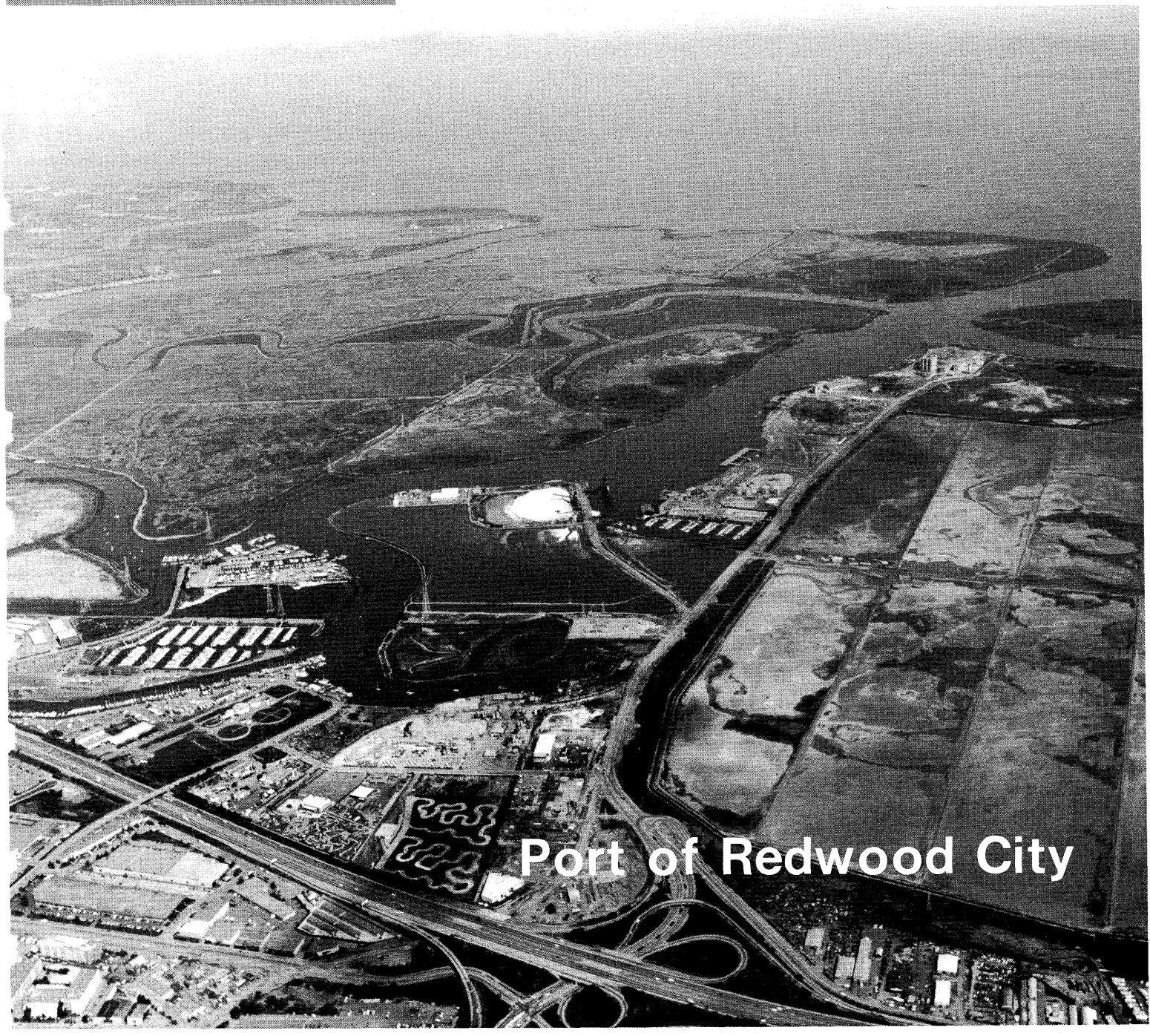
昭和44年11月15日第三種郵便物認可　昭和60年6月号　昭和60年5月20日発行　第30巻第5号(毎月1回20日発行)　ISSN 0554-7555

PORTS and HARBORS

June, 1985 Vol. 30, No. 6



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The Publisher: The International Association of Ports and Harbors

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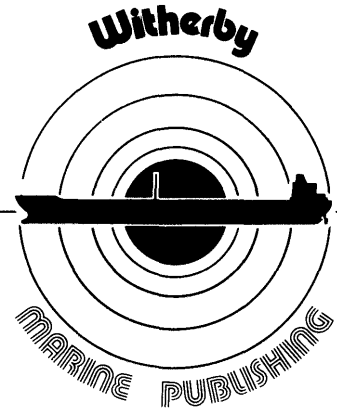

International Safety Guide for Oil Tankers & Terminals

Second Edition ~ 1984

A new edition of the International Safety Guide for Oil Tankers and Terminals has been produced jointly by ICS (International Chamber of Shipping), OCIMF (Oil Companies International Marine Forum) and IAPH (International Association of Ports and Harbors).

This detailed safety guide, produced originally by the International Chamber of Shipping and the Oil Companies International Marine Forum, was first published in 1978 (and reprinted in 1979) by Witherby & Co. Limited of London. The first edition became the acknowledged guide on safety for oil tankers and terminals and achieved very wide acceptance not only within the industry but also on the part of governments. The guide also received international recognition from IMO (International Maritime Organization).

Over two years of detailed work by experts from the international oil, tanker and ports industries has gone into the production of the second edition of the guide. With the exception of chapters 18 (Electrical Equipment and Installations) and 21 (Fire Fighting), which are essentially unchanged, the text has been extensively revised and updated to take into account IMO conventions, industry guidance and tanker casualty information issued since publication of the first edition. Particular attention has been given to the chapters relating to inert gas systems, crude oil washing and tank washing atmospheres, and additional information has been included on management of moorings, electrical equipment, cargo handling and radar energy emission hazards. The second edition also contains a new chapter (22) on the hazards associated with pyrophoric iron sulphide, and three new Appendices.

