.70	0.64	250.17	5.89
Sub-Total	200.89	25.89	259.70	29.30	1,049.45	24.72
Industry (including Development Banks)	204.50	26.36	137.62	15.52	910.09	21.43
Power ,	128.70	16.59	217.60	24.55	994.41	23.42
Water Supply and Urban Development	75.25	9.70	105.30	11.88	440.01	10.36
Transport and Communications	166.56	21.46	146.03	16.47	804.16	18.94
Education		_	20.20	2.28	47.80	1.13
TOTAL	775.90	100.00	886.45	100.00	4,245.92	100.00

compared to 37 loans for 36 projects in 16 DMCs in 1976. At \$887 million, total lending represented an increase of 14.3 per cent over the previous year's total of \$776 million.

2. Port project loans in the sector of "Transport and Communications"

The Bank's lending in the Transport and Communications sector continued to emphasize the improvement of rural road networks and feeder roads, as also rehabilitation and development of port facilities. The main objective was to meet growing transport needs at low cost, particularly in the rural and undeveloped areas of the countries concerned.

Seven loans totalling \$146 million were approved in 1977, four for road projects and three for port development projects, compared to eight loans totalling \$166.6 million in 1976.

The loans for three ports projects amounted to \$29.5 million. The Bank's main objective in this field has been to prepare ports in DMCs to cater for the development needs of the countries concerned and to handle an increasing volume of traffic as well as changing traffic demands, e.g., from conventional to specialized (container) vessels. Apart from the economic benefits which usually result from port improvements, namely, the reduction in overall costs in transferring cargo between ship and shore, port projects also assist in facilitating access to overseas markets for domestic products from the hinterland. Among the projects approved during the year was the Second Penang Port

Expansion Project in Malaysia, which will enable that port to cope with growing seaborne container traffic (including roll on-roll off and lift on-lift off operations), and the Honiara Port Development Project in Solomon Islands. The need for port facilities for domestic shipping also received. Indonesia: Fourth Port Project: \$17.5 million for the first phase of development of Surabaya Port, involving construction of inter-island berths, transit sheds and ancillary installations. The Project includes a feasibility study for the second phase of development at the Port (see also technical assistance below).

Malaysia: Second Panang Port Expansion Project: \$10 million for the expansion of facilities at Penang Port through the conversion of a general cargo berth to a container-cum-roll-on/roll-off berth, construction of a vege-table oil berth for ships with a capacity of 33,000 dwt., and a feasibility study for the next phase of development of the Port.

Solomon Islands: Honiara Port Development Project: \$2.03 million from Special Funds for the development of Honiara Port, aimed at optimizing cargo handling through extension of the existing deepwater wharf, provision of limited facilities for container handling, reconstruction of seawall protection works, and consultant engineering services for strengthening the capabilities of the Port Authority (see also technical assistance below).

3. Technical Assistance in general

An important element of Bank's developmental role is

TECHNICAL ASSISTANCE APPROVALS BY SECTOR TO END OF 1977¹

(amounts in \$ thousand)

Sector		1976		1977			1967-1977		
Sector	No.	Amount	%	No.	Amount	%	No.	Amount	%
Agriculture and Agro-Industry	9	2,189.4	47.40	22	3,968.2	55.42	105	16,790.3	47.38
Industry (including Development Banks)	6	915.0	19.81	4	892.0	12.46	28	3,448.9	9.73
Power	1	230.0	4.98	5	740.0	10.34	25	4,504.5	12.71
Water Supply and Urban Development	3	315.0	6.82	2	239.0	3.34	14	2,835.5	8.00
Transport and Communications	4	874.5	18.93	5	692.0	9.67	35	6,099.8	17.21
Education	1	95.0	2.06	4	628.0	8.77	7	910.0	2.57
Others	—			-	_		6	850.7	2.40
TOTAL	24	4,618.9	100.00	42	7,159.2	100.00	220	35,439.7	100.00

1 Excluding regional projects and technical assistance loans.

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the provision of technical assistance to DMCs, especially to improve their capability to make effective use of external project financing, whether from the Bank or from other sources.

The Bank's technical assistance operations expanded substantially in 1977, both in the amount of assistance provided and the number of projects assisted. Forty-two technical assistance projects amounting to \$7.2 million were approved during the year, compared to 24 amounting to \$4.6 million in 1976. Of these, 14 projects were wholly or partly financed from other sources in 1977, with the Bank acting as Executing Agency.

4. Port project technical assistance

Indonesia: Surabaya Port-Phase II: \$150,000 for preparing a feasibility study for the second phase of development of Surabaya Port to provide for cargo traffic beyond 1982, including special handling facilities for containerized cargo, in conjunction with the loan for the Fourth Port Project (see above).

Solomon Islands: Port Tariff and Accounting/Management Study Project: \$50,000 for a tariff and accounting/ management study, in conjunction with the loan for the Honiara Port Devolopment Project (see above).

Highlights of the A.D.B.'s Lending Operations to the End of 1977

Since its first loan in 1968, the Bank's lending operations have been directed towards a wide spectrum of economic and social improvements in its DMCs. Some illustrations are as follows:

- 41 irrigation and area development projects covering about 849,000 ha., which support about 762,000 farmers. Total population expected to benefit-about 4.3 million.
- 17 fisheries development projects which will create additional employment opportunities for about 30,000 fishermen, raise fish catch by about 333,000 m.t. per year and benefit about 17.6 million consumers.
- 6 fertilizer projects which will help increase the region's fertilizer supplies by 1.6 million tons of nitrogen nutrients and 76,000 tons of phosphate nutrients per annum.
- 2,045 subloans to small and medium-scale enterprises through credit lines to DFIs.
- 64 projects for creation of 2.42 million kW of generation capacity and for about 23,000 km. of transmission-distribution circuits; of the generation capacity to be developed, over three-quarters will be in the form of low-cost hydropower.
- 26 water supply and sewerage projects, which will help increase water supply capacity by 5.6 million cubic meters per day to 13.5 million cubic meters per day, benefitting a population of nearly 36 million in metropolitan areas, smaller towns and provincial districts.
- Construction or upgrading and improvement of 3,633 km. of roads in 29 projects, serving an estimated population of 35.9 million.
- Construction, rehabilitation, modernization and expansion of ports in ten countries to increase cargohandling capacity by about 20 million tons per year.

- Establishment of new technical and vocational education facilities in 10 separate institutes with an annual output of 3,750 skilled workers, 3,550 technicians and 600 engineers.
- Upgrading of technical and vocational education facilities in 26 separate institutes which have an annual output of approximately 500 skilled workers, 1,850 technicians and 10,000 engineers.

By the end of the year, 81 of the 309 approved projects had been completed, and the benefits of many other well-advanced projects were already beginning to be felt.

ICC Statement on the Tokyo Round negotiations

Information (International Chamber of Commerce bulletin Number 2/78):—A major ICC statement on the "Tokyo Round" of world trade negotiations was sent to the GATT Secretariat in Geneva on 30 January. Specific points made include the following:

Tariff-non tariff linkage

The conclusion of the "Tokyo Round" should reflect the fundamental interdependence of tariff and non-tariff problems (which would require that the operation of tariff reductions would be conditional on the conclusion of appropriate parliamentary procedures in the field of nontariff measures) and of the improved operation of safeguard clauses.

Tariffs

All efforts should be made to achieve a further substantial reduction in the tariff field for all sectors under negotiation. This should also result in further progress towards tariff harmonisation. The ICC attaches great importance to simultaneous progress towards a common basis for Customs valuation.

Safeguard clauses

The ICC strongly advocates the working out of a precise code to regulate and improve the use of safeguard measures. Such measures should only be used if it can be demonstrated that serious economic injury is caused or threatened by an exceptionally large, or exceptionally rapid, increase in imports, that the imports are a primary cause of the injury, and that some mitigation of the impact of imports is justifiable and likely to be effective, in order to give the affected domestic industry a period of time to adjust either by orderly contraction or re-organisation. The use of safeguard measures against specific sources of supply should require a demonstration that the injury suffered is attributable to those sources.

Code on Safeguards

The code should provide for a number of obligatory features. Measures should clearly be temporary, should preferably define from the outset the period for which they are to be maintained, and should provide for criteria for their application and withdrawal. They should not be excessively restrictive; and to ensure this, they should be so designed as not to require reductions in imports below the quantity or value which existed before the emergency which prompted their introduction. They should also allow for participation in expansion of the market. The imposition of measures should, wherever possible, be the subject of prior notification and consultation. Appropriate machinery should be established to ensure continuing periodic review of any safeguard measures, and should in particular ensure that they are not maintained for longer than the period initially established, and that they do not imperceptibly become more restrictive or more deeply entrenched.

Surveillance body

To provide for multilateral consideration of the conditions under which such action could be taken, a surveillance body should be established which could enquire into the facts of any situation and advise the Contracting Parties on these matters. Even if the findings of such a body were not binding on the parties concerned, they could have a powerful influence in ensuring that safeguard measures did not degenerate into a widening movement towards general protectionism and increasing restriction of international trade.

Non-tariff measures

The ICC reiterates the urgency of reducing the restrictive effect of non-tariff measures, and supports the negotiators' efforts to draw up appropriate codes of conduct. Among subjects which should be given special attention are technical standards, public procurement (which goes beyond purchases by central governments) and Customs administration, which are all of increasing importance in many countries.

Export subsidies

An international code is needed to establish clear rules in this field. Its main elements should be: acceptance by all countries of serious economic injury to domestic industry as a prerequisite to the introduction of countervailing measures; definition of subsidies covered; consultation with the exporting states before countervailing duties are applied; improvement of notification procedures so as to ensure more transparency and stronger surveillance. The position of state-owned and state-controlled enterprises is a particular problem which should be brought within such a code.

Further paragraphs give points on distinction between agriculture and industry, developing countries, the unstable monetary situation, and strengthening GATT.

N.B This is an unofficial summary of the full 7-page text, available as Document 103/3.

