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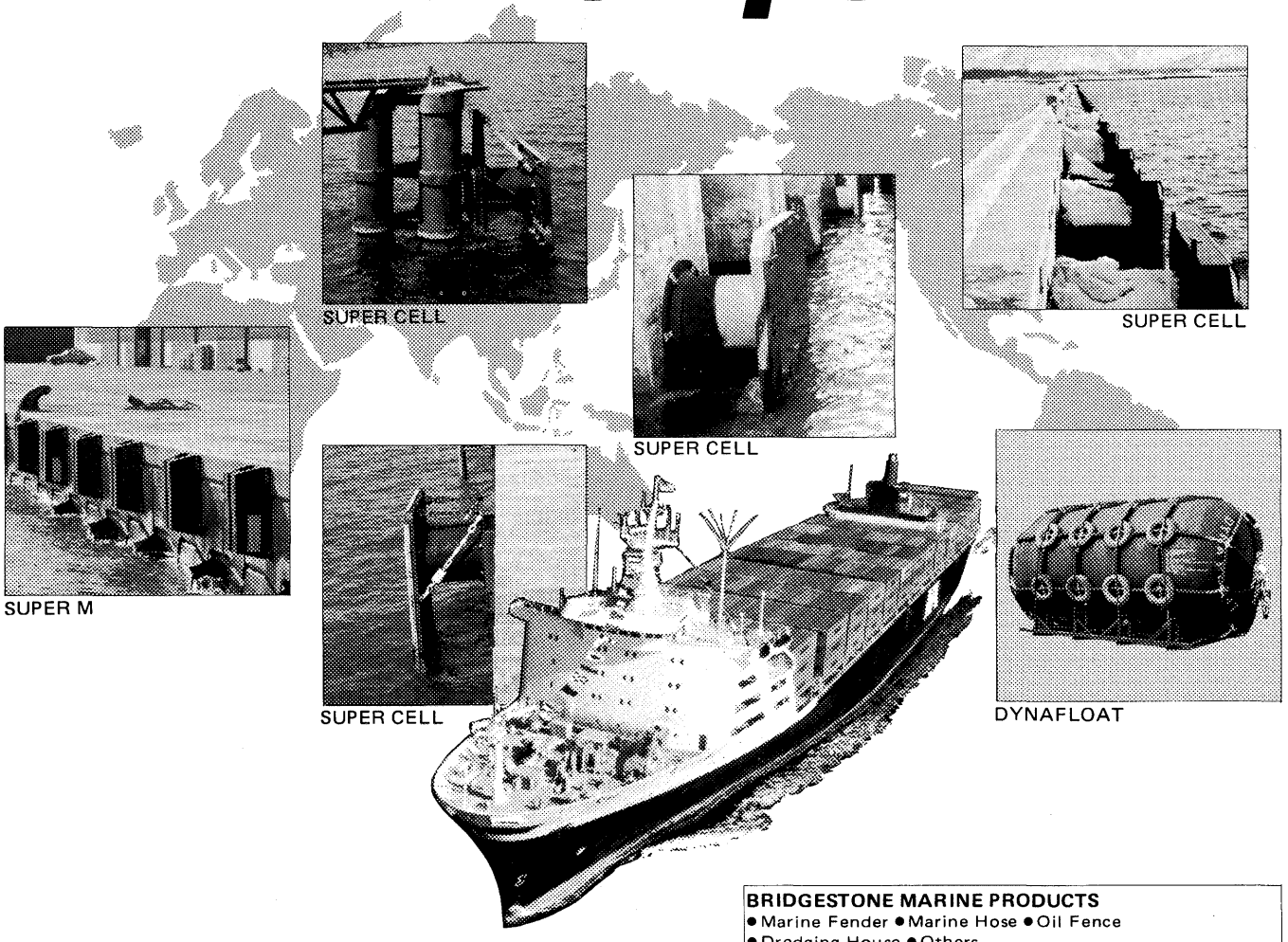

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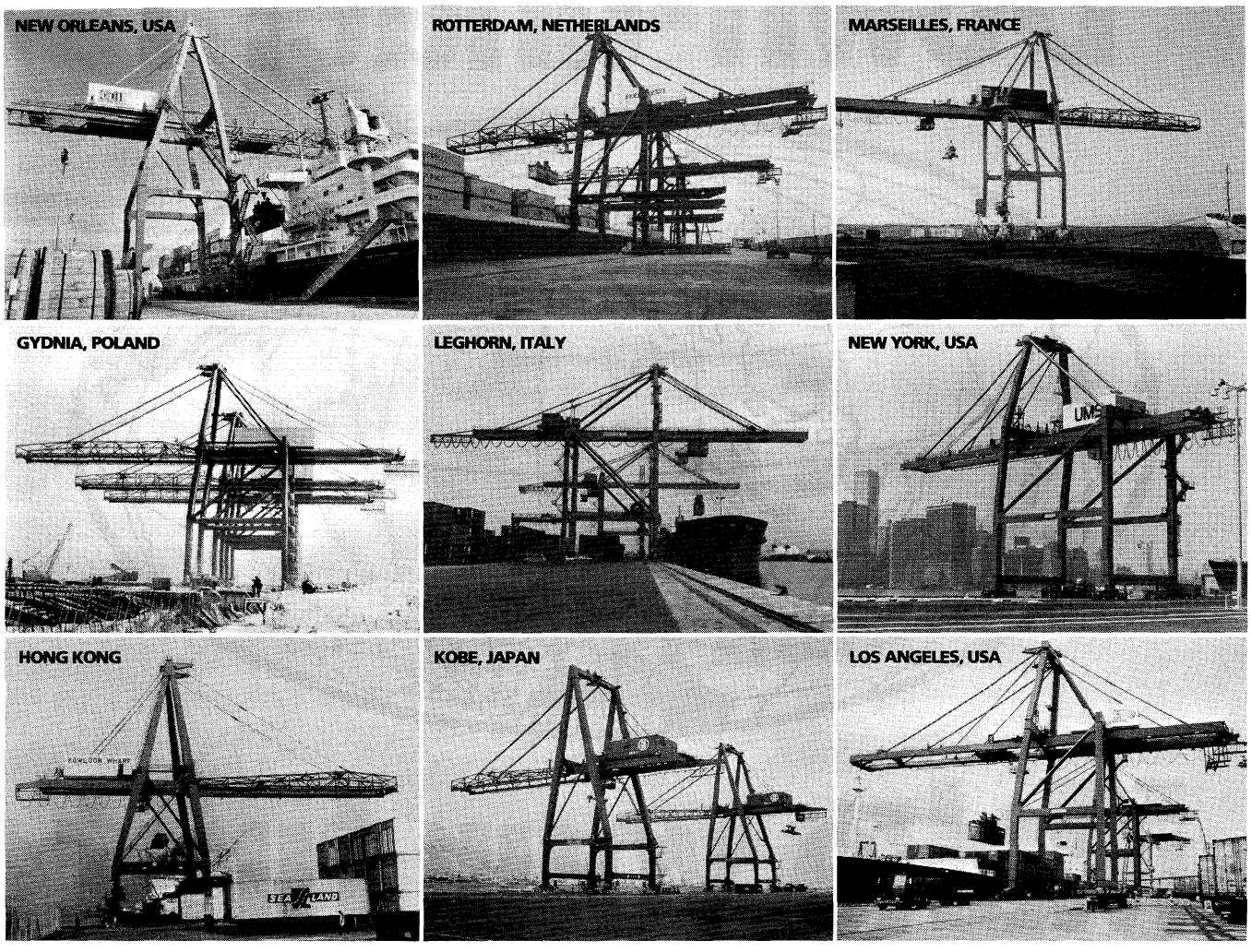

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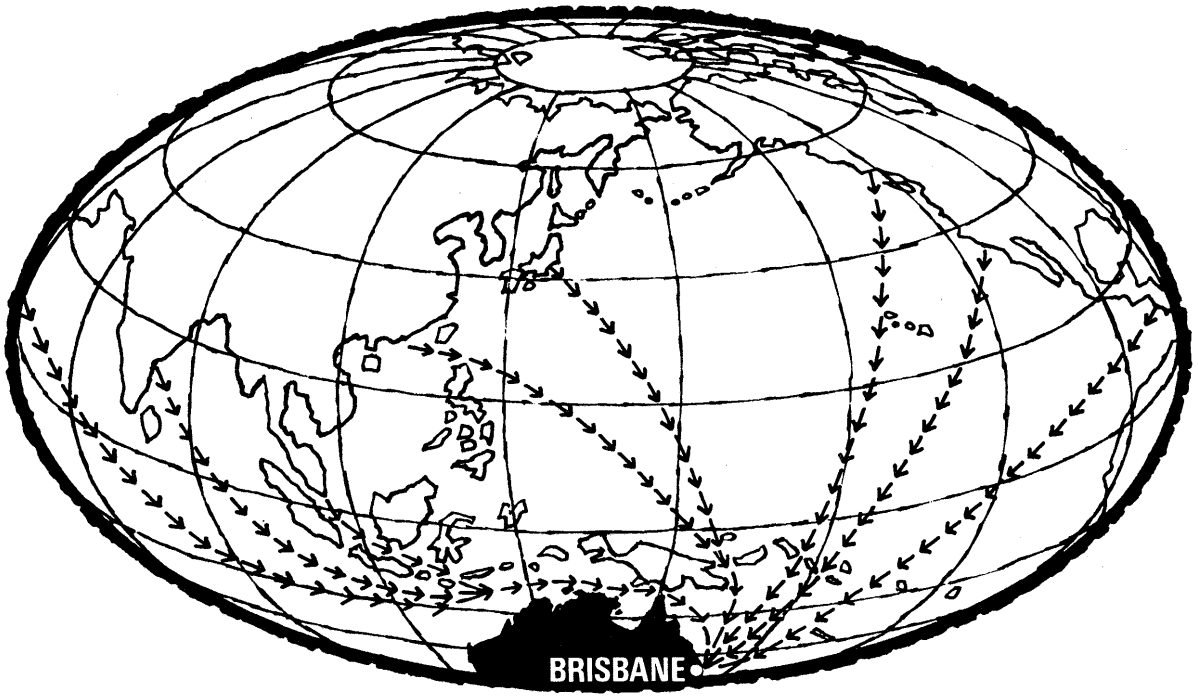

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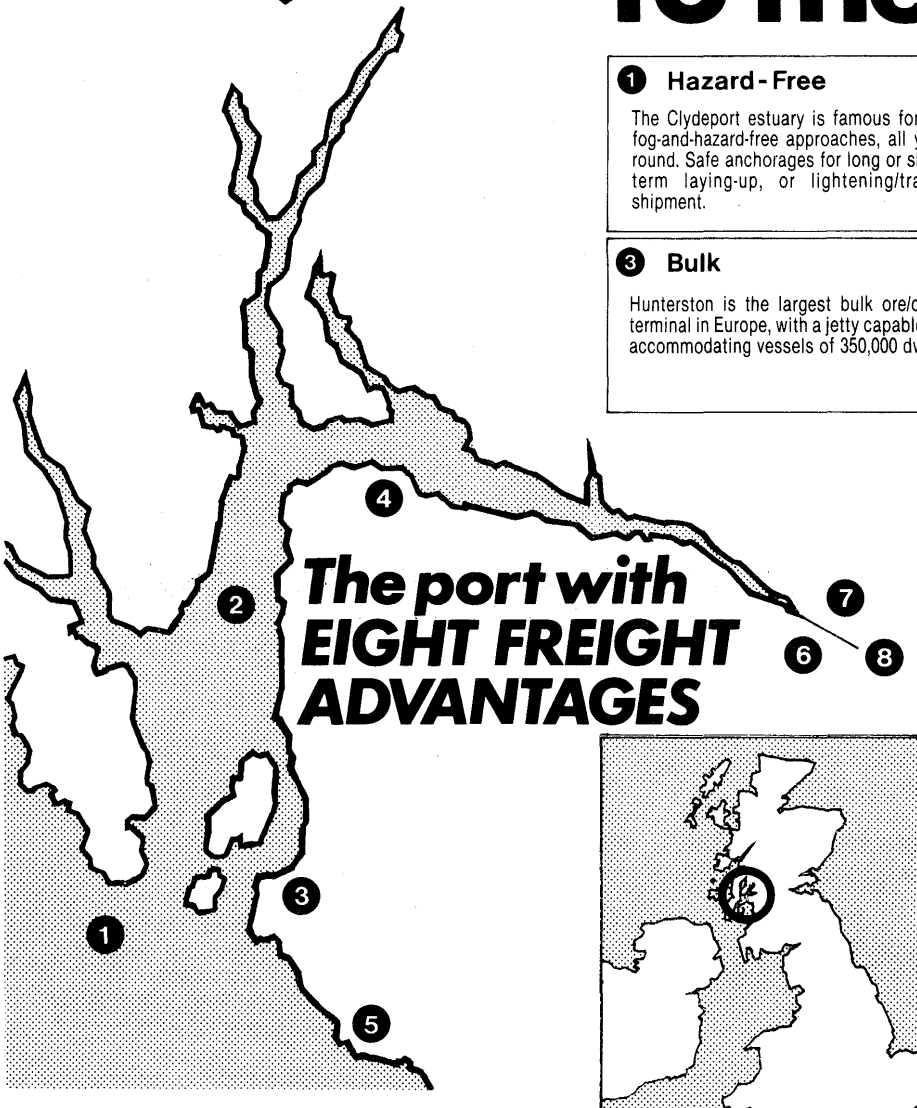

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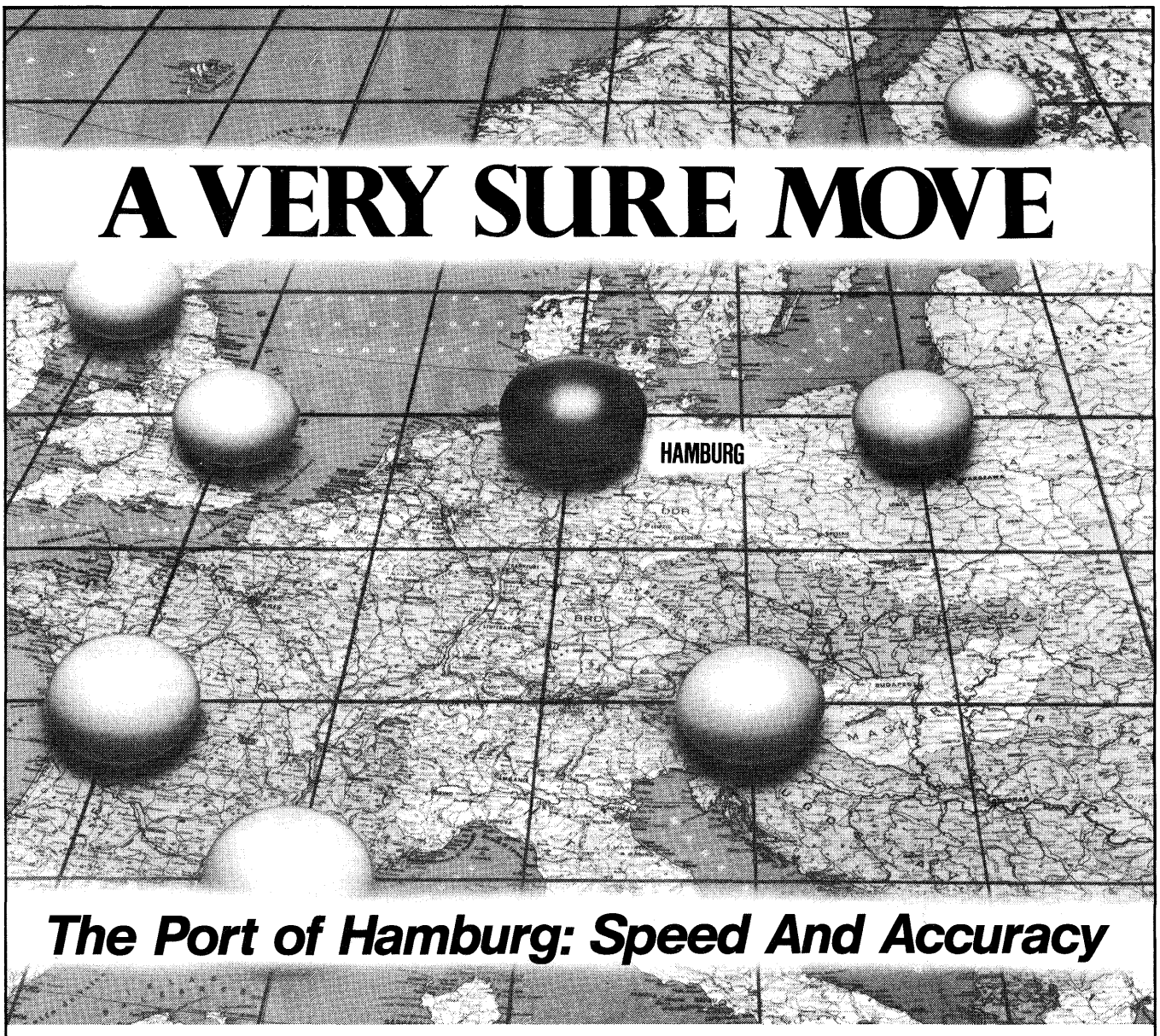

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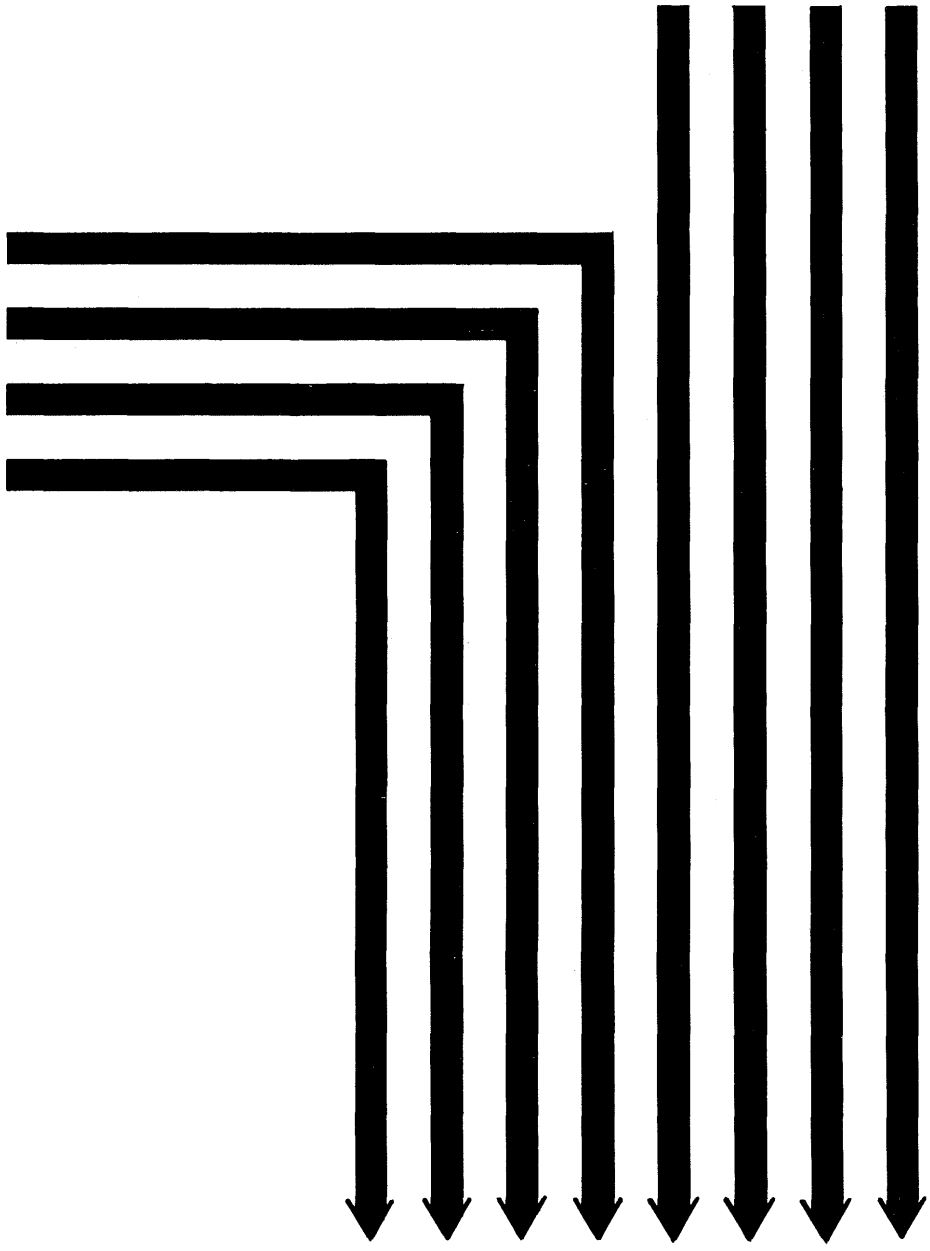

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IAPH announcements and news

2nd Vice-President J.M. Wallace retires

The Secretary General recently received a letter from Mr. J.M. Wallace, 2nd Vice-President of IAPH, informing him of the latter's recent retirement from the Maritime Services Board of New South Wales, Sydney.

According to the news release from the Public Relations Officer of the Board also received at the Head Office, Mr. Wallace's action follows the recent decision of the State Government to amend the Maritime Services Act and to dispense with the office of President and replace it with a part-time Chairman and a General Manager.

Having completed nearly ten years as the Board's Engineer-in-Chief, followed by nine years as President, Mr. Wallace said that it did not appeal to him to continue to serve in either of the new capacities. "Consequently, I feel that it is time I sought other challenges elsewhere in the commercial world. Initially, I have been retained by the Government as a consultant to the Board for a six-month period, without inhibiting my other activities", Mr. Wallace said.

Mr. Wallace served in a number of positions in the Board's Engineering Branch before being appointed to the posts of Senior Construction Engineer in 1956, Principal Assistant Engineer in 1964, and Engineer-in-Chief in 1966. In 1975, he was appointed a Commissioner of the Board and, later that year, was elevated to the position of President.

Since 1979 Mr. Wallace has been a member of the Executive Committee of IAPH, and he was elected 2nd Vice-President of the Association at the 13th Conference held in Vancouver in 1983. Moreover, from 1977 to 1983 he was Chairman of the Committee on Port Safety, Environment and Construction (until 1981 known as the "Large Ships Committee").

The Secretary General wrote to Mr. Wallace expressing his deepest appreciation and thanks for his years of contribution to the development of IAPH, and at the same time wished him all success in the future. The vacancy created by his retirement in the office of the Association's 2nd Vice-President will be filled in the election at the forthcoming Conference in Hamburg next May.

Registration Forms for the Hamburg Conference circulated

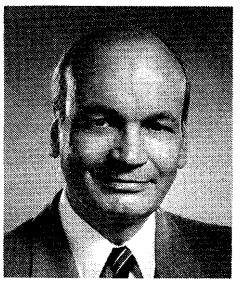
The Organizing Committee for the 14th Conference of IAPH in Hamburg has recently circulated the registration forms and a brochure giving detailed information on the forthcoming Conference to all members of IAPH and the various other individuals and organizations who may be interested in participating in the Hamburg Conference.

The 35-page brochure contains:

- List of the members of the Honorary Committee and the Local Organizing Committee;
- Welcoming Messages by Mr. A.J. Tozzoli, IAPH President, Senator Volker Lange, State Minister for Economic Affairs, Transport and Agriculture as Chairman of the Honorary Committee, Dr. Hajime Sato, IAPH Secretary General and Mr. J. Rommerskirchen, Conference Chairman.
- a Tentative Program of the Conference with a daily timetable;
- Explanations on the Conference Theme, Working Sessions, Symposia and Exhibition under PORTEX '85, Programs for accompanying persons as well as the Post-Conference Programs for all participants;
- General Information concerning entry regulations, hotel reservations, travel arrangements, official carrier, banks, etc.; and
- a Map of the City of Hamburg.

All participants are requested to send their registration forms to the Organizing Committee as soon as possible.

Mr. Bo A. Ekstrom leaves the Port of Vancouver



According to a letter to President Tozzoli and Secretary General Sato dated August 20, 1984, Mr. Bo A. Ekstrom has recently left the Port of Vancouver.

Mr. Ekstrom, who was Acting General Manager of the Port, served as IAPH Conference Vice-President and Chairman for the 13th Conference of IAPH held in Vancouver in June, 1983. Following the successful closure of the Conference, he was appointed to serve as Chairman of the Committee on Cargo Handling Operations.

Mr. Ekstrom states in his letter to the President that he strongly believes that the CHO Committee will provide a most valuable service to IAPH members and he feels very badly that he will be unable to fulfill the responsibilities he undertook in this regard.

Covering the period before the Hamburg Conference or until the new chairman is appointed, Mr. R.T. Lorimer, General Manager of the Auckland Harbour Board, New Zealand, will serve as Acting Chairman of the Committee.

Dr. Sato sent a letter to Mr. Ekstrom expressing his deep appreciation and thanks for the valuable contribution and sterling efforts the latter made in organizing the Vancouver Conference and chairing the Committee on Cargo Handling Operations.