Copies of the International Safety Guide for Oil Tankers and Terminals, 2nd edition, may be obtained from local booksellers or on direct application to the publishers:

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Book Department, 2nd Floor,
32-36 Aylesbury Street,
London, EC1R 0ET.
Tel: 01-251 5341

at a price of £21.00 per copy

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ISBN 0 900886 88 9. Size A4. Number of pages 220. Bound Hard Back. Price U.K. £21.00 (inc. p & p) surface mail Extra for Airmail Postage.

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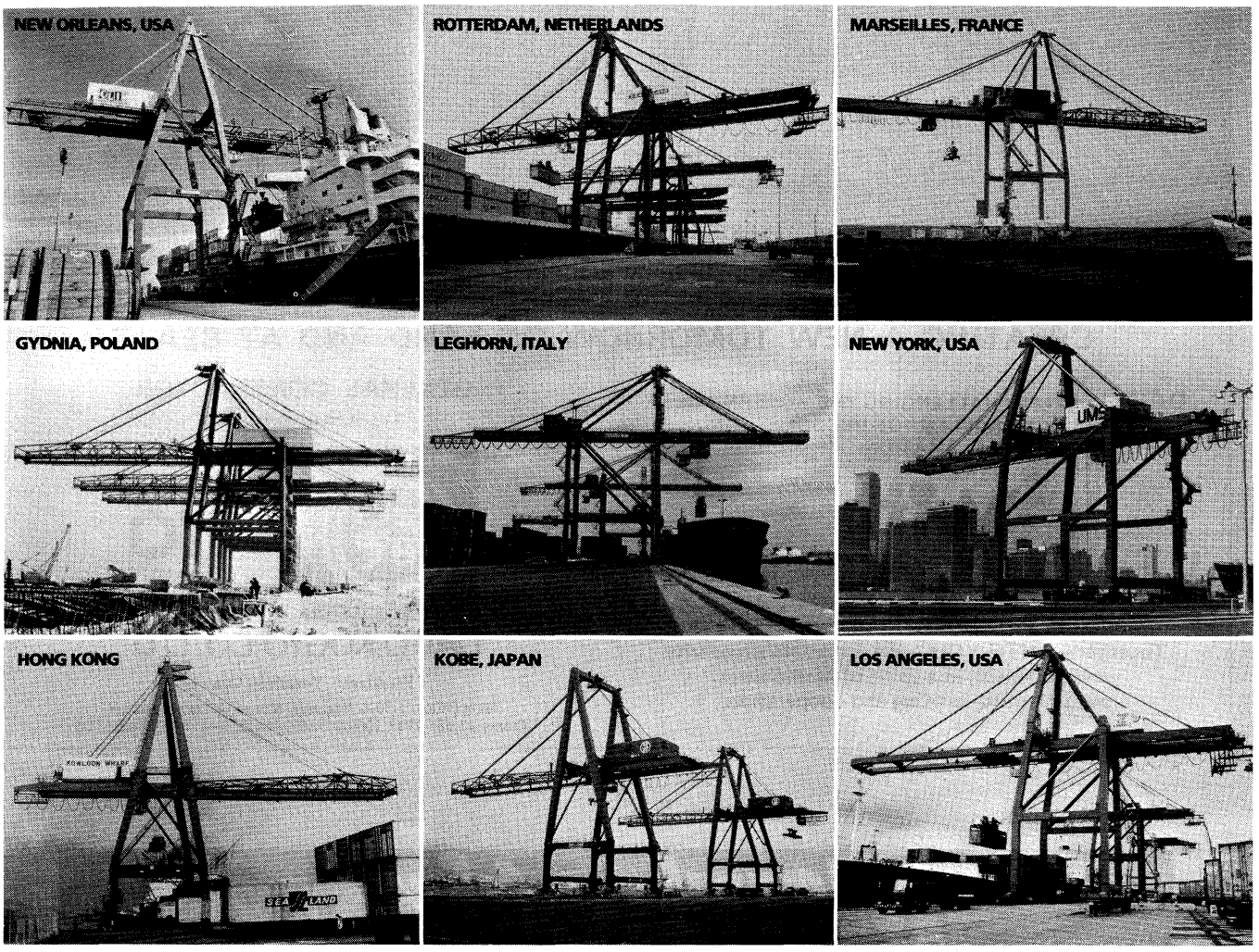

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N.G.O Consultative Status, United Nations (ECOSOC, UNCTAD, IMO)

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June, 1985 Vol. 30, No. 6

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The cover: Port of Redwood City, California

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IAPH announcements and news

The Hamburg Conference will be featured in the July-August combined issue of "Ports and Harbors"

Due to the fact that the editing of the June issue must be finished by the end of April, the news and articles covering the 14th Conference to be held in Hamburg from 4 to 11 May will appear in the July–August combined issue of the journal, which will be sent to all members and readers towards the end of July.

Various reports to the Hamburg Conference completed

The Tokyo Head Office has been fully occupied in printing the various reports to the Hamburg Conference and sending them out to Hamburg for distribution to the conference delegates.

The publications include:

1. Secretary General's Report
2. Report on International Port Development Committee
3. Report on Trade Facilitation Committee
4. Report on Legal Protection and Port Interests Committee
5. Report on Port Safety, Environment and Construction Committee
6. Report on Public Affairs Committee
7. Guidelines on Port Safety and Environmental Protection
8. Report of the Dredging Task Force
9. IMO Paper (Contingency Planning)

Except for the Secretary General's Report, all the committee reports were originally prepared by their respective chairmen and were sent to the Head Office for printing. After several changes or additions to some of the reports on the instructions of the chairmen concerned, the Head Office had all of them printed in Tokyo in time for distribution in Hamburg.

The transportation of these conference papers from Tokyo to Hamburg is to be effected in accordance with the official carrier agreement between Lufthansa Airlines and IAPH.

IAPH members who will be unable to attend the Hamburg Conference will receive all the reports after the event, while those present will receive them as part of their registration "kit"

Compilation of the IAPH Membership Directory 1986 starts

Towards the end of May, all IAPH members will receive a circular from the Secretary General requesting the members' cooperation concerning the 1986 edition of the IAPH Membership Directory.