Publications

1. "Procedures for the Control of Ships and Discharges" (Res. 321 and 391) by IMCO (Inter-Governmental Maritime Consultative Organization) (English or French) (£1.25)

IMCO Secretariat, Publications Section

101-104, Piccadilly, London, W1V OAE

- 2. "Recommendation on International Performance and Test Specifications for Oily-Water Separating Equipment and Oil Content Meters" by IMCO (English or French) (£1.50) (Res. 393)
- 3. "International Maritime Dangerous Goods (IMDG) Code (Annex 1)"-Packing Recommendations, Glossary of Packings, Illustrations of Packings-by IMCO
- 28 PORTS and HARBORS-SEPTEMBER 1978

(English only) (£3.00)

- 4. "Containers-Their Handling & Transport: A Survey of Current Practice" by National Ports Council (£17.50) National Ports Council, Commonwealth House 1-19 New Oxford Street, London WC1A 1DZ
- 5. "Ocean World" magazine bimonthly & "Ocean Reporter" monthly news bulletin by Robert C. Keith (\$18.00 annually; student rate \$12.50) Ocean World Magazine, P.O. Box 8819 Washington, D.C. 20003
- 6. "The Suez Canal and its Impact on Tanker Trades and Economics" (Study No. 62) by H.P. Drewry Shipping Publications (\$85.00)
- 7. "Middle East Liner Shipping" by H.P. Drewry Shipping Publications (\$160.00) H.P. Drewry Shipping Publications 34 Brook Street, London W1Y 2LL
- 8. "The Gulf Pattern 1977-1982"-Trade, Ports, Economies-by Gray Mackenzie & Peat Marwick Mitchell (£50.00)
 - Gray Mackenzie & Company Ltd 40 St. Mary Axe, London EC3A 8EV
- 9. Arab Maritime Data 1978" by Benn (\$48.00) Benn Publications Ltd, 25 New Street Square London BC4A 3JA
- International Shipping & Shipbuilding Directory, 1978" by Benn (£29.00)
- 11. "Finance for Transportation and Logistics Managers" by Joseph L. Cavinato (\$20.00) The Traffic Service Corporation

815 Washington Building, Washington, D.C. 20005

12. "RO/RO Shore and Ship Ramp Characteristics-An ICHCA Survey 1978" by ICHCA (International Cargo Handling Co-ordination Association) (330 pages, £35.00)

> ICHCA, Abford House, 15 Wilton Road London, SW1V 1LX

SEMINARS, CONFERENCES, CONVENTIONS

- Legend: •) Title, Purpose/Location
 - 2) Organization/Convention Coordinator
 - 3) Date/Fee
- 10th European Logistics Management
- 2) The Management Study Centre of the Federation of Netherlands Industry "De Baak"
- 3) September 4-15, 1978
- International Transport-The Common Problems/London
- 2) The Chartered Institute of Transport/Financial Times Conference Organisation
- 3) October 2,3 & 4 1978
- World Dredging Conference/Rai Congress Centre, Amsterdam
- 2) Wodcon in co-operation with Europort International Maritime Exhibition
- 3) 14-15-16 November 1978
- International Symposium on Marine Salvage/New York Hilton Hotel
- 2) Maritime Association of the Port of New York/Maritime Technology Society
- 3) October 1,2,3, 1979

Flour handling improved



A netted sling load of flour-48 bags totalling 2.8 tons-is lowered into the hold. The nets remain with the load thus avoiding manhandling into stow.

Halifax, June 19, 1978 (Port of Halifax News Release): -A hundred car train arrives in the Port of Halifax every 2^{1/2} days carrying flour. In 1977, a record 319,000 tons of flour was exported through the port.

Flour is the most labour-intensive cargo moved in the Port of Halifax and each ton represents about 1 man hour of work—to freight handlers who offload from rail to the shed floor and to longshoremen who load from the shed to the vessel. This is equivalent to an industry employing 150 men on a year round basis and having an annual payroll of almost \$3.5 million.

To facilitate flour handling, Logistec Corporation, a local stevedoring company, recently spent 3/4 million on the automation of the loading process. This has resulted in vessels being turned round at a faster rate and a ship now loads in an average of 7 working days compared to 12 working days before the introduction of the new equipment.

"Portos e Navios"

Ports & Waterways

JANUARY 1978

- The Superintendent of the Port of Paranaguá announced to the Press that he is going to ask authorization to Portobrás to build a terminal for fertilizers; this terminal is expected to engage about 3,000 people.
- Enlargement of the Port of Manaus: a new area for the handling of containers has been inaugurated, increasing

40-ft. bulkhead flats at Halifax



Halifax, N.S., Canada, July 12, 1978 (Port of Halifax News Release):-Since the introduction of the weekly container service between the Port of Halifax and St. John's, Newfoundland, in February, 1977, traffic has grown steadily in both domestic Canadian cargo and transhipment cargo from various world trades. Newfoundland Container Lines, who operate the service, have recently introduced a number of 40-foot bulkhead containers (flats). One of them is shown loaded with plywood from the St. John's plant of Newfoundland Hardwoods for a receiver in Halifax, Nova Scotia.

the Port's capacity; the investment was of about 55 million cruzeiros; the new area, of 24,000 square meters, has a capacity to store, 1,200 containers.

- CDRJ invests 1,422 million cruzeiros enlarging the area for container handling; up to the month of November 1977, 13% more containers have been handled than in the same period of the previous year.
- The Metalur Group is going to develop this year a project for the transportation of charcoal through the San Francisco River, thus reducing by 50% the freight costs.
- Engineer Luiz Antonio Pinho, Superintendent of the Port of Paranaguá, informed that port operation in 1977 totalled about 7 million tons, slightly below the figure attained in 1976.

MARCH 1978

- The Government of Paraguay is interested in using the Port of São Francisco do Sul, in Santa Catarina, for the exportation of its goods to Europe and South America, due to the problems of the Port of Paranaguá.
- Portobrás' President Arno Markus informed the Press of a project for the construction of canal locks in Itaipu for the use of deep draught vessels up to the Rio de la Plata; the investments shall be only Brazilian.
- A financing contract has been recently signed by Portobrás, by the State of São Paulo's Development Bank, Finep and CESP, to cover the costs of design and other services, having in view the transformation of the rivers Tietê and Paraná in regular transportation ways.

New combination terminal, Halifax



The Port of Halifax's new combination terminal, to be operational 1979, comprises some 7 acres of open area, complete with a 625 feet open berth and a 50 feet wide RoRo ramp. Two shedded berths will provide 100,000 square feet of storage space. It is being built to handle the ever-increasing demands of combination carriers trading to Canada. (July 14, 1978)

Stable labour relations

Montréal, Québec, Canada (Port of Montréal Bulletin, Spring 1978):-The Maritime Employers Association and the International Longshoremen's Association ratified a collective labour agreement several months ago which guarantees labour stability at the Port of Montreal for three years.

During the collective agreement negotiations job security was the only basic issue separating the two parties. The principle of job security was established in earlier contracts but the M.E.A. and the I.L.A. held fundamentally different views as to the nature of the security program to be included in the agreement under negotiation.

The M.E.A. bargained for a continuation of the principle of job security measures on a seasonal basis as incorporated in the previous agreement. This guarantees all longshoremen 40 weeks (1600 hours) wages each year. Approximately one third of the labour force, which is needed for work during the winter shipping season, receive an additional 12 weeks guarantee. The men are assured of their weekly pay cheques during the guarantee period whether work is available or not. If overtime is worked in any week, a portion of the overtime earnings is credited to the job security fund to compensate for time paid for but not worked.

The union bargained for job security on a weekly rather than a seasonal basis. The effect of this would be to give the long-shoremen the full benefit of all overtime earnings in addition to payment for time not worked.

After hard bargaining an agreement was ratified which provided for a continuation of the principle of job security on a seasonal basis.

This agreement is the most modern and progressive to be found in any port in the world. Several of the many provisions which emphasize this are:

1. The dispatching of men to their jobs by means of a computer, the only such system existing at any port in the world, is more efficient and fairer method than the hiring hall or any other system.

2. The contract contains no inflexibilities such as sling load

restrictions.

3. There is no surplus of labour in any of the operations and there are no restrictions on container handling.

In 1972 and again in 1975 agreements were imposed on the two parties by Federal legislation but this agreement was negotiated without government intervention and without work stoppage or a reduction in productivity. It covers a period of three years and there are very few collective agreements of this duration in any industry. This is the first agreement in which the I.L.A. has accepted, without government intervention, the principle of job security on a seasonal basis, thus resolving the only real item of contention between management and the union.

These are all very significant indicators that labour stability at the Port of Montreal can be anticipated not only for the duration of the present agreement but for years beyond its termination.

The Harbour Master's Department

Montréal, Québec (Port of Montréal Bulletin, Spring 1978):-The operation of major port requires the skills and training of men and women of many trades and professions.

One of the very important operating departments is under the jurisdiction of the Harbour Master and its responsibilities are extensive and varied, covering operations both afloat and ashore.

The Harbour Master is responsible for the allocation of berths or anchorages for all inbound ships and the safe berthing of all vessels. He also allocates space for cargo handling and members of his staff maintain a general oversight over the handling and sorting of cargo and its stowage in the transit sheds.

The handling and stowage of dangerous cargo, mainly explosives and chemicals, is one of the major concerns of this department. The entry to the port of hazardous cargo is governed by the issue of permits and handling and stowage are strictly regulated. Commodities considered too hazardous are not permitted entry.

A very important function of the Harbour Master's department is the maintenance of the advertised depth of water alongside all wharves. Soundings are taken at intervals and when high spots are found arrangements are made for maintenance dredging. This department is also responsible for assessing the need for repairs to wharves and transit sheds and arranging with the Engineering department to have the work done.

There are strict regulations in the port concerning the removal of garbage and sewage from ships and prohibiting the discharge of oil, chemicals and other pollutants into the St Lawrence River. The Harbour Master is responsible for the implementation of these regulations and also for the removal of garbage from transit sheds.

The provision of heavy lift floating crane services is a joint operation with the St Lawrence Seaway Authority. The "Hercules", with a lifting capacity of 275 tons is owned by the Seaway Authority and operated by its personnel but the allocation of its services, billing and all other administrative work is performed by the Harbour Master's staff.

Other important functions of this department are the operation of two truck control centres and a cargo loss bureau. The truck control centres regulate truck traffic at

(Continued on next page bottom)

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Study underway to extend Seaway Navigation to 11-Month Season

International Association of Great Lakes Ports Toronto, Ontario Canada

June 27, 1978:—A further extension of the Seaway's navigation season came closer to reality with the recent announcement that Canadian Seaway officials have awarded a contract for a cost-benefit study of an 11-month season.

A.M. Luce, senior adviser to Paul Normandeau, St. Lawrence Seaway Authority president, told members of the International Association of Great Lakes Ports (IAGLP) at the 18th annual meeting held recently in Toronto that a \$59,000 contract for the study on extending the season has been awarded to LBA Consulting Partners Ltd. of Ottawa. The study is to be completed in five months.