IAPH observes 29th anniversary

November 7, 1984 is the 29th anniversary of IAPH. The young seedling that germinated in the minds of a few wise men some three decades ago has now grown into a truly international organization boasting a membership encompassing 75 countries throughout the world. It is perhaps an opportune time to look back over some of the events which have served as landmarks in the progress of our organization.

The 30th anniversary of the Japan Port and Harbor Association in 1952 was the scene of the momentous decision which led to the birth of our organization. Three years of meticulous preparation culminated in the staging of the Inaugural IAPH Conference in Hollywood, California.

On this memorable occasion, the late Mr. Gaku Matsumoto, one of the founding fathers of IAPH, made a historic speech, part of which is featured in the box on the next page.

A list of the IAPH Conference held so far, together with a note on the significance of each one, follows. As can be seen, the IAPH Conference soon became a biennial event.

1955 – Los Angeles

As this was the Inaugural Conference, the main achievements were the adoption of the Constitution and By-Laws, the establishment of the Board of Directors and the election of the Officers.

1959 – Mexico City

The subject of containerization was taken up, since it was clearly an issue of profound importance for ports all over the world. The Legal Counsellors were also appointed at this conference.

1963 – New Orleans

This gathering witnessed the introduction of the Tri-Regional System, with the object of attaining a regional balance in the Association's administration by establishing three regional blocs: (1) the Americas; (2) Europe including Africa and the Mediterranean; and (3) Asia including Oceania and the Persian Gulf States. Notable subjects dealt with at this conference were "International Transport of Radioactive Materials" and "Port Facilities for Nuclear Powered Vessels".

1965 – London

The Activation Committee on International Port Development was set up with the aim of promoting new activities to solicit the support of advanced countries of efforts to improve the ports and harbors in developing countries. It was also decided to promote ties with relevant UN organizations.

1967 – Tokyo

This was the first conference to take place in the country of the Association's inception. The participants considered such subjects as "The Function of Public Relations in Port Development", "The Future of Tankers" and "The Role of the Government in Port Development".

1969 – Melbourne

This event marked the achievement by IAPH of closer association with UN organizations. The main topics dealt with at this conference was "The Economic Impact of Ports on the Regions", "The Liability of Carriers in Cargo Transportation" and "Containerized Shipping Facilities".

1971 – Montreal

Lively discussion centered on the development and spread of computers, which were seen to be at the heart of a far-reaching technical revolution taking place in all areas of business, and which were having an especially large effect on port facilities and operations.

1973 – Amsterdam/Rotterdam

The participants were able to witness the establishment of the IAPH Foundation, with whom the Association concluded an Agreement concerning maintenance and operation of the Head Office with the objective of solving the financial difficulties the Association was facing in the wake of changes in the international currency situation. The subject dealt with at this conference included "Preventive Measures against Air and Water Pollution in Port Areas" and "Coordination in Planning of Links between Ports and the Hinterland".

1975 – Singapore

The Theme for this conference was "Towards Greater International Cooperation". The participants focused particularly on "Port Cooperation in Preventing and Combating Water Pollution and Crime in Harbors" and "Port Cooperation Towards Revenue Evaluation". The main achievement of this conference was an improvement in the Committee System.

1977 – Houston

On this occasion, the theme was "The Role of Ports in World Economic Development". A new dues formula based on tonnage figures was put into effect in accordance with a decision made at this conference. Working Sessions were held to discuss the various issues, including "Port Congestion ", "New Technology", and "Environmental Problems of Ports".

1979 – Le Havre (Deauville)

"World Ports of the Future" was the theme of this gathering. Professor Wassily Leontief, a Nobel Prize-winning economist, delivered the keynote speech on the conference theme. Participants also saw the successful introduction of the SDR system. Moreover, a voluminous report on "Guidelines for Safety and Environment Protection" was compiled and submitted by the Committee on Large Ships.

1981 – Nagoya

This conference had as its theme "Ports' Contribution to Human Prosperity". The highly significant 25th anniversary of IAPH was celebrated on this occasion. Other achievements were the restructuring of the committees and an agreement with the BPA concerning IAPH representation in Europe. The working sessions were on "International Port Cooperation" and "The Port's Roles in Regional Development".

1983 – Vancouver

"The Ports and Their Communities" was the theme of this gathering. This was the first conference since the achievement by the Association of financial independence. The subjects the Working Sessions dealt with included "Safe Handling & Transportation of Hazardous Materials", "Automated Data Processing and Communications between Ports and their Users", and "Contingency Planning to Combat International Threats and Disorders" – which was jointly held with IAASP.

The Association has worked tirelessly and with considerable success over the last three decades to foster understanding and cooperation among the world's ports. Our achievements would not have been possible without the wholehearted dedication of our members. Moreover, we cannot overlook the efforts of all those friends, both from the Association and outside, who have provided vital support at critical moments in our history.

A particularly notable benefactor has been the IAPH Foundation. It was established in 1973 to assist the Association financially, and has recently marked its eleventh anniversary. It was thanks to the generous assistance given by the Foundation that we succeeded in achieving financial independence two years ago. The Foundation, though legally separate from IAPH, is continuing to sustain and aid the Association in a variety of ways.

The 14th Conference of IAPH is scheduled for May 4 – 11, 1985, in Hamburg. The theme of this event will be "Communication Through Ports". The conference will provide all members of IAPH and other participants engaged in port and transportation-related enterprises with the perfect opportunity to see for themselves the important role our Association is playing – and is sure to play in the future.

– from Mr. Matsumoto's speech to the inaugural conference of IAPH in 1955 –

World ports today must of necessity be organically correlated with each other to permit optimum ocean transport. In effect, they are all members of a team and the efficiency of each is essential to the functioning of the whole. In other words, they cannot contribute to the development of ocean transport unless all of them are well balanced in development. Even if a few of them should have perfected their facilities up to the highest standards in all points and attained the efficiency of highest degree in their management and operation, this would never do anything good to the over-all development of ocean transport, so long as other ports should be left in conditions yet to be desired. If, in spite of the existence of such a port, a freighter, which has left it, should be tied up in another port for many days, more than one month in the worst case, for cargo handling or something other, owing to the lack of proper facilities, it is easy to imagine what unfavorable results it would bring to the commerce and economy of the world, and eventually to the welfare of mankind at large.

All this points to the necessity that all ports, irrespective of their different stages of development, should ever cooperate very closely in the improvement of facilities and the promotion of efficiency. And from this it is proposed, as a matter of real importance, that more advanced countries should offer technical and financial assistance to under-developed areas in order to enable their ports to catch up with a world standard.

In this light, it can truly be said that ports should exist ever for cooperation and not for competition. It is therefore highly significant that to promote such harmonious relations, port representatives should meet with one another and exchange views on their common problems, remembering always the ultimate objective is to speed cargoes and move the ships more effectively.

IMO Reports by Mr. Smith

The Sub-Committee on Bulk Chemicals

The 13th Session was held in London from 4 to 8 June 1984, under the Chairmanship of Mr. F. Wybenga (USA). Representatives of some 28 Member States, the Helsinki Commission and 10 international non-governmental organizations, including IAPH, were present.

IAPH interest in the work of the Sub-Committee is understandably narrow; but the few subject heads to which attention is drawn are nevertheless of particular importance to ports.

Inert Gas Requirements for Chemical Tankers

The Report of the inter-industry group, of which IAPH is a participating member, was subjected to close scrutiny by the Sub-Committee, which concluded that the use of inert gas systems on chemical tankers should not be required in terms of SOLAS. Consideration of the necessary amendment to Regulation 55 of Chapter 11.2 of SOLAS was left to the next Session.

IAPH members will want to note the preparation of guidelines by IMO's Sub-Committee on Fire Protection and the International Chamber of Shipping respectively for tankers not fitted with inert gas systems, and on the operation of chemical tankers. This Sub-Committee has asked the parties to correlate their work.

Reception Facilities for Noxious Liquid Substances

In a lengthy discussion of matters relating to the implementation date of MARPOL Annex II, regard was had to operational trials conducted by Liberia, Norway and the USA, the results of which suggest that it is impractical to aim for 2 October 1986. There is an apparent concern for the need both to maintain the existing Annex II texts and, at the same time, to simplify the standards for the procedures and arrangements for the discharge of noxious liquid substances. It has also been suggested that what is really required is an efficient stripping system which will reduce the need for shore reception facilities. A compromise approach proposed by the Chairman, in the event, which took accounts of the common ground in all the suggestions will be further examined at the next Session. What is now very clear, however, is that an implementation date of 2 October 1986 is out of the question.

A Mandatory Prewash Scheme

The Sub-Committee approved the principle of a scheme proposed by the Swedish Government for mandatory prewashing in unloading ports – and incidentally reducing the reception facilities burden at loading ports – through it was recognized that a major amendment would be needed to Annex II of MARPOL. The matter will be considered further at the next Session, which will take place in London from 3 to 7 December 1984.

* * * * * * * * * * *

Bursary recipient

Mr. J.K. Stuart, Chairman of the IAPH Committee on International Port Development, has announced that a bursary has been awarded to Mr. Kanhonou Rene, Engineer, Port of Cotonou, Benin, to attend the IPER "Ports Works" course in Le Havre for the period 5 November – 7 December 1984.

IAPH concern expressed to IMO

IAPH, in its Secretary-General's letter dated September 20, 1984, submitted to IMO Secretary-General Srivastava a message expressing IAPH's concern over the current situation in which agreement on the Hazardous and Noxious substances had to be postponed as the result of the recent IMO Convention. The Association urged IMO to continue to work towards this goal, in the letter reproduced below:

IAPH Letter of September 20, 1984: "I refer to the widely publicised results of the International Conference on Liability and Compensation for Damage on the Carriage of Certain Substances by Sea, Held in London, from 30th April to 25th May 1984 inclusive, and would, respectfully, draw to your attention a number of matters of concern to IAPH Members.

It is disappointing to IAPH that agreement on the long-awaited HNS Convention had to be postponed. The problems facing ports, to which IAPH had referred in a position paper circulated to IMO's Member States prior to the Conference, have not, of course, been similarly postponed. If anything, they have increased with the passage of time and the predicted increase in hazardous and noxious substances traffic.

As will have been evident in the letter dated 25th May, 1984, addressed to you by the President of IAPH, the membership is concerned with the consequences of any marine accident in port waters. Such accidents can and do lead to loss of life or injury to crews and/or shore workers; cause severe damage to ships, port installations and to the port environment; and can obstruct ship movements and isolate berths, occasioning unacceptable financial liabilities. Where hazardous and noxious substances are involved, these serious consequences can be compounded, and even more so where the traffic is carried in shipping which verges on the substandard.

The postponement of the proposed HNS Convention leaves these serious risk areas to be covered, inadequately, by existing Conventions. IAPH therefore strongly supports you in your constant endeavours to secure the necessary ratification to bring the "latest" Conventions into force. The 1976 Liability for Maritime Claims Convention is obviously of prime importance in that regard and every encouragement should be given to an early revision of its already inadequate compensation levels.

Another gap remains involving the risk of explosion of petroleum vapours on board unladen tankers whilst in ports and shipyards. IAPH has confirmed cases of accident, with death occurring where, for one reason or another, and in violation of IMO Regulations, crude oil or residues have been mixed with bunker fuels; and oil has leaked into segregated ballast tanks. IAPH does not, of course, know when IMO will re-examine liabilities relating to the carriage of hazardous and noxious substances or deal with the circumstances which give rise to explosions on board unladen tankers.

The IAPH membership, however, would strongly support you in your efforts to seek an early resolution of the problem areas. It also follows that IAPH would use its best endeavour to encourage early acceptance of the Protocols of 1984 to amend the International Convention on Civil Liability for Oil Pollution Damage, 1969, and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971, respectively."

On the other hand, as reported in the July-August joint issue of the journal, IAPH expressed its collective concern over the potential peril of fire and explosion on board unladen tankers in port waters and adjacent areas, in a letter hand-delivered to IMO Secretary-General Srivastava on May 29, 1984 by IAPH Secretary-General.

IAPH Presidential Letter of May 25, 1984: The membership of the International Association of Ports and Harbors – some 250 Port Authorities, each controlling one or more ports and harbors, in 75 countries from all of the earth's regions – express their collective concern with the potential peril of fire and explosion on board unladen tankers in port waters and adjacent areas.

They are concerned, also, with the pollution potential of defective operational procedures. IAPH expresses its deep disappointment that IMO has not as yet acted on our proposals for amelioration of these problems.

Accidents involving fire or explosion on board unladen tankers during a port call are relatively few, considering the number of such calls the world over. Nevertheless they are not unknown and the risk must always be borne in mind. It requires special care and attention from port authorities and the crews of tankers.

The consequences of accidents can, of course, vary greatly. They can, however, be of the utmost severity involving:

- Loss of life or injury (to crew or on-shore workers).
- Severe damage to ships, to port installations and to the environment.
- Obstructions to shipping, with damage to berths or the isolation of berths by wrecked tankers.

Areas immediately adjacent to ports, whether on the high seas or in access channels where heavy concentrations of traffic are found, have a high risk potential. Examples of accidents are:

- The collision of an unladen tanker in 1972 with a passenger liner at the entrance of the Port of Copenhagen. The consequences of the collision were made worse by the fact that the tanks of the carrier had been badly cleaned. This caused an enormous explosion, which resulted in both ships being badly damaged.
- The tanker Energy Determination of 321,168 dwt, which broke in two just off Oman, after a fire and an explosion, whilst sailing unladen.
- The triple collision in 1976 just outside the port of Singapore, first between Citta di Savona and Philippine Star, both fully laden and the latter at anchor in the roads. This caused a major oil spill in the Eastern and Western Roads. Shortly afterwards a third tanker, Esso Spain, in ballast, when entering the Eastern Anchorage collided with Philippine Star. A major anti-pollution operation was put into action. It was fortunate that no lives were lost.

Attention has been drawn to these three accidents because they occurred just outside the port limits and could well have blocked the approach channels and hindered port traffic.

Although technology continues to advance and improvements are taking place in filling tanks with inert gases, cleaning residues from tanks, new crude oil washing methods and so on, carelessness and human error are all too frequent. There are also too many instances when too

little is known of the causes of accidents which happen either during or at the end of unloading operations.

As examples, we refer to: –

– The explosion in 1979 of the Betelgeuse during operations at Whiddy Island, Bantry, Co. Cork, Ireland, when lives were lost and the damage to property was considerable.
– The breaking in two of m/s Energy Concentration, a vessel of 215,675 dwt, on the 22nd July 1980 in Rotterdam, after an incorrect order was given during the unloading of various tanks. In some incredible way, the accident caused neither explosion nor fire, the only consequences being slight pollution (by some 10 tons of oil).

Accidents which have happened during degassing operations include: –

– An explosion in 1972 of the m.v. Princess Irene due to free gas being struck by lightning. Casualties included 6 dead, and a berth was destroyed. The ship broke in two and sank. Out of a total cost of $3,938,950 only $1,216,000 was recovered, leaving $2,722,950 to be covered by the Port of Nantes.
– In 1979, a small tanker was degassing outside the Tokyo Breakwater. After an explosion and fire, 3 persons were dead, 1 injured.

Accidents during bunkering have included that in 1979 to the m.v. Seiko Maru, which exploded with a bunkering vessel alongside. Casualties included 6 dead.

Accidents during ballasting have included that, in 1974, of the m.v. John Colocotronis, with casualties including 2 dead.

Accidents attributable to defective tank cleaning have included: –

– 1973 m.v. St. Mitre, 1 dead;
– 1978 m.v. Tsukuba Maru;
– 1979 m.v. Walchand, 3 dead;
– 1979 m.b. Transworld 1501, 1 dead;
– 1980 m.v. Vendemiaire, 2 dead

This grouping may well included that, in 1976, of the m.v. Sansinena in Los Angeles. Ship and berth were destroyed. Third party claims amounted to some $7 million and the total costs were over $30 million.

There is also an unacceptable frequency of failures, deliberate or otherwise, to make required declarations concerning loading, unloading and the carriage of dangerous substances in respect of vessels making port calls. In one port, for example, 18 known cases were recorded in one year.

Whether or not associated with fire or explosion incidents/accidents on board unladen tankers or during tanker unloading, pollution accidents are very frequent. These are linked with the spilling of petroleum products during ship to shore coupling and uncoupling; bunkering operation (20% of the cases); the release of oily water from badly washed tanks, etc.

Whilst most ports are able to bring financial sanctions into play in such situations, it is possible that the time factor and effort involved in so doing could be much reduced.

The best guarantee against accidents of the type and severity described above is strict observance of agreed IMO standards of ship design and equipment; training and watchkeeping of ship and shore personnel; and a continuing vigilance. To achieve further mitigation, IAPH urges IMO to make a firm commitment to:–

(i) the provision of expert technical and legal advice within the IMO Technical Assistance Programme; and
(ii) the undertaking of an authoritative study and report on the practical availability of insurance for newly considered appropriate higher levels of liability limitation covering the aforementioned risks.

PIANC President in Tokyo

At the invitation of the Japanese Section of PIANC, Ir. R. de Paepe, President of PIANC, and Mrs. Paepe visited Japan for one week from September 24, 1984.

On the afternoon of September 25, 1984, Ir. Paepe addressed the Japanese members of PIANC on the subject "The Harbours of the Golden Delta". His lecture, which took place in a hall in the Kasumigaseki Building in Tokyo, featured the development of ports and harbors situated on the delta of the Rhine, Meuse and Scheldt in relation to the growth of the European economy – particularly as regards the Benelux countries.

In his paper, Ir. de Paepe portrayed the enormous prosperity that the Benelux countries as a whole have achieved since the Second World War. His theme was that the delta region owes its impressive prosperity to the fact that the authorities in the countries in the region were able to take advantage of certain significant trends which have influence the world economy over the last few years, i.e.:

– the enormous increase in world trade;
– the increase in the scale of shipping;
– the structural changes in cargo handling; and
– the advance of industry towards the sea.

He further commented that the recession which we are now experiencing has had a very great effect on port traffic, on employment and above all on our confidence in the future. He concluded that if the development of the European economy is maintained, the ensuing favourable influence will undoubtedly make itself felt in the Low Countries, through which the great rivers of the continent flow.

At a reception which followed the lecture, Dr. Hajime Sato, Secretary General of IAPH, met Ir. Paepe and presented him with an IAPH medal and a copy of the book on the history of IAPH. During the course of this meeting, Ir. Paepe and Dr. Sato agreed to further strengthen the ties between PIANC and IAPH. Ir. Paepe expressed his hopes for the success of the IAPH Conference in Hamburg in May and the Centennial Conference of PIANC in Brussels in June, 1985.

Mr. Paepe (right) and Dr. Sato at the reception

CAMEROON NATIONAL PORTS AUTHORITY

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Open forum:

Evaluation of Container Terminal Equipment Systems

Case study: Port Said, Egypt

By: David Veshosky
Senior Port Consultant
Louis J. Mazzuchelli, Jr.
Senior Marine Designer
CE MAGUIRE, INC.

Port Said can truly be called the crossroads of the world. Located at the Mediterranean terminus of the Suez Canal, vessels bound for Europe, Asia, Africa, and the Middle East pass daily (see Figure 1). During the past three decades, however, intermittent wars have caused the destruction and abandonment of Port Said on several occasions, hindering its ability to develop as a major, modern port. In addition, the Suez Canal Company has historically discouraged port development in Port Said, fearing congestion and interference with Canal traffic. However, the Egyptian-Israeli peace treaty and dilution of the Canal Company's control over Port Said have recently helped to create conditions favorable to port development, and the Port Said Port Authority has begun an ambitious program to exploit its strategic location, with assistance from The World Bank, U.S. Agency for International Development (USAID), and other international development assistance organizations.

Container Terminal Proposed

In order to evaluate the economic and financial feasibility of a proposed container terminal in Port Said, a team of port consultants from CE Maguire was contracted by USAID to visit the site, collect and analyze pertinent information. The study included a detailed operational analysis to identify a terminal layout and equipment requirements which would most efficiently utilize the available area and financial resources. The operational analysis consisted of a capacity estimate and an evaluation of alternative equipment systems based on terminal-specific factors. The analysis, which was included in the study report submitted to USAID and the Port Said Port Authority, considered operational parameters, purchase costs, and maintenance requirements.

Based on the estimated efficient capacity of the terminal, revenues and development and operating costs were projected. The terminal was determined to be operationally, economically, and financially viable, assuming sufficient demand for import/export or transshipment cargoes. Since study completion The World Bank and USAID have provided financial assistance for the project, including construction of a new wharf, preparation of the site, and purchase of the necessary equipment as recommended in the study report.

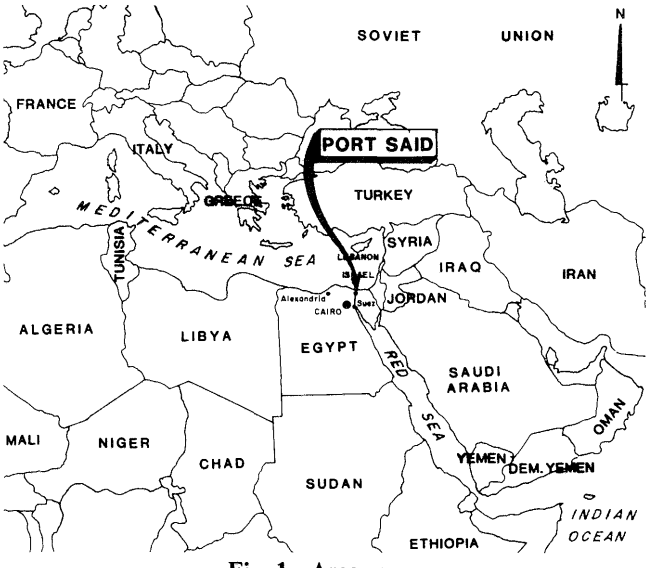


Fig. 1 Area map

Operational Parameters

Equipment evaluation was based on the following assumptions:

- a predesignated site of approximately 140,000 square meters, with additional off-terminal area available for storage of empty containers;
- unlimited potential demand for container handling capacity, constrained only by an estimated berth throughput capacity of 90,720 twenty foot equivalent units (TEU) for a single wharf crane and 141,120 TEU for two wharf cranes; and
- projected patterns of activity at the container terminal.

It was determined that, at least initially, traffic through the terminal would be primarily transshipment or have origins/destinations within the City of Port Said, as a result of the port's strategic location and Egyptian national economic geography and transportation systems. The bulk of Egyptian population and trade is centered in major cities such as Cairo, which is well served from the Mediterranean Sea by Alexandria (the country's second largest city and major port), and from the Red Sea by Port Suez at the southern terminus of the Canal (see Figure 2). Therefore, Port Said's hinterland is effectively limited to itself.

The City of Port Said is a Free Trade Zone, with extensive trade in imported consumer goods but few exports. At present, most containers are handled by ships' gear or general purpose cranes and are stripped in the port and reshipped as empties, with the contents moved to distributors in the city, often by horse-drawn carts. Within the 25 year horizon of the study, national development policies

project growth in the manufacturing sector of Port Said's Free Trade Zone, making an efficient container terminal in the area a necessity. Improvement to the transportation infrastructure connecting Port Said and Cairo are also planned which will result in additional development along the transportation corridor, as well as in Port Said.

It was determined that there would be four primary flow patterns through the container terminal, as shown below, which would require equipment for container transport and handling:

VESSEL → IMPORT STACKS (LCL) → CFS → EMPTIES STACKS/ EXPORT STAGING AREAS → VESSEL

VESSEL → IMPORT STACKS (FCL) → INLAND DESTINATION

INLAND ORIGIN → CFS → EXPORT STAGING AREAS → VESSEL

INLAND ORIGIN (FCL) → EXPORT STAGING AREAS → VESSEL

Since the proposed terminal is being designed to handle primarily second-generation containerships, ship-apron transfer should be by rail-mounted gantry crane(s). These cranes have higher levels of productivity than multi-purpose dock cranes, assuming the terminal primarily accommodates dedicated container ships.

The basic means of transport within the terminal will be by unlicensed, diesel-powered tractor-trailer units. Tractor-trailer units are generally preferable to straddle carriers or forklift trucks for distances over approximately 150 meter, which will be the case at the proposed terminal site (see Figure 3).

While loading/unloading and transport equipment needs can be determined with relative ease, significant alternatives exist with regard to selection of stacking equipment. Given that back-up space at the terminal is somewhat limited, the two major options considered for stacking equipment were rubber-tired yard gantry cranes and straddle carriers. Modified forklift trucks and chassis storage were not considered for widespread use due to their higher space requirements, although forklift trucks were considered for limited use, including handling of empties and strip/stuff activities at the CFS.

Equipment Alternatives

Under the first alternate (Alternate A), stacking and retrieval would be performed by diesel-electric, rubber-tired, gantry cranes, capable of moving one container over three with a maximum of six containers wide and a truck lane. All movement within the terminal would be by means of tractor-trailer units; containers would remain on trailers at the CFS.