Upon receipt of the Secretary General's letter, all members are requested to check the information which will be attached to the entry form and to make the necessary corrections and changes for the given items including:

1) name of organization
2) annual volume of cargo handled (in metric tons) covering both general and bulk cargo in the case of Regular members
3) address
4) mailing addressee
5) contacts (cable address, telex number and answer-back address, facsimile and telephone numbers)
6) names and positions of principal officers.

The Secretary General appeals to members not to waste this once-a-year opportunity to acquaint the world ports and port-related businesses which receive the Membership Directory with up-to-date details concerning their organizations.

Members are also invited to run their advertisements in the Directory at reasonable rates, US$330 for a full page and US$200 for a half-page.

Secretary General Sato sends a message to the Port of Chittagong on its 98th anniversary

The 25th of April 1985 was the date on which the ceremony celebrating the 98th anniversary of the foundation of the Port of Chittagong, Bangladesh, was held. Dr. Hajime Sato was invited to attend the event. However, he was unable to do so due to an engagement in Japan, and instead sent a message of congratulations to the Port. The Secretary General's message follows:

Message from Dr. Hajime Sato, IAPH Secretary General to the 98th Anniversary of the Port of Chittagong on April 25, 1985

As the Secretary General of the International Association of Ports and Harbors I feel extremely priviledged and honored to express, on behalf of all members of our Association, our warm congratulations to you on the occasion of the 98th anniversary of the foundation of the Port of Chittagong.

It is true to say that your port, presently known as the Chittagong Port Authority, one of the nation's principal ports, has always played a most important role in the economic development and improvement of social welfare in Bangladesh. I would like to take this opportunity to express

my deepest admiration and respect for your predecessors and all those who have, over nearly a century, contributed their valuable services in guiding the port to its present status.

The role of the Port of Chittagong within our Association has matched the prominent part it has played within Bangladesh. Your port has always participated positively in IAPH's efforts to promote international cooperation and to improve and expand upon exchange of information and perspectives among our member organizations.

A vast array of issues faces the ports of the world today. These include international port cooperation, increased efficiency in port operation and services, investment and resources for development, safety in ports, community relations and the protection of port interests through the maritime world.

It is thus a source of great satisfaction to me to be able to note the distance our Association has come, with the active participation of its worldwide membership, towards handling these issues effectively and finding solutions for the many problems related to them. Close communication with our member ports as well as with the other international bodies with whom we have worked closely on various projects, has formed the cornerstone of our efforts. Our members have derived considerable benefit from the free flow of information and the vast store of expertise that our endeavors have made possible. We are confident that this situation will continue in the future.

A clear picture of our Association's activities will emerge at the forthcoming 14th Conference of IAPH, which is scheduled for May 4 – 11, 1985 in Hamburg, hosted by the City of Hamburg. I sincerely hope that as many people from your organization as possible will be able to attend the significant event.

Finally, I sincerely wish that the Port of Chittagong all success and trust that your Port will enjoy steady growth and prosperity in the future.

Former Vice-President Howard Mann retires

According to his letter of March 19, 1985 to the Secretary General, Mr. Howard A. Mann has left the employment of the Swan Wooster Engineering Co., Ltd. where he served as its Vice President (International).

Mr. Mann's first appearance on the IAPH scene dates back to the 3rd Conference of IAPH, held in New Orleans in 1963. In his capacity as Chairman of the National Harbours Board (presently called Ports Canada), Mr. Mann served as the IAPH Director representing Canada from 1963, and at the 4th Conference held in London in 1965 he was elected as an Executive Committee member. Then, at the 5th Conference in Tokyo in 1967, he was elected as the Second Vice-President, becoming the First Vice-President at the 6th Conference held in Melbourne two years later.

In 1971, Mr. Mann retired from the NHB and moved to Swan Wooster, a Vancouver-based firm of engineering consultants and an Associate member of IAPH. In his new post, Mr. Mann continued to serve IAPH very actively on the various committees and attended 9 out of the 13 conferences.

Mr. Mann, in his letter to the Secretary General, recounts his long association with IAPH as follows:

"Over the nearly 25 years during which I have been a member I have seen the Association grow to world stature. I look back with some satisfaction on having been given the privilege of serving the IAPH as a member of the Executive Committee, as First Vice-President and a member of Technical and Special Committees. I am particularly proud of having been able to chair the Special Committee for the Review and Implementation of the Association's Objectives which in 1966 evaluated the structure of the IAPH and defined categories of membership".

Secretary General Sato in his letter of March 29, 1985 expressed his sincere appreciation to Mr. Mann for his contribution to the development of IAPH and the warm support and guidance Mr. Mann had afforded to the Head Office staff. The Secretary General also wished Mr. Mann all success in his new ventures.

Mr. Mann (left), First Vice-President and Mr V.G. Swanson, President are pictured at the closing session of the Melbourne Conference in 1969.

Reach IAPH Head Office by facsimile

The IAPH Head Office in Tokyo has recently installed a facsimile machine to facilitate communication among its members. The number is:

Tokyo 03-580-0364

Thus IAPH can now be reached either by
Fax: 03-580-0364 or
by Telex: 2222516 IAPH J
Telephone: 03-591-4261
Cable: IAPH CENTRAL, TOKYO

Visitors:

On April 3, 1985, Mr. John Savage, General Manager, Port Sales, the Port Authority of New York and New Jersey, visited the Head Office and was welcomed by Dr. Sato and his staff. Mr. Savage was visiting Tokyo to attend the 5th anniversary of the Ports of Tokyo and New York/New Jersey sister-ports affiliation, which was held in Tokyo in the first week of April. The event was hosted by the Tokyo Metropolitan Government.

Originally, Mr. A.J. Tozzoli, Director of the Port Department and President of our Association, was a member of the delegation from New York. However, Mr. Tozzoli cancelled his trip to Tokyo due to an unavoidable business appointment in New York.

Mr. John Savage, at the instruction of President Tozzoli, took the time to have a meeting with the Secretary General and other secretariat members to go through pending matters concerning the Hamburg Conference which required Presidential approval. Mr. Savage, who used to work under

(Continued on next page bottom)

IMO Reports by Mr. A.J. Smith

IMO's Legal Committee

The fifty-fourth session of the Legal Committee was held from 25 – 29 March 1985 under the Chairmanship of Mr. Robert Cleton (Netherlands).