Both Mr. Luce and David Robb, a representative of the U.S. St. Lawrence Seaway Development Corporation, told the group that plans to test new all-weather navigation aids and to limit winter passage to vessels meeting ice navigation standards are also being planned to bring the Seaway closer to year-round shipping operations.

The cost of extending the current nine-month season to 11 months—the system would have to be shut down for at least one month annually for maintenance—would be "staggering to say the least", according to Mr. Luce. He estimated that the over-all cost would be about \$500 million which would be split between the United States and Canada.

"Some costs could be borne by the users, with possible 'ice dues' levied on ships requiring the attention of coast guard icebreakers," said Mr. Luce in an interview following the meeting.

The Canadian Seaway official told the association that the concept has drawn little criticism from shipowners.

"The Seaway Authority is not married to the idea of closing the system during the winter for maintenance work," said Mr. Luce.

He noted that in a recent survey of shipping interests most opted for operations to be suspended in either February or March, but the indicated that the decision was not final.

The only alternative to a one-month suspension of operations would be "twinning" of the locks at a prohibitive cost of \$6 billion.

According to both U.S. and Canadian Seaway officials, the most costly item in any season extention would be the estimated \$350-million required for channel dredging be-

the port and thus eliminate congestion at the terminals. They also serve as a strong deterrent to theft. The cargo loss bureau provides a free service to consignees by tracing missing cargo and arranging for its immediate shipment to Montreal.

The work of the Harbour Master's department is broad in scope and highly important to the port operators and users.



Members of the International Association of Great Lakes Ports were briefed on the latest developments on winter navigation in the St. Lawrence Seaway when a panel of experts addressed the association's annual meeting held in Toronto recently. They are greeted here by the association's new president Frank E. Miller (second from right), Director of the Seaport of Toledo, Ohio. Panel members are from left: David Robb, of the U.S. St. Lawrence Seaway Development Corporation; A.M. Luce, senior adviser to the president of the St. Lawrence Seaway Authority and Colonel Melvin Remus, of the U.S. Army Corps of Engineers.

tween Prescott and Ogden Island in the Montreal-Lake Ontario section. This would be necessary if ships were to cope with the anticipated current velocity, Mr. Luce explained.

The U.S. representative told members that a hydraulic scale model of this section, hundreds of feet in length, had been constructed to measure water levels and currents using artificial ice. A scale model of a maximum Seaway-size vessel is also being used in the tests which form part of this season extension program conducted by the United States.

Mr. Robb said Canada and the United States will enforce vessel capability criteria in late fall, limiting transit on the Seaway to ships powerful enough to require a minimum of icebreaker assistance. This move, which Mr. Luce said was prompted by shipowners, would speed up the flow of vessels by removing the more badly underpowered craft, which have been responsible for delays in past seasons. Power and hull standards required for winter navigation have yet to be published by the Seaway Authority.

IAGLP members were also told that an all-weather navigational aid, capable of precisely plotting a ship's position, is vital if an 11-month season is to be realized. At present floating aids to navigation have to be removed at the onset of freeze-up, thus limiting passage to daylight hours and then only in good visibility. The Transportation Development Centre in Montreal will assist in funding a test program next spring of a new system capable of fixing a ship's position within five feet.

The system, which was developed in the United States, is called precise radar navigation and will allow vessel masters to monitor their progress on shipboard computers that bounce radar pulses off shore-based reflectors. The onboard electronic equipment will be installed at the shipowner's expense.

Great Lakes Ports group elects new president



Toledo's port director, Frank E. Miller (left) is the new president of the International Association of Great Lakes Ports. He was elected at the group's 18th annual meeting held last June in Toronto. Other members of the new board here taking a coffee break are: Lakehead Harbour Commissioner Walter J. Clemens (second left), Chairman of the Canadian section; Fred Rose, Hamilton Robert M. Adams, Detroit, Mich.; Paul Pella, Duluth, Minn.; Art Lancaster, Buffalo, N.Y.; and Kenneth Closs, secretary-treasurer, Toronto.

Toronto, Ontario, Canada, June 27, 1978 (IAGLP):-Frank E. Miller, Director of the Seaport, Toledo, Ohio, is the new president of the International Association of Great Lakes Ports (IAGLP).

Mr. Miller, elected during the association's 18th annual meeting held recently in Toronto, succeeds Walter J. Clemens of the Lakehead Harbour Commission (Thunder Bay), Ontario.

Formed in 1960, the IAGLP represents 16 United States and five Canadian ports and consists of two sections, one for each country.

Corpus Christi projects DEEPORT

Corpus Christi, Texas, May, 1978 ("Port Corpus Christi News & Events"):-Views of the proposed Deeport at Harbor Island from both land and water were provided for more than 100 visitors on May 15.

Hosts for the trip were members of the Harbor Island Project Management Committee. This group includes representatives of five petroleum companies which will be among the users of Deeport and which are supporting the Nueces County Navigation District in its efforts to get the Deeport established.

Harbor Island, with a docking draft of 45 feet, is now the deepest U.S. Port south of Portland, Maine. Plans now call for it to be modified to handle vessels from 250,000 DWT to 470,000 DWT with a project depth of 72 feet.

On the boat tour, visitors got a close-up look at the area where a docking basin 1200 feet by 5700 feet is to be developed. Docking facilities for two VLCC's are planned with room for a third. The VLCC basin would be enclosed by levees on three sides, providing a calm area during bad weather and providing an area where any oil spill could be easily contained. The basin would be 10.59 nautical miles from the 80-foot contour of the Gulf of Mexico.

Wilson, Corpus Christi division manager for Lockwood, Andrews & Newnam, Inc, termed the Port of Corpus Christi "the cornerstone of the Coastal Bend Economy." Take it away, he said, and two out of every five workers in this area would have to look for a new job.

He recalled that 1970 marked the beginning of a new era of growth for the Port. Discussing the economic impact that the Deeport would have, Wilson forecast that construction alone would create nearly 2,000 new jobs and that after the facility is built, permanent jobs would be created.

Col. Nolan C. Rhodes, U.S.A. (Ret.), now director of engineering services for the Navigation District, traced the 10-year history of efforts by the Navigation District to get the Deeport developed.

He related the various federal acts that have been passed during that time that make obtaining a construction permit for such work more complicated.

Bringing the record up to date he concluded, "The Corps is just about finished and will release the draft Environmental Impact Statement to other government agencies, private entities and to the public very shortly—in fact, in a few weeks."

"There will then be time for the contents of that document to be digested and commented on," he said.

Col. Rhodes emphasized strongly, that the Port of Corpus Christi is "only proposing to make changes to a channel that already exists—and one that has been changed, widened and deepened repeatedly in the last 50 years. We propose to accommodate vessels that already exist."

Companies that are participating in support of the Deeport, in addition to American Petrofina and Coastal States Petrochemical Co., are Champlin Petroleum Co., Southwestern Refining Co. and The Sun Company.

As sponsor of the project, the Navigation District is seeking only a construction permit from the Corps of Engineers. The public facilities would be built by the Port and financed by the issuance of revenue bonds—not tax bonds—which are guaranteed by port users and paid off out of user fees. Similar revenue bonds have been used to build some of the port's present facilities.

Five companies that already have operations in the Corpus Christi area are participating in plans to guarantee the revenue bonds for DEEPORT.

Visiting Russian Technicians conduct Grain Experiment

Corpus Christi, Texas, May, 1978 ("Port Corpus Christi News & Events"): A group of Russian officials and technicians visited the Port of Corpus Christi early in April to conduct an experiment aimed at reducing grain losses to insects.

Roger Sanderfer, manager of the Public Elevator, said he expected to receive word from the Russian visitors as to whether the experiment was successful but so far has had no communication from them.

Sanderfer said that approximately one million bushels of wheat was placed in holds of the Russian ship "Bratislava," the loading being completed on April 9. From here, the ship went to New Orleans to take on a partial load of corn and then was to sail for Odessa, Russia.

The experiment, Sanderfer said, involved the use of a fumigant that has long been used for controlling weevils, but in this case was being applied differently. The usual practice, he said, is to place fumigant pellets directly in the grain. As the pellets break down and release the fumigant, a

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powdery ash is left on the grain.

In the experiment, the pellets were placed in pockets on a sheet of material that was spread over the top of the grain cargo. In this way, Sanderfer said, the Russian hoped to eliminate the powdery deposit on the grain while at the same time controlling weevils and other grain-damaginginsects.

Houston to construct new Container Wharf

Houston, 6/7/78 (Port of Houston News Release):-A third 1,000 foot container wharf, estimated to cost approximately \$8 million, will be constructed at the Port of Houston Authority's Barbours Cut Terminal, Fentress Bracewell, Chairman of the Port Commission, has announced.

Port Commissioners approved advertising for bids on construction of the new wharf at their June meeting. Bids will be opened at the August Port Commission meeting.

Target date for completion of the wharf is early 1980.

Barbours Cut Terminal is the Port Authority's specialized intermodal facility. Already in operation at Barbours Cut are two 1,000 foot container wharves, a U-shaped pier for LASH and Seabee vessels, and a Roll on/Roll off platform.

A container information computer system, two Paceco container cranes and three yard cranes help to speed cargo movement at the \$53 million terminal.

L.A.'s Board approves 1978/79 budget

Los Angeles, June 14, 1978 (Port of Los Angeles News):-The Los Angeles Board of Harbor Commissioners today, Wednesday, June 14, 1978, adopted a \$97 million budget for Fiscal Year 1978/79. The 78/79 spending program of \$96,986,519 reflects a 1.59% decrease under the current Fiscal Year. The total operating budget of \$26,283,680 includes funding for 640 positions. Appropriations in the amount of \$60,640,179 have been included in the spending program to construct new facilities and modernize and upgrade existing ones in order for the Port of Los Angeles to maintain its position as the leading West Coast Port.

The total projected revenues for 1978/79 are \$56,254,000, an increase of approximately \$8.6 million over fiscal year 1977/78. The principal sources of revenue are from shipping services, \$40.8 million; rentals of property, \$10.5 million, and other miscellaneous operations, \$5.0 million.

The Harbor Department receives no funds from taxation; the entire budget is financed from revenues derived from port operations and \$3.5 million from Economic Development Administration grants.