Under the second alternate (Alternate B), handling in the stack areas would be accomplished by diesel-electric straddle carriers, capable of moving one container over two. Transport between import LCL stacks and the CFS would also be by straddle carrier, with the containers placed on piers at the CFS for stripping and/or stuffing. Straddle carriers would place consolidated containers on trailers for movement to the export staging area by terminal tractors. Empty containers would be handled at the CFS by straddle carriers and modified forklift trucks, and moved to stack areas by tractor-trailer units.

Berth-apron transfer capacity at the terminal was estimated to be 90,720 TEU for a single wharf crane and

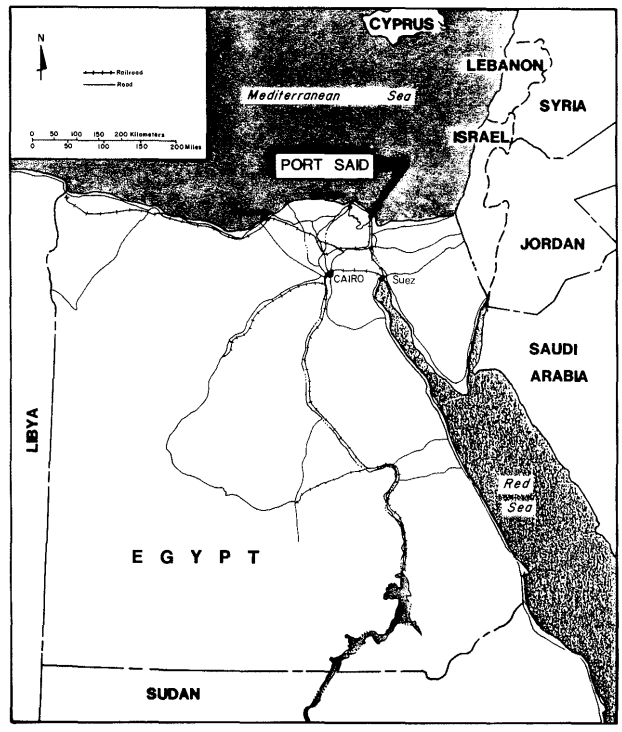


Fig. 2 Key map

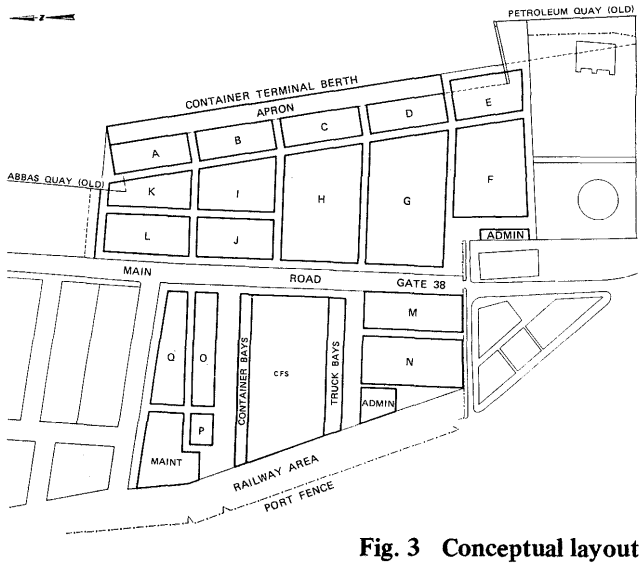


Fig. 3 Conceptual layout

SPACE UTILIZATION

AREA	Area, m^2	Use
A	2,350	Staging area for exports, empties
B	2,350	Staging area for exports, empties
C	2,350	Staging area for exports, empties
D	2,350	Staging area for exports, empties
E	3,280	Ro/Ro
F	6,470	Empties
G	12,590	Empties
H	10,970	Empties
I	4,750	Empties
J	4,125	Imports – FCL
K	3,500	Ro/Ro
L	4,050	Empties
M	3,100	Refrigerated units
N	4,875	Imports – FCL
O	3,125	Imports – LCL
P	875	Imports – LCL
Q	3,125	Imports – LCL
III	15,000	Imports, Exports for spillover
IV	10,000	Empties
V	25,000	15,000 – Ro/Ro 10,000 – Empties

141,120 TEU for two cranes. Crane cycle time was assumed to be approximately three minutes, while tractor-trailer travel time for movement of incoming boxes was estimated to be four to six minutes, necessitating three tractor-trailer units to support each wharf crane during unloading operations. One gantry crane or two straddle carriers would be required to support each wharf crane during unloading operations.

The proposed CFS would require 16 container bays, with eight TEU stripped or stuffed per hour and a container movement approximately every eight minutes for 20 hours per day. Under the first alternate, one gantry crane in the import LCL stack and one in the empties stack or export staging area would be required. These could be supplemented at times by the cranes primarily designated to support unloading/loading operations. However, loading/unloading and CFS operations will coincide about two-thirds of the time, and use of the gantry cranes to support CFS operations cannot be allowed to hinder ship loading or unloading. A modified forklift truck could be used for handling empties in an external storage yard, to eliminate the need for rubber-tired gantry cranes to move outside the terminal. At least two terminal tractors and 16 trailers would be required. Feeding of exports from the staging areas and of empties from the stacks and staging areas to the wharf crane would be done by gantry cranes with tractor-trailer units.

For the second alternate, one straddle carrier would be needed to move LCL containers between import stacks and the CFS. Loading of empty containers onto trailers would be by the same straddle carrier, supplemented by a modified forklift truck. At least two tractor-trailer units would be required for transport between the CFS and stacking/staging areas. Handling in the on-terminal empties stacks and export staging areas would be accomplished by straddle carrier, while handling of empties in external storage areas would be done by modified forklift truck. Loading operations would utilize the straddle carriers and terminal tractor-trailer units used for unloading.

Evaluation

Capital Cost Comparison

A summary of equipment requirements and costs is presented below:

	ALTERNATE A		ALTERNATE B	
	No. Needed*	Cost**	No. Needed*	Cost**
Container Gantry Cranes @$3.7	2	$ 7.400,000	2	$ 7.400,000
Rubber-Tired Gantry Cranes @$880,000	4	3,520,000	–	–
Straddle Carriers @$432,000	–	–	8	3,456,000
Terminal Tractors @$52,000	10	520,000	10	52,000
Terminal Trailers @$15,000	23	345,000	8	120,000
Modified Forklift Trucks @$78,000	1	78,000	2	156,000
		$11,863,000		$11,652,000

* Includes spares for scheduled and unscheduled maintenance.
** All costs in 1983 dollars.

The average working life of a rubber-tired gantry crane is estimated at approximately 12 years, while the average working life of a straddle carrier is estimated at approximately 6 years, requiring replacement twice as often as gantry cranes. Thus, over the 20-year life of the project, replacement costs for the alternatives would be:

Gantry Crane alt.	20 yr.	12 X 4 X $880,000 = $ 5,870,000
Straddle Carrier alt.	20 yr.	6 X 8 X $432,000 = $11,520,000

Initial and replacement costs for purchase of the main elements of each alternative, therefore, would be:

Rubber-tired Gantry Cranes	$ 9,390,000
Straddle Carriers	$14,976,000

Operating Cost Comparison

In addition to purchase prices, operational and maintenance considerations must be evaluated. In general, selection of equipment of a common type and from a common manufacturer was recommended in order to minimize personnel training and spare parts inventory requirements.

Maintenance requirements of the alternatives differ considerably. Rubber-tired gantry cranes have very good maintenance histories (in some cases a downtime of less than 1%), while early models of straddle carriers were plagued with maintenance problems, particularly in hydraulic systems (some terminals utilizing straddle carriers have experienced almost 30% downtime). Recent models, some of which have replaced hydraulic systems with mechanical systems, have much better maintenance records and are more reliable, as long as scheduled maintenance is kept up. The equipment requirements shown include replacements for scheduled and unscheduled maintenance to reflect any difference in maintenance requirements. Straddle carriers have one maintenance advantage over gantry cranes in that straddle carriers can be moved inside the maintenance shed for repairs. Maintenance costs for rubber-tired gantry cranes average approximately 10% of purchase price per year, while those of modern straddle carriers average approximately 12% of purchase price per year. Maintenance cost for straddle carriers, therefore, would be approximately $60,000 per year more than that for rubber-tired gantry cranes. Labor costs would also be less for gantry cranes, since fewer operators would be required:

With regard to operational considerations, gantry cranes can provide denser stacking than straddle carriers or forklift trucks, as shown in the table below:

	STACKING HEIGHT	*m^2/TEU*
Chassis	1	65
Straddle Carrier	2	13
Forklift Truck	2	18
Rubber-Tired Gantry Crane	2	11
	3	8

Source: CE Maguire, Inc., and *Port Development,* United Nations Conference on Trade and Development, 1978.

Straddle carriers and forklift trucks are also capable of stacking three high (and gantry cranes are capable of stacking higher than three), but with reduced efficiency. With regard to access, container storage areas of equal stacking height will have an equal number of unproductive moves, regardless of the type of equipment used. The type of equipment will affect the time required for an unproductive cycle, with gantry cranes more efficient than the straddle carriers which are in turn more efficient than forklift trucks. The greater number of straddle carriers available on the terminal offsets this advantage, however.

(Continued on next page bottom)

Containerisation in Ports

– Problems and Perspectives in India –

By H.N. Fotedar*

Container technology, which evolved out of the quest for unitisation of cargoes, commended itself to the shipowners, shipping lines, port managements and the users alike, because its innovators claimed, and later on also proved, that it improves vessel turnround, reduces handling costs compared to break bulk and bulk cargoes, minimises cargo damage in transit and incidence of pilferage. The industrialised countries lost no time in actively harnessing this technology. A net work of container ports – new and/or with modernised facilities sprang up. Within a decade, container traffic between the industrialised countries registered phenomenal growth.

Developing countries looked at these developments somewhat passively at first. It is not because they failed to perceive the benefits of this change but they believed, that this technology for its adoption and successful exploitation in a socioeconomic environment totally different from that of the industrialised countries, requires adequate ground work and advance planning to offset its adverse impact on national policies an objects like employment generation. The two important points in support of this standpoint, are: (i) Price levels for labour and capital in the developing countries, are not relatively the same; (ii) Unlike most of the ports in the developed countries the ports in developing countries, by and large, are public ports. The managements of public ports have to endeavour to achieve not only commercial but nonfinancial and social objectives as well.

A logical corollary of this development was that containerized traffic to the developing countries tended to be one way with very little prospect of an early break through in sight. Alarmed at the emerging technological imbalance between the developed and the developing countries and its adverse impact on international trade, the industrialised countries recognised and actively supported measures designed to correct this imbalance. Some of the developing country ports were thus enabled to upgrade the handling facilities and technical skills to meet the emerging needs. So long as the activity remained confined to small and medium sized geared vessels no serious difficulties by and large were encountered by such ports in handling containers though not with comparable efficiency.

The scenario changed radically however, when the maritime industry in the West went in for still newer production technologies and sought to export it to the developing countries. Gearless vessels appeared on the scene. These ports, therefore found themselves lagging far behind their counterparts with formidable financial and operational problems to resolve. While showing some appreciation of these difficulties, the shipping lines, however, had no option but to go ahead with their own programmes of fleet modernisation and development. The situation was further compounded by their anxiety to avoid the gains arising out of the adoption of new production technologies in shipping, being counterbalanced by diseconomies of ports. For example, the cost of handling one TEU at Bombay Port is 350 $ (US) as against 50 $ (US) at Colombo, 60 $ (US) at Hong Kong and 75 $ (US) at Singapore.

Container traffic into India started in the early 1970s. Starting with 3 – 400 boxes, by 1982-83, the total throughput has increased to 1.8 lakh TEUs. The Ports of Singapore, Hong Kong and Sri Lanka which made a modest start likewise have, left Indian ports behind. The port of Singapore which has emerged as the world's third busiest port with the fastest cargo handling rate, handles a throughput of more than one million TEUs annually. It is expanding its capacity further. Table A shows that the growth of general cargo and container import and export traffic handled by major ports in India.

* Former General Manager of Bombay Port Trust.

(Continued from page 15)

Based on potential levels of cargo throughput, it was determined that space was not a critical factor in evaluation of the alternatives. For the purposes of the study, it was assumed that average stacking height on the terminal will be two containers. The potential advantage of gantry cranes – allowing efficient three high stacking if necessary to support extension of the container terminal berth – should be noted.

Pavement loadings for straddle carriers are approximately 12 to 18 tons/wheel, while those for gantry cranes are approximately 48 tons/wheel. This is somewhat offset by the smaller travelways required for gantry cranes. Gantry crane travelways can be identified and reinforced or, if necessary, supported on piles; straddle carriers require more extensive areas for traveling and maneuvering, necessitating reinforced paving throughout the terminal. The ability of the straddle carriers to move anywhere and adapt to changes in terminal use and layout does provide additional flexibility, however.

Conclusion

In this study, Alternate A was recommended for the following reasons:

- Rubber-tired gantry cranes require less capital investment over the life of the project;
- Maintenance and operating costs are less than for Alternate B; and
- Gantry cranes provide additional capacity to support future terminal expansion.

It should be noted that this evaluation was based on terminal-specific factors, and the results cannot necessarily be extrapolated to other situations. Yard gantries, straddle carriers, forklift trucks, and chassis storage systems each have relative advantages and disadvantages as evidenced by the number of successfully operating terminals using each type of equipment. The size and configuration of a terminal, projected throughput, and method of terminal operation – whether storage areas are common or operated by individual users – must be considered in selection of a container terminal equipment system.

TABLE – A
Volume of General Cargo Handled by Major Ports of India

IMPORTS

('000)

Year	Total Quantity (tonnes)	Quantity Containerisable (60% assumed) (tonnes)	Containers* (in TEUs)	Quantity (%)	Non-Containerised (tonnes)	(%)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1980-81	8199	4919	490	9.96	4429	90.03
1981-82	10333	6200	764	12.32	5436	87.67
1982-83	10599	6359	754	11.85	5605	88.14
			EXPORTS			
1980-81	5338	3202	776	23.23	2426	75.76
1981-82	4915	2949	939	31.84	2010	68.15
1982-83	4910	2946	1045	35.47	1901	64.53

* including empties.

The overall share of containerised traffic in the total annual throughput of 15.5 mt. for 1982-83 was only 13.3 per cent. The rate of growth of container traffic has been steady though slow. This situation, will continue to exercise a deleterious influence on our foreign trade, particularly, exports. It is fairly well known that shipping companies trading with India while building up the freight structure invariably made a provision therein for offsetting the costs arising out of slow turnround, loading/unloading operations, repositioning of containers or for maintaining large unproductive inventories.

This explains why for cargoes emanating from India to Europe, USA invite higher freight rates compared with some of the other countries in the region for identical cargoes. For transporting one loaded TEU from Bombay to U.K., the freight charged is around 1,300$ (US), whereas for the same unit load requiring transportation from Singapore to U.K., the freight payable is only 600$ (US). Secondly, exports destined for countries whose enterports no longer have conventional handling facilities available, will have to be containerised and transshipped from a port en route offering both conventional break bulk and modern container handling facilities.

Unlike many other capital intensive technologies, the problem of technological development in shipping and ports is quite complex. Technological development in shipping and its cost efficiency is not to be viewed in terms of tonne/Km. only because port services and facilities have necessarily to be bought in association with ocean freight. Container technology apart from demanding massive investment for building up specialised equipment and infrastructural facilities also needs adequate skilled manpower to plan, organise and operate it competently. The approach and response to the growth of this high cost technology in India has been conditioned largely by the ability to meet these two basic requirements. Besides this containerisation brings, in its wake, the problem of surplus labour which has serious socioeconomic overtones.

It is well known that 60-70 per cent of the operating expenditure of the major ports in India is accounted for by wages and incentives of the labour force-mostly unskilled. A lasting and satisfactory solution to this problem lies in the expansion of the industrial base of our economy. Meanwhile the port management will have to find ways and means to weaken its impact by – (a) transferring surplus labour to allied port activities. (b) imparting skills to enable workers to seek absorption in other port based industries like ship breaking, ship repairing, barge operations to feed mother vessels and (c) improving port productivity by training and motivation of labour.

In a developing economy like India, resource constraints almost invariably surface. It is no easy task for the planners to determine intersectoral priorities and allocate resources in a manner as to satisfy the competing claims of various sectors. In the sixth five-year plan for port development, modernisation and replacement of cargo handling facilities the outlay totalled Rs. 635 crores. Following investment input of this magnitude, ports efficiency and performance has undoubtedly improved. Four major ports: Bombay, Cochin, Madras and Calcutta, have been designated as container ports. Madras is now fully equipped to service any third generation cellular vessel. Fairly soon, Bombay port which has for the past several years accounted for the largest share, more than double that of the combined throughput of all other major ports, will also join the modern international container port community followed by Nhava Sheva scheduled to commence operations in 1987. The container handling facilities in the ports of Cochin and Calcutta are also being upgraded.

Before long the container handling capacity of major ports will increase to around 0.7 million TEUs. With reference to general cargo traffic projections, the anticipated capacity would appear to match the demand, provided skilled manpower – the heart of container technology – scarce at present and thinly spread out at that is available. Refresher courses, training programmes and Seminars on various aspects of port operations, repair and maintenance of equipments and so on undertaken both within and outside the country during the last three years, have helped in building up the expertise needed to handle new technologies and application of modern scientific systems to resolve operational, financial and managerial problems. By the end of 1987, a large body of competent container managers, planners and technicians will be available to all the major ports.

Apart from measures taken or underway to strengthen port training institutes attached to various ports and the I.I.P.M. Calcutta, a national institute of port management to cater to the training needs of senior level port managers in India and in the neighbouring countries of Asia and the Pacific region with the active assistance and participation of UNCTAD (TRAINMAR) is coming up at Madras. It is expected to start work this year in the premises placed at its disposal temporarily by the Madras Port authorities in close proximity to the port, pending construction and completion of a full fledged campus of its own with residential accommodation for the participants.

The Inland container depots have begun to operate between Bombay and Delhi, Madras and Bangalore, Cochin and Guntur, Calcutta and Gauhati. Before long, transport of cargoes from consignor to consignee's doorstep may become a reality in India. It is then that the shipping and port authorities claim that the benefit of this technology is being exploited fully, will ring true. *(Indian Shipping)*

Ports Canada

(Extracts from 'Report to the Minister 1983, Ports Canada')

President & Chief Executive Officer's report (extract)

Canadians are aware as never before of Canada's position as a major trading partner in the international community, and of the central importance of trade to the Canadian economy. One in every five jobs in Canada is linked to export trade, which itself accounts for close to 30% of Canada's gross national product.

It is from this background that the significance of the Canada Ports Corporation Act emerges. The legislation is clear in setting forth our primary goal: to provide an efficient system of ports in aid of Canada's trade objectives. Canada Ports Corporation thus becomes a vital component of Canadian economic activity in serving the trading needs of the nation.

Economic fluctuations notwithstanding, Canada's trade requirements are marked by at least two characteristics to which the Corporation must be continuously responsive. The volume of trade through our port system has historically been characterized by overall growth. However, significant fluctuations have been recorded in the past, particularly in the last few years, reflecting structural and overall Canadian and world economic conditions. Nevertheless, indications are that the renewed growth witnessed in 1983 will continue, at least in the short term. The Canada Ports Corporation must be responsive to the new needs generated by this growth, and accordingly, must plan new facilities to support Canada's expanding trade. To this end, we intend to invest a total of $240 million in capital projects over the next six years. We are also currently examining our present range of services in order to evaluate the need for change, improvement and innovation dictated by the changing nature of world trade and the objectives of our Corporation.

The second characteristic of trade movement is an increasing specialization of surface and ocean-going carriers. Larger, more sophisticated ships have an appreciable impact on shipping patterns, which in turn, directly influence the number and location of ports served by shipping interests throughout the world. These new, efficient and very expensive vessels must operate continuously; they cannot remain idle at an inefficient port facility. The Corporation must, therefore, respond to the demand for modern, competitive port facilities to accommodate these specialized requirements.

A similar evolution has occurred in the surface transportation system where, once again, Canada Ports Corporation continued to support the efforts of the railway and trucking industries in their endeavours to be more efficient and competitive.

In a very real sense, the Corporation finds itself at the crossroads of international and domestic commercial exchange. Our ability to recognize the elements affecting this trade environment is crucial to the provision of improved services. This is an exciting challenge, for it is a complex environment to master and certainly a very difficult one to predict. In this respect, our corporate planning system allows us to develop the services and facilities Canada needs to be successful and competitive in world trade.

To better serve Canada's trading needs, the Corporation must generate sufficient funds to construct and maintain facilities for continued port operations. This financial self-sufficiency over the long term requires a business-like discipline in the control of costs and the selection and implementation of appropriate expansion programs.

In 1983, the Canada Ports Corporation continued its pursuit of efficiency and high productivity, and achieved enviable results in terms of industry standards. In fact, the Canada Ports Corporation showed a net income in 1983 of $16.1 million, or $27.9 million prior to an unusual item. Total inflows of funds amounted to $80.8 million in the same period of which $71.5 million were used to finance investments and projects of the Corporation. The net surplus amount of $9.3 million was added to funds previously generated, all of which were earmarked to provide resources for fulfillment of the Corporation's future capital and operating needs.

The Canada Ports Corporation has an equity investment in Ridley Terminals Inc. (RTI), a corporation formed to construct and operate the Ridley Island coal terminal at Prince Rupert, B.C. The rial delivery of the first coal to the terminal occurred in November 1983, and the loading of the first coal shipment onto a vessel in January, 1984, marked the culmination of our two-year involvement in the infrastructure necessary for the development of the massive northeast British Columbia coal project. I look forward to the future of this partnership between Ports Canada and Federal Commerce and Navigation Ltd., a major Canadian shipowning company.

In our experience, partnerships with the private sector have been an effective way to stimulate and share the economic benefits of port business. We have encouraged private sector participation at several ports. We consider such relationships mutually beneficial, combining the best resources and experience of both the private and public sectors.

Setting aside these specific business matters for a moment, a significant change in the public perception of the Canada Ports Corporation is inevitable as our role in supporting Canadian trade grows. As a Crown corporation, we take seriously our mandate to establish the Corporation as a responsible corporate citizen of this country; to tell Canadians who we are and what we do, and to provide clear, accessible information and service to the public in

both official languages.

To increase public awareness, we are considering a number of corporate identity initiatives. The "Ports Canada World Cup" will be presented to the winners of the Tall Ships race between Sydney, Nova Scotia and Liverpool, England, beginning on July 11, 1984. To further improve the seamanship and encourage the training of Sea Cadets, races for this cup will be held somewhere in the world every two years. In 1986, for example, a similar race will terminate in Vancouver as part of the celebrations of Expo '86.

The 1984 festivities marking the arrival of Jacques Cartier in Canada 450 years ago also include a trans-Atlantic race, this time from Québec City to St. Malo, France. We are proud to sponsor one of Canada's entries in this race of high performance, modern sailboats. We will be proud to wish the *Ports Canada* boat safe passage and Godspeed when she leaves Québec City on August 19, 1984.

Jacques Auger
President & Chief Executive Officer

Balance sheet

as at December 31, 1983

Assets

	1983 $000	1982 $000
Current		
Cash	1,356	2,830
Investments	92,814	154,381
Accounts receivable	13,405	32,397
Due from Canada	2,017	6,508
Materials and supplies	756	2,379
	110,348	198,495
Long-term		
Investments	26,476	82,211
Amounts receivable	238	6,526
	26,714	88,737
Investment in Ridley Terminals Inc.	19,271	4,329
Fixed	289,510	522,732
	445,843	814,293

Liabilities

Current		
Accounts payable and accrued liabilities	19,195	40,070
Grants in lieu of municipal taxes	2,031	12,601
	21,226	52,671
Long-term		
Accrued employee benefits	3,506	9,434
Financing provided by a province	19,406	20,610
Loans from Canada	166,617	506,914
Recoverable contribution from Canada	49,152	40,773
	238,681	577,731

Equity of Canada

Contribution from Canada	20,072	20,072
Contributed capital	322,385	349,361
Deficit	156,521	185,542
	165,864	163,819
	445,843	814,293

Statement of income & deficit

for the year ended December 31, 1983

	1983 $000	1982 $000
Revenue from operations	60,761	58,563
Operating and administrative expenses	43,817	38,179
Depreciation	9,248	8,592
Grants in lieu of municipal taxes	4,495	3,322
Interest expense	3,053	1,835
	60,613	51,928
Net income from operations	148	6,635
Investment income	12,852	15,986
Net income before the undernoted items	13,000	22,621
Net income of the Port of Montreal and the Port of Vancouver	14,941	34,882
Unusual item	(11,800)	–
Net income	16,141	57,503
Deficit at beginning of the year	185,542	243,045
Net income	16,141	57,503
	169,401	185,542
Deficit assumed by Montreal Port Corporation	(80,316)	–
Surplus transferred to Vancouver Port Corporation	67,436	–
Deficit at end of the year	156,521	185,542

Ports Canada 1981-1983 Year Review

(Excerpted from 'Five Year Review')

	1983	1982	1981
	(in millions except for vessel arrivals, ratios and number of employees)		
Financial results			
Revenue from operations	$202.2	$191.4	$183.9
Operating expenses	182.0	165.4	152.5
Operating income (loss)	20.2	26.0	31.4
Investment income	26.6	31.6	28.4
Net income (loss)	35.0	57.5	59.8
Funds provided by operations	68.0	75.7	71.5
Financial position at year end			
Working capital	$160.1	$145.8	$107.3
Fixed assets – at cost	892.9	850.6	752.4
Total assets	865.8	814.3	681.3
Equity of Canada	218.8	183.9	106.3
Capital expenditures	$74.6	$125.6	$65.0
Traffic (in metric tonnes)			
Grain	31.7	30.6	27.0
Bulk other than grain	94.7	88.9	114.2
Container	7.6	6.9	7.5
Other general cargo	9.9	10.6	11.8
Total	143.9	137.0	160.5
Vessel arrivals	28,438	29,550	33,031
Employees			
Average number of employees	1,695	1,760	1,766
Ratios			
Operating revenue/tonne	$1.41	$1.40	$1.13
Tonnes/employee	84,897	77,841	90,883

Port of Thunder Bay

(Extracts from 'Inside: Annual Report 1983, Port of Thunder Bay')

Chairman's review (extract)

Consistent with the general strengthening of the economy, the Port of Thunder Bay was able to record another record year for tonnage in 1983. Total tonnage passed the 23.5 million mark with a 5% increase over 1982. Grain was up 4% while its share of the total tonnage dropped marginally. Iron ore recorded a 75% improvement, forest products more than doubled, coal and potash maintained the 1982 volume. Petroleum products dropped over 50% as its source continued to move to the west.