The session was attended by thirty-eight representatives from Member States, a representative of the United Nations Conference on Trade and Development (UNCTAD), one observer from an inter-governmental organization and twenty-one observers from non-governmental organizations including IAPH.

Draft Salvage Convention

The Committee continued its discussion of the question of salvage, in particular the revision of the 1910 Convention on Salvage and Assistance at sea, with a further examination of the Draft Articles of the convention prepared by the Committee Maritime International (CMI).

Whilst it could be said that ports have only passing interest in most of the draft Convention's articles, discussions of some do need to be rather more closely examined.

An interesting discussion took place on the problem faced by salvors when they sought to enter ports with vessels after salvage. It was stated that port authorities frequently requested financial guarantees before permitting the entry of such vessels. As the guarantee requested sometimes extended to various expenses to be incurred by the vessel during its stay in port which were beyond the control of salvors, such as the wages of dock workers, the International Salvage Union (ISU) considered that such guarantees should be requested of shipowners. It was pointed out that this was particularly necessary in relation to "non-professional" salvors.

The ISU was of the opinion that the salvor should not be responsible for security once the ship was safely in port. Many delegations recognized the concern of the ISU and pointed out that some of the expenses occurred could be completely outside the scope of salvage operators.

However some delegations were doubtful whether it would be justifiable to impose the obligation to give such guarantees entirely on the shipowner. It was pointed out by the International Chamber of Shipping (ICS) that if the shipowners were made responsible for all guarantees, the salvor might not hesitate to accept obligations on behalf of the shipowner which the salvor would not accept for himself; and port authorities might be tempted in such situations to require higher guarantees than would be justifiable or acceptable to salvors.

The observer of the CMI explained that the problem of guarantees had been extensively discussed in the CMI and the conclusion had been that, as the salvor was the person in control when a request for guarantees arose, it was appropriate that the salvor should be the one to provide that guarantee. A number of delegations supported these views.

It was therefore suggested by the Chairman that the matter should be further studied by the parties most concerned with the salvage operation so that a solution acceptable to both the salvors and the shipowners might be proposed to the Committee by the organizations representing those interests.

There was general support for the suggestion that the interests concerned should propose further drafting solutions. It was agreed that in many cases national law might deal adequately with the problem.

The question was also asked with regard to article 2-2,2 whether a new hierarchy of objectives for salvage operations, namely (i) the salvage of lives, (ii) the protection of the marine environment and, finally, (iii) the salvage of property was being developed. The phrase "best endeavors" is used in the article for the salvage of the vessel and property and also to prevent or minimize environmental danger. There was no indication however as to which of these had priority in cases where the salvor could not hope to achieve both objectives.

In a consideration of "Public Law" aspects of salvage the Committee considered the question whether it would be appropriate to require States to establish "ports of refuge" which would be open to vessels in distress.

The Russian, United Kingdom and Swedish delegations were of the opinion that existing practice had not shown up a need to amend powers existing already. In their view it would be better to direct vessels in distress into ports on a case-by-case basis.

While most delegations were opposed to amendments, some observer delegations were of the view that contingency plans did not satisfactorily resolve all problems: practical experience had shown that, in the absence of appropriate ports of refuge, there was always the risk that local authorities would refuse entry into a particular port. It seemed important, therefore, that a central authority be designated on the national level which would be entitled to direct vessels in distress into appropriate ports.

The Committee agreed to revert to this matter during its third reading of the CMI draft Convention in the context of its consideration of Article 2-4.

The Work Programme for the 1986/87 Biennium

The Legal Committee then considered the proposals on

(Continued on next page bottom)

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the late Mr. Lyle King, IAPH President for 1971 – 1973, was indeed an appropriate person to represent President Tozzoli at the meeting. As a result of Mr. Savage's assistance in transmitting the Secretariat's situation to Mr. Tozzoli, all pending matters were cleared.

On April 4, Mr. Francois Algoud, President of TECHNO-EXPO, an Associate Member of IAPH from France, visited the Head Office and was met by the secretariat staff. Mr. Algoud was acting as subleader of a 40 member mission of Federation Internationale de Tai-Jitsu Self-Defense et Disciplines Associees who were in Japan to attend a meeting in Shizuoka. Mr. Algoud and his party visited the Port of Shimizu on the morning of April 8, and enjoyed a boat trip of the port.

CORRECTION – On page 12 of the April issue of this journal in the list of the IAPH Bursary recipients, the title of Mr. Jose Paul of the Cochin Port Trust, was erroneously reported. Mr. Paul is in fact *Additional* Traffic Manager while the Traffic Manager of the Cochin Port Trust is Mr. P.V. Nanappan.

Open forum:

Key Issues in Port Development

By Dr. Yuzo Akatsuka
Manager, Ports Railways and Telecommunications Division, Asian Development Bank

(Extracts from Dr. Akatsuka's Keynote Address for the Asian Dredging and Port Management Conference (PORTECH II))

A. Introduction

Before addressing the topic of port development I would like to say a few words about the Asian Development Bank for those of you who are not familiar with it. ADB is an international partnership of 45 member nations which promotes economic and social progress in the Asia-Pacific region which extends from Korea to Afghanistan/Pakistan and includes many countries in the South Pacific. ADB gives special attention to the needs of the smaller and less developed countries. As of the end of 1984 ADB had provided $15.6 billion in loans to support 656 projects in the agriculture, energy, transportation, industry, development finance and social infrastructure sectors. These loans have been complemented by technical assistance grants to member countries totalling $145 million and regional technical assistance grants of $24 million.

B. The Economies of Asia

If there is one word that could be used to describe the economies of the Asian region, that word would be dynamic. Econoimic growth in most countries in Asia over the past 20 years has been rapid. Because of low levels of inflation there have been major improvements in the standard of living. Rising food production, increasing industrialization and expanding international trade reflect successful development strategies in Asia. This impressive economic performance is expected to continue. The rapid growth in international trade has placed increasing demands on the transport system. Because the impact of economic development and the associated growth in trade is felt heavily in ports port development must be accorded high priority so that inadequate facilities do not constrain economic development. It is particularly appropriate that PORTECH II is being held in Indonesia so that participants from outside the region can feel the dynamism of the Asian economy.