L.A. concerned about proposed preservation law

Los Angeles, Calif., June 21, 1978 (Port of Los Angeles News):-The Los Angeles Board of Harbor Commissioners today (Wed., 5/21) voiced concern that proposed federal legislation related to the preservation of endangered species could affect the future development of the Port of Los Angeles.

In a formal resolution the Board urged the Los Angeles

Kelang Port Official visits L.A.



Los Angeles, Calif., (Port of Los Angeles):-Facilities and operations of the Port of Los Angeles were examined recently by Hashir Abdullah, third from right, Deputy Director General of the Kelang Port Authority, Malaysia, as he toured the 7,000-acre, \$270 million facility. Joining him in the tour, and in several in-depth discussions of port economics, were, from left, Pete Mandia, Harbor Economist; Andy Andazola, Administrative Assistant; Jim Neuman, Principal Data Processing Analyst; and William Chernus, Asst. Trade Development Manager, all from the Port of Los Angeles, and Brian McGowan, Maersk Lines Agency.

City Council to support Senate Bill 2899 (1978 Amendments to the Endangered Species Act) which establishes a federal inter-agency for the purpose of granting exemptions from the Endangered Species Act of 1973. The Harbor Commission recommends that SB-2899 be amended to allow agencies other than federal to apply for exemption from the Endangered Species Act for non-federally funded projects.

The Board also recommends that Senate Bill 1820 (Natural Diversity Act) be opposed unless amended to exclude ports. SB-1820 is a broader version of the Endangered Species Act, which provides funding to each state which is willing to participate in the location, identification and registration of sites containing flora and/or fauna critical habitats.

The adopted resolution also endorses the concept of a single, central clearinghouse for all regulatory agencies empowered to control and enforce air, water, environmental, coastal and wildlife protection and preservation law.

L.A. Port Master Plan drafted

Los Angeles, Calif., July 12, 1978 (Port of Los Angeles News):-Prospective plans for the future Port of Los Angeles is the subject of a draft of the Port Master Plan which the Los Angeles Board of Harbor Commissioners approved today (Wed., July 12) and authorized for submission to interested parties and to the California Coastal Commission for their informal review.

Final adoption of the Master Plan by the Board of Harbor Commissioners for formal submission to the Coastal Commission for certification will be considered at a later date after interested parties and organizations review and

Annual NCITD meeting, N.Y.



New York City, 7/11/78 (Marine Exchange of the San Francisco Bay Region):-Key participants in the recent annual meeting of the National Committee on International Trade Documentation included (from left) John Raven, executive director of the United Kingdom's Simplification of International Trade Procedures Board (SITPRO)-the British equivalent of NCITD; John Greene, president of Western Steamship Services, San Francisco, and director of the National Committee; Dr. Lloyd J. Money, director of the Department of Transportation's programs bureau, and NCITD executive director Arthur E. Baylis. The industryinitiated NCITD, formed 11 years ago to combat excessive "red tape" afflicting U.S. international commerce and shipping, reported substantial, continuing gains and breakthroughs in efforts to reduce, simplify, standardize and now computerize data and documents estimated to aggregate close to \$10 billion annually as "procedural overhead" in U.S. international commerce.

submit comments and after a public hearing is held.

The draft Environmental Impact Report on the plan is to be completed about July 30 and will be submitted as a separate, independent document to interested parties for review and comment.

In preparation for 10 months, the plan is the result of analyses of existing physical and economic conditions, the existing legal requirements of all regulatory agencies, and a projection on a broad conceptual basis of anticipated future conditions in and demands on the port.

"When certified by the Coastal Commission," explained Harbor General Manager Fred Crawford, "the plan shall serve as a guide for making policies and decisions on land and water use developments, modifications and alterations in the Port of Los Angeles."

WTCA Annual Assembly

New York, June 26, 1978 (News from The Port Authority of NY & NJ):-The World Trade Centers Association, representing over 100 Trade Centers and trade groups around the globe, will hold its Ninth Annual General Assembly this year at New York's World Trade Center from July 3 to 6. Delegates from 40 cities in 24 different countries will convene to review the progress of Association programs and projects and to explore new ways of assisting international businessmen to expand trade in the coming year.

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The World Trade Centers Association was established in 1968 to encourage mutual assistance and cooperation among members, to promote international business relationships and to foster increased participation in world trade by developing nations. Beginning with only two active trade centers, the Association has grown to over 100 member organizations, and there are now some 50 world trade centers in operation, under construction or in advanced planning stages in major trading capitals in Europe, the Mid East, Far East, North and South America, Africa and Australia. Newest among trade centers are projects in Moscow, Bombay,. Hong Kong, Cairo, Toronto and Kinshasa, Zaire.

Ocean Carrier Group announces sharp reduction in Dock Worker Job Security Plan Assessments

New York, June 29, 1978:-The directors of JSP Agency, Inc.-the new organization of ocean cargo companies formed to protect contract benefits of some 50,000 union longshore employees-today announced a 75 per cent reduction in the level of assessments used to fund its Maine-to-Texas job security plan.

The action was reported here by David J. Tolan, board chairman of the group and executive vice president of Sea-Land Service, Inc., who said the new lower assessments would become effective on Saturday, July 1.

It will apply across the board on all three categories of seaborne cargoes covered under the Job Security Program agreement the employer group has with elements of the International Longshoremen's Association, AFL-CIO in 34 ports along the Atlantic and Gulf Coasts, he added.

Mr. Tolan listed the new schedule of rates based on weight tons of 2240 pounds on the following categories of ocean cargoes:

1	 Automated 	cargo	5	cents	per t	on
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Assessment rate for dockworker benefits to continue unchanged in Port of NY-NJ

New York, June 29, 1978 (NYSA-ILA Contract Board):—The current assessment of \$5.85 per ton on ocean cargoes that is used to fund fringe benefits of union longshoremen in the New York-New Jersey harbor area will remain unchanged through September 30, 1978, the NYSA-ILA Contract Board announced today.

Reported by board co-chairmen Thomas W. Gleason and James J. Dickman, the action continues the reduced level tonnage assessment here that has held steady over 18 months despite inflationary cost pressures and higher benefits negotiated in a new labor agreement last November.

"We are very pleased that revenues on projected cargo movement over the next three months combined with administrative economies already instituted will enable us to meet all contract obligations while maintaining the \$5.85 assessment rate that was set in December, 1976," they said.

Super Berth opened at Port Newark

New York, N.Y., July 17, 1978 (News from The Port Authority of NY & NJ):-A new specialized heavy lift "Super Berth" capable of handling the heaviest rail car loadings in the United States was opened today at Port Newark by The Port Authority of New York and New Jersey with the loading of a 579,000 pound steam generator drum from dockside.

Following the loading operation, Anthony J. Tozzoli, Director of Marine Terminals for the Port Authority presided at a brief ceremony marking the opening of the new public heavy lift berth. He was joined by V.J. Bloch, Chairman of Kahn.

Mr. Tozzoli noted that the opening of the new heavy lift berth now gives the Port of New York and New Jersey unmatched capability to handle such movements with speed, economy and convenience for shippers, "Provision of specialized facilities of the type we are opening today is essential to assure the continued economic strength of the port region, which is so dependent upon waterborne international commerce for jobs and business development", he said.

Japan Trade Mission seeks Imports

New Opportunities Envisioned for Port of New York-New Jersey

New York, March 1978 ("Via Port of New York-New Jersey"):-Almost \$2 billion in U.S. exports to Japan were generated by the 92-man Japan Import Promotion Mission that recently visited the New York-New Jersey Metropolitan Area and other cities in the United States. According to the mission leader, Yoshizo Ikeda, who also is the president of Mitsui & Co., Ltd., the objective of the mission was to expand the importation of American products into Japan, particularly new commodities. That it did. To assure this goal was attained, the group consisted of some of Japan's top level leaders in government, industry and trade. They were split into five purchasing sections-power generation, machinery, fashion and leisure goods, housewares, and processed foods/wines and spirits. The last three visited New York.

For the manufacturers, merchandisers, and exporters of the Port of New York and New Jersey, the renewed emphasis on Japan as a market is of compelling interest. These firms represent the greatest aggregation of skills, experience and specialized services in the U.S. requisite to any export expansion program. Moreover, the shipping services and facilities, air cargo as well as ocean transport, are available to provide Japanese importers with fast, frequent departures. Thus, as a vigorous, dynamic marketing hub and port, the New York-New Jersey Metropolitan Area is superbly equipped to expand this country's exports to the premier trading nation of the Far East.

Leaders of the mission termed their trip to the United States a success in that \$340 million in purchase contracts were completed or nearly so while another \$1.5 billion in purchase contracts were likely to be concluded within the next six months. However, the Japanese executives also emphasized that their trip should be followed by American sales missions to Japan. The Japanese, who share a common fascination with Americans in baseball put it this way: "We have pitched the ball, and it is now yours. We shall be looking for an American export mission to come to Japan in the near future, and we are ready to help such a mission succeed."

Seatrain uses Satellites for Ship-to-Shore Communications

New York, March 1978 ("Via Port of New York-New Jersey):-Seatrain Lines, Inc., Atlantic Container Division, has installed the new satellite communications system, Marisat, on four Euroclass vessels operating between the New York-New Jersey Port and points in Europe. The new system enables instant ship-to-shore communications for better coordination of shore facilities and to meet incoming cargo with appropriate manpower and equipment. Emergency response capability is also strengthened. Gerry Van Geyzel, director of vessels operations for the division, describes the improvement as follows: "In the past we operated at the mercy of the wireless. At times we had to wait as long as 10 hours to get a message through to our ships."

With the Marisat system Seatrain ship communications are integrated with three satellites positioned in a stationary orbit 22,240 miles above the equator. Telephone, telex and data messages can be sent as easily as on land. In the photo at far left the antenna atop Seatrain's container-ship Asiafreighter is part of the newly-installed Marisat communications system. A complex Marisat console below deck uses the antenna to send or receive ship-to-shore calls even when Asiafreighter is far out at sea. In the adjacent photograph, communications and console are checked by a radio officer and an installation technician as the system is prepared for service.

Port District offers View of Potential Industrial Development Sites

New York, March 1978 ("Via Port of New York-New Jersey"):—The natural advantages the Port District of New York and New Jersey offers as a profitable production environment were again re-emphasized when a delegation from the Japan Auto Parts Industries Association (JAPIA) visited the Port of New York and New Jersey recently.

The 63 representatives of the 340 firm membership of the JAPIA came to the Port District to examine potential industrial development sites. Chairman Alan Sagner of The Port Authority of New York and New Jersey pointed out the vast array of modern land, sea and air terminal and transportation facilities that would enable them to take advantage of the enormous market potential of this area and surrounding states.