The Port celebrated its earliest opening on March 25 as a result of an extremely mild winter, but was frustrated by having to start closing 10 days earlier than planned due to the onslaught of the extremely cold December. The shipping season, therefore, remained the same. The number of vessels entering the port with or for cargo dropped by 22 to 1,337.

Operating revenues increased 13% over 1982 while investment income dropped 31%, reflecting the weakening of interest rates during the year. Despite this, earnings for the year improved significantly from $219,406 in 1982 to $468,901. Over half of this increase can be accounted for by a 9% or $127,400 decrease in operating expenses.

The Lakehead Harbour Commission has, for two years, dedicated itself to the federally initiated restraint program and to an improvement in its operating efficiency without reducing maintenance and service. Such a program is not possible without the dedication of each and every member of our staff, both union and non-union. The Port has a team in which we are extremely proud and I am confident that it will continue to demonstrate that combination of determination and ingenuity which will assure the continued diversification and growth of our port.

We look forward to an exciting year of achievement in 1984. The Rail Issues Task Force which is now well established, has been charged with finding solutions, acceptable to both the community and industry, to the problems of an increasing volume of freight movement within the City. This unique approach to solving the problems of road and rail and, in our case, water interface within a growing municipal environment will produce an interim report in September. Its deliberations are being carefully monitored by the Federal Government and the Provinces of Ontario, Manitoba, Saskatchewan and Alberta.

We anticipate an increase in activity at Keefer Terminal this year. The Ro/Ro service between our Port and Windsor, started last year, has generated a new interest in general cargo movement on the Lakes. It is expected that a combination of services will result from the current discussions.

With the co-operation of Government, we plan to start Harbour Place, an office structure designed to house the regulatory agencies involved with the Port, an acknowledged move toward greater efficiency. We are also preparing to welcome the first tenant in Harbour Park, our light industrial development dedicated to the transportation industry.

With these and other developments our port will remain innovative, progressive and competitive. The Commission and its staff continue to be committed to improving the Port of Thunder Bay for the benefit of its users and operators.

Patrick J. Gilbride
Chairman
Lakehead Harbour Commission

Statement of earnings and surplus

for the year ended December 31, 1983

	1983 $000	1982 $000
Operating Revenue	1,888	1,671
Operating Expenses	1,353	1,481
Earnings before the following	534	190
Depreciation	290	277
Interest expense	34	38
	324	316
Earnigs (loss) from operations	209	(126)
Interest Revenue	259	372
Earnings before extraordinary item	468	246
Extraordinary item:		
Donation to City of Thunder Bay for purchase of emergency fire fighting equipment for waterfront	–	27
Net earnings for year	468	219
Surplus, beginning of year	922	702
Surplus, end of year	1,391	922

Balance sheets

as at December 31, 1983

	1983 $000	1982 $000
Assets		
Current:		
Cash	28	60
Short-term investments, at cost	370	301
Accounts receivable	278	352
Accrued interest	71	94
Prepaid expenses	6	12
Unallocated current assets	754	821
Harbour Development allocation	2,500	2,200
Total current assets	3,254	3,021
Fixed:		
Buildings, wharf and terminal, rail trackage and equipment, at cost	10,489	10,126
Less accumulated depreciation	4,845	4,582
	5,644	5,543
Breakwaters, dredging and land reclamation, at cost	11,259	11,259
	16,903	16,803
	20,158	19,825
Liabilities, Capital and Surplus		
Current:		
Accounts payable and accrued liabilities	58	100
Accrued sick leave credits		36
Deferred rental income	27	25
Long-term debt principal due within one year	64	59
Total current liabilities	150	222

(Continued on next page bottom)

Associated British Ports

(Extracts from 'Report and Accounts 1983, Associated British Ports Holdings PLC')

Chairman's review (extract)

The outstanding event of 1983 was, of course, the privatisation of the Company, including a major involvement of employees as shareholders. Privatisation has brought greater commercial freedom, allowing fuller use of our assets and expertise. This new freedom is already being turned to good account by our participation in a number of joint ventures: Mayflower Container Terminal Limited at Southampton, Southampton Freeport Limited, Lowestoft Container Terminal Limited and Universal Pipe Coaters Limited at Immingham.

Further substantial improvement

Following the strong recovery in the Company's performance in 1982, I am pleased to report a further substantial improvement in 1983. Pre-tax profit increased to £14.5 million in 1983 from £5.5 million in 1982 (equivalent to approximately £8.9 million if the new capital structure and the revised contractual and other arrangements coincident with privatisation had applied throughout 1982). After tax, the profit improved to £9.6 million from £5.8 million (£5.0 million on the basis of the revised arrangements).

Towards the end of the year there were welcome signs of an improvement in overall trading conditions although some sectors such as steel remained depressed. The nineteen ABP ports again succeeded in raising their total volume of business, which reached 82.6 million tonnes, an increase of 5.7 million tonnes on 1982 and the highest total throughput since 1976. Container and roll-on/roll-off traffic reached a new record level and there was increased activity from the offshore energy industries, for which several of our ports provided a variety of services.

Dividends

An interim dividend of 3 p was declared on 15 September 1983 and the Directors are recommending a final dividend of 5.5 p, making a total of 8.5 p net per share in respect of 1983. A total dividend of not less than 7 p per share was foreshadowed in the Offer for Sale at the time of the privatisation of the Company.

Southampton

At Southampton, the joint venture with the C.Y. Tung Group of Hong Kong, Mayflower Container Terminal Limited, began operation and has quickly established itself by attracting important new business in the North Atlantic and South American trades. Substantial tonnages were handled through the two new grain terminals at the port.

An important development since the end of the year was the selection of Southampton as the site for one of Britain's first freeports. Southampton Freeport Limited is another of the new joint ventures which were initiated during 1983. Our partners are Trafalgar House, Ocean Cory and Kleinwort Benson. Preparations are in hand for freeport operations to start during the second half of 1984, but of course it will be some time before the full potential of the freeport is realized.

Humber Ports

Our Humber Ports, with the exception of Hull, had another excellent year. At Grimsby and Immingham traffic reached record levels. At Immingham we established a new joint venture with Humberside Sea and Land Services Limited, which is partly owned by Powell Duffryn. The new company, Universal Pipe Coaters Limited, has expertise in the coating of onshore and offshore pipelines, and is strategically positioned to benefit from the expected renewal of activity in the southern part of the North Sea. Goole continued to attract new business, and we are pursuing an active investment programme to improve facilities at the port.

The trading situation at Hull was adversely affected by an industrial dispute, which led to a significant reduction in revenue. The dispute ended in September with the acceptance of improvements in productivity as the basis for a pay increase, but inevitably it is taking some time for the port's business to be rebuilt. By the end of the year there were encouraging signs of trade returning to the port.

South Wales Ports

Comparison of results for our South Wales Ports is complicated by the settlement of revised terms for the commercial agreement with the British Steel Corporation which took effect in January 1983. Reduced revenue of approximately £2 million per annum from the facilities at Port Talbot has to be set against the cash receipt of £24.5 million which is dealt with in the extraordinary items in the 1983 accounts.

Excluding Port Talbot, the South Wales Ports showed welcome progress in both financial and traffic terms. Newport benefited from increased exports of cars to the Middle East and increased imports of cars from Japan, and from an expansion of operations at the timber terminal. Although the position at Barry remained difficult, steady progress was made at Cardiff in expanding the port's traffic base. For the longer term there are prospects of additional revenue from the use of some 70 acres of the Company's land at Cardiff under the Dockland Development Scheme. In January 1984 the Company, together with The Land Authority for Wales and South Glamorgan County Council, announced that Tarmac had been selected as the developer for this £50 million scheme. In addition, freeport facilities in Cardiff should provide a stimulus to trade at the port.

(Continued from page 20)

Long-term debt:		
Loan payable to the Government of Canada	418	478
Less amount included in current liabilities	64	59
	354	418
Capital account:		
Fixed assets contributed by the Government of Canada	18,261	18,261
Surplus	1,391	922
	20,158	19,825

Other Ports

The Group's nine Other Ports had another successful and profitable year. At Lowestoft, a new container terminal was established in a joint venture with the Coastal Container Holdings Group, a company with which we have had a long association at our port of Garston on Merseyside.

Employee Share Ownership Scheme

The current Employee Share Ownership Scheme has been widely welcomed by our employees and the Directors are convinced that a significant employee shareholding is an excellent means of encouraging a positive involvement in the success of our enterprise throughout the organization. A further issue of shares to employees is to be made in May on the 'matching offer' principle, under which employees are issued with one free share by the Company for every share for which they subscribe at market value.

The Directors will seek approval at the Annual General Meeting for an extension of the Employee Share Ownership Scheme in future years.

Outlook

The overall level of business in the early months of 1984 has been satisfactory, except that the present dispute within the coal industry is resulting in reduced coal exports through our ports. The impact of the coal industry's problems on our business will depend primarily on how long the dispute continues.

Otherwise, the outlook for the year as a whole offers prospects of a further expansion in the Company's business. Over the longer term, developments during the past year have strengthened and broadened the Company's potential for growth.

Keith Stuart
Chairman

Consolidated profit and loss account

for the year ended 31 December 1983

	1983 £000	1982 £000
Turnover	154,359	152,272
Cost of sales	(111,614)	(111,705)
Gross profit	42,745	40,567
Administrative and other general expenditure	(28,171)	(29,021)
Operating profit	14,574	11,546
Investment income	2,389	1,143
Profit before interest and taxation	16,963	12,689
Interest payable and similar charges	(2,493)	(7,157)
Profit on ordinary activities before taxation	14,470	5,532
Taxation	(4,904)	315
Profit on ordinary activities after taxation	9,566	5,847
Extraordinary items (net of taxation)	8,665	–
Profit for the financial year attributable to shareholders	18,231	5,847
Dividends paid and proposed	(3,400)	–
Retained profit for the year transferred to reserves	14,831	5,847
Earnings per share	23.9p	

Balance sheet

as at 31 December 1983

	Group		Company	
	1983 £000	1982 £000	1983 £000	1982 £000
Fixed assets				
Tangible assets	162,291	160,166	–	–
Investments	295	295	131,000	131,000
	162,586	160,461	131,000	131,000
Current assets				
Stores and materials	2,801	2,847	–	–
Debtors	30,221	31,542	3,204	7,500
Investments	14,567	10,200	5,717	5,000
Cash at bank and in hand	988	654	65	–
	48,577	45,243	8,986	12,500
Creditors (amounts falling due within one year)	(20,873)	(24,435)	(3,723)	(7,500)
Net current assets	27,704	20,808	5,263	5,000
Total assets less current liabilities	190,290	181,269	136,263	136,000
Creditors (amounts falling due after more than one year)	(16,441)	(18,400)	–	–
Provisions for liabilities and charges	(9,242)	(13,478)	–	–
Deferred income	(12,569)	(12,059)	–	–
	152,038	137,332	136,263	136,000
Capital and reserves				
Called up share capital	10,000	2,500	10,000	2,500
Share premium account	46,375	54,000	46,375	54,000
Stock redemption reserve	777	738	–	–
Profit and loss account	94,886	80,094	79,888	79,500
	152,038	137,332	136,263	136,000

Financial record

	1983 £m	1982 £m	1981 £m	1980 £m	1979 £m
Turnover	154.4	152.3	128.3	136.9	131.2
Operating profit (before exceptional items)	16.5	15.1	2.3	14.9	26.7
Exceptional items	(1.9)	(3.6)	(7.0)	0.7	1.8
Operating profit/(loss)	14.6	11.5	(4.7)	15.6	28.5
Investment income	2.4	1.1	1.6	3.8	2.5
Interest payable and similar charges	(2.5)	(7.1)	(7.2)	(7.9)	(8.6)
Profit/(loss) on ordinary activities before taxation	14.5	5.5	(10.3)	11.5	22.4
Profit/(loss) on ordinary activities after taxation	9.6	5.8	(8.8)	8.0	16.2
Extraordinary items (net of taxation)	cr. 8.6	–	–	–	–
Fixed assets	162.6	160.5	162.2	164.1	163.0
Net current assets	27.7	20.8	20.6	30.2	33.5
Creditors (amounts falling due after more than one year)	(16.4)	(18.4)	(1.3)	(5.1)	(8.0)
Provisions for liabilities and charges	(9.3)	(13.5)	(13.5)	(13.0)	(12.6)
Deferred income	(12.6)	(12.1)	(11.7)	(10.9)	(10.4)
Total net assets	152.0	137.3	156.5	165.3	165.5

Port of Gothenburg

(Extracts from Arsberattelser 1983, Goteborgs Hamn och Goteborgs Frihamns AB')

Summary

The port is very sensitive to changes in the economic situation. 1983 was a relatively good year for the Nordic industry which mean an increase of the port activities mainly based on the export cargo, while the import – compared to 1983 – was approximately equal to the year before. An overall increase of approximately five per cent (from 22.7 million tonnes 1982 to 23.9 million tonnes 1983).

But improved export and import was not the only reason why the consolidated result for all port activities was positive in 1983. Continuous rationalization including a total reconstruction of the stevedoring company's financial side have to a substantial part brought about the positive trend.

Joint forces

New aims were set up when the decision was taken that the Port of Gothenburg and the Gothenburg Stevedoring Company join forces to become Port of Gothenburg AB as of January 1st, 1985 – a joint, and totally coordinated effort on the market to further develop the port as the central Nordic port. A customer orientated, strongly decentralized organization is the hallmark of the new profile.

New wage system

To further strengthen the port activities, a new wage system has been introduced.

The initiating of a bonus wage system has created increased motivation, productivity utilization of resources, profitability as well as service.

The effects of the bonus wage system – showing after nine months an overall productivity increase of approximately 15 per cent – has so far generated faster service at lower costs to the customer, increased wages for the employees and better profitability to the port as a whole.

Flexibility, adjustment and confidence

In conclusion can be stated that the port, in view of the rather drastic structural changes that take place internally as well as within the liner industry and in the Nordic export industry as a whole, will meet tough demands on flexibility and adjustment.

Port business is to accept changes as a part of life, and to develop an organization flexible enough to absorb those changes.

We look at the future with confidence!

Profit and loss account

for the year ended 31 December 1983

	1983 kkr 1,000 SEK	1982 kkr 1,000 SEK
Operating revenues:		
Rents	24,638	25,591
Port charges on ships	43,809	38,107
Port charges on cargo	63,034	56,048
Cranage	22,872	22,672
Sundry services and facilities	4,797	4,398
Interest and misc.	8,610	9,182
	167,760	155,998
Works on contract	36,560	53,945
	204,320	209,943
Operating and general expenditures	−99,008	−84,237
Expenditure for works on contract	−36,560	−53,945
Operating profit before depreciation and interest	68,752	71,761
Ordinary depreciation	−20,644	−19,495
Extraordinary depreciation	− 6,650	−11,900
	41,458	40,366
Interests	−41,449	−40,357
Net profit	9	9

Five year operating results

(Million SEK)

	1983	1982	1981	1980	1979
Gross operating revenue	204.3	209.9	169.3	141.9	124.0
Operating Costs	−135.5	−138.1	−107.1	− 89.4	− 78.6
Operating profit before depreciation	68.8	71.8	62.2	52.5	45.4
Depreciation	− 20.6	− 19.5	− 18.0	− 17.3	− 16.9
Profit after depreciation	48.2	52.3	44.2	35.2	28.5
Interests	− 41.5	− 40.4	− 37.7	− 29.9	− 25.3
Profit after Depreciation and interests	6.7	11.9	6.5	5.3	3.2
Deferred expenses	− 6.7	− 11.9	–	–	–
Profit after deferred expenses	–	–	6.5	5.3	3.2

Balance sheet

as at 31 December 1983

	1983 kkr 1,000 SEK	1982 kkr 1,000 SEK
Assets		
Current Assets		
City of Gothenburg	65,879	80,855
Cash balance	13	14
Postal cheque account balance	810	3,602
Bank balance	7,427	6,256
Accrued income	38,098	28,487
Accounts receivable	25,815	27,414
Stores and materials on hand	165	204
Total	138,207	146,832
Fixed Assets		
Long term receivables:		
City of Gothenburg (Net profits, Amount accrued)	543	543
Gothenburg Free Port Company Ltd.	750	1,500
Facilities:		
Land, buildings, etc.	641,577	593,393
Cranes, vessels, dredgers, etc.	43,538	39,614
Total	686,408	635,050
Grand total	824,615	781,882
Liabilities, Capital Reserves and Net Profit		

(Continued on next page bottom)

Port of Helsingborg

(Extracts from 'Annual Report 1983, Port of Helsingborg')

Finance

The market situation has shown a slight improvement during 1983. Port of Helsingborg maintained its position rather well apart from the decline in cargo throughput that a fall in trade between Helsingborg and Travemünde caused. Thus the total cargo throughput became somewhat less in 1983 and reached 8.3 million tonnes compared with 8.5 in the year before. The throughput is by that the second best in the history of the port, though.

The economic return for the year is better than in 1982 and satisfactory. The improved result is credited to savings and increased income. Furthermore towing operations showed profit.

Revenue account

for the year ended 31 December 1983

	1983 KSEK	1982 KSEK
Operating Revenue:		
Rents	9,312	9,134
Port Dues		
Ships	6,912	6,457
Cargo	38,077	36,384
Cranage	4,157	3,922
Towage	7,242	7,877
Works on Contract	1,997	2,925
Interest and Misc.	2,301	2,134
	69,998	68,833
Operating Costs and General Expenses	−34,468	−35,096
Operating Income before Depreciation	35,530	33,737
Depreciation according to Plan	− 7,712	− 7,342
Operating Income after Depreciation according to Plan	27,818	26,395
Interest Income	301	375
Interest Expense	−21,594	−26,962
of which capitalized for West Harbour	18,375	16,597
Exchange Loss	−12,500	−11,052
	−15,418	−21,042
Income after financial Items	12,400	5,353
Extra Depreciation	− 5,645	− 5,700
Nett Profit (Loss) for the year	6,755	− 347

Balance sheet

as at 31 December 1983

	1983 KSEK	1982 KSEK
Assets		
Current Assets		
Cash, Bank, Postal Deposits	355	98
Interim Income	552	13,220
Other Receivables	14,380	8,524
Stores	1,267	1,062
Total Current Assets	16,554	22,904
Fixed Assets		
Long-term Receivables Bogser AB	1,690	1,973
Facilities		
Land, Buildings, etc.	318,173	293,866
Cranes, etc.	13,062	14,803
Capital Stock	6,971	6,971
Total Fixed Assets	339,896	317,613
Total Assets	356,450	340,517
Liabilities, Capital Reserves		
Current Liabilities	−	30,100
Interim Expenses	1,890	1,548
Total Current Liabilities	1,890	31,648
Long-term Debt		
Installment Loans	242,822	203,886
Capital Reserves, etc.		
Reserves in Fixed Assets	97,074	113,727
Investment Reserve	227	2,346
Exchange Loss Fund	23,552	23,552
Budget Adjustment Item	− 9,115	−34,642
Total Capital Reserves	111,738	104,983
Total Liabilities, Capital Reserves and Nett Profit	356,450	340,517

(Continued from page 23)

Current liabilities		
Accrued expenses	42,500	46,507
Creditors	12,313	7,933
Reserve for depreciation of equipment on hand	99	134
Total	54,912	54,574
Capital liabilities:		
Share of municipal bond loans	493,053	440,537
Capital reserves, etc.		
Reserves tied up in fixed assets	192,063	192,470
Investment fund	84,044	93,758
Budget equalization fund	543	543
Total	276,650	286,771
Grand total	824,615	781,882

Financial analysis

(Million SEK)

	1983	1982	1981	1980	1979
Funds provided from:					
From operating profit	56.4	71.8	62.2	52.5	45.4
Facilities sold out	0.2	8.4	−	−	0.3
Decrease in long term receivables	0.8	0.4	−	−	−
Contributions to fixed capital	10.7	6.8	15.2	1.1	1.9
Loans	93.7	45.6	41.6	44.6	52.0
Total	161.8	133.0	119.0	98.2	99.6
Funds applied to:					
Fixed capital expenditure	102.3	63.1	63.5	59.8	54.9
Increase in long term receivables	−	−	−	−	−
Amortizations on loans	27.0	23.7	18.6	14.8	14.0
Interests on loans	41.4	40.4	37.7	29.9	25.3
Total	170.7	127.2	119.8	104.5	94.2
Specification of changes in working capital:					
Stock	−	− 0.1	−	− 0.1	−
Short term receivables	+ 8.0	+ 2.4	+ 5.1	+ 10.6	+ 8.4
Short term liabilities	− 0.3	− 2.4	+ 23.9	− 35.1	+ 0.6
Balance of municipal cash acct	− 15.0	+ 2.4	− 31.7	+ 20.7	− 6.4
Bank cash balance	− 1.6	+ 3.5	+ 1.9	− 2.4	+ 2.8
Total	− 8.9	+ 5.8	− 0.8	− 6.3	+ 5.4

Profit development

(KSEK)

	1983	1982	1981	1980	1979
Gross Operating Revenue	69,998	68,833	51,609	46,929	44,133
Operating Income before Depreciation	35,530	33,737	16,858	14,518	16,886
Operating Income before financial Items	22,173	20,695	7,088	6,035	9,250
Nett Profit (Loss)	6,755	– 347	–3,995	2,233	6,948

Cargo

The total amount of seaborne trade in 1983 became somewhat less than in the year before. By a fall of 3.4 per cent the volume came to 8,268,739 tonnes in all (8,562,243). However, the result is the second best in the history of the Port. Dry cargo arrived at 7,569,154 tonnes (7,853,289). As of late years, the decline in oil trade continued, and the throughput at the Oil Terminal fell to 699,585 tonnes (708,954).

Railway ferried cargo accounted for the best trade progress of the year, and rose by 9.5 per cent to 2,205,820 tonnes (2,014,736). Grain and coal increased with 86,000 tonnes in all. The container trade at the Skane Container Terminal rose by 3.5 per cent, and conventionally handled general cargo increased by 2 per cent.

The trade at the Copper Works Harbour increased by 1.4 per cent to 1,885,059 tonnes (1,858,247).

Units

By tradition Helsingborg is the hub in Sweden for seaborne cargo by ferries and RoRo ships. The various ferry lines based on the Port have frequent sailings and perform speedy transports. The car ferried cargo operated by the SJ/DSB and SFL came to a total of 1,996,556 tonnes in 1983, compared with 2,303,332 in the previous year. The drop was partly compensated for by an increase in ferried railway cargo by 9.5 per cent to 2,205,820 (2,014,736). The number of ferried rail cars rose by 4.4 per cent and reached 191,482 as against 183,359. The throughput in the Container Harbour Skäne-Terminalen increased by 3.5 per cent.

The number of containers, flats, trailers and lorries handled by the Port came to a total of 357,337 TEU in 1983. Of this the RoRo units arrived at 318,089 while containers and flats reached 39,248 TEU.

West Harbour

The West Harbour development, construction work of which started in October 1980, has proceeded according to plan in the period. The entire area of about 160,000 sq.m has been reclaimed, and the wharfs in the two harbour basins are completed. The concrete deck on the long pier, made up from huge caissons, is nearly completed.

The Port Board has decided to make necessary alterations of the port traffic as the West Harbour will come into use. The decision implies that the West Harbour will be completely equipped to service both LoLo and RoRo vessels right from the beginning. The Skane Container Terminal is to be transformed into a multi-purpose terminal, supplemented with general cargo cranes now in use at the 600 wharfs. The Board decision means further that the exclusive use of the sheds Nos. 603 and 604 will be

(Continued on next page bottom)

Port of Tauranga

(Extracts from 'Port of Tauranga Annual Report 1983, Bay of Plenty Harbour Board')

Chairman's report (extract)

Trade

The continuing world recession combined with the debt-servicing problems of some developing countries resulted in a fall in world trade volumes in 1982, the first since 1975.