(Continued from page 9)

the work programme for the 1986/87 biennium. Particular note was taken in this regard of the high priority which the Council and Assembly had assigned to the work on salvage and related issues.

The Committee confirmed that the subjects on its work programme for the 1986/87 biennium should include:

(a) salvage and related issues, including consideration of appropriate public law issues;
(b) maritime liens and mortgages, in the light of the conclusions which would be reached following the discussions at the fifty-fifth session, and on the basis of the procedure agreed between IMO and UNCTAD on future work on this subject; and
(c) the draft HNS convention, in the light of the conclusions and recommendations which the Committee might make following its consideration of the report of the Secretary-General, and the decisions of the Council on those conclusions or recommendations.

With respect to the work on the draft HNS convention, the Committee reiterated its view that, depending on the decisions to be taken by the Council on the possible future work in IMO, it might be useful for the Committee to consider in the context of such work, the question of liability and compensation for damage from fire and explosion on board unladen tankers.

Date of Next Meeting

The Legal Committee will hold its fifty-fifth session from 7 – 11 October 1985.

* * * *

Membership Notes

New Members

Regular Members

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Office Phone: 045-671-7291
(Mr. T. Ikezawa, President)

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C. ADB's Contribution to Port Development

By and large, the need for port development has been recognized in Asia. Looking around the region, one can see the development and expansion that has taken place since 1970.[1/] ADB has contributed to this progress. By the end of 1984 ADB had extended loans totalling $623 million to support 35 port projects in 17 countries. Reflecting the widely differing needs of the region, loans for port projects have ranged from of about $1 million for small-scale port improvement projects in the Cook Islands and Tonga to $86 million for the expansion of Surabaya Port in Indonesia.

An important element of many projects was helping ports to adapt or modernize their facilities to deal with changes in shipping technology. Where appropriate, specialized container facilities[2/] and bulk cargo terminals[3/] have been funded. Often continuous phased financing has been provided to expand port facilities consistent with growing traffic demands.[4/] ADB has also assisted in the development of new ports to stimulate the economic and social development of certain regions or to handle traffic emanating from new industrial development.[5/]

Apart from financing civil works and consultant services, ADB has financed the procurement of cargo-handling and other port-related equipment such as tugs, dredgers, harbor craft, port safety systems and equipment maintenance facilities to help promote the efficiency of port operations and consultant services.

1/ e.g., Incheon, Busan, Hong Kong, Singapore, Manila, Jakarta, Surabaya, Penang, Kelang, Chittagong, Port Qasim, Karachi, Bangkok, Rangoon, Kaohsiung, Keelung, Madras and Bombay.
2/ e.g., Manila in the Philippines, Surabaya in Indonesia, Penang in Malaysia.
3/ e.g., Port Qasim in Pakistan, Penang, Kuantan and Bintulu in Malaysia, Incheon in the Republic of Korea.
4/ e.g., three projects at the Port of Surabaya in Indonesia, three projects at Penang Port in Malaysia and two projects at Incheon Port in the Republic of Korea.
5/ e.g., Port Qasim in Pakistan, Bintulu and Kuantan Ports in Malaysia, Cotabato Port in the Philippines.

D. Performance of Completed ADB Port Projects

I would now like to briefly summarize the results of completed ADB-financed port projects. Twenty-two of the 35 port projects have been completed. Of the 22 completed projects 14 had been evaluated as of the end of 1984. These evaluations concluded that as a group the ADB-assisted port projects have performed well by contributing to the more efficient handling of increasing volumes of traffic. Port authorities have also benefited from the institution-building support provided with ADB assistance. Overall, the economic impact of port projects has been good with the projects achieving an average Economic Internal Rate of Return of 17 per cent.

E. Key Questions Considered for Port Projects Proposed for ADB Financing

Port projects proposed for ADB financing normally involve the expenditure of tens of millions of dollars. Expenditures of such magnitude should be preceded by a detailed feasibility study to ensure that the proposed project is technically sound and economically and financially viable. ADB assures itself that seven basic questions are properly addressed during project formulation before providng the necessary funding. In discussing these seven basic questions I hope to raise some of the issues that will be addressed in more detail by other speakers.

QUESTION 1 – Does the Project "Fit With National Development Priorities" and the Long-Term Development Plan for the Port?

National strategies to develop the ports sector should be formulated within the framework of transportation plans which ensure balanced and coordinated development of the maritime sector in the context of overall transportation investments and national priorities. Master plans covering the maritime sector as a whole should be prepared identifying a long-term plan for the development and future investment priorities. An important element of sector development plans would be a review of the structure and responsibilities of the institutions involved in managing the sector and the policies and regulations which affect the sector.

Within the framework of the maritime sector plan, master plans should be prepared for each major port to guide future port development. By their nature master plans are long range sketches; they must be supplemented by detailed investigations when major investment decisions are being considered. ADB will continue to make technical assistance available to assist in the preparation of port master plans and the formulation of maritime development plans.

QUESTION 2 – Is the Proposed Scope of the Project Consistent with Anticipated "Increases in Traffic" and Expected Trends in Shipping?

It takes six to eight years to plan and construct major port facilities. Consequently, the size and scale of the facilities are based on forecasts of the volume and mix of cargo and changes in shipping technology. Preparing long-range forecasts is difficult because they are subject to uncertainty and future events which cannot be foreseen when the forecasts are prepared. The uncertainty associated with forecasting has been particularly evident during the past three or four years.

Traffic forecasts should be prepared on a commodity by commodity basis taking into account likely developments in the hinterland of the port. The origin and destination of each major type of cargo needs to be examined. The traffic forecasts should also reflect a careful examination of the comparative advantage of each port relative to other competing ports in the region. Experience indicates, however, that the throughput may not always develop as forecast due to unforeseen circumstances. During project formulation different levels of traffic estimates and alternative physical solutions should be considered. Consideration should be given to the possibility of providing for a phased project design that would allow for adjustments required by changing circumstances.

Once the traffic forecasts have been prepared the types of ships in which the cargo will be carried and whether the cargo will be handled in containers or in bulk or break bulk form must be considered. During the last thirty years

trends in shipping have had great impacts on port development. The size of crude oil tankers and bulk carriers has increased 20 times and containerization of general cargo has been introduced. Large tankers and bulk cargo vessels require deeper water and specialized and highly-mechanized cargo-handling systems.