A major program, the creation of industrial parks within the cities of the Port District in New York and New Jersey, on which the Port Authority is now starting, also was described.

"Sizeable tracts of land in this region suitable for industrial development and well serviced by transportation and distribution facilities are available, and the New York-New Jersey Port has an abundant pool of labor to work in auto parts and assembly plants," the chairman said, adding, "some 450 Japanese companies of all kinds are already located in this region."

Nation's Liner Policy examined at Northwestern University Shipping Forum

New York, March 1978 (Via Port of New York-New Jersey"):-The New York-New Jersey Port recently was the site for the first Shipping Forum ever sponsored by the well known Transportation Center of Northwestern University. "In Search of a Rational Liner Shipping Policy," was the timely theme of the two-day forum held at the New York Hilton in Manhattan. Highlighting the philosophical differences that exist among the Antitrust Division of the Department of Justice, the Federal Maritime Commission, the Maritime Administration, and the shipping industry, the program was divided into four formal sessions which included a total of 16 major presentations by prominent representatives of government, the international shipping industry, the financial community, labor and academia. The sessions covered: "Legal and Institutional Framework of the Liner Shipping Industry," "Economic Structure and Performance of the Industry," "Liner Shipping, the Nation's Economy and Affected Parties," and "Liner Shipping Policy, Options for the Future." The forum was moderated by Dr. Leon Moses, director of Northwestern's Transportation Center. He developed the program with Paul F. Richardson, who coordinated maritime industry participation.

Mr. Hall, president of the Seafarers International Union of North America, was in his address highly critical of the nation's present liner policy. The union leaders stated, "Every nation in the world fosters and encourages and supports its merchant fleet in ways which we have arbitrarily renounced without providing a workable substitute." And he added, "Until we change those laws and practices that strangle U.S. shipping, we will never achieve a rational liner shipping policy for the United States."

Discussing the current state of our liner fleet from the government's viewpoint, Robert J. Blackwell, Assistant Secretary of Commerce for Maritime Affairs, noted that liner operations have been, and remain, the chief bene-ficiaries of Federal subsidies. He said, "Currently, there are 555 active vessels in the U.S. oceangoing fleet. These include 271 liner vessels, of which 165 receive operating subsidies. During the past 10 years operating subsidies paid to liner companies aggregated \$2.3 billion. During this same period, shipbuilding subsidies totaling \$558 million were expended for liner vessel construction." He observed further, "This assistance from the Federal Government accounts for the fact that our liner fleet is the strongest element of our foreign trade shipping operations."

Senator Daniel K. Inouye, Chairman, Merchant Marine Tourism Subcommittee of the Senate Commerce, Science and Transportation Committee, stated his hope that Congress would enact legislation to strengthen our laws against rebating. The Senator was also highly critical of laws and policies which, he stated, "have been administered in such a way as to seriously overtonnage our trades, and U.S.-flags are only carrying about 15 percent of our non-preferance cargo as a consequence . . . " He called upon the Department of State and Department of Justice to re-examine their attitudes and adopt policies consistent with the law of the land so that, "All carriers operating in the foreign commerce of the United States, whether subsidized or not, whether conference members or independents, must compete fairly with one another."

Congressman Paul N. McCloskey, Jr., Minority Leader, House Merchant Marine and Fisheries Committee, said that it was now the special burden of the house committee, to which he belongs, "to undertake an immediate and comprehensive review of all of our basic maritime laws and policies, and particularly the continuing conflict within the administration as to whether we strengthen or abandon the antitrust policies of the Justice Department."

Speaking for the Justice Department, Elliott M. Seiden, Chief of Transportation Section, Antitrust Division, observed, "Most of the problems faced by the ocean liner industry today have as their source the absence of meaningful competition. This conference will have made a contribution toward achieving a rational ocean liner policy," he added, "only if the outcome is to prod responsible participants in the industry to begin thinking about whether it wouldn't be better for profits, stockholders and the shipping public to take away the management of our ocean liners from government regulation and international cartels, and return it to individual businessmen operating under the impetus of the natural and healthy forces of competition."

World Trade Institute Seminars

World Trade Institute One World Trade Center - 55th Floor New York, New York 10048

All meetings are held at the World Trade Institute in New York unless otherwise noted. Registration and fee information and further details on all meetings are available from the World Trade Institute Registrar, (212) 466-4044.

Evaluating Shipping Transactions	September 18-20
Customhouse Brokers' License	-
Preparation	September 18-22
Containers in International Trade	September 27-29
U.S. Custom Law: A Problem-Solving	October 3-6
Approach	in New Orleans
Tax and Financial Aspects of	October 5-6
International Shipping	in Houston
Export Documentation and Traffic	October 11-13
	in Chicago
Handling Exports Effectively:	October 16-17
Cargo Movement	in Chicago
Solving Your Export Problems	October 23-24
Import Documentation and Procedures	October 24-26

EDA Grants boost Port Developments

Portland, Oregon, June/July 1978 ("Portside", News from the Port of Portland):-President Jimmy Carter's May announcement in Portland that the city will receive \$12 million in Economic Development Administration (EDA) funds benefits two major Port of Portland economic development programs.

More than \$3 million in monies earmarked for Portland will be for improvements at the Port's Swan Island and Rivergate Industrial Districts.

At Swan Island, \$2.8 million in EDA funds, with an

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additional \$1.1 million in matching local and Port funds, will provide for noise abatement along Going Steet to alleviate the impact of truck and auto traffic through a residential neighborhood, and housing relocation for impacted residents.

These funds will also provide for a railroad overcrossing to Mocks Bottom-132 acres of prime industrial land awaiting final Port development.

Construction activity requiring an estimated 160 jobs is expected to result from the Swan Island and Mocks Bottom projects.

Long-term employment resulting from the opening of Mocks Bottom is estimated at between 1,800 and 2,600 jobs.

The second EDA grant benefiting a Port project is \$250,000 (with an equal amount in matching monies from the Port) for construction of a sewage pumping station at Rivergate Industrial Park.

Long-term employment related to the opening of this Rivergate area will be in the range of 1,500 to 2,500 jobs.

Port Security "Tight As A Drum"

Portland, Oregon, June/July 1978 ("Portside", News from the Port of Portland):-Recent references to Portland's "clean" waterfront have nothing to do with the new paint job gradually being applied to Port of Portland terminal buildings-rather, the Port's dockside security system has been strengthened recently in an effort to maintain tight control over marine cargo movements.

For the shippers of about \$2 billion worth of cargo crossing Portland's dock annually, that's good news.

The security system was the focus of attention about 18 months ago, when the Port asked the Federal Bureau of Investigation to look over the existing system and recommend improvements. As a result, the Port has increased the uniformed force from 28 to 30 guards, with an emphasis on law enforcement experience. Twelve part-time people have been added as well.

But the most significant changes are more than skin deep. No longer can cars be driven easily onto the terminals—single entrances are in effect and Port personnel check vehicles in at the gate.

"Our claims record is not bad," Plymale said; in fact, the Port averages between \$75,000 and \$100,000 annually in claims, about 30 per cent of which are proven to be authentic. During the first three months of 1978, claims against the Port, not including those charged against stevedoring companies, totaled \$612.44.

Venezuelan shipping at a glance

Statistics showing an aspect of the Venezuelan shipping have been released in the "Carta de la C.A. Venezolana de Navegación" Caracas, March-April 1978-Ano 22-251. The following are some characterizing figures extracted from the statistics.

Cargo transported by the Venezuelan navigation (in thousands metric ton)

Year	Total	Export	Import	Coastal	Tripartite
1970	663	28	440	139	55
1973	830	31	558	138	100

1974	2,696	1,468	834	111	281
1975	6,135	4,815	970	137	210
1976	7,243	5,307	1,689	146	100
1977	8,027	4,793	3,070	77	85

Automation in the Administration of the Port of Antwerp

Antwerp ("Hinterland" Nr 97E 1978):-The use of the computer in the city's port services is not new. For a considerable time the port services have made use of the Municipal Computer Centre.

In the first place this is naturally the case for the department administering the salaries and wages of the personnel employed in the municipal port services, just as it is the case for all personnel employed by the city.

Allocations made in the port budget are also checked by computer, just as they are for other municipal services. In addition to this the Computer Centre has also gradually come to be used for invoicing port dues, towing charges and electricity dues, for the calculation of the leases of sites, for inland navigation dues, for processing statistical data etc. Another important aspect of its usefulness is for stocktaking and industrial bookkeeping in the warehouses and workshops of the Port Authority's Technical Service.

As a result of the systematic expansion of the Computer Centre and the increase in computer capacity, the range of possible uses has been recently considerably enlarged. For the past few years further possible uses in various port services have been studied. Hitherto most of such uses have been organized independently of each other.

Now it is intended in the first place to complete and coordinate these various uses to form an integrated information system, the data for which will be stored in data banks to which the various port services will have access as they so require. In this way the input of data will be reduced, as will also the possibility of error. In addition all the services will have the same uniform data at their disposal. Above all the data banks will make it possible to pass on the data more rapidly.

The overall plan of port projects is carried out within the framework of various partial projects which are executed parallel to each other in various phases but which will finally form one whole. With regard to shipping it is intended to follow the complete process of the arrival, stay and departure of ships calling at Antwerp by computer so that a complete picture of the situation can be given at any moment in the form required by an particular port service. The data which are gathered in this way will further serve as the basic material for the administration of the port, for invoicing, statistics, archives etc.

For the input of data related to maritime and inland navigation, terminals with screens will be placed at key points in the port, such as locks, offices of the Harbour Master's service and financial service, the towage service, etc., via which the data can be fed in and via which request for information can be made.

The completion of the entire project will naturally require some time. The replacement of the temporary network of terminals operating independently, into which it is possible to feed data but not to request them, by a network of terminals with a question-answer capacity is planned for the end of 1978. Europe-Africa

Port of Antwerp

Container traffic. Last year Antwerp handled 304.296 containers (414.182 TEU) with a total load of 4.878.466 tons. After six months the 1978 traffic showed a further increase of 12 %.



1). General Motors is to increase employment in its factories in the port of Antwerp by 1500. Present employment amounts to 10.000. Annual production of G.M. cars in Antwerp is now 220.000.



2). View in one of fruit terminals in the port of Antwerp. Last year the fruit traffic increased to 715.000 tons. The port recently acquired a traffic of applies from Chili.