It is now generally accepted that the effective functioning of the world trade and financial systems depends on the participation and economic health of developing nations as well as of the industrial (OECD) nations. The importance of international economic linkages must not be overlooked – these help to shape individual country economic performance at home and abroad.

World trade is the key to economic recovery and growth. And the key to a full and free trading system is the lowering of tariffs and the dismantling of quotas.

A recovery of demand and production in the OECD countries now appears to be under way and the trough of the recession, for the bigger economies, was probably passed earlier this year. However, the recovery is likely to be relatively slow, reflecting individual country conditions and policies.

Against a background of contracting access to New Zealand's traditional export markets for agricultural products and an international trading system that has been under pressure for three years, the Port of Tauranga has facilitated the development of new markets and helped to maintain New Zealand's competitive edge in other markets, especially in the Pacific Basin and the Middle East. Without a sound operational and financial base the Port would have been hard-pressed to offer the facilities and to perform the services Port Users needed under the difficult trading circumstances that characterized the 1982/83 trading year.

Total cargo for the year was just over 2.8 million tonnes, about 270,000 tonnes less than last year and 118,000 tonnes less than our 1982/83 operating plan. Lower woodpulp and paper exports and lower petroleum imports were the main reasons for the less than expected level of trade.

Total inwards trade was the lowest since 1977 and reflected the lower level of economic activity; at less than 1.3 million tonnes, trade was 10.2% down on last year.

Export trade in total was 7.6% down on last year and 3.1% less than our 1982/83 operating plan. While pulp and paper supply disruptions at home and increased competition in New Zealand's traditional forest product export markets accounted for this lower level of trade, a number of encouraging trends occurred during the year:

* steel exports (to South-East Asia) were up on last year,
* dairy exports were up by 25,000 tonnes,
* kiwifruit exports (to Europe and Japan) while still only a relatively small share of the export crop, increased,
* meat exports (primarily to the Middle East and the Soviet Union) in conventional reefer ships began to be scheduled through the Port in the second half of the year, and
* the number of containers handled by the Port trebled.

While these developments are naturally pleasing, it seems to me that some of our exporters are slower than others to make full use of the benefits and savings this Port has to offer – perhaps it is not until international competition compels greater cost savings that exporters begin to look for better ways of shipping their products to market; not only from the Port outwards but also from the point of production to the Port ... we have room for them all.

In my view, the great untapped resource of the Port of Tauranga is its ability to expeditiously and economically handle containers. However, I have confidence that with a more competitive inland transport system, the exporter, importer and ship-owner will make better use of the Port's container handling capabilities.

Industry Developments

In April the findings of the Central North Island Planning Study were unveiled – the aim of this study was to alert industry and government to forestry and transport related issues arising as a result of the enormous increases in timber that will become available within this region in the mid 1990's. Regrettably, the study completely failed to throw any additional light on the potential problems relating to transport issues. It is evident to me that those involved did not understand the concepts and practicalities of an integrated transport system (and certainly the role of ports in this system). We had hoped that the outcome of the study would be of assistance to the Board in formulating our long term plans but it has added nothing of consequence to industry knowledge – certainly as far as inland transport and port facilities are concerned.

An additional 2.0 million cargo tonnes per annum of processed forest products will need to be moved to overseas markets in the late 1990's (and may be earlier). This is the magnitude of the problem – and it must be remembered that it is by no means easy to set up and operate an efficient and economic transport system ... by way of comparison., total New Zealand agricultural and primary product exports are less than 2.5 million tonnes and this is spread throughout both Islands.

What is required is an integrated transport system tailored to the needs of the forestry industry. This means men, machines and money of a scale yet to be determined. From our own experience in assisting the establishment of the existing forestry export trade at the Port of Tauranga, events can quickly overtake you. If this occurs within the transport system the very viability of the whole trade is

(Continued from page 25)

granted the farmer association of Skänska Lantmännen, thus taking control of the entire wharfs mentioned.

It is the intention to start operations in the West Harbour by the end of 1984. At that time cranes, sheds, offices and terminal paving will be in proper place. The West Harbour will have a maximum water depth of 13 m. The terminal is equipped with 3 wide RoRo ramps.

The West Harbour has already been used for its purpose. The first call occurred on March 13, when the Greek vessel "Tzelepi" of 16,300 dwt was in need of 12 metres depth. She was thus towed into the West Harbour for loading of 2,500 tonnes of heavy chemicals.

threatened. We cannot allow this to happen and the Bay of Plenty Harbour Board will continue to involve itself in these transport issues.

Earlier in the year the Ministry of Transport released a discussion document called "Towards a New Zealand Shipping Policy." My Board responded to the Ministry's invitation to comment in the expectation that the development of a shipping policy will help to shape New Zealand's trading future and perhaps also have some impact on the trading policies of our trading partners. The Board's submission was based upon two fundamental principles:

* a small nation such as New Zealand, with an outward facing economy, must foster free access to foreign markets for its exports and be able to buy foreign goods and services, which it is unable to efficiently produce, at the lowest prices; and
* New Zealand's interests are best served by multilateral co-operation within international organizations which apply their own weight as an essential part of such co-operation.

The Harbours Act, the principal statute governing harbour administration, is in urgent need of revision. Changes are necessary to allow port authorities greater commercial freedom in establishing charges, for their services and facilities, that are more in line with the accepted commercial practices of other links in the international transport system.

The Future

The kiwifruit industry (which on official projections is estimated to have an export production in 1992 equal to the current total volume of wool exports) is in the process of deciding the best way to ship fruit to market. The meat industry is also considering its future shipping needs. Indeed, one salutary outcome of the current world-wide recession has been the need for shippers and shipowners everywhere to reappraise traditional shipping practices with the idea of doing more with less. This must also be the aim of port authorities.

As long as the Port of Tauranga can continue to provide facilities and services that qualify it for inclusion in the transportation system providing the lowest total transport costs, its future will be assured.

R.A. Owens
Chairman

Statement of Corporate Principles

Introduction

The Bay of Plenty Harbour Board has evolved certain standards by which it conducts its affairs and meets its obligations to the business and non-business communities it serves. It will be of interest to all port users, others with whom we have a business relationship, our staff, and to the community at large to know the general business principles we endeavour to follow.

Objective

The principal objective of the Bay of Plenty Harbour Board is to provide, maintain and operate the facilities and services of the Port of Tauranga for the expeditious and economic movement of cargo so that maximum benefit is created to all port users.

Responsibilities

The Bay of Plenty Harbour Board recognizes and accepts as an inseparable whole its interdependent responsibilities to:–

Port Users: to develop and provide facilities and services which are acceptable in terms of price and quality. In order to guarantee the future of the Port of Tauranga we must create benefit for port users, maintain their support and goodwill, and obtain adequate payment for the facilities and services we offer.

Employees: to ensure that employees have good and safe working conditions and fair remuneration, to promote the development and best use of employee talent and potential, and to encourage employee involvement in the planning and direction of their work, recognizing that our success depends on a high standard of performance and integrity from all employees.

Society: To protect the investment of public funds, to provide facilities and services in a manner which is in keeping with good corporate citizenship, safety, and social and environmental standards, and to acknowledge our special role in the economic life of the community.

Port Investment and Profit

We recognize that in order to carry out our responsibilities and to ensure a long-term role for the Port, the Board must earn sufficient surplus funds from Port operations to enable it to provide a reliable service to port users, to provide the finance necessary to enable it to respond effectively to the requirements and preferences of those users, to provide satisfying and rewarding employment, to achieve a fair return on the public's investment, and to perform any other kind of worthwhile service to society.

The criteria for investment decisions are essentially economic but will always include full consideration of social, moral and environmental factors.

International Trade and Economic Development

In concert with achieving the Bay of Plenty Harbour Board's objectives in a commercially sound and socially responsible manner, the Board acknowledges that there is a responsibility to promote international trade and economic development and, where we have a contribution to make based on particular knowledge, to speak out and contribute to public thinking on matters which affect the general interests of port users, employees, and the community.

Recognizing that ports have a large part to play within the economy of the country, and also in responding to and generating international trade and economic development, the Board believes that the interests of the port user, international trade, and economic development are best served if the degree of government regulation is kept to a minimum and that business and investment decisions be taken on normal business criteria.

It is the Bay of Plenty Harbour Board's view that the administrative and operational aspects of the Port of Tauranga are best served by regular consultation with all involved parties.

Information

The importance of our activities and their impact

on international trade, economic development and on individuals is well recognized. In the promotion of a greater understanding of our activities, full relevant information is available to legitimately interested bodies, subject to the over-riding consideration that we observe the confidentiality proper to the protection of our business and the interests of port users with whom we deal.

General Community Activities

The most important contribution that the Bay of Plenty Harbour Board can make to the social and material progress of New Zealand is to perform its prime activities in the most efficient manner. Nevertheless, the Board recognizes that there is a need to take a constructive interest in social developments in the community in which we do business, such as encouraging the recreational use of the harbour. We endeavour to fulfil these responsibilities in areas where the Board's contribution can be most effective.

Conclusion

We believe the observance of these broad principles and responsibilities in our day-to-day business will enable us to achieve our stated objective.

Balance sheet

as at 30 September 1983

	1983 NZ$000	1982 NZ$000
Current Assets		
Cash and Deposits	3,334	3,718
Debtors	1,416	1,026
Prepayments	111	57
Stores and Materials	593	639
	5,455	5,441
Less Current Liabilities		
Prepayment		13
Creditors	126	185
Net Loans Repayable within 1 year	2,217	1,447
Working Capital	3,111	3,795
Investments	2,155	1,139
Fixed Assets		
Wharves	13,019	
Land Endowments & Reclamations	11,105	
Buildings	8,982	
Harbour Improvements	13,249	
Floating Plant & Equipment	11,256	
Shore Plant & Equipment	3,976	
Vehicles	447	
Capitalized Interest	446	
Waterfront Industry Commission Building	77	
Caltex Oil Pipelines	19	
	62,581	53,543
	67,848	58,477
Less Term Liabilities		
Net Public Debt	14,678	16,697
Deferred Payment – Land	941	954
	52,228	40,825
Total Net Assets Represented by:		
Public Equity	30,352	28,818
Revenue Reserves	2,155	1,139
Asset Revaluation Reserves	19,720	10,868
	52,228	40,825

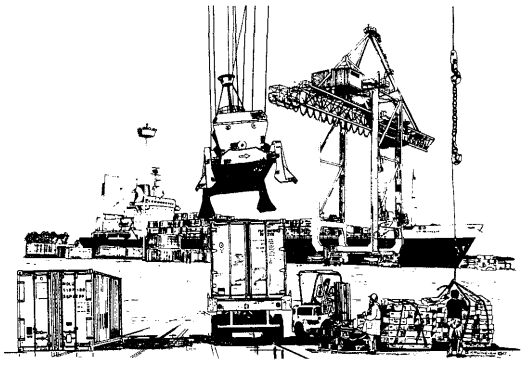
Revenue and appropriation account

for the year ended 30 September 1983

	1983 NZ$000	1982 NZ$000
Port Operations		
Revenue		
Cargo Charges	7,175	7,369
Ships Charges	3,349	3,032
Plant Hire	609	641
Sundry Revenue	206	181
	11,340	11,224
Less Expenses		
Operating Expenditure	6,728	6,407
Depreciation	1,541	1,266
Interest	1,772	1,767
Others	43	46
	10,085	9,488
Net Revenue from Port Operations	1,255	1,735
Other Income		
Interest on Investments	824	649
Income from Rentals	368	341
	1,193	991
Exceptional Items		
Contributions – Marina Berth-holders	152	1,440
Loss on Disposal Fixed Assets	(21)	(4)
Revenue before Appropriation to Reserves	2,580	4,163
Revenue Appropriated to		
General Reserves	973	66
Plant Reserves	43	39
Balance	1,563	4,057
	2,580	4,163

Five year operational comparisons

	1979	1980	1981	1982	1983
Finance (NZ $000's)					
Total operating revenue	8,461	9,667	9,337	11,224	11,341
Total operating expenses	6,587	7,838	8,934	9,488	10,086
Net operating revenue	1,874	1,829	403	1,736	1,255
Capital expenditure	6,833	4,790	1,288	2,422	1,512
Long-term debt	18,560	19,326	18,449	17,652	15,620
Total capital employed	40,287	43,737	49,623	58,478	67,849
Net operating revenue plus debt interest as % of total capital employed	8.3%	7.8%	4.5%	6.0%	4.7%
WEALTH CREATED	8,390	9,813	9,045	11,116	11,068
Wages, salaries, related benefits	3,602	4,404	4,813	5,344	5,469
NUMBER OF EMPLOYEES	237	236	222	210	208



Port of Lyttelton

(Extracts from 'Annual Report 1983, Lyttelton Harbour Board')

Chairman's review (extract)

Trade and finance

It is pleasing to be able to report that the Port of Lyttelton handled 2,104,180 tonnes of cargo and achieved a net revenue of $1,186,839 during the year ended 30 September 1983. The amount of cargo handled was within 170,000 tonnes of the 1974 record, which was achieved when the Lyttelton-Wellington inter-island steamer express service was still operating.

Although the amount of cargo handled was 103,841 tonnes more than in 1981 ~ 82, it was achieved despite a decline of 16,962 tonnes in the amount of coal exported from the Port. However, 224,542 tonnes of coal was exported and this remains a most important trade for Lyttelton.

The accounts reflect a period during which charges remained static and the wage and price freeze helped to stabilize costs. Charges have not been increased since 1 December 1981 and, as the freeze did not take affect until 23 June 1982, there was a period of almost seven months when charges were fixed at a lower level than was desirable. Nevertheless, the financial results were creditable and that can be attributed to firm management control and greater cargo throughput.

The Board's requirement to generate funds for capital development and plant replacement, as well as loan repayments and exchange losses, is substantial. During the 1982 ~ 83 year, insufficient funds were generated to enable the levels of appropriations to Reserves which had been desired. In view of this continuing mild cash deficiency and the uncertain economic and trade future, all new expenditure will require the most careful consideration and clear justification.

New trade links

Six new trade links were established during the year. There was a revival of the link with Chile, the inauguration of a specialized completely-knocked-down car pack and completely-built-up car delivery service from Japan, a new trans Tasman container link, a regular Lyttelton-Wellington service, a link with Mauritius and East African ports and a bi-monthly service to the Arabian Gulf via Singapore and Malaysia.

Container Terminal

Ship exchanges numbered 25,963 TEU's, representing a 6.4 per cent increase on the previous year, during the year under review. The adverse effects of the cessation of Farrell Line calls to New Zealand and the sharing of the Blue Star – OCL Middle East trade with Port Chalmers were counterbalanced by the establishment of the Australian National Line – Shipping Corporation of New Zealand trans Tasman service and better-than-budgeted support from ANZECS.

The number of ship calls increased form 82 to 91 – an 11 per cent rise. The number of LCL containers handled through the Container Freight station was 2098 – 13 per cent less than in the previous year.

Liquefied petroleum gas

The report of the Commission of Inquiry, published in December 1982, gave justification to the policy of the Board that, provided proper safety standards and requirements were fully met, LPG could be handled through Lyttelton at the existing Oil Wharf. The commission stated that ships could be manoeuvred in and out of the Inner Harbour with safety and that a finding that the use of the Oil Wharf by the LPG ship would be unsafe was not justified.

One member of the commission took the view that the Naval Point site would be safer, but accepted that the feasibility of a berth at Naval Point had not been established.

In that connection, the commission recommended that the Minister of Energy advise the Lyttelton Harbour Board that further investigations associated with a possible bulk liquids berth at Naval Point should be undertaken by the Board as a matter of priority.

The commission recorded, however, that even if a bulk liquids berth was established at Naval Point, it was a matter of speculation whether it would make the Liquigas operation safer.

A.R. Champion
Chairman

Revenue & appropriation account

for the year ended 30 September 1983

	1983 $000	1982 $000
Port Operations		
Revenue		
Port Installations and Services	4,029	3,494
Wharfage	4,713	4,543
Harbour Improvement Rates	679	654
Cargo Services	3,619	3,483
Container Services	10,802	10,059
Pleasure Craft Fees & Licenses	28	30
Sundry Revenue	9	11
	23,881	22,276
Less Expenses		
Port Installations & Services	5,473	5,073
Cargo Services	3,465	3,248
Container Services	9,146	8,533
Depreciation	937	1,072
Interest	2,186	2,080
Administration	1,601	1,557
Other	57	56
	22,868	21,623
Net Revenue from Port Operations	1,012	653
Other Income		
Interest	258	599
Rents	375	356
Less expenses including Depreciation	73	57
Net Income from Rents	301	298
	559	898
Net Revenue Before Exceptional Items	1,572	1,551
Exceptional Items		
Net gain/(loss) on disposal of fixed assets	4	7
Realized exchange gain/(loss) on overseas loans	–	(4,106)

(Continued on next page bottom)

Port of Napier

Chairman's review (extract)

for year ended 30 September 1983, Hawkes Bay Harbour Board

International shipping and trade has been depressed over recent years and the worsening economic recession during 1982 did not provide us with a great deal of optimism at this time last year. The reduction in exports to many of our traditional markets was fully recognised by the Board and our projections were tailored to these negative factors. Therefore, the Board's estimates of trade and finance for 1983 were adopted only as a result of a cautious and realistic approach to the year ahead.

Despite those earlier concerns, I am pleased to report a record cargo throughput of 1,412,782 tonnes for the year, an increase of 63,630 tonnes over 1982. The highest throughput previously was 1,406,431 tonnes in 1981.

This is an excellent result, and it is particularly encouraging because the growth has occurred mainly in traditional cargoes. Shipping and cargo traffic improved as a whole with the main growth being in overseas exports of wool, frozen meat, woodpulp and timber. A substantial reduction in coastal trading of petroleum products was compensated by overseas supplies. The increased trade was reflected by the level of port activity in all its associated areas, especially shipping services, cargo services, the utilisation of waterfront labour and the use of Board plant and equipment.

The past year also provided the Board with improved financial resources. Revenues from port operations improved by 16% to $7.8 million, while expenditure of $8.5 million was 11% above 1982 results. After taking all income into account, rents investments, sale of land and farming activities, the Board had an overall surplus of $533, 111 compared with $488,713 in 1982.

Adding back depreciation of $1 million, the revenues available were applied towards:

a) Port operations generally.
b) The ongoing repayment of loans raised in previous years.
c) Capital expenditure on port facilities and other assets.

Only minimal new works were undertaken during the year. Capital expenditure totalled $1.5 million, which included completion of the extension of Kirkpatrick Wharf, land development, the purchase of a new 25 tonne capacity forklift and work at the Inner Harbour. This expenditure was met from loan finance, reserves and revenues.

The Board's endowment lands continued to provide a vital contribution towards the overall finances. Income from rentals and farm operations of $790,000 was derived from this source.

As an efficient and responsible port authority, the Board believes it is necessary to be fully aware of the needs of its customers – the port user. The Board places particular importance on the need to develop and promote new trades through the port as well as retaining its existing ones. With the changing patterns of international trading there is an even greater need to keep up to date with shipping trends and diversification of markets generally and the Board has maintained its contact with users, both within New Zealand and overseas.

It is appropriate that I should refer to a review of our management structures and systems which was undertaken by the Audit Office. This was a "first" for any harbour board in New Zealand and the Board's decision to commission the review was taken in response to a request from the Audit office for an opportunity to review a harbour board's operations. I am pleased to report that general conclusions of the Review confirmed the Board's management structures and information systems as being well established and sound.

On 31 March Mr. N. de V. Lawrence retired as General Manager to the Board. The sincere thanks and appreciation of the Board is recorded for the long and loyal service given by Mr. Lawrence. His 16½ years with the Board saw great change to the port generally, in the facilities and services provided, and in the respect and status of the port as an efficient and progressive unit. Mr. K.J. Gilligan succeeded Mr. Lawrence as General Manager from 1 April, 1983.

(Continued from page 29)

Unrealized exchange gain/(loss) on overseas loans	(390)	(438)
	(385)	(4,537)
Net Revenue/(Deficit) before Appropriations	1,186	(2,986)
Revenue appropriated to:		
Floating Plant Renewal Fund	224	147
Balance to/(Withdrawn from) Capital	962	(3,133)
	1,186	(2,986)

Balance sheet

as at 30 September 1983

	1983 $000	1982 $000
Current Assets		
Cash and Deposits	724	512
Debtors and Prepaid Expenses	2,940	2,656
Stores and Materials	656	644
	4,320	3,812
Less Current Liabilities		
Creditors and Accrued Expenses	1,298	1,382
Public Debt Repayable Within 1 year – Net Over Available Repayment Funds	750	1,400
	2,048	2,782
Working Capital	2,272	1,030
Investments		
Government & Local Body Stock, Deposits	724	441
Investments in Companies	21	21
	745	462
Fixed Assets	32,247	32,333
	35,265	33,826
Less term Liabilities		
Public Debt – Net Over Available Repayment Funds	19,158	19,262
Total Net Assets	16,106	14,563
Represented by:		
Public Equity		
Capital	14,957	13,802
Revenue Reserve Funds	1,148	761
	16,106	14,563

Trade Development and Promotion

The attributes of the Port have continued to be actively promoted and developed. Although there has been a general downturn in cargo movement nationally, the consolidation and extension of a number of liner services has helped boost cargo throughput to a record level.

During the year Jebsen Line introduced an additional monthly service to South East Asian ports. The Line now operates two separate monthly services through Napier.

With the introduction of its RoRo vessels, Baltic Shipping Company extended its service to include Mediterranean ports, and the Genoa call is one that has been welcomed by local exporters in particular.

NZUE commenced regular calls at Napier during the year, which have increased in frequency. With Scancarriers, Pacific Forum Line and BHP also maintaining regular and efficient liner services, the Board's investment in wharves and handling facilities for multi-purpose LoLo and RoRo vessels has been fully justified.

It was with some sadness that Gearbulk was farewelled as a regular caller for Pan Pac cargoes through the Port after 10 years. The Board has appreciated the excellent relationship with the company in the past, particularly during the development of the woodpulp trade, and hopes that with other cargoes and the growth of their Tranzpacific Container service we will continue to see Gearbulk ships regularly in the Port in the future.

The Board continues to monitor and promote all opportunities to expand on the services through the port.

Coastal Shipping

For some time the Board has been investigating the cargo volumes moving between the Hawkes Bay and the South Island. The possibilities of coastal shipping in general, is being continually investigated and promoted wherever there is potential.

Central North Island Planning Study

The findings of this study confirmed that the Port of Napier has the capacity and the expertise to handle the expected increase in exports of timber to at least the year 2010.

A major conclusion of the study was that market trends will dictate the form and destination of timber products in the future and these are difficult to predict at this time. The study particularly highlighted the need for a Regional Commercial voice for Hawkes Bay and the Board has worked closely with the Hastings and District Chamber of Commerce and other interested parties to form such a group. With recent announcements from the Minister of Regional Development, it is pleasing to note that the establishment of a Hawkes Bay Regional Development Council is nearly a reality.

L.J.R. Tucker
Chairman

Wellington Harbour Board

(Extracts from 'Annual Report & Accounts, 1983, Wellington Harbour Board')

Chairman's address (extract)

Shipping Arrivals for the year totalled 8,013,228 net register tons, a decrease of 753,112 tons or 8.6% from last year's tonnage of 8,766,340 tons.

The manifest tonnage of cargo handled at the port was 5,290,250 tons, a decrease of 556,506 tons or 9.5% from last year's near-record tonnage of 5,846,756 tons.

Decreases were recorded most notably in coastal general cargo both inward and outward (109,401 tons, or 8.5% and 129,491 tons or 8.9% respectively) and in imports of general cargo by 306,197 tons (30.5%). Exports of general cargo increased by 14,205 tons or 1.6%. The total tonnage of bulk cargoes was maintained at 1,027,809 tons, an increase of 516 tons or 0.1%.

The tonnage of cargo on conventional vessels at 252,199 tons was 153,127 tons, or 37.8% less than last year's exceptional tonnage. However, this year's total is consistent with the level maintained over the four years preceding last year.

The throughput of containers at the Thorndon Container Wharf decreased from 73,053 TEUs last year to 65,887 TEUs or by 7,166 (9.8%). Total container movements including repositioning of containers and containers landed and re-shipped decreased from 80,669 TEUs to 69,432 TEUs.

Consideration of these broad totals discloses cause for concern not only to the Board but to other local and regional authorities. The port is maintaining its position of regional and national importance in facilitating the efficient and economic shipment of exports from the harbour district and beyond but is clearly and seriously affected both by the continued slack state of the national economy in general and by the relative decline in the regional economy in particular.

It will be the Board's purpose in the coming year to continue to improve its own performance, to pursue every marketing opportunity and to impress upon other local and regional authorities the importance of encouraging trade, commerce and industry for which the port provides the basis of improved employment and prosperity in the region.