The rapid growth of containerization with its new and special requirements is greatest technological change confronting ports in the region. The introduction of containerization has far reaching effects on both the hardware (e.g., containers, ships, cargo-handling equipment, container yards) and software employed (e.g., multimodal systems, legal procedures, port operations and management, technical skills and training, customs procedures).

QUESTION 3 – Can the Port Be Made More Efficient in a "Non-Capital Intensive" Way?

Constructing new port facilities can be very expensive. Before deciding to embark on a major construction project the efficiency of the port should be carefully analyzed. Such an analysis may conclude that port congestion is atrributable to unsuitable policies such as those relating to berthing priorities, tariffs, cargo-handling techniques, labor management practices, customs procedures or port management practices.

Operational aspects of ports are as important as the physical port infrastructure. The capacity of many ports can be increased by making more efficient use of their facilities – better management, attention to training, improved maintenance and better coordination of operations. Increasing port efficiency is a complex task and may involve extending the hours of operation, introducing a two or three-shift system, providing labor incentives, changing cargo-handling procedures, introducing more mechanization, cargo unitization and palletization, improving gang organization and supervision, improving the marshalling of cargo in storage areas, strengthening equipment maintenance procedures and improving berth allocation procedures. Although difficult to achieve, appropriate changes in policies and procedures can have great impacts.

An important contributor to port efficiency is the system for maintaining equipment and civil works. When appraising port projects ADB examines the maintenance system to ensure that the project facilities will be properly maintained. As necessary, the scope of the project may include consultants to review and strengthen maintenance systems and the financing of maintenance related workshops and equipment.

It is most appropriate that several of the sessions of Portech II are focused on port efficiency and cargo handling. While some Asian ports attain very high productivity[1/] there is room for improvement at others. Often port operations experts are provided under ADB-financed projects to assist in this area. ADB is also watching with interest efforts to improve port efficiency through privatization in countries such as Malaysia and Thailand.

1/ e.g., Singapore, Hong Kong, Incheon, Penang, Kelang.

QUESTION 4 – How is the "Adequacy of Port Management" and Administration?

The managerial and administrative structure is an important aspect of any port and several speakers will address this issue in detail. Most of the ports with which ADB has been involved would be classified as well-managed. Two important dimensions of management are: (i) planning and carrying out operations; and (ii) diagnosing and solving implementation problems. Many decisions have to be made each day in order to manage and control a port. Management, therefore, must have access to pertinent, accurate and timely information. A good information system is an indispensable management tool. ADB examines port management information systems and, as required, management consulting assistance is provided to help make necessary improvements.

In order to obtain full benefits from investments some ports require assistance for institution-building, managerial development and improved operations. Expert advisors and training assistance are sometimes necessary to strengthen port authorities.

Training provided under Bank-assisted projects normally focuses on specific activities – for example training in container terminal operations and equipment maintenance will be funded as part of the container development project at Surabaya. ADB also encourages other international organizations such as ESCAP, UNCTAD, ILO and IMO to continue their training efforts in the maritime sector.

QUESTION 5 – Have the "Necessary Studies" Been Undertaken to Ensure that the Project is Technically Sound from an Engineering Point of View?

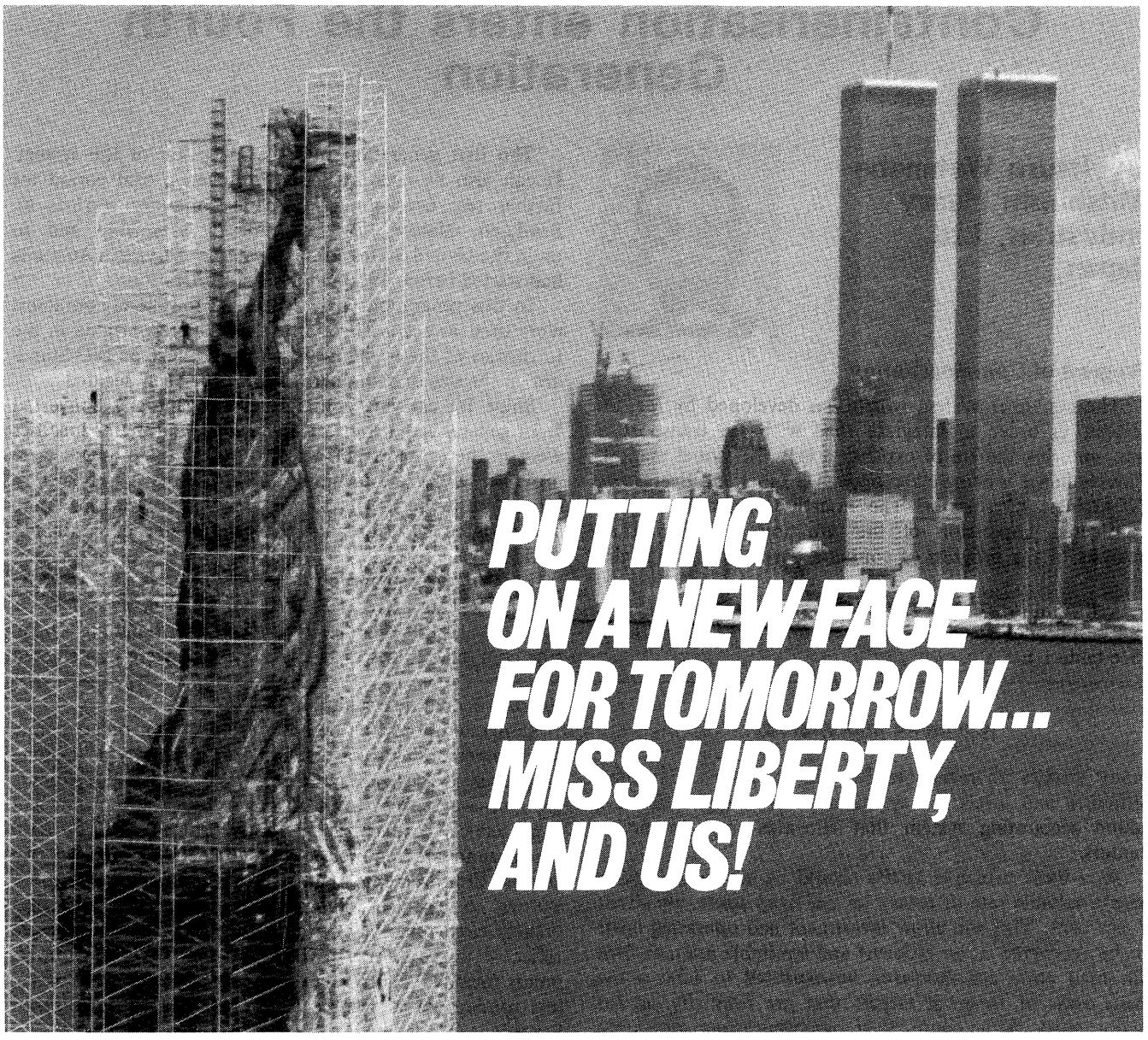
The engineering aspects of port projects must be throughly examined to ensure that the project is technically sound. For ADB-financed projects preliminary engineering is undertaken at the feasibility study stage followed by detailed design prior to construction. At both stages ADB tries to ensure that the engineering work is undertaken by firms that are well qualified and experienced. ADB also reviews detailed designs and tender documents before construction begins.