3). The canal linking the port of Antwerp with the Rhine river (openéd in 1975). Last year 67.589 barges used this canal. Traffic from and to the Rhine in Antwerp totalled 16 million tons.

Royal Portbury open for business

Bristol, May 10th 1978 ("Portfolio", by Stanley Turner):-At long last Royal Portbury Dock is operational and is handling shipping traffic. A number of people said that the Dock would never open-in fact, some of our competitors probably hoped that this would be the case since the Port represents the best new Dock facility provided in the U.K. for many years.

We now have the opportunity of proving wrong the Jeremiah's who opposed the extension of the Port, of making those commentators in the media who referred to Royal Portbury Dock somewhat scathingly as "the biggest hole in the West" eat their words and of putting the Port of Bristol (Avonmouth and Royal Portbury) back where it belongs amongst the leaders in the U.K. Port League.

Golden future

We have had our troubles—some technical, some industrial—but I hope that we can now put these behind us and work together to achieve the golden future for the Port which I sincerely believe is open to us.

Productivity

The new productivity achieved in Avonmouth since January this year gives us the opportunity of increasing our

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and

trade through this Dock and the unrivalled facilities and road communications of Royal Portbury Dock have encouraged a number of potential customers to show real interest in the use of the two existing berths and the four which remain to be developed.

Maximum effort

However, we will only succeed if we continue to give the quality of service on which any Port sells its services and this calls for maximum and co-operative effort on the part of all who work in this Port, in all grades and jobs whether employed by the Authority or by other Companies.

Avonmouth still tops for tea

Bristol, March 14th, 1978 ("Portfolio"):-Recent U.K. Tea imports statistics for 1977 show Avonmouth still way out at the top for tea handling with nearly 40% of the country's total imports being handled here.

Next in line, with 15% is Newport, followed by Liverpool, London and Hull.

Sea anglers' skippers get final warning

Glasgow, April, 1978 (Clydeport News):-Some boat owners who take parties of sea anglers out from Clyde resorts have received final warnings about anchoring their vessels, or letting them drift about, while they fish in the main shipping lanes.

By so doing, they are contravening the International Rules for the Prevention of Collision at Sea as well as

Clydeport's byelaws pertaining to these designated narrow channels. And next time they are caught at it, they will face prosecution.

Main trouble spot is the deep-water channel off Greenock Esplanade where, on occasions, up to 15 motor launches have been seen fishing.

Worst of the offenders sometimes tie up to the navigation buoys, damaging the lights which are essential for the safety of traffic in the port.

On one recent Sunday, the Authority's Depute Harbour Master Captain Donald McMurray, accompanied by a sergeant and constable of Strathclyde Police, went out in a motor boat to warn off vessels fishing in the channel between Whiteforeland buoy and the Clydeport Container Terminal.

Strathclyde's Chief Constable Mr. Patrick Hamill issued a warning to boat owners last summer on the dangers of fishing within the channels.

Said Captain McMurray: "We have also written to most of the boat owners in the area explaining that, while we are anxious to encourage all forms of water sports on the Clyde, we must insist that the participants have due regard to safe navigation.

There is, after all, plenty of space in the estuary and sea lochs within which they can enjoy their sport without becoming a hazard to shipping," he said.

Big boost in import-export of cars

Liverpool, June, 1978 (Port of Liverpool News Bulletin):-Thousands of cars are now being imported and



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

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exported through Liverpool. The port, with its excellent motorway links with the industrial Midlands, the East Coast, the North of England and Scotland, is winning an increasingly large slice of the new vehicle trade.

To meet the growing demand, a specially developed roll-on roll-off terminal at South Bidston Dock on the Birkenhead side of the River Mersey is now in operation.

Said Assistant Marketing Manager Mr. Richard Martin: "Recent performances on other car ships helped us to win the opportunity to demonstrate our ability to handle the largest car carriers afloat".

Chairman hits at Government policy

Liverpool, June, 1978 (Port of Liverpool News Bulletin):-The additional National Insurance Surcharge to be implemented by the British Government this Autumn and the lack of grants for the Ports industry from Westminister have come under fire from the chairman of the Mersey Docks and Harbour Company, Sir Arthur Peterson.

He told the shareholders at the annual general meeting that the surcharge would cost the company an extra one million pounds in a fully year.

"This won't help our efforts at controlling costs", he said.

And Sir Arthur went on to criticise the lack of Government financial aid.

"A successful port is still important for Merseyside with its severe unemployment problems. We are spending large sums on capital equipment to further improve the efficiency of the port. And we feel that our endeavours should be supported by the receipt of Regional Development Grants from the Government in the same way as manufacturing industries", he said.

"It is curious that we do receive some grant support from the E.E.C. Regional Development Fund but not from the United Kingdom Government".

The Mersey Docks and Harbour Company made a trading profit of £4.6 million in 1977.

First bulk rum shipment

Liverpool, June, 1978 (Port of Liverpool News Bulletin):—A specialised berth with facilities to pipe bulk wines and spirits directly from ship to warehouse, has received its first shipment.

The vessel "Proof Trader" discharged 165,000 gallons of rum from Guyana in the first of four shipments expected at Liverpool in the near future.

The Mersey Docks and Harbour Company decided to provide the £600,000 installation with its special berth at South Nelson Dock and direct piping facilities to the nearby Stanley Warehouse, to meet the demands of increasing trade.

Stanley warehouse, built by prisoners of the Napoleonic wars, has proved ideal for storing rum and other spirits because the thick walls maintain a constant temperature which helps keep loss of spirit through evaporation to a minimum.

The Mersey Docks and Harbour Company's Chief Warehouse Manager Mr. Ted Corran said: "The main advantage of bulk facilities is that it reduces costs to the shipper from abroad". "In the past he has had to pay for space occupied by each barrel and all the space between them".

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PLA's recommended strategy

London, 6th July 1978 (PLA News):-After nine weeks of constructive and open debate about the financial crisis facing the Port of London, emphasised by the PLA with the publication of their 1977 Accounts and Information Paper No. 1 on 5th May, the Board of the PLA has today asked the Secretary of State for Transport to endorse its recommended strategy for the future. During these nine weeks of discussion a further £600,000 has been lost on operations alone.

The recommended strategy is not a detailed plan for immediate implementation. It is the PLA Board's assessment of the most practical way of meeting the Government's remit—the achievement of a viable port at minimum demand on the taxpayers' money.

The recommended strategy takes account of discussion and consultations with many different interests, and is an attempt to make progress towards a return to profitability in the early 1980s. It takes account of the severe potential impact of the radical approach which would involve the early closure of both Upper Docks. Its main elements are:-

- (1) the transfer of PLA cargo handling operations from the Royal Group of Docks to India & Millwall and Tilbury during the first half of 1979;
- (2) the retention of the India & Millwall Docks for a further period under strictly monitored conditions. The length of this period would depend entirely on successful performance;
- (3) reductions in the PLA manpower strength (both registered and non-registered personnel) of some 650 directly related to the transfer of activity from the Royal to India & Millwall and Tilbury Docks, and a further 1,400 arising from an improvement in working practices, a reduction in the number of medically categorised men, and general manpower reductions throughout the PLA arising from productivity and other rationalisation measures;
- (4) Government assistance in obtaining financial resources of about £60m. for re-structuring the port, including severance payments.

Disclosing this today. Sir John Cuckney, PLA Chairman, said:-

"We are proposing to close only one dock in the near future partly because this would give dockland more time to adjust to the social and environmental effects of the reduction in port work on the upper river and partly to see if, together with the trades unions, we can make an upper dock pay.

"Achievement of this will demand a radical improvement in productivity, marketing and in working practices generally, and will require in the India & Millwall Docks, a 40%-50% increase in traffic above that currently handled in both Upper Docks for viability to be achieved.

"Such an increase in traffic would be sharply contrary both to current traffic forecasts and recent trends, but, if the Government will assist financially, we are keen to give the experiment our full backing and we expect our workforce to do the same.

"If, however, the Government considers a speedier return to viability an essential prerequisite to providing financial assistance, then there is no alternative but to



ACCOMMODATION MODULE SHIPPED OUT FOR NORTH SEA: Lowestoft, owned by the British Transport Docks Board, is the UK's most easterly port and justifiably boasts to being Britain's third largest fishing port, with facilities second to none. But Lowestoft can handle more than plaice and haddock. At the other extreme, the 35-tonne Scotch derrick crane, installed by the Docks Board on North Quay two years ago, and another 200tonne crane, between them lift some extremely heavy equipment, much of it for the offshore oil industry, which builds a great deal of its structures in Lowestoft's Inner Harbour. A lot of this equipment is in the shape of accommodation modules, complete with helidecks, which are shipped out to oil rigs in the North Sea. In fact this trade accounts for nearly a third of the port's total revenue. (by May Rustom)

implement our original so-called Radical Approach involving a double dock closure as soon as possible".

Lowestoft extends service to Nigeria

London, 19 June 1978 (British Transport Docks Board):—The East Anglian port of Lowestoft has extended its seven-month-old service to Port Harcourt in Nigeria to include the port of Lagos.

The service, which is due to commence in July, is operated by Med-Africa/Blue Sky Line, and the decision to extend it was based on the success of the past seven months during which time 7,000 tonnes of exports were shipped to Nigeria.

BTDB's manager at Lowestoft, Robin Nicholls, also expressed satisfaction with the trend. "I am particularly glad that we have been able to spread our nets wide with such success. Lowestoft needed to expand into more distant areas and this is exactly what we have done."



SOUTHAMPTON CONTAINER PORT (B.T.D.B.):-A very high level of activity is currently being achieved at the Southampton Container Port, and for the first time the giant terminal at Berths 204, 205 and 206 has been occupied by three deep-sea container vessels together, following the recent opening of the newly-constructed Berth 206. The picture shows Ben Line Container Ltd.'s vessel "City of Edinburgh" (right) and OCL's "Kowloon Bay", both members of the Trio Lines Far East fleet, with another OCL vessel, "Table Bay", (rear) having just arrived from South Africa. The three ships, which are amongst the largest container vessels in the world, have a combined gross tonnage of 171,000 tons and a carrying capacity of more than 7,000 container units.

Hull wins new export service

London, 23rd June, 1978 (British Transport Docks Board, Humber):-The Humber port of Hull has been chosen as the British port from which a new export general cargo service will operate to the Gulf ports of Dubai, Bahrain, Kuwait, Khorramshah, Dammam and Bandar Abbas. Starting on 27th July the service, operated by Scanmel (Scandinavian Middle East Line) who are extending their general service call pattern to include the United Kingdom, will have a frequency of a sailing every month.