The Board in October 1982 decided that a grant of $5,000 be made to the Wellington Civic Trust exclusively for the purpose of its proposed Harbour/City Competition. In May 1983 a further grant of $5,000 was made to the Trust for the same purpose. The competition was brought to a successful conclusion in the awarding of prizes to entries of very high standard. They will I am sure influence the Board, the Wellington City Council and the public in the development of effective planning for the future.

The Board having due regard to its financial circumstances decided that a grant of not more than $4,750 be made to the Wellington City Council conditional upon it being applied for the purpose of purchasing an upright

piano for use in the Michael Fowler Centre.

Last year and in the previous year also I reported on the high and consistent performance in the turn-round of container ships at the Wellington Container Terminal and I am pleased to report again on this subject. In February 1982 during the discharge and loading of 'New Zealand Pacific' a record container ship exchange rate for a complete shift of 60 per hour was reported to the Board. I was very pleased to be able to report to the Board at its February meeting in 1983 that a gross container handling rate of 70 per hour was achieved, also on 'New Zealand Pacific', for the second shift on 21 December 1982 and that on 24 January 1983, a new record of 74.3 per hour was set during the last shift on 'Remuera Bay'. Then on 29-30 January the working of 'Act 7' saw all previous records eclipsed, the rate being 75 per hour. I reported at the time that this performance was achieved by the high standard of co-operation from all concerned and that the performance of the Wellington Container Terminal was the envy of others in New Zealand and Australia.

J. King
Chairman

Balance sheet

as at 30 September 1983

	1983 $000	1982 $000
Current Assets		
Cash and Deposits	2,598	1,850
Debtors	2,093	3,022
Stores and Materials	466	460
	5,157	5,332
Less Current Liabilities		
Creditors	1,513	1,243
Loans repayable within one year	1,670	1,104
	3,184	2,348
Working Capital	1,973	2,984
Investments	13,885	11,625
Fixed Assets	45,369	46,012
	61,228	60,622
Less Term Liabilities		
Net Public Debt	34,123	35,502
	27,105	25,120
Public Equity represented as follows		
Capital	7,953	9,170
Revenue Reserves	13,885	11,625
Sinking Fund Reserve	5,265	4,324
	27,105	25,120

Revenue and appropriation statement

for the year ended 30 September 1983

	1983 $000	1982 $000
Income		
Shipping Charges	2,620	2,778
Shipping Services	1,761	1,858
Cargo Charges	8,852	10,266
Cargo Handling Charges	8,736	9,351
Licences and Fees	317	163
Sundry Revenue	176	236
	22,464	24,654

(Continued on next page bottom)

Fraser Port

(Extracts from 'Annual Report 1983, Fraser River Harbour Commission')

Chairman's report (extract)

Another excellent year was recorded by Fraser Port for its 71st year of operation by the Fraser River Harbour Commission. In spite of some adverse conditions during the year, the port was able to attract an increase of 4.5% in the volume of international shipments compared to the previous period. This was mainly attributed to a large jump in export shipments reflecting the general improvement in the Canadian economy.

Income from operations at $3,687,610 was down fractionally from the previous year.

The Commission continues to set aside monies in the Land Acquisition and Harbour Development Fund for the future acquisitions and development of capital works along the 217 kilometers of Fraser Port's shoreline. In 1983, $3,875,000 was transferred for this purpose resulting in a fund balance at year end of $7,280,196 after expenditures of $1,837,757.

A new five-year business plan was adopted and is now in place. It was designed to maintain an efficient and effective operation. The goals and objectives of the Commission enunciated in this document are:

- to develop the Port in the best interests of the people of Canada within the parameters of the National Ports Policy recognizing environmental and social concerns;
- to act as a catalyst in the establishment and utilization of Port facilities and water-related industry;
- to further trade nationally and internationally to the benefit of Canadians;
- to be financially self-supporting and to generate funds for continued Port development.

Chris Brown
Chairman

(Continued from page 32)

Less Expenses		
Wages, Salaries and Levies	15,142	15,164
Services	2,877	2,288
Materials	1,547	1,604
Other	120	85
Interest	3,422	3,003
Depreciation	1,686	1,637
	24,796	23,783
Net Revenue from Port Operations	(2,331)	871
Other Income		
Rents	1,760	2,004
Interest	2,224	2,212
Sale of Assets	(3)	(6)
	3,981	4,210
Revenue before Appropriations and Loan Repayments (Regular)	1,650	5,081
Appropriations		
Special Funds	(2,680)	(3,817)
Sinking Funds	(570)	(634)
Loan Repayments (Regular)	(303)	(286)
	(3,554)	(4,738)
Balance Transferred to Capital	(1,904)	342
	1,650	5,081

Balance sheet

as at December 31, 1983

	1983 $000	1982 $000
Assets		
Current Assets		
Cash	672	106
Accounts receivable	1,357	1,034
Prepaid expenses	32	33
	2,062	1,174
Land Acquisition and Harbour Development Fund Cash	7,280	4,863
Fixed Assets	23,011	22,107
	32,354	28,146
Liabilities		
Current Liabilities		
Accounts payable and accrued liabilities	226	302
Revenue received in advance	529	501
	756	803
Commissions' Equity		
Land Acquisition and Harbour Development Fund	7,280	4,863
Earnings Retained	23,654	21,815
Government of Canada Equity	663	663
	31,598	27,342
	32,354	28,146

Statement of income and earnings retained

for the year ended December 31, 1983

	1983 $000	1982 $000
Revenue	5,893	6,138
Expenses:		
Operating, maintenance and administration costs	1,240	1,275
Depreciation	965	977
Interest	–	170
	2,206	2,422
Income from Operations	3,687	3,715
Interest Income	188	238
Gain on Sale of Fixed Assets	–	1,411
Net Income	3,876	5,365
Appropriation for Land Acquisition and Harbour Development Fund	3,875	5,200
Unappropriated Net Income	1	165
Earnings retained at beginning of year	21,815	19,417
Contribution from Land Acquisition and Harbour Development Fund – Capital Assets Acquired	1,837	2,232
Earnings retained at end of year	23,654	21,815

International maritime information: World port news:

World Maritime Day 1984

A Message from the Secretary-General of the IMO

on THE WORLD MARITIME UNIVERSITY

On the occasion of the World Maritime Day this year it is, once again, a great honour and privilege for me to convey to the world maritime community the greetings and warmest good wishes of the International Maritime Organization. This gives me the most welcome opportunity to address each one of you directly, whether you are a high government official or a maritime administrator, a shipowner or a seafarer, a shipbuilder or a member of a Classification Society, a port manager or a participant in some other capacity in the maritime activities of the world.

IMO's Objective: Safer Shipping and Cleaner Oceans

As you know, it is the constant endeavour of the International Maritime Organization and all its Member States to promote in every practicable manner, the enhancement of the safety and efficiency of international shipping operations as well as the prevention of marine pollution from ships.

Adoption and Implementation of Global Technical Standards

A number of Conventions, Protocols, Recommendations and Codes of Practices have been adopted containing global technical standards, rules and regulations for the achievement of this objective. But, clearly, the adoption of these global technical standards is not enough. These standards need to be effectively implemented.

Crucial Importance of Maritime Training

In recent years shipping has undergone an unprecedented technological revolution. It has become a very complex and sophisticated industry. The safe and efficient operation of modern ships requires highly trained personnel both afloat and ashore. For a global industry like shipping, it is essential to have global standards also for training and certification. Recognizing the vital role of the human element in shipping and the crucial importance of maritime training, the International Maritime Organization – IMO – has developed the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, which has entered into force this year. It is in this context that this year the World Maritime Day has been dedicated to the subject of "Global co-operation for the Training of Maritime Personnel".

I am very pleased to be able to mention to you that all Member States of the Organization, developed and developing alike, are giving special attention and high priority to the training of maritime personnel. I have had the honour of visiting a large number of Merchant Marine Academies in Africa, Asia and the Pacific, Latin America, North America and Europe and everywhere I have found a keen and genuine desire to enhance the level of maritime education on the basis of the technical standards established by our Organization.

Need for Senior Specialist Maritime Personnel

While the need for modern training facilities and for efficient maritime administration is well recognized and accepted, there are a number of difficulties which need to be overcome. Many developing countries have invested substantial sums of money in the creation of Merchant Marine Academies but they are facing an acute shortage of qualified and professionally trained maritime teachers. Some institutions have been able to recruit a few expatriates but this has not provided a long-term solution. In order to ensure safer shipping and cleaner oceans it is obviously necessary to have an adequate maritime safety administration, staffed by well trained nautical surveyors, engineer surveyors, casualty investigators and other similar personnel. It is only through such senior specialist maritime personnel that maritime administrations can effectively implement the global technical standards and rules and regulations which have been developed by this Organization. Here again, there is a serious problem – that of a shortage of suitably trained national expert personnel.

In the ultimate analysis it is the responsibility of shipowners and shipping companies to ensure that their ships are operated in compliance with rules and regulations relating to safety and pollution prevention. On their part, the shipping companies need competent technical managers and superintendents. The merchant marine administrations of Member States need knowledgeable and experienced technical advisers as well as general maritime administrators. Without them it is obviously difficult to formulate and to implement sound maritime policies.

The World Maritime University

An Institution to Train Senior Specialist Maritime Personnel

The Assembly of the International Maritime Organization, which has always accorded the highest priority to maritime training, considered this matter in detail and resolved that a global institution needed to be established to enable Member States, particularly developing countries, to train senior specialist maritime personnel. In pursuance

of this decision, the International Maritime Organization has established the World Maritime University at Malmö in Sweden. Courses of study developed by a team of internationally renowned experts are now being provided at the University to train maritime teachers, surveyors, examiners, technical advisers to Government Ministries, general maritime administrators and technical managers of shipping companies.

High Professional Knowledge and Practical Bias in Training

Advanced maritime education is imparted to enhance the professional knowledge of students to the high level required for the efficient discharge of their important future responsibilities, comparable to the level now obtaining in the leading maritime nations. In addition there is a heavy and very desirable practical bias. A substantial period of time is devoted to practical on-the-job training.

Worldwide Expertise for High-Level Training

The World Maritime University is receiving every possible encouragement and support from all Member states. In particular, the developed maritime nations are helping with the services of highly qualified experts who are lecturing at the University as members of the regular staff or as Visiting Professors. I am most grateful to the Visiting Professors, all of them renowned specialists, who are providing their invaluable services without charging any fees. Maritime administrations and other technical institutions are receiving groups of students from the World Maritime University for practical training in diverse ways.

A Global Student Body

Today, students from as many as 59 countries of all regions of the world are undergoing this unique education and training on the basis of a two-year course designed specially to meet their requirements. On the successful completion of this two-year course, the candidates will be awarded a Master of Science Degree. In order to enhance the global character of the University and to enable students from all over the world to study together for the benefit of all and for promoting global contacts and future global co-operation, the University is now admitting some students from the developed maritime countries as well.

A Unique Resource

My friends, this new and unique institution, the World Maritime University, is thus already training future maritime policy makers, technical advisers, surveyors, examiners, casualty investigators, technical managers of shipping companies and maritime teachers. What a marvellous resource they will be for making our Member States self-reliant in their maritime infrastructure. What a unique group of people these will be for enhancing the efficiency of shipping and port operations throughout the world and for promoting effective and peaceful global co-operation to the benefit of the entire world maritime community. This then is a development of great interest to all maritime States, shipowners and seafarers, shipbuilders and ship-repairers, ship machinery manufacturers and equipment suppliers and indeed to all others who are involved in the world's maritime activities.

The Apex of a Global Training Network

As Chancellor of the World Maritime University, I am very gratified that the establishment of the University has been welcomed all over the world. This institution provides training facilities which in no way duplicate the training provided at the national and regional maritime training academies. In fact, the World Maritime University complements and supplements the work of other institutions. It is the apex of a global network which is intended to include all maritime educational institutions which follow IMO's global technical standards.

Gratitude for Contributions already received

For the establishment of the World Maritime University the International Maritime Organization has received extremely generous support from Sweden. The Government of Sweden is providing a recurring grant of US$1 million to meet a part of the annual running expenditure at present estimated at about US$4 million. The City of Malmö, a city of 230,000 warmhearted and generous Swedish citizens, has provided the buildings for the University totally free of charge and is, indeed, maintaining these buildings at its own expense. The United Nations Development Programme is contributing US$800,000 per annum. The Government of Norway is donating US$350,000 per annum on a recurring basis. The Commonwealth Secretariat is providing another US$100,000 per annum. The Governments of Denmark, Federal Republic of Germany, France, Greece, Italy, Kingdom of Saudi Arabia, Mexico, Republic of Korea and the United Kingdom have provided generous ad hoc donations or fellowships and these are gratefully acknowledged. In the United States of America, a corporate body called the Friends of the World Maritime University has been established and the Government of the United States has granted tax exemption in respect of any donations made to this body for the benefit of the World Maritime University. This group has already provided magnificent assistance which is greatly appreciated. Other organizations, individual shipowners, private citizens and manufacturers of equipment have made generous ad hoc grants in cash or in kind and these have been most helpful.

An Appeal for Donations to the Capital Fund

The World Maritime University needs assured recurring financial support in order to plan its activities appropriately and to function efficiently. The Board of Governors of the World Maritime University, a very distinguished body which includes eminent personages from all parts of the world, has resolved that the University should establish a Capital Fund with a target of US$25 million to provide sufficient investment income on a recurring basis. This Capital Fund needs to be built up by voluntary donations. In the circumstances of today, it would not be practical to expect very large donations from individual Governments, organizations or individuals and yet the achievement of the target would not be impossible if every member of the world maritime community were to make a small donation. The university will play a crucial role in ensuring the safety of lives at sea and in protecting the seafarers' environment. How marvellous and encouraging it would be if every ship under the leadership of its Master could arrange for some voluntary donations. Every such donation of $500 or more would be acknowledged by a permanent record at the University,

which would give the name of the ship and the names of all donors.

All shipowners and shipping companies would undoubtedly benefit from this new project directly or indirectly. Two renowned shipowners, Mr. Chandris and Mr. Livanos of Greece, have already contributed US$10,000 each to the Capital Fund. I am very grateful to them. May I appeal to all shipowners to support the World Maritime University by a donation to the Capital Fund.

The shipbuilders of the world, who constitute such an important part of the world maritime community, are similarly invited to provide assistance. The manufacturers of equipment and machinery could also help us greatly. So can numerous maritime organizations, port authorities and other individuals.

The World Maritime University is a unique example of global co-operation between the developed and the developing, between the countries of the North and the countries of the South, between the East and the West. It has been described by Norway's Minister for Development Co-operation as "a new platform for peace". With your help this unique institution can be sustained. I appeal to each one of you for donations. These donations may be sent to the Rector of the World Maritime University at Post Office Box Number 500, Malmö, Sweden.

May I, in concluding this message, express once again my sincerest good wishes and my profound gratitude to each one of you for any help which you may be able to provide.

World Maritime Day, 1984
C.P. Srivastava, Secretary-General

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Publications

"ASEAN Shipping Directory"

A 244-page directory, giving much first-time information on the ASEAN maritime industries, has been published by MarIntec Press of Singapore on behalf of the Federation of ASEAN shipowners Association (FASA).

A useful reference to the region's shipping activities, the guide provides reports on each country's policies and activities, resources, import and export trade, maritime associations and fleet statistics.

A section is devoted to each country, which details all shipping companies and their fleets by registry, ship-type, tonnage, year of build and trading routes. Port facilities and cargo handling statistics are listed; as well as shipyards showing newbuilding and repair capacities, cranage, etc.

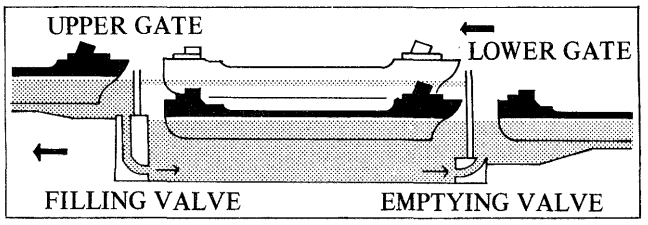
Priced at US$25, (excl. postage) copies are available from MarIntec Press (Pte) Ltd., MarIntec House, 208-210 Lavender Street, Singapore 1233.

"Corps Port Series"

The U.S. Army Corps of Engineers has released its 1984 revised Port Series Report No. 38, **The Ports of Alaska.** Included are detailed descriptions of Anchorage, Seward, Whittier, Valdez, Ketchikan, Wrangell, Sitka, Juneau and 12 other Alaskan ports. The report sells for $10.50. Orders must be prepaid, and should be addressed to: Port Series Reports (WRSC-CP), Casey Building, Fort Belvoir, VA 22060. Checks or money orders should be made payable to the "Superintendent of Documents." *(AAPA Advisory)*

St. Lawrence Seaway — How the Seaway locks work

All locks on the St. Lawrence Seaway are filled or emptied by gravity. To raise a vessel, the upstream valves are opened and the water simply flows into the chamber through openings at the bottom of the walls. The following diagram illustrates the procedure:



The diagram portrays the following steps:

(1) From the lower level the ship sails through the open gates into the lock. The vessel secures itself to bollards on the side of the walls. The gates are closed.
(2) The valves are opened and water is allowed to flow in, lifting the ship.
(3) When the vessel reaches the higher level the upper gates are opened and the ship sails out.

To lower a vessel the above steps are reversed. It takes less than ten minutes to raise or lower the water level with more than 20 million gallons used for each lockage. Additional time, however, is required for the vessel to carefully maneuver in and out of the chambers. The average lockage requires approximately 33 minutes from the time the bow passes the approach wall until the stern is cleared of the outermost boom.

The Locks

There are seven locks in the St. Lawrence River, five in Canada operated by the St. Lawrence Seaway Authority and two in the United States operated by the St. Lawrence Seaway Development Corporation. All locks are similar in size.

Specifications:

Length, breast wall to gate fender	766 feet
(Ships may not exceed 730 feet in overall length)	
Width	80 feet
Depth over sills	30 feet
	Lift
St. Lambert Lock	13 to 20 feet
Cote Ste. Catherine	33 to 35 feet
Lower Beauharnois	38 to 42 feet
Upper Beauharnois	36 to 40 feet
Snell	45 to 49 feet
Eisenhower	38 to 42 feet
Iroquois	5 to 6 feet

Locks 1–7 of the Welland Canal are lift locks. Lock 8 is essentially a guard lock. Locks 4, 5, 6 are twinned and in flight. Welland Canal is 27 miles long and overcomes a difference in level of 326 feet, between Lake Ontario and Lake Erie.

Controlling channel dimensions, Lake Erie to Montreal:

Depth to a minimum of 27 feet – to permit transit of vessels drawing 25 feet 9 inches (fresh water draft).

Width of channel:	(Min.)
When flanked by two embankments	200 feet
When flanked by one embankment	300 feet
In open reaches	450 feet

Maximum size of ship permitted to transit the Seaway:

Vessels not exceeding 730 feet overall and 75 foot, 6 inch extreme breadth may transit the Seaway. Vessels' masts must not extend more than 117 feet above water level.

Total cargo through Montreal – Lake Ontario Section 1959–1983
Million net tons (rounded)

1959	18.6	1972	48.6
1960	18.4	1973	52.2
1961	21.2	1974	40.0
1962	23.2	1975	43.5
1963	28.0	1976	49.3
1964	35.6	1977	57.4
1965	39.3	1978	56.9
1966	44.6	1979	55.3
1967	39.9	1980	49.4
1968	43.5	1981	50.5
1969	37.2	1982	42.8
1970	46.4	1983	45.1
1971	48.0		

(Seaway Review)

PACECO Transtainer* cranes used in operator training course

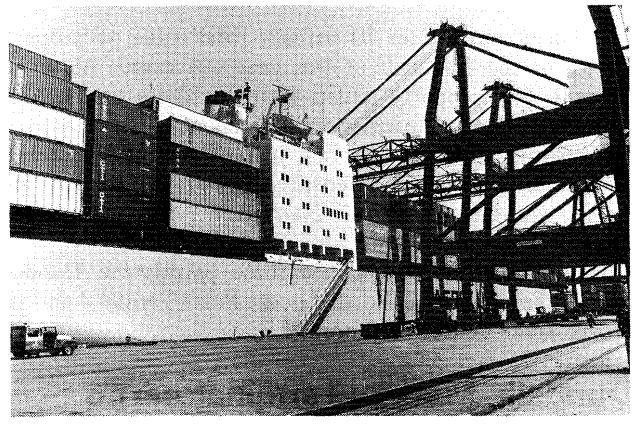
Eighteen terminal personnel from the Port of South Hampton, England, recently completed a course on the proper operation of a container stacking gantry crane. The course was conducted by Long Beach Container Terminal, Inc., located at Pier J. Long Beach, California, and was the first of its kind to be offered. The courses lasted one week and accommodated six students each. The machines used during the course were rubber-tired Transtainer Cranes manufactured by PACECO, Inc.

Upon completion of the course, the students returned to England where many will become instructors in various terminals throughout Great Britain.

The container stacking gantry was introduced in 1960 by PACECO, Inc. under the registered trade name TRANSTAINER* crane. A recent call to Matson Navigation Company revealed that PACECO's first rubber-tired crane has been operating on a regular basis for nearly twenty five years. By the end of 1985 it is anticipated that there will be over 500 PACECO designed Transtainer cranes in operation throughout the world.

*Registered Trade Name

It's a building ...No, it's a ship !: Port of Long Beach



Tall as a ten story building and with containers stacked four and five high on its 270 meter (886 foot) deck, Maersk Line's new Lars Maersk looks more like an office building than a ship during recent maiden call at the Maersk Container Terminal in the Port of Long Beach. Big as it is (currently the largest capacity containership in West Coast trade), the Lars Maersk fits easily beneath the three huge Paceco gantry cranes available to load and unload the 20 and 40-foot containers to waiting truck chassis.

New wharfage billing system installed: Port of Los Angeles

Customers of the Port of Los Angeles can look forward to increased accuracy, efficiency and more detailed invoices as the direct benefit of an automated wharfage billing system implemented on September 1, 1984.

According to the Port's Chief Financial Officer Rami Furman, this is the first major change in the wharfage billing system in 15 years and replaces keypunch and "batch" processing systems. With tariff information programmed into the computer, the format of invoices remains the same but all calculations are done electronically. Approximately three to four days will be cut from invoice processing time, a considerable saving since the Port processes more than 1,000 wharfage invoices monthly.

The implementation of this wharfage system represents about 10 months of team effort by staff from Wharfingers, Data Processing and Accounting.

It is the first step of planned implementation of computer based management and accounting systems, part of the Port's comprehensive integrated Financial Management Information System.

Baltimore Port crime declines

Reported theft at Baltimore's state-owned marine terminals during the first half of this year dropped 28 percent from similar crime reported for the same period of 1983,

the Maryland Port Administration police department says.

A total of $34,991.91 worth of property was reported stolen from the terminals in the first half of this year. Comparable theft for the first half of 1983 was valued at $48,327.83.

The crime decrease is significant because it comes at a time when the port's Dundalk Marine Terminal marked a 31.9 percent increase in cargo over first-half trade reported in 1983.

Slightly more than 70 percent total value of property stolen in the first half of this year was cargo. About 25 percent was property stolen from buildings and offices, or vehicles used by marine terminal tenants.

Criminal arrests in the first half of this year decreased 16 percent, reported offenses dropped 17 percent and traffic accidents declined 20 percent over comparable crime in first half of 1983.

The 76-person port police force patrols the Dundalk Marine Terminal, the North Locust Point Terminal and the World Trade Center Baltimore.

Dundalk Marine Terminal cargo continues upward trend: Port of Baltimore

Cargo handled at the port of Baltimore's Dundalk Marine Terminal increased 30.06 percent in January-July 1984 over a comparable seven-month period in 1983, the Maryland Port Administration says.

A total of 3,047,768 tons of cargo was handled at the 550-acre terminal, the port of Baltimore's largest general cargo handling facility, in January-July 1984. A total of 2,343,318 tons of cargo was handled by the terminal in January-July 1983.

Container cargo for the period stood at 2,406,543 tons, considerably more than the 1,855,947 tons of container goods handled during the same period in 1983.

Conventional general cargo (breakbulk) in January-July 1984 reached 246,409 tons. Similar trade for the same period in 1983 was just 185,352 tons.

FY1984 ends on an upswing: Port of Boston

The public marine terminals in the Port of Boston handled a record 895,000 tons of general cargo in fiscal year 1984, a 10-percent increase over fiscal 1983, Massport Executive Director David W. Davis announced recently.

"The tonnage increase at our seaport terminals is just the latest in a long list of positive developments for the Port of Boston," Davis said. "During the past year, we have laid the foundation for significant improvements in the Port, and are now beginning to see the fruits of that labor in increased tonnage, smooth operations at the terminals, and new and improved steamship service."

The Port's strong showing was fueled by an exceptional fourth quarter performance. General cargo handled between April and June at the Port's public terminals increased 21-percent over the same period the previous year.