Consultants play an important role in the successful implementation of port projects, particularly in undertaking detailed design and construction supervision. ADB emphasizes transfer of technology and encourages increased utilization of local consultants. Meaningful transfer of technology is only feasible through the accumulation of practical experience gained by exposing local consultants to actual planning, design and construction. Extensive participation of local consultants is needed so that they can eventually carry out development projects in their own countries with limited or no foreign assistance.

QUESTION 6 – Will Policies Promote "Cost Recovery" in an Equitable and Efficient Manner?

There has been much discussion as to what rate of return ports should earn on their net fixed assets. Since mainly major ports have been assisted ADB-financed port projects have, in principle, aimed at establishing commercially viable and financially self-sustaining entities. Experience indicates, however, that it is often difficult to achieve such objectives, particularly in cases involving new ports. In order for ports to be self-financing, tariffs must be cost-based. ADB is particularly interested in tariff structures and has financed

(Continued on page 14)



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Containerisation enters the Fourth Generation

By Itsuro Watanabe
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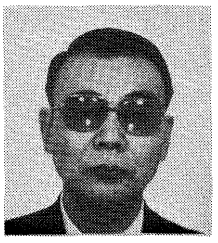

Progress of Containerisation

The container system which was developed by Mr. M. Mclean in order to integrate road with sea transport is now entering the era of expansion into the global market. This challenge is being taken up by US Lines and Evergreen. "Containerisation Enters The Fourth Generation" is my considered impression of the situation based upon an analysis of the progress of containerisation from its beginning.

The progress of containerisation up to its present stage can be chronologically categorized into three generations. (See table 1.).

The first generation saw the inception of the system. It can also be regarded as having been a trial period for further real development. Coastal container services by Sea-Land, Matson, Seatrain, Alaska Steamship and so on in the United States and by Seatainer Service in Australia had started before 1966 in the First Generation.

In this generation, 17-, 24- or 35-foot long containers were used in accordance with the road regulations in the territories of the respective services, because an ISO Standard on the size of containers had not yet been decided.

Ships for carrying containers were generally converted from general cargo ships or oil tankers, and their capacities were in the range of 500 to 800 TEU. Most of them were provided with self-sustaining gantry cranes on board to handle containers. Of course, semi-containerships were also adopted in accordance with the degree of containerisation on the trade.

In the early stages of the first generation, existing breakbulk cargo berths backed up by forklift trucks or yard use tractors were used for container handling. Quayside container cranes of the A-frame type were first erected

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(Continued from page 12)

many studies to review tariffs and to ensure that their structure and levels are appropriate and supported by a sound accounting system that allocates costs to service centers.

As a basic principle tariffs should be set so that ports earn a suitable rate of return on net fixed assets, say about 7 per cent. This will allow investment and operating costs to be recovered in an efficient and equitable manner. Not all small ports can, however, be expected to achieve the same sorts of financial targets that are normally set for major ports. While some cover operating costs others are operated as public infrastructure. Sound financial management of such ports should, however, be encouraged. It may be possible to group ports within a country, as has been done in Philippines, Indonesia and Burma, so that financial targets can be specified for a group of ports.

In principle new ports should earn a satisfactory financial rate of return but this is sometimes difficult to achieve during the initial years of operation. It often takes several years for the traffic to build up. The creation of new port often includes expensive items such as capital dredging and breakwaters which have long lives and which are adequate for port expansion for 10 or 20 years in the future. Also, the tariffs which can be levied by new ports are sometimes conditioned by the tariffs of competitive ports. Thus during the initial years of operation it may not be possible for tariffs of new ports to be strictly cost-based.

QUESTION 7 – Is the Port "Economically Viable"?

In the 1980s all Developing Countries will be facing increasing demands on their limited internal financial resources. External aid agencies are also having greater demands placed on their resources. Accordingly, allocation of financial resources will have to be based on increasingly rigorous economic evaluation.

Congested ports can be a major constraint on economic development. This is particularly true in rapidly developing areas such as Asia. The main benefits of port improvements are normally derived from savings in ship waiting time and ship service time. Efficient ports which minimize ship turn-around are required by the owners of large, costly vessels. Improvements that reduce the time spent either waiting to berth or alongside the wharf can save ship owners large sums of operating expenses. Such savings are reflected in freight rates. Other benefits of port improvements include reduced breakage, loss and pilferage of cargo, less spoilage of perishable cargoes and safer handling of hazardous cargoes.

In order to assess the economic impact of port projects, ADB insists that the economic costs and benefits of projects be quantified and used to calculate an Economic Internal Rate of Return. Generally, we would expect the EIRR to be 12 per cent or greater for port projects which are proposed for ADB funding.