New dredging system saves money

London, 27 June, 1978 (British Transport Docks Board):--(BTDB Research Annual Report 1977) Extensive field research into the problems of siltation is resulting in substantial savings in dredging costs at many of the British Transport Docks Board's ports--including Fleetwood where special problems exist.

In presenting the Research Station's Annual Report for 1977, Mr. W.H. Jackson, BTDB Director of Research said: "Finding ways of reducing the Board's dredging bill is a continuing research commitment. This requires a basic look at all stages of the operation, not only for the present but also predicting those for future developments."

The research at Fleetwood has involved experiments using an electronic position fixing system and track plotter. A chart is produced showing the precise area required to be dredged and the track plotter enables the material to be removed from this area only.

Such a scheme was devised because dredging at Fleetwood necessitates working in restricted areas, ensuring that material is only taken from specific locations.

Port of Le Havre reviews on 1977 activity

Port of Le Havre Series No. 5 (IAPH 11th Conference at Le Havre, May 12-18, 1979)



Port of Le Havre-General view

The results of the Port of Le Havre for 1977 are slightly below the 1976 results; the total traffic amounts to 79,903,000 tons as against 81,700,000 tons, that is a drop of 2.3% (-1,800,000 tons).

These figures concern the total traffic, in which oil plays a major role: the latter has in fact fallen from 66,900,000 tons to 63,900,000 tons (-3,000,000 tons).

If the BELLAMYA which arrived at Antifer on January 2 had arrived a little earlier, we should have had the satisfaction of passing the 80,000,000-ton mark.

Traffic other than oil held up well: it has in fact risen from 14.8 million tons to 16 million tons, that is an increase of 8.1%.

Because of the "added value" which it gives the French economy, it is interesting to examine in detail the traffic situation for mixed goods, excluding bulk.

There has been a 5.2% increase in this traffic, with 6,638,000 tons as against 6,310,000 tons in 1976. We were delighted last year with the increase in this traffic and with the slight advantage gained by exported goods. This movement has continued noticeable, for this year Le Havre has handled 410,000 tons more in exports than in imports.

For the managers of the Port Authority of Le Havre, this represents an extremely important result, for it demonstrates that containerized traffic, which we shall come back to later, is totally changing traditionally-held ideas about a •port's hinterland and the monopoly arising from situation.

Indeed, it is in the field of containers that we see the most noticeable progression. This traffic has risen from 2,915,000 tons in 1976 to 3,300,000 tons in 1977, that is an increase of 13.2% with 370,000 containers (TEU) as against 328,000 in 1976.

Horizontal handling has progressed very slightly (+1%) thanks to an increase of 6.6% in exports, which compensates for the 5% drop in imports.

Finally, conventional traffic, despite an encouraging increase of 3.7% in exports, shows a 4.3% drop in total traffic.



Port of Le Havre. Container Terminal–Quai de l'Europe

The continued existence of regular lines is, for any port, a vital element which enables traffic to be increased. Seventeen new lines were added in 1977 to the list of services from Le Havre. But more than their number, what is so important is the port of destination. Eight of them are in fact sailings linking Le Havre to the Middle East, and five of them have strengthened African services.

In order to maintain this progression in container and bulk solids traffic, in 1977 the Le Havre Port Authority pursued its capital investment plans. The third container terminal, called the Quai de Bougainville, was brought into service on April 22, 1977 and officially inaugurated on June 27 by Mr. J.P. Fourcade. It is 2,000 feet long and included a shed covering 157,500 square feet, 3 gantries and 3 storage area of 89 acres. This quay is at present used by 5 containerized lines, including the one which operates to South Africa and which went into service during the summer.

Work on lengthening this quay is already well under way. From October 1978, 1,130 feet will be ready for commercial operation to the north of the present quay and 650 feet to the south. These new berths will allow us to concentrate at one point the entire East Africa coast traffic, which has seen such spectacular development, both in container-carrying vessels and in conventional mixed cargo vessels.

To complete this look at what has been happening in Le Havre during 1977, we might usefully consider a number of major points.

The economic situation both at national and international level did not help favour the work we undertook in the fields of oil and conventional mixed traffic.

Since 1975, figures for global tonnage had improved regularly from the first to the second half of the year. In 1977 however, the first half, which had continued at the level of the second half of 1976 was good (42.2 million tons). From June to December 1977 traffic amounted to

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only 37.7 million tons. The long-lasting American dockers' strike put a particular strain on Le Havre's traffic.

The U.S. share in container traffic fell from 34.5% in 1976 to 28.3% in 1977, whereas Middle East traffic rose from 6.58% to 10.1% and COA-South Africa traffic from 7% to 8.2%.

However, because of the potential of containerized lines, it is increasingly clear that Le Havre is becoming the major centre for this type of traffic. Indeed its wide range of shipping lines allows it, by trans-shipment, to link continents which do not at present have regular links. Here we find once more the geographical advantage of a port which is situated at the crossroads of the great international shipping routes.

Le Havre therefore has no intention of giving way to a bout of depression! Conscious of the strength of our rivals, we are all in Le Havre convinced that energy, dynamism and imagination are the qualities necessary to maintain our position in a particularly difficult economic climate.

Commercial promotion in 1977: The rewards of persistence

Marseilles, March 1978 ("Marseilles/Fos Europort South"):-The commercial promotion of the Port of Marseilles-Fos was pursued with persistence throughout 1977 and contributed in no small measure to the very substantial increase in general cargo and bulk traffic which was recorded during the year.

The work of the Commercial Department was directed along three main lines: daily contact with port users, special promotional activities in Marseilles and other French and foreign towns, public relations and information.

The continued daily contact with port users, and particularly with the shipping companies, was responsible for the creation of over fifty new regular services sailing from Marseilles-Fos to all parts of the world. The recently created ((Troubleshooting Service)) was a great success, acting as a most useful liaison service between port users, local shipping professionals and the services of the P.M.A., and was frequently able to solve difficult or irritating problems rapidly and efficiently.

As regards public relations and information, the P.M.A.'s Public Relations Service welcomed over 50,000 visitors and accompanied them on tours of the Marseilles-Fos harbour areas. Over 15,000 people visited the P.M.A.'s Information Centre at Fos which displays a 1/3000 scale model of the industrial zone and is equipped with a conference hall and cinema.

Finally, the Public Relations Service increased and diversified the number of its publications. During 1977, apart from its monthly magazine, the Port published brochures on its regular cargo and passenger services, RO/RO and container services, port professions, regulations and tariffs, and port traffic, in order to keep existing and potential clients up to date with the possibilities of Marseillers-Fos.

Inauguration of the new car export terminal

Marseilles, March 1978 ("Marseilles/Fos Europort South"): – The P.M.A.'s new car export terminal, situated on the mole between the Saint Louis Canal and Dock 3 at Fos, was inaugurated by the Grimaldi Line's $\langle\!\langle DORA\ RIPARIA \rangle\!\rangle$ - Agents: Barry Rogliano, which embarked six hundred Peugeot cars and four Saviem lorries for delivery to Lagos. This new RO/RO terminal, which is specially designed for the car export trade, offers a vast storage area for new cars awaiting delivery and is directly linked to the national road and rail systems.

Bremen International

• Bird Paradise before the door of Bremen's Port

Bremen, 29.5.78 (BremIn). An unusual nature-preservation experiment is being undertaken by the Bremen ports on an island in the Weser immediately in front of the harbours, opposite the major shipyard, AG WESER. The elongated island is to be artificially developed into a natural paradise for birds; as a nesting, hatching, food and rest-haven for waterfowl and other aquatic birds of the shoals, which have been crowded out by industry and traffic elsewhere. The project will benefit both naturepreservation and the port. The quantities of mud which amass in the port entrance vicinity will be dredged and deposited on a large area of the island. Enormous sand masses will be compressed together to form higher dry areas in this deposit area, such as are preferred by curlews and sandpipers, whilst ducks, seagulls, terns, peewits, snipe, oyster-catchers and redshank love the moister areas of the marshy region, such as will materialise following the mud-reclamation on the bird island of the future. (More from: Nature-Protection Authority ((Senator for the Interior)) Tel: 0421/362 2121)

• New Ro-Ro Type under Construction in Bremen

Bremen, 12.6.78 (BremIn). A new ro-ro merchantman, having 4 cargo decks, a stern ramp and connecting ramps between decks, universally-adaptable, had her keel laid at the end of May 1978 in the Bremen VULKAN shipyard and is to be launched at the end of September 1978. This new 32,500 tdw freighter is eminently suitable for the carriage of containers, trailer-units, cars, general cargo, timber products and heavy-lifts etc. Length 228 metres, beam 32 m, moulded depth 20.20 m, draught 10.80 m. The ship, for example, can carry 1,700 containers plus 160 cars. Her speed is 21 knots.

Ro/ro terminal, Port of Hamburg



New Mercedes-Benz automobiles are shown being driven aboard a ro/ro vessel at the Port of Hamburg. The port has

nine ro/ro terminals which handles a wide range of cargo and provides various related services.

Hamburg's HHLA Container Terminal handles 1.7 Mil. TEU in 10 years



The HHLA container terminal of Hamburg Port receives more than 2,000 vessels a year. Its 2.4 kilometers of quays provides eight berths. The terminal covers an area of 335 acres.

Tokyo (Hamburg Tokyo Office) July 4, 1978:-The HHLA container terminal, the largest at Hamburg Port, has handled more than 15 million tons of containerized cargo in the 10 years since the first container was handled in May 1968, it was reported by the Tokyo Representative Office of Hamburg City. The number of containers handled exceeded 1,750,000 TEUs.

The HHLA terminal represents a total investment of more than DM400 million over the past 10 years. Among its features are a land area of 335 acres, 143,000 square meters of covered storage space, special terminal for break bulk cargo, container rail terminal, maintenance and repair shops and a container leasing depot. The terminal handles more than 2,000 ships a year. There are 2.4 kilometers of quays providing eight berths. The terminal has received ships of 52 shipping companies worldwide.

Over 500 Million Dollars Ancient Art Work cargo delivered in 2 containers



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Over \$500 million worth mosaics, statues and ceramics from ancient Carthage being containerized at the Port of Hamburg.