Massport owns and operates Moran Terminal in Charlestown, and Conley Terminal and Massport Marine Terminal, both in South Boston. The container operations at Moran and Conley (including Sea-Land) handled some 62,000 containers in fiscal year 1984, an eight-point-three percent increase over the previous year. Breakbulk general cargo increased by five percent during the year. Both lumber and import automobiles showed a decrease in fiscal year 1984, 14 percent and 6 percent respectively.

The import/export trade imbalance continued to trouble the Port in fiscal 1984, according to Executive Director Davis. "Imports represent nearly 75 percent of our total tonnage, and they increased 12 percent over fiscal 1983," he said. Exports increased only 3 percent in FY 1984. "We are experiencing the worst trade imbalance in the last 10 years," Davis said, "and that problem is bound to continue as long as the dollar maintains its strength against foreign currencies."

Records broken at North Carolina Ports

Revenue and tonnage figures hit all time record highs at the North Carolina State Ports Authority during fiscal 1983–1984 (July 1, 1983 through June 30, 1984).

Combined revenue figures for all operations which include the two state-owned ports at Wilmington and Morehead city, the Bulk-handling Facility at Morehead City, the Charlotte Intermodal Terminal and the Southport Boat Harbor were the highest ever, totalling $15,108,433. This represents a four percent increase over the same period last year.

Profit for the period was $1.8 million or $73,000 higher than last year's profit figure. The highest annual profit recorded thus far was $2.2 million in fiscal 1981–82.

The Port of Wilmington saw the greatest increase in revenue and profit displaying an $11.8 million revenue picture or a 13 percent jump over last year. Profit was up 18 percent with $1.9 million compared to $1.6 million the year before. It was the second highest profit recorded at Wilmington in its 32-year history.

The State Port of Morehead City is broken down into two separate facilities – the general cargo terminal and the bulk-handling facility.

While the general terminal experienced a loss of $59,822 on revenues of $3,242,732, the bulk-handling facility recorded a $1.2 million profit on revenues of $3,895,005.

During fiscal 1983–84 the NCSPA also handled a record 6,499,268 tons of cargo, breaking a 4.96 million ton record set in 1980–81.

The Morehead City bulk-handling facility showed the most dramatic increase in tonnage by moving 1.95 million tons of bulk cargo, (a 58 percent rise, or 822,000 tons more than last year).

Charleston Harbor Study gets approval for funding

Ways to deepen shipping channels at the Port of Charleston will be the focus of a harbor improvement study. Last month, the U.S. Senate approved the $550,000 needed for the Army Corps of Engineers to continue studies begun in 1970.

The study was approved after Senators Ernest Hollings

and Strom Thurmond introduced an amendment to the 1985 Energy and Water Appropriations Bill. In this way, the South Carolina senators were able to separate the study from the major issues surrounding port improvements and user fees, which are currently being debated in the Omnibus Water Resources Bill.

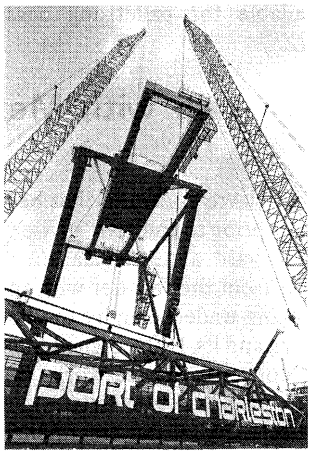
While the harbor depth is currently maintained at 35 feet, the ideal depth for commercial shipping would be 40 feet.

Deeping Charleston Harbor is expected to cost $104 million. The U.S. House's recent approval of a water resources bill that includes $80 million to deepen the harbor is considered a major step in carrying out the project.

A comparable Senate bill that provides $76 million for harbor improvements was passed by a Senate Committee last fall, but is now tied up in legislation. The point of contention in the Omnibus Water Resources Bill is, not how much will it cost, but how will the cost be shared by port users and the nation's taxpayers.

If the Senate bill is approved, a committee will have to work out a compromise version of the pair. *(Port news)*

10th container crane at North Charleston Terminal



The Port of Charleston installs its 10th container crane as this new 40-long-ton capacity workhorse is fitted with a boom (foreground) at North Charleston Terminal. A part of the ongoing expansion to provide additional containership service capability at North Charleston, the Washington Iron Works crane is the terminal's fourth container crane. Like all of its Port of Charleston predecessors, the new crane has been customized to port specifications and is currently undergoing its pre-operational safety testing program. Largely because of the new worldwide service of Evergreen Line, one of the long-time port customers using facilities at North Charleston Terminal, the Port of Charleston has stepped up construction activities there in recent months. A new Transtainer, capable of stacking containers three high and six wide, has been added; and several existing warehouses and lumber sheds are being removed to create 25 acres of additional container back-up space at the terminal.

World Trade Center: Port of Tacoma

Work is proceeding rapidly on World Trade Center Tacoma, a $15 million office complex at the Port of Tacoma. Located just off Interstate 5, World Trade Center Tacoma is less than one mile from Port terminal areas.

The building will be completed in two phases. The first phase, now under construction, will be completed by early 1985. This five-story structure will offer 61,200 square feet of leasable space. An additional 97,750 square feet will be available when the eight-story, second-phase tower is added.

As "shopping centers for international commerce," World Trade Centers are playing a larger role in promoting international trade. World Trade Center Tacoma is the 33rd such center in the world.

Six of Tacoma's top export trade partners also have World Trade Centers – Japan, Canada, Taiwan, South Korea, Hong Kong, and Australia. Tenants of World Trade Center Tacoma will have the advantage of access to trade information via this unique, worldwide Association network.

World Trade Center Tacoma is ideally suited for many segments of the international business community – bankers, custom house brokers, freight forwarders, insurance brokers, and more. Sea-Land, the world's largest containership operator, will have office space in the building, as will the Port of Tacoma. *(Pacific Gateway)*

Port of Antwerp – A well balanced mixture of official and private activities, interests and responsibilities

In several countries ports are administered and operated by the Port Authorities, who take also care of the loading and unloading, the warehousing, etc. of cargo.

In Antwerp the Port Authorities (i.e. the City of Antwerp) are owner and administrator of the port infrastructure and partly of the equipment (quay cranes, warehouses, locks, bridges, tugs), but do not intervene in the handling of goods and in certain auxiliary services that are entrusted to private companies.

Until World War II all port equipment was set up and operated by the Port Authorities and put at the disposal of private companies, dealing with cargo-handling and transport of cargo. These companies – being ship's agents, shipowners, stevedores or cargo handling firms – rented the (equipped) berths on short term and thus could work without making important investments in the port. After World War II port activities have been influenced considerably by a technical revolution, affecting both the means of transportation and the cargo-handling and storage equipment.

In order to be able to cope with new demands of port users, the Antwerp Port Authorities had to buy new lifting devices of high capacity and long reach and to build new quays, sheds and warehouses, able to cope with specialized traffics like containers, ro-ro, motor cars, fruit, fertilizers and neo-bulk cargo like iron and steel, forest products, etc.

Mainly for financial reasons this was quite impossible and so the Port Authorities decided to continue modernizing and expanding the infrastructure but to give the new

≪ naked ≫ quays and sites in concession on a long term basis to private companies, which agree to take care of the superstructure, chosen in accordance with their specific needs. The length of the concession agreement depends on the importance of the investments made by the concessionary.

However, in order to avoid discrimination of smaller companies, not able to invest large amounts of money in port equipment, the Antwerp Port Authorities decided that at the existing, mostly conventional quays, the possibility of renting municipal port equipment by private companies should be maintained. In view of this, new equipment – mostly quay cranes and mobile cranes for conventional cargo, and bonded warehouses – was purchased by the Port Authorities.

This co-operation between the Port Authorities (limiting their intervention almost entirely to the infrastructure) and private companies (having the responsibility of both the financing and the operating of the superstructure) produced and continues to produce excellent results.

The concessionaries being businessmen, wanting their investments to be profitable, constantly make use of all their commercial relations and technical know-how to improve the productivity and output of their concessions.

On their side the Port Authorities (with the help of the Central Authority) permanently make the necessary efforts to expand the port and continue to determine the policy for the port as a whole.

Permanent links exist between the PortAuthorities and the private sector, i.a. via a ≪ Joint Consultative Council ≫, composed of representatives of the Port Authorities, the port-tied associations and the port labour unions. This Council meets every month, discusses problems and projects interesting the port community and takes joint actions when needed. The final result is a well balanced mixture of official and private interests and responsibilities, a marriage of politically controlled but commercially valorized activities, that have an enormous power to attract and satisfy port users from all over the world. *(Hinterland)*

Silo capacity doubled and new equipment introduced: Port of Le Havre

Le Havre's grain traffic has expanded swiftly over the last few years for both bulk and bags.

It is a field in which the port has three very specific tasks to perform:

- satisfy the demand from French exporters,
- provide for imports, mostly of durum wheat, which comes mainly from the USA and Canada,
- serve as an international transhipment point. In-and-out movements are now commonplace, both for the major traffics and for such highly-specialised trades as bagged grain (with the grain imported in bulk and re-exported in sacks).

However, in view of the storage capacity needing to be set aside for durum wheat imports and for feeding the bagging facility, the amount of space left available for exports was proving insufficient for loading the largest vessels.

In collaboration with the Port Authority, the Havre Port Silo Co., SICA, has therefore recently doubled its silo capacity from 40,000t to 80,000t. A large number of people connected with the trade were present when the new silo was inaugurated on May 20th, alongside the earlier one. It has six bins with a capacity of 6,700t each, that are 48.50m/159ft in height and 16.40m/54ft in diameter, and can be filled by three conveyor routes operating at 600 tonnes per hour and emptied by two routes at 600 tph.

The new silo also has a weighbridge and intake pit where lorries can be unloaded at 600 tph. All circuits are connected up with the old silo and all handling is remote-controlled from a single control room for the entire facility.

As a result, the Port of Le Havre now has everything it needs to fulfil its targets, particularly for the loading of large grain carriers.

In collaboration with its partner, SOCIEPA, the port has also recently added to its bag-handling equipment. Following SOCIEPA's introduction during the last two years of chutes and bagging facilities that have fully proved their worth, this traffic has grown so well that the Port Authority has been encouraged to acquire new specialist equipment in the form of three wagon-dischargers which automatically pick up bags arriving in railway trucks at the Hermann du Pasquier Wharf and load them directly on to vessels tied up alongside. These machines feed both a chute on the quayside and Shed 52, where other new equipment acquired by the port is available for palletising bags and unloading pallets. *(FLASHES)*

Le Havre to help with Mexican project

The Port of Le Havre Authority has been asked to carry out a special study prior to the start of work on an offshore oilrig construction yard at Ensenada, on the Pacific Coast of Mexico, not far from the frontier with the USA.

The work is being undertaken by the Port Authority for Bouygues Offshore and its 100% owned Mexican subsidiary, Bos Pacific, and concerns the sea works (approach channel and breakwaters), infrastructure (jetties) and various kinds of equipment (electricity, water treatment). A computerised study is also being made of wave movements from the open sea towards the construction yards.

It all amounts to yet further proof of the technical capabilities of the Port of Le Havre. *(FLASHES)*

Noteworthy facts in 1983: Port of Rouen

The port of Rouen continues with its traffic diversification policy, concerning countries as well as products. Some typical examples:

- Sugar exports to China (50,000 t in 1983), adding to the already existing cereal exports (533,000 t) and to the more recent coal imports.
- The launching of a regular container line to the Near East (NECOL), which confirms a greater presence of Rouen in this area.
- The re-launching of a once existent line to Norway, thanks to Finncarriers and the Compagnie Générale Maritime, which have allowed the port of Rouen to reaffirm its position with these countries and with more modern means (regular ro-ro service).

- A development of malt exports and in particular the begining of complete cargoes destined for Latin America (Venezuela).
- Development of container imports from West Africa. In this respect, the Africa Sympotainer symposium organized in January by the Port of Rouen Authority together with ports in the Ivory Coast, took place just at the right moment. *(ROUEN PORT)*

Maintenance of equipment given priority: KPA

Kenya Ports Authority has invested heavily in machinery of various sorts and sizes. In order to keep the operations of the port running all the time, equipment and other machinery have to be well maintained and kept in operation for the maximum time possible.

For such maintenance tasks to be kept well within the requirements, the Authority has established various workshops for playing different roles in repairing and servicing the port machinery that range from floating crafts, cranes, forklift trucks, tractors, etc.

The main maintenance workshops within the port include mobile plant, electrical and mechanical workshops which are situated at the New Services Area. Additionally, and, also of key importance is the Dockyard where there is a machine shop, a plate shop, engine shop, a carpentry workshop and seven slipways for repairs of floating crafts.

Within the mobile plant workshop repairs and services are carried out of the ports mobile machinery which include: unlicensed moving machines, like dumpers, compressors, welding machines, grass cutting machines, rail bending machines, etc.

The Authority's vehicles which number over 70 in all – including lorries, cars, tippers, tractors, pick-ups, fire tenders, ambulances and bikes – are also serviced and repaired in the mobile plant workshop. Similarly the over 50 mobile cranes at the port get repaired in the same workshop as does the repair of portal cranes where timber and glass works are concerned. These repairs entail all the works, e.g., mechanical, spraying, body work and electrical repairs.

Within the mobile plant workshop there is a section that deals with carpentry works like crane cabins repairs, crane seats repairs and body building of vehicles. The various sections of the workshop are: a vehicle service section, a mobile crane section, a trailer repair section and a 'plant' repair section.

The Electrical Workshop staff have the duty of maintaining the power supply to cranes and offices as well as staff houses. Their part also covers installations of overhead lines and underground cables for medium voltage upto 11,000 bolts and related switch gear in sub-stations.

The electrical personnel have further the responsibility of overhauling of portal cranes at the berths and stacking yards by repairing electrical equipment in machine house of the cranes. Maintenance of air conditioners in offices, central air conditioning, the cold storage and refrigerators in offices are also repaired by the electrical staff. In addition they maintain the lighting within the port both for security and general cargo handling at night, e.g., flood lighting. Electrical fitting works for substations and crane spares is also done by the electrical staff.

Within the workshop, repairs are carried out of defective equipment that have been removed from cranes and sub-stations. Among the repairs done in the workshop are heavy repair work of electric motors from cranes, overhaul of window air conditioning units and repairs of cookers for staff quarters.

The electrical workshop is appropriately divided into bays. The bays included are: motor rewinding bay, motor assembly bay, air conditioners/refrigeration bay, fitters bay, welding bay, turning bay, and there is a store for various parts required for daily use.

The port mechanical workshop mainly deals with the repairs of cranes, which are at the yards and quays, and also the mobile cranes. Other works falling under this workshop are fabrication works, like of tractor trailers, machining of spare parts and black smith works which include repairs for instant of: broken shafts and bolts, brakes wire rope replacements, gears, bushes, hydraulic parts of cranes, etc.

The Superintendent of Works section-within the Services Area has, among others, a wood (Carpentry) workshop. It is at this workshop that some office and bungallow furniture are made. There is on top of this, joinery works, e.g., door and window frames carried out here.

The asphalting plant for making tarmac for repair of roads within the port is also within the Superintendent of Works realm. Blacksmith and welding workshops are others operated by this section and these carry out fabrication works of doors and fences amongst other roles.

The most important repairs aspect at Dockyard is that of the floating crafts, in particular the harbour tugs and mooring boats. These crafts are the ones used for berthing and unberthing of vessels calling at and leaving the port.

The port of Mombasa is a compulsory pilotage one and the pilot boats are also important in that they ferry the pilots to bring the incoming ships and pick them after taking the ships out of the harbour on their outward voyages. There are other general purpose crafts and also the police patrol boats.

Dockyard is in essence self-contained as far as repair of crafts is concerned. The engine shop at these premises takes care of all types of engine repairs for crafts like tugs, mooring, towing and pilot boats, etc. Heavy and light duty engine repairs are done within this workshop.

At the machine shop manufacturing of new parts like shafts, nuts and general turning (to re-shape) are carried out. Dockyard also houses an electric shop where battery charging is done in addition to repairs of motors (e.g. rewinding), and all electrical components from crafts. The Dockyard staff have also the role of welding and cutting of plates within the steel plate shop.

Together with the other workshops at Dockyard there is the boat/wood shop as well, where repairs (or making) of the wood parts of harbour crafts are done. Other jobs for the boat shop are related to glass fibre reinforced polyester parts of boats and, making of decks, floating fenders and office furniture.

In all the workshops in the Authority besides boasting of well trained and skilled manpower, there are also adequate machinery and tools to carry out the requisite jobs. Machines like lathe, shaping, drilling, welding, milling,

bending and others are found within the workshops. Apart from centralising the repair works for quick and timely repairs, KPA needless to say, also saves lots of money by maintaining its own workshops. *(BANDARI)*

Second container crane for Port of Adelaide terminal by early 1986

The premier, John Bannon, announced on August 8 that tenders were being called for a second container crane for the Port of Adelaide.

He said he hoped the crane would be in service in 1986.

The installation of a second crane had become necessary, Mr. Bannon said, because of gains made in recent years in attracting shipping services to the Port of Adelaide.

"In particular, we've made considerable advances in servicing our trade with Europe and the Middle East," he added, "and these improvements warrant a greater container handling capacity."

"In shipping these days, especially with technologically sophisticated container carrying vessels, turnaround times in port are ciritical. To ensure that the shipping lines servicing Adelaide continue to get top quality service and are not inconvenienced by delays, State Cabinet has decided to go ahead with the construction of a second container crane."

As far as our obligations go, for those lines which have accepted a responsibility to provide regular, reliable services, we will do everything we can to ensure efficiency.

"Hence, Cabinet's decision to proceed to the tender stage for a second crane."

Justified

The Minister of Marine, Roy Abbot, said "expenditure on this piece of equipment could be justified purely in terms of existing shipping services in and out of the Port of Adelaide.

"Time in port is critical for modern container ships, and it is our responsibility to make our port as efficient as possible. We feel the provision of a second crane should also make the port more attractive to shippers on the Australian northbound routes," the Minister said.

Welcomed

The chairman of the South Australian Shipping User Group, Arnold Schrape, welcomed the decision announced by the Premier for a second container handling crane.

"The original decision to build a container facility for the State has been amply justified by events," Mr. Schrape said. "There were those who doubted the wisdom of that first step, but it made it possible for the Department of Marine and Harbours and private interests, together, to go out and get the services which we now have, and which are of tremendous advantage to our traders.

"In the same way, the provision of the second crane will remove any doubts about the ability of the port to support the new services on wider routes which must, and will, be brought to the Port of Adelaide." *(SPJ)*

The 1983-84 trade story in figs: Port of Brisbane

As indicated in the June edition of "Brisbane Portrait," trade through the Port of Brisbane in 1983-84 attained an overall record level.

Total throughput was 10,834,500 (mass) tonnes – up to 20.8 per cent on the previous year's levels, and equivalent to 15,105,800 revenue tonnes.

Imports rose 6.37 per cent to reach 5,776,200 mass tonnes and exports went up by an enormous 42.89 per cent to register 5,067,300 tonnes.

A very significant historical point to emerge from the performance was that for the first time the port's total trade exceeded 10 million tonnes.

Individual trades which set new records were exports of petroleum products; coal; grain.

One trade to finish with a surprisingly good result was 'meat exports' which concluded the year on 252,900 tonnes. The surprising aspect is that this trade fell by only 7.56 per cent on 1982-83 figures.

At the beginning of the 1983-84 year, the general prediction was that the export total would plummet by at least 15 per cent – a reflection of graziers' statements that they would have to concentrate on rebuilding their herds after the long drought.

One of the few quiet features of the port's trade was the container business. T.e.u.'s slipped 3.09 per cent on the record level of 1982-83 to 96,318.

Most of the loss can be attributed to the lower meat exports and a change in the pattern of shipping motor vehicles, using specialised car ships and not containers. *(BRISBANE PORTRAIT)*

Port's area enlarged in reorganisation: Port of Melbourne

The Port of Melbourne will assume responsibility for the management of Port Phillip Bay, Westernport and out ports on Victoria's eastern coast as from Sunday 1 July 1984.

This reorganisation of management responsibilities is part of an interim integration operation for all Victorian ports and the Ports and Harbours Division announced by the Minister for Transport (Mr. Steve Crabb) recently.

The Ports and Harbours Division will be regionalised under the existing Port Authorities and staff will be seconded to the relevant Port Authority.

Portland will become responsible for Port Campbell, Warrnambool and Port Fairy.

Geelong will become responsible for Appollo Bay, Lorne, Barwon Heads and Queenscliff.

Melbourne will be responsible for the balance of the Ports and Harbours Division's acitivities.

In addition to the regional reorganisation a 12-member Victoria Ports Advisory Board, a consultative group to be chaired by Mr. I.F.X. Stoney, the Assistant Director-General of Transport (Ports), will be established by the Minister for Transport.

A corporate policy development and implementation group will also be established to be responsible to the Minister for Transport for the development, implementa-

tion and co-management and utilisation of the port facilities in Victoria.

Corporate business plans will be developed by this group in association with the local port authorities which in turn will be responsible for developing the operational plans and strategies for incorporating these corporate business plans.

The corporate policy development and implementation group will comprise the Directors of Operations, Marketing, Finance, Corporate Services and Personnel and Employee Relations.

To ensure a broad representation of users, employees and local communities on the Boards of the three port authorities a number of advisers will be added to each. Six advisers will be introduced to the Port of Melbourne Authority.

The Minister for Transport will be responsible for the operation of all Victorian ports and maritime services to ensure efficient and effective facilitation of trade through Victorian ports.

Decisions will be taken after advice from the Victoria Ports Advisory Board, the corporate group and the respective port authorities.

Under the new structure the Victorian ports will have a strong commercial orientation for the promotion and development of trade, the facilitation of the interchange of goods and passengers within the total transport chain, and provision of all appropriate services and facilities in connection with port and maritime activities. *(PORT GAZETTE)*

New PMA Chairman

Mr. Anthony Michael Vella has been appointed Chairman of the Port of Melbourne Authority effective from 1 July. He replaces Mr. A.S. Mayne who retired on 16 April after serving on the PMA Board for 15 years of which the last 12 were as Chairman.

Prior to his appointment to the PMA Board Mr. Vella had for the past nine years been Assistant Secretary of the Victorian Trades Hall Council.

He has been a member of the Australian Labor Party since 1968, was for two years a member of the ALP's Victorian Administrative Committee and has been a Delegate to the ALP State Conference. Mr. Vella was also a Member of the Australian Council of Trade Unions Executive Committee.

In addition to his involvement in the trade union movement, Mr. Vella has represented the ACTU and VTHC on a number of committees and councils. These include I.L.O., ICFTU, the Australian Ethnic Affairs Council, the Australian Population and Migration Committee, the National Training Council, the Discrimination Committee in Employment and Population, the Council of Holmesglen College of TAFE and the Victorian Building and Construction Training Committee.

In recognition of his services to migrant resettlement and trade unionism, Mr. Vella was awarded the Order of Australia Medal in 1981. *(PORT GAZETTE)*

PMA General Manager

Two new executive appointments, those of General Manager and Deputy General Manager, have been created in the Port of Melbourne Authority. Both appointments are effective from 1 July.

Mr. Colin Jordan, B.E., B. Comm., F.I.E. Aust., formerly Chief Engineer of the PMA, has been appointed General Manager and Mr. John Taylor, B.E., M.B.A., F.I.E. Aust., formerly Trade Director and Executive Director World Trade Centre, has been appointed Deputy General Manager.

These new executive appointments have been created as part of the reorganisation of Victorian ports as set out in the interim Integrated Operation announced by the Minister for Transport (Mr. Steve Crabb) recently.

The General Manager will be responsible for the management of Port of Melbourne operations including those of Westernport and the out ports within the extended area of operations of the PMA.

Within the organisational structure of the Victorian ports the General Manager will report directly to the Board of the Port of Melbourne Authority.

In broad terms the General Manager will be responsible for providing targeted levels of cargo performance including the co-ordination of the Port's services with land and other transport modes; the operation and maintenance of support facilities; and to provide an efficient and reliable service in accordance with budgetary constraints. *(PORT GAZETTE)*

Sinking of barge signals start of harbour dredging project: Port Headland

The sinking of a 25,000 deadweight tonne vessel in Port Hedland harbour, possibly alongside the Nelson Point wharf, next month will signal the start of the multi million dollar harbour dredging programme.

The vessel is the ocean-going barge Mighty Servant, which was due to leave Rotterdam for Port Hedland this month carrying the cutter suction dredge Castor.

The only way the Castor can be unloaded is to submerge the Mighty Servant and allow the dredge to float clear. The barge will then be refloated.

The Mighty Servant is due to arrive at Port Hedland on August 27.

The harbour dredging, being funded by Mt. Newman Participants, will allow greater utilisation of vessels of up to 225,000 tonnes currently using the harbour.

It may also allow vessels of up to 265,000 deadweight tonnes to enter the harbour.

The Castor is one of two dredges to be used in the 14-month operation to deepen the inner harbour and approach channel by at least two metres.

The other vessel is the trailer hopper dredge the Humber River, one of the largest of its type in the world with a 10,500 cubic metre hopper capacity.

Chief Civil Engineer Owen Stacy, who is managing the dredging project, said Condreco would supply the Humber River, an Australian registered vessel previously used in dredging operations at Cape Lambert, in the Pilbara, and the Brisbane Airport redevelopment scheme.

The Castor, supplied by Broekhoven, will be used for cutting hard materials, while the Humber River will handle the softer sediments. However, because the Humber River was such a large trailer dredge fitted with ripper teeth, Owen said it, too, had the ability to remove some

hard cemented material.

The Castor incorporates the latest technology, is highly automated and, by Australian standards, was a very powerful cutter with 15,000 hp installed. It has 2,400 hp at the cutter head.

"These two dredges combine to form a very powerful combination for removing all the hard materials likely to be encountered," he said.

The dredged material would be dumped in three areas – 10 km offshore and just outside the existing dump grounds; 17 km offshore; and in East Creek adjacent to the Nelson Point site. About 2 million cubic meters of material from the inner harbour will be dumped into East Creek to allow the reclamation of additional land for future use by the Company.

The material will be pumped into containment bunds and the water outflow will be contained for sufficient time to allow solids to settle and ensure water quality is adequate for final discharge into Stingray Creek.

The offshore dump grounds are underwater deposits designed so that they will not break the sea surface or form navigational hazards.

No dredged material will be added to the spoil bank. Owen said enviromental studies had confirmed that dumping on the outer end of the spoil bank would be detrimental to sediment transport deposition and would have an impact on marine life on the Cooke Point foreshore.

Technical presentation

A technical presentation on the proposed harbour dredging works was recently presented to the Japanese Steel Mills by Chief Civil Engineer Owen Stacy, who is managing the project, and Capt Geoff Monks, Port Hedland Harbour Master.

At these discussions, agreement was reached on the final details of the development project.

The Japanese Steel Mills have been the interested party in the dredging proposals from the outset as they will benefit from the improved freight economies which will become available with the deeper harbour.

Mt. Newman Mining will benefit from the greater competitiveness of its iron ore.

Owen said the channel would be deepened by at least two metres to a distance 20.3 km from the Nelson Point wharf. This is expected to result in just over 9 million cubic metres of material being removed over a 57-week period.

The work will result in an increase in the available draught from the average high tide from 15.9 m to 17.8 m. The average high tide at Port Hedland is 6.1 m.

"This will enable a far better utilisation of the large ore carriers visiting Port Hedland, and also enable Japanese shipbuilders to build vessels more suitable to the port," he said.

"The Japanese Steel Mills, in their 39th and 40th shipbuilding programmes, are planning to build six new vessels in the 190,000 to 194,000 deadweight tonne class with loading draughts from 17.5 m to 18.5 m, which will be able to achieve high utilisation in Port Hedland.

The berth pockets at the Mt. Newman wharf will be widened, lengthened and deepened to handle the larger ore carriers. The berth pockets will have a dredged depth of 19 m below chart datum. To carry out this work, some strengthening of wharf piles will need to be carried out at an early stage of the project.

Owen said although it was planned to deepen the channel by two metres, the Company was examining the option to deepen further to improve the competitive position with respect to other Pilbara ports, and to allow greater flexibility for vessels on the European trade. *(Mt. Newman Chronicle).*

ADB approves $86 million loan for seventh port project in Indonesia

The Asian Development Bank has approved a $86 million loan to Indonesia for the Seventh Port Project which is designed to help strengthen the country's port and shipping system.

Indonesia, the world's largest archipelago, depends on an efficient maritime transport system for the growth of its economy. The Government recently decided to restructure the maritime sector to improve the efficiency of Indonesia's ports.

The Port of Surabaya has been designated as one of four "gateway ports" through which international general cargo traffic will be channelled. As such, the volume of cargo through the port is expected to grow significantly. A Bank-funded feasibility study has examined various alternatives to meet projected demand for container handling facilities and recommended that an international container terminal be constructed as part of the long term development of the port.

The Project, as the second phase development of the Port of Surabaya, will provide the port with additional capacity to handle traffic demand until 1993, particularly to cope with the rapid shift to containerization. It will also develop effective port management systems.

The Project will consist of construction of an international container terminal, comprising a two-berth wharf located offshore, a complete container yard located on shore, a connecting bridge, and related infrastructure; procurement of container handling and related equipment; and consultant services for construction supervision, training and institution building.

The Project will result in significant economic benefits. Container feeder services will be reduced as well as ship waiting time for both container and international general cargo vessels. Container handling productivity will nearly double, thus resulting in greater savings in container ship service time. Other benefits include avoided lighterage costs and reduced cargo damage.

The cost of the Project is estimated at $158 million. Of the $107 million foreign exchange component, the Bank will finance $86 million and the Saudi Fund for Development (SFD) is expected to finance $20 million. The Government will finance the local currency cost and $1 million of the foreign exchange cost for interest during construction on the SFD loan. The Bank credit will be for a period of 20 years including a 4-year grace period and an interest rate of 10.25 per cent.

Project Information

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

Project : Seventh Port Project

Country : INDONESIA: Surabaya

Project Description :

The Project, as the second phase development of the Port of Surabaya, will provide the port with additional capacity to handle traffic demand until 1993, particularly to cope with the rapid shift to containerization. It will aslo develop effective management systems, particularly for improving cargo handling productivity.

The Project will consist of: (i) construction of an international container terminal, comprising a two-berth wharf located offshore, a complete container yard located on shore, a connecting bridge, and related infrastructure; (ii) procurement of container handling and related equipment; and (iii) consultant services for construction supervision, training and institution building.

Total Cost :

$158.0 million broken down into: (i) foreign currency cost of $107.0 million, and (ii) local currency cost of $51.0 million.

Bank Loan :

The equivalent in various currencies of US$86.0 million from the Bank's ordinary capital resources (OCR), repayable in 20 years including a grace period of 4 years, with interest at the rate of 10.25 per cent per annum.

Date of Approval : 28 August 1984

Other Sources of Finance :

Government of Republic of Indonesia and Saudi Fund for Development.

Borrower : Republic of Indonesia

Executing Agency : PERUM PELABUHAN III
Jalan Perak Timur 620
Tanjung Perak
Surabaya, Indonesia
Telex Number: 31387
Cable Address: DIREKSI
PERUMPELB SBA

Consultants :

Consultant services required for training and institution building to be financed under the Bank loan will be engaged in accordance with the Bank's *Guidelines on the Use of Consultants.* The services of the same consulting firms engaged for the preparation of detailed engineering designs and tender documents will be retained for construction supervision during the Project implementation.

Procurement :

Procurement of goods and services to be financed from the proceeds of the proposed Bank loan will be under international competitive bidding or international shopping, as appropriate, in accordance with the Bank's *Guidelines for Procurement.*

Estimated Date of Completion : 30 June 1989.

Reception welcoming passenger liners to Nagoya Port

On August 31, 1984, the Nagoya Port Authority hosted a reception at the Palace Hotel in Tokyo aimed at encouraging foreign liners to call at Nagoya Port. Guests included the domestic representatives of such luxury liners as the Queen Elizabeth II, Oriana, Europa, Universe, and the Royal Viking Star, as well as personnel from foreign government tourist bureaus and domestic travel agencies.

Addressing the reception, Yoshiro Haraguchi, the Executive Vice President of the Nagoya Port Authority, noted that the Nagoya Port Building at the Garden Pier had been completed in July this year and that the Pier had indeed become an ideal place to receive passenger liners. He urged foreign liners to take up the invitation to call at the port.

Mr. Haraguchi also mentioned some of the popular sightseeing tours which are convenient for passengers calling at Nagoya Port. The variety of attractions within easy reach of the port includes Nagoya Castle, Atsuta Shrine, Toba Pearl Island (famous for its cultured pearls), and Meiji Mura, where many turn-of-the-century Japanese buildings are preserved.

Tours of the Toyota plant and other fully automated plants featuring the use of robots, as well as visits to the world-famous Noritake china factory are also available, as are outings to meet passengers' special requests.

Mr. Haraguchi's remarks preceded a short slide presentation showing places of interest in the Nagoya region, and were followed by an informal exchange of views among the guests.

The Nagoya Port Authority intends to host such receptions annually to publicize its capacity to receive passenger liners. The revised English version of "Welcome to Nagoya Port" will be distributed to foreign liner companies, government tourist bureaus and travel agencies. Furthermore, Nagoya Port administrators plan to pay direct calls on foreign liner companies.

Port calls by luxury liners have become increasingly commonplace in recent months, particularly since the visit by the passenger liner Europa last April. The Norwegian liner Royal Viking Star will call at Nagoya in November this year, and from next spring we expect to receive many more of the luxury liners cruising the world.

Within two to three years, these promotional activities should be rewarded with a substantial increase in Nagoya's popularity as a port of call for international passenger liners.

Pusan port handles 15% more cargo than last year

The nation's export/import cargoes handled at Pusan port during the first seven months of this year totalled 17.02 million tons, up 15.2 percent over the same period

of last year, according to the statistics released by the Pusan District Maritime and Port Authority.

The statistics showed that exports accounted for 9.21 million tons, while imports amounted to 7.81 million tons.

Of these, the largest growth was made in steel products sector which came to 1.26 million tons for exports and 1.43 million tons for imports with 9.7 and 29.7 percent up respectively. On the other hand, the largest decrease was recorded in cement sector in case of exports with 9 thousand tons and grains in imports with 986 thousand tons, down 84 and 4.4 percent over last year respectively.

During the same period, container cargoes through the port amounted to a total of 10.83 million tons with a breakdown to 7.66 million tons in exports, up 24.1 percent and 3.16 million tons in imports, up 18.4 percent. *(Korean Maritime News)*

ADB approves US$45.8 million loan for third Penang Port expansion project in Malaysia

The Asian Development Bank recently approved a US$45.8 million loan for a project which will enable Malaysia's Penang Port to meet increasing container cargo traffic and to handle conventional cargo more efficiently.

The Bank's Third Penang Port Expansion Project is aimed at easing port congestion and facilitating containerized freight traffic through the construction of a new terminal designed to centralize all container cargo-handling and restricting conventional cargo to the older port facilities.

The Project, to be located north of the present port, will involve construction of an island type wharf on a minimal amount of reclaimed land. The Project includes dredging and reclamation, construction of a wharf with a mooring dolphin and access bridge, paving of the port area, construction of buildings and a container freight station, procurement of container handling equipment, acquisition of a 3,000 horsepower tugboat, consulting services for detailed engineering design and construction supervision, acquisition of land and seabed rights and a training component for operation and maintenance of the new facilities.

Total cost of the Project is US$174 million, with a foreign exchange cost of US$114 million. The portion of the foreign exchange component not financed by the Bank is expected to be co-financed through loans from the Saudi Fund for Development (SFD) and commercial credit sources, with the Penang Port Commission providing residual foreign exchange and local currency costs.

The loan, drawn from the Bank's ordinary capital resources, is for a term of 20 years, with a grace period of four years at an interest rate of 10.25 per cent per annum.

The new terminal is expected to be operational by late 1988, in time to accommodate Penang Port's rapidly expanding port traffic. Port traffic grew at an average rate of 7.4 per cent during the period 1976-1983 and is forecast to grow at an annual rate of 4.4 per cent until 1989.

While the Project will directly benefit the northern part of Peninsular Malaysia, its overall impact on the country's economy will be substantial. International trade accounts for about 50 per cent of Malaysia's Gross Domestic Product and Penang Port is one of the country's two major deep water ports. Penang also exports key commodities such as palm oil, rubber, tin, ilmenite and manufactured goods.

Project Information

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

Project : Third Penang Port Expansion Project

Country and Location : Malaysia: Penang

Project Description :

The Project, under the Bank's third phase assistance, is to provide the Port of Penang with additional capacity to handle the rapidly increasing container traffic. The Project relates to the construction of a new container terminal at North Butterworth, and consists of the following main components:

(1) Reclamation of 41.6 ha of land for a container marshalling yard, container freight stations and ancillary areas;
(2) Construction of a 530 m long and 60 m wide container wharf, including a mooring dolphin, and a 520 m long and 19 m wide access bridge to the wharf;
(3) Paving of port areas and construction of buildings including container freight station facilities, administration buildings, workshops and other ancillary facilities and utilities;
(4) Provision of container/cargo handling equipment;
(5) Provision of a 3,000 HP tug boat including fire-fighting equipment;
(6) Acquisition of land and water areas;
(7) Consultant services for detailed engineering and construction supervision and for the training component under the Project;
(8) Training of equipment operators, mechanics and technicians.

Total Cost :

US$174.00 million broken down into: (i) foreign currency cost of US$114.00 million, and (ii) local currency cost of US$60.00 million.

Bank Loan :

The equivalent in various currencies of US$45.8 million from the Bank's ordinary capital resources (OCR), repayable in 20 years including a grace period of 4 years, with interest at the rate of 10.25 per cent per annum.

Date of Approval : 28 August 1984

Other Sources of Finance :

Government of Malaysia, Saudi Fund for Development and Commercial Sources

Borrower : Government of Malaysia

Executing Agency : Penang Port Commission
P. O. Box 143
Penang, Malaysia
Telex No. PELPIN MA 40157
Telephone No. 04-63571

Consultants :

The Executing Agency, from its own resources, has engaged the services of consultants to prepare the detailed engineering plans for and to supervise construction of the Project facilities. An additional 22 man-months of consultant services will be engaged to identify training needs; develop various training programs, including the operation, maintenance and repair of equipment and the management of the container terminal; conduct such training programs; and will assist the Executing Agency in the procurement of the container/cargo handling equipment to be provided under the Project. The consultants for the proposed training program will be engaged in accordance with the Bank's *Guidelines on the Use of Consultants.*

Procurement :

Procurement of goods and services to be financed from the proceeds of the Bank loan will be in accordance with the Bank's *Guidelines for Procurement.* Bidders for civil works financed under the Bank loan will be prequalified. Procurement of goods and services (construction of wharf and bridge) to be financed by the Saudi Development Fund will be in accordance with Saudi Development Fund guidelines. The cargo-handling equipment will be procured under commercial co-financing.

Estimated Date of Completion : 30 June 1988.

Major improvements in container operations at Penang Port

Containerisation has made rapid strides at the Port of Penang in recent years. The trend towards this mode of handling was further accentuated during the first quarter of the year when 24,776 TEU's (20 ft. equivalent unit containers) were handled, reflecting an increase of 28%. For the period January to March 1984, 384,337 tonnes of cargo went by containers, compared to only 316,802 tonnes over the corresponding period in 1983, an increase of 21%. With the steady growth in the container traffic, the Port is expected to handle some 110,000 TEU's by the end of the year.

In view of the fact that containerisation is gaining momentum, the Port Commission is making concerted efforts to further improve its container handling operations. With the fourth transfer crane and its new fleet of chassis put into service at the Container Terminal, towards the end of last year, the turnround time of container vessels has been reduced from an average of 15.5 hours port stay in 1983, to the present 14.8 hours stay time at the Port. Since then, there has also been a significant drop in the average waiting time for berths for container vessels from 14.8 hours in 1983 to 4.4 hours for the same period in 1984.

Bluff Focus — on all-weather meat loaders

Covered cargo loading devices have been tried in certain ports around the world for unloading bananas and loading butter, but the Port of Bluff was the first to operate all-weather meat loaders.

In 1952, when considering a development scheme for the Port of Bluff, the Southland Harbour Board appreciated the necessity for speeding up the loading of frozen meat from the Southland Works, particularly during the peak of the killing season. Some investigation was made into the working of pocket loaders as used by the United Fruit Company, New York, for the loading and discharge of stems of bananas.

In 1953 a Donald portable elevator was purchased from the Auckland Harbour Board and with Meat Boards' assistance was adapted for the loading of carcass and package meat. It was first put into operation on the *Adelaide Star* on 27 April 1954 and was used more or less continuously for the loading of vessels for a period of 2½ years.

Despite the problems of setting up and keeping meat up to the loader, it proved itself to be mechanically satisfactory and its best day's work was when 11,231 carcasses of lamb were loaded into M.V. *Waiwera* on 26 March 1957. While the loader had its limitations and could not be fully weatherproofed, it did prove that the mechanical handling of suitable unit cargoes could double the loading rate and that waterside labour would co-operate in using such equipment.

In conjunction with the working of the Donald loader, the Board carried out an investigation as to the best means by which a system of mechanical loading of frozen meat could be adopted. As a result the Board decided on all-weather mechanical loading, using a system of covered-in conveyors working from a transfer shed.

The Board's staff produced the basic design, conditions and layout of the loading scheme, but could not complete the detailed work necessary for the construction. William Cable Ltd. was called in to complete the detailed design prior to calling for tenders, and during this process Cable's own engineers suggested several changes of design. From these suggestions the final proposal, as it is built today, was developed.

The Board's engineers were responsible for the design and construction of the discharge table in the hold and the temporary hatch covering, without which the successful working and weatherproofing of the loaders would not have been possible.

At Bluff it operates as follows:—

The meat in cartons and carcasses in transported to the transfer shed alongside the ship by road and rail or from the Harbour Board's Cool Stores nearby. The insulated railway wagons are shunted into selected sidings in the transfer shed and the meat unloaded onto an endless conveyor which carries it swiftly to the loading unit of the loader.

At the transfer point a watersider pushes the cartons or carcasses from the belt conveyor into plasticized nylon

(Continued on next page bottom)

Voice:

Advance notice of changes in port costs

Shipowners/operators need to know voyage costs in advance, hereunder port costs. Before fixing the ship they must compare alternative employment possibilities, and make a dependable calculation.

INTERTANKO's Port Information Office gives monthly information about port costs. It happens that we in INTERTANKO can report that a given port charge will be increased by X % in say 2 months' time. Such advance notices about forthcoming cost increases are necessary, yet they are the exception. Most often we learn about the increases after they have become effective.

Over 60 years ago the international community was conscious that port charges must not be made either retroactively or without advance notice to the port users, i.e. the shipping companies. The Convention and Statute of the International Regime of Maritime Ports was born in Geneva in December 1923, and has been in force since July 26th, 1926. This convention says, among other things:

> "All dues and charges levied for the use of maritime ports shall be duly published before coming into force. The same shall apply to the by-laws and regulation of the port. In each maritime port the Port Authority shall keep open for inspection by all persons concerned a table of the dues and charges in force, as well as copy of the by-laws and regulations."

It is not specified how long in advance new charges must be published, except that the charges shall be made known **before they come into force.**

Is the convention satisfactory, then? Well, if only a few days' notice is given, shipowners/operators cannot be warned until the increase in question has already come into force, and definitely not before fixing the ship. It is necessay, therefore, that adequate notice is given.

How long notice-time is necessary? It must be borne in mind that the word takes time to go round from the Port Authority or the tugboat company or whoever is obliged to adjust their charges, via the port agents and international organisations who include information about the increase in their next newsletter. For these reason we make free to demand that a revised charge should only take effect minimum two calendar months after the decision is made known. This means that an upward adjustment published e.g. during the month of May takes effect from 1st August.

It is necessary that intentions to increase charges are made known immediately, without waiting for the new tariff to be ready from the printers, or waiting for approval by the National Assembly. Shipping is better served by hearing in advance that a 4.6% increase has been proposed – even if the increase later turns out to be 4.9% – than learning about the increase after having concluded the freight contract.

As associate members of I.A.P.H. we request the attention of all your Members to this. Please pass our wish on to the relevant authorities who decide the level of dues and charges, to pilots' associations, the port agents, tugboat companies, etc.

INTERTANKO
Port Information Office

(Continued from page 47)

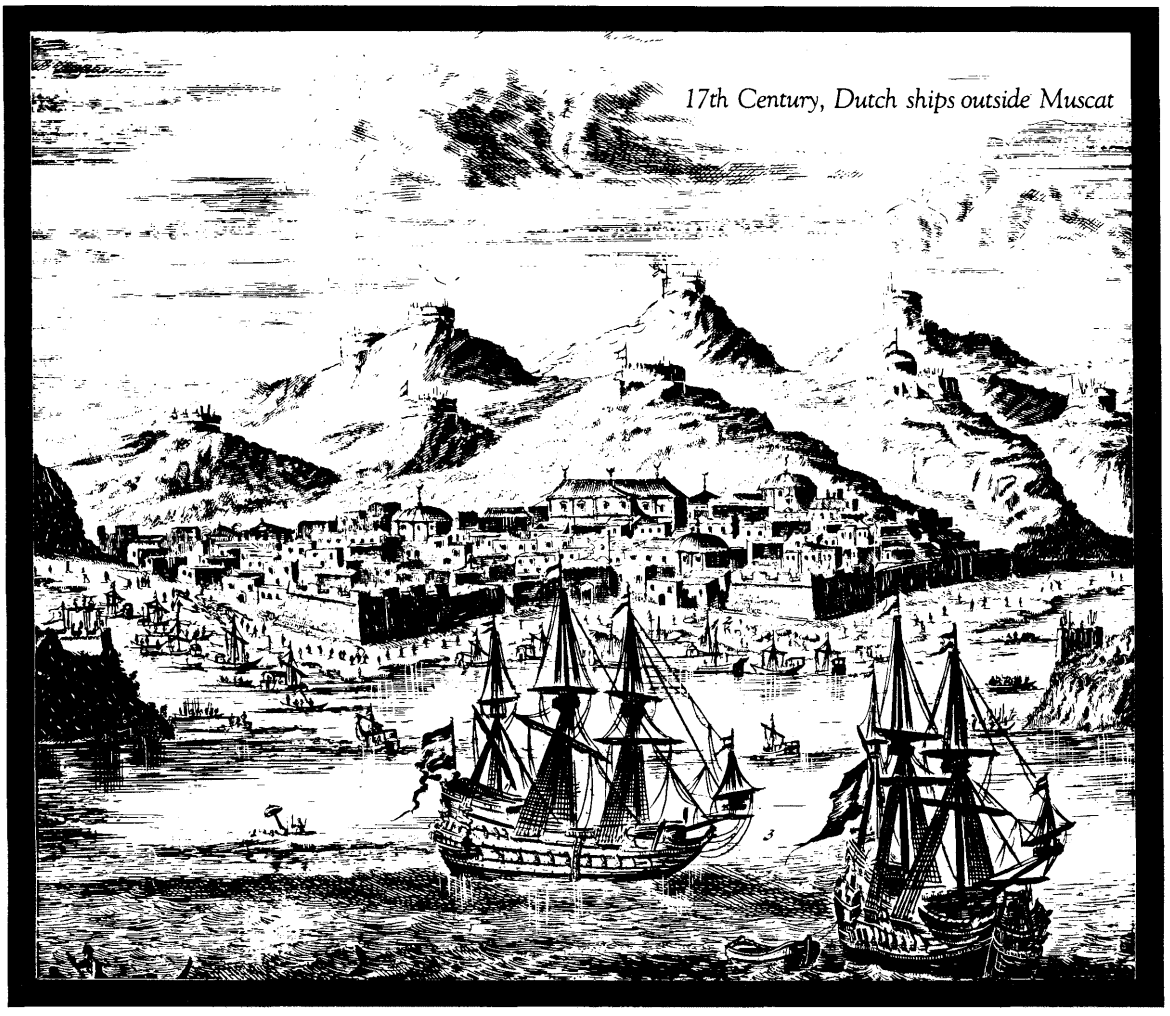
pockets attached at the sides of two endless chains, which travel up through a hatchway in the roof and over the 32 ft high shed, through the sheeted loaded gantry and boom, and then down on the endless chains into the ship's hold.

In the ship's hold the carton or carcass is automatically discharged onto an enlarged shute from which a watersider pushes the carcasses down another shute to be finally stacked manually. With each pocket filled with a 60 lb carcass or carton, 2,100 units per hour can be delivered into the hold, but when loading cartons or carcasses weighing up to 90 lb alternate pockets only are used.

The meat loaders weigh 150 tons and have approximately 260 pockets running 200 ft in the horizontal direction. Each of the manoeuvrable loaders is served by its own belt conveyor and rake of railway trucks in the shed. To avoid shunting delays, rakes of trucks are shunted into the shed with sufficient meat for half a day's work before the loader is started, and again during the lunch break.

There is an intercommunication system between the watersider supervising the discharge in the ship's hold, the Board's operator in the control cabin and the watersider at the loading table in the shed. All of these operators have an emergency button which will stop the machine.

Of the original five loaders only four are now in position and operating. With the changing trend in shipping over recent years the Board decided in 1979 that four loaders would be sufficient for modern reefer vessels and the fifth loader was dismantled in 1981, part of which was used in building the Mobile Grain Loader and the remaining parts used for spares. *(The Bluff Portsider)*



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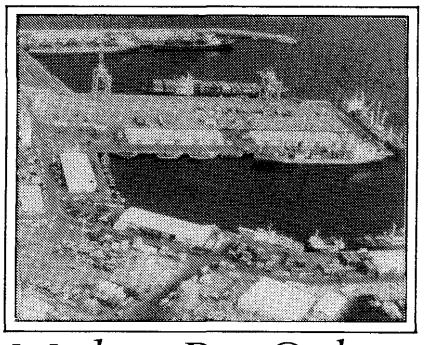

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