F. Concluding Remarks

In order to help remember the seven questions which I have discussed, key phrases have been identified: Fit with National Development Priorities in Question 1; Increases in Traffic in Question 2; Non-capital Intensive in Question 3; Adequacy of Port Management in Question 4; Necessary Studies in Question 5; Cost Recovery in Question 6; and Economically Viable in Question 7. You may be wondering why these phrases have been selected. Together the first letter of the first word in each of these phrases spells FINANCE. If each of these questions are adequately answered then ADB will likely finance the port project.

I have tried to summarize some of ADB's experience in the ports sector and to broadly indicate some of the key factors which are considered when ADB examines port projects.

at Matson's terminals in Honolulu and Alameda. Then in 1965, Sea-Land Service mounted a large number of quay-side container cranes at their major container terminals in the United States of America.

Sea-Land adopted all-chassis systems for container handling in their terminals and Matson adopted straddle carriers, which were jointly developed with Clark Equipment, for theirs. Small-sized, 3-lane type rubber-tyred transfer cranes were adopted in many railway freight terminals for piggy-back operations at that time.

After containerisation proved successful in producing a rationalised transport system, several major shipping companies in the USA made plans to containerise international trade in 1965. The first lift-on/lift-off full containership, "FAIRLAND" of Sea-Land, pioneered their container service between the US East Coast and Europe in April of 1966. This marked the opening of the Second Generation. Firstly, trade across the Atlantic was containerised by major US and European shipping companies, and then Trans-Pacific Trade was also containerised – by Matson navigation Co. in 1967.

The international container services in the second generation were mainly operated acorss single oceans such as the Atlantic or the Pacific, with the exception of the service between Europe and Australasia. Most of the advanced industrialized countries such as the USA, the European countries, Australia, New Zealand, Canada and Japan, entered the international container age in this generation.

As the skeleton of the ISO Standard on freight containers was fortunately decided just before the opening of the second generation, 20- and 40-foot long containers complying with the ISO Standard were mainly adopted for international services in that generation.

In the early stage of the generation, converted full containerships and semi-containerships were in the majority. However, purpose-built new containerships of both the lift-on/lift-off and roll-on/roll-off types gradually entered into service. The range of their capacities was 700 to 1500 TEU. In general, no cargo gears were provided.

In this generation, purpose-built container terminals equipped with quay-side container cranes were constructed at the major ports of containerised countries. A handling system involving the use of rubber-tyred transfer cranes began to be adopted, in addition to the straddle carrier and all chassis systems. The idea of utilizing side-loaders for container handling in the container terminals was also circulated, but did not, unfortunately, achieve much popularity. The use of computer systems at the major terminals to control terminal business became commonplace.

Around 1971, long-distance international container services straddling several oceans, such as trade between Europe and the Far East and that between Europe and the West Coast of the USA, were inaugurated. Moreover, containerisation was about to penetrate to developing countries in South-East Asia, the Middle East, South America and so on. It was the dawn of the Third Generation.

There was a tendency to enlarge the size of containership to the Panama Canal limit. In this generation containerships having capacities of over 2000 TEU appeared. However, the trend towards high-speed containerships ceased upon the occurrence of the oil shock in 1973.

In order to cut down on fuel oil consumption, large horse-powered steam turbines began to be replaced with diesel engines, as the main engines of high-speed containerships, even though this entailed a reduction in speed. A notable development in this generation was the appearance in specified trades of LASH and Seabee, a new approach to introducing intermodal transport between oceans and intrawaterways by unitisation using lighters and barges. However, this innovation gradually came to be discarded because of political restrictions on the activities of lighters and barges in inland seas and rivers of countries other than those in which they were registered, and because the effect of unitisation using lighters and barges was less dramatic than had been expected. Even roll-on/roll-off type containerships had the tendency to provide more capacity of lift-on/lift-off portion.

In the latest generation, containers of 9′ or 9′-6″ in height, so-called high-cube containers, were introduced by several container operators in the USA. Heights of 9′ or 9′-6″ deviated of course, from ISO Standards. However, their strong competitive appeal made them take root all over the world.

With the extraordinary expansion of containerisation, containers came to be stacked 3 or 4 high in many container terminals through the use of newly-developed tall straddle carriers or rubber-tyred transfer cranes of wide span. Moreover, the hoisting speed and trolley-traversing speed of quay-side container cranes were increased to achieve high efficiency in container handling. Semi-automatic terminal operations of rubber-tyred transfer cranes providing automatic steering and data transmission systems by underground guide wires appeared in some advanced container terminals.

In this generation, land-bridge operations combining railway with sea transport were organized on the trans-Siberian route and routes between the US West Coast and US Gulf area or the US East Coast.

In 1984, the total quantities of containers in use throughout the world reached about 3 million TEU.

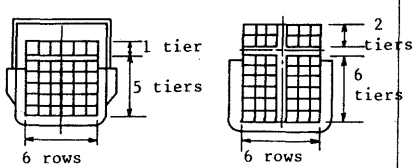
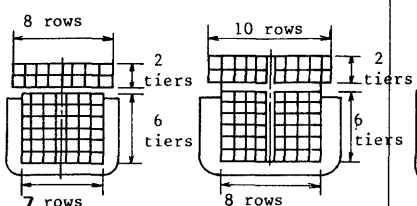
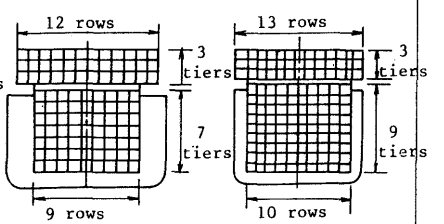
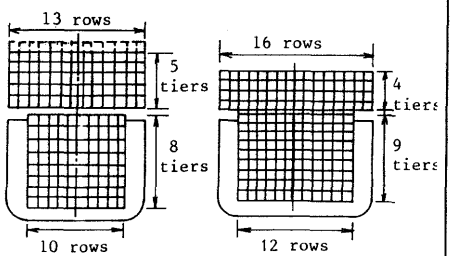
Projections for the Fourth Generation

In the early period of the second generation, it was reported that totally containerised operations required a huge initial investment to provide a fleet of containerships and containers and to establish fully equipped container terminals and so on. Therefore, at that time the international container operators were limited to the traditional major shipping companies in advanced countries.

Because of promotional efforts of many ports providing fully-equipped container terminals by themselves, and due to the rapid growth of