Tokyo, July 4, 1978 (Hamburg News Release):-In tight secrecy, two inconspicuous but closely guarded 20-ft containers were let down into their positions in one of the holds of the 59,000 gross tons "Kurama Maru", and, suitably protected by empty containers and hatch covers, sent off to Japan, it was reported by the Tokyo Representative Office of Hamburg City. The contents consisted of 23 tons of mosaics, statues and ceramics from ancient Carthage (814 B.C.-146 B.C.) and their value was estimated to be over 500 million dollars. Although only 20-ft units, these containers and their cargo are the most valuable ever to have been transshipped through the Port of Hamburg.



International Seminar on Port Management-Amsterdam: The 14th International Seminar on Port Management, organized by the Amsterdam Port Association (Mr. Joop Meerhoff in charge), was held in Amsterdam in the third week of April this year. Some 25 young port officers from 15 countries attended the seminar and were given with briefings by and visits to the Amsterdam Municipal Port Management, the Harbourmaster's office, Royal Netherlands Steamship Company, the Customs Service, Bombined Terminals (IGMA), Schiphol Airport, Amsterdam Drydock Company. (Photo: Courtesy of Amsterdam Port Association)

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YOUR PORT



IN SCANDINAVIA

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P.O.BOX 1434 S-251 02 HELSINGBORG SWEDEN TELEX 72215 46 PORTS and HARBORS— SEPTEMBER 1978

Berthing statistics in the Gulf ports

(from the Gray Mackenzie Monthly Bulletin, April 1978)

Port	Berthing delays		
Bahrain	no berthing delay		
Dammam	no berthing delay		
Abu Dhabi	no berthing delay		
Khorramshahr	2 - 7 days		
Abadan	5 - 10 days		
Bandar Shahpour	0 - 5 days		
Bandar Abbas	0 - 5 days for general cargo		
	3 - 6 days for bulk/charters		
Bushire	5 - 10 days		
Kuwait	no berthing delay		

Port expansion in Saudi Arabia

Plans for expansion of its Dammam inland container terminal—and for the opening of terminals in Jeddah and Riyadh—have been announced by Saudi Container Services (SCS).

At Dammam, work is completed on an expansion of its present 56,000 sq.m. storage and trucking terminal to 110,000 sq.m.. Situated on the Dammam Port Causeway, the facility is surfaced, fenced and lighted for 24 hour operation. It includes a 10-bay tractor and trailer maintenance facility.

A similar 5,000 sq.m. terminal is almost completed at Riyadh, and a third facility is being planned in Jeddah.

New export classification will be useful

Adelaide, Australia, June, 1978 (South Australian Ports & Shipping Journal):—The Bureau of Customs and the Bureau of Statistics will introduce an important change in the information gathering process for Australian exports from July 1 this year.

From that date the State of origin of goods leaving Australia for overseas markets will have to be shown on Customs documentation.

At present, centralisation of cargo-especially in Sydney and Melbourne-has meant that States from which goods are being sent to centralised ports are disadvantaged. Goods currently sent from centralised ports are recorded as being exports of the States in which those ports are located, rather than the products of the States from which they were sent.

The disadvantage lies in the home State being unable to show an accurate export performance during shipping and trade negotiations.

Under the new system of classification codes, for example, goods from Victoria which are being exported from, say, South Australian ports will have to be shown as originating in Victoria. This information will then be available to Victorian interests when they are seeking to assess the State's total export potential.

The change means that the origin code now in use will be replaced from July 1 by a new code and the Department of Business and Consumer Affairs is now advising exporters through its Bureau of Customs of the details.

For the purpose of the code, the State or Territory of

origin will be that area in which the final stage of manufacture of production occurs. Operations which leave the goods essentially unchanged (i.e. repair, packing, bottling, cleaning, sorting, husking, shelling) are not considered as stages of production or manufacture.

Minerals in ore or concentrated form (e.g. iron ore and concentrate) take their origin from the State in which they were mined. Metals (e.g. iron and steel ingots) take their origin from the State in which they are processed.

Unfortunately, a similar State of destination code for imports will not come into being at the same time, although it is just as essential for each State to know its true import potential.

At present, States which are trying to develop direct shipping services based on a true knowledge of the amount of exports and imports which they generate each year are not in a position to negotiate with shipowners from a position of full knowledge. The now Customs code will provide a vital part of the information they need. By contrast, States in which centralisation has occurred to a marked degree are in a strong position to negotiate for direct services because they can show export and import figures which are higher than the true productive capacity of their areas.

While centralisation can be effective, it can often lead to considerably higher costs and serious delays for the exporter/importer and for the consumer in the disadvantaged State. The higher costs involved in centralising are normally recovered from the consumer as part of the overall cost of the item purchased. On the other hand, direct shipping to and from the port of origin can frequently and clearly produce a lower cost structure and a lower price to the consumer.

At the moment, South Australia is one of the disadvantaged States in regard to both exporting and importing, but positive steps are being taken to reverse that situation. The introduction of the export code based on State of origin was one of the measures actively advocated by South Australia in its bid to recover cargo centralised unnecessarily through interstate ports.

Uniform IALA system of buoyage on the way

Adelaide, Australia, June, 1978 (South Australian Ports & Shipping Journal):-Australia is about to introduce in coastal waters a new internationally developed simplified uniform buoyage system.

The system, known as the Maritime Buoyage System "A", has been developed by the International Association of Lighthouse Authorities (IALA) of which the Commonwealth Department of Transport is a member.

System "A" will be introduced progressively throughout Australia in the period mid-1978 to mid-1981. Combining cardinal and lateral (red to port) it is based on the existing lateral system used in Australia, but is considerably simplified and is provided with cardinal characteristics to overcome some of the weaknesses inherent in the old lateral system.

The revised system, which has the support of the Inter-Governmental Maritime Consultative Organisation (IMCO) will apply to all fixed and floating marks (except lighthouses, sector lights, leading lights and marks and light



Asia-Oceania

ships) used to indicate:

- Lateral limits of navigable channels.
- Natural dangers and other obstructions such as wrecks.
- Other areas of features of importance to the marine.
- New dangers.

Polish ocean lines to serve Adelaide

Adelaide, Australia, June, 1978 (South Australian Ports & Shipping Journal):—The first of the new semi-container vessels built for Polish Ocean Lines will be seen in the Port of Adelaide around mid-August.

The present ETA for the vessel, the Professor Szafer, is August 14, but the line's agents, H.C. Sleigh Ltd., say this will be subject to confirmation closer to that time.

POL is currently upgrading its fleet of conventional vessels operating between Europe and Australia and the new semi-containers should cut the time between Australian ports and the port of Hamburg. The line operates outside the conference lines, but normally tailors its rates on the basis of conference charges, excepting where special cargoes are on offer.

Sleigh's freight and traffic superintendent in South Australia, Mr. Lloyd Turner, told SPJ that the Professor Szafer and three sister-ships which will join her on the Australia-Hamburg run have three cellular holds, as well as breakbulk capacity. However, it is understood that the line plans to containerise all breakbulk cargoes it receives as a safety measure and to facilitate quick handling. As well, all four ships have bulk liquid tanks. They will carry up to 350 TEU, including 50 reefer.

Brisbane releases trade record 1977/78

Brisbane, Queensland, Australia (Port of Brisbane Authority News Bulletin, June/July):-Total trade through the Port of Brishbane in 1977/78 fell 5.6% to 8,369,000 tonnes. The record 1976/77 figure was 8,862,000 tonnes.

In a difficult year of fluctuating demand, trade would still have recorded a sound increase had it not been for drought conditions which resulted in a below normal grain crop. Grain exports fell by 47% to 679,000 tonnes.

During the year 1241 ships arrived in the port. The number is down 44 on 1976/77. The decrease is due to the fall-off in arrivals of conventional general cargo vessels which continue to be replaced by a lesser number of specialist ships.

The volume of containerised cargo showed a healthy overall increase of 12%. The total number of containers rose by 16% to 71,122.

QE2 visits Melbourne

Melbourne, January-March, 1978 (Port of Melbourne Quarterly):-Station Pier, the Port of Melbourne's main passenger terminal, has had many famous liners berthed alongside during its 124 year history. On 22 February Queen Elizabeth 2 became the largest passenger vessel ever to berth in the Port-a record which may never be broken.

Queen Elizabeth 2, a massive 66,851 gross ton vessel, literally crammed with electronic equipment designed to ensure the ultimate in ship safety and passenger comfort, was paying her first visit to Melbourne as part of a luxury world cruise.

Described as the 'greatest ship in the world', QE2 broke

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the 17 year-old record held by P & O's 45,000 ton Canberra to be the largest passenger liner to visit Melbourne. Canberra, on her maiden voyage in 1961, had in turn wrested the 23 year-old title from the 42,348 ton Empress of Britain which, to a fanfare of publicity, had made her first call in 1938.

Ironically, QE2's winning of the title has come at a time when seaborne passenger traffic is now largely confined to cruise ships. This year about twenty 'liner calls' are expected to be made in Melbourne, a far cry from the boom years when a record 177 'liner calls' were made in 1968, and nearly 100,000 overseas passengers disembarked or embarked.

Melbourne's main passenger terminal, Station Pier, has for 124 years played a big role in catering for the overseas passenger trade. If these facilities had not kept pace with the increasingly larger vessels using the Port the recent visit of QE2, and her winning of the 'largest liner' record, would never have come to pass.

QE2's STATISTICS

Gross tonnage Overall length Breadth Maximum draught Service Speed Horsepower Propellers Rudder Four Anchors Main Boilers Steam Pressure Steam Temperature Evaporators: sea water to fresh water Fuel Oil Drive-on-drive-off facilities Number of decks Air-conditioning Passengers Crew:

Theatre seats Deck Space Swimming pools Restaurant capacities

Elevators Height: keel to funnel base Height of funnel structure Height: keel to masthead Keel laid Launched by HM The Queen Commissioned Maiden Voyage: Southampton -New York 963 feet 105 feet 32 feet 6 inches 28½ knots 110.000 2-6-bladed 80 tons $12\frac{1}{2}$ tons each 850 pounds 950 degrees F 1,200 tons daily 6,413 tons 70 cars 13 Full 1.815 Officers and ratings: 1,000 531 4,500 square yards 2 outdoor, 2 indoor Queens Grill: 196 Columbia: 790 Britannia: 890 24

66.851 tons

134½ feet

69½ feet

203 feet 10³/₄ inches July 1, 1965

September 20, 1967 April 18, 1969

May 2, 1969

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- 6. Inquiry System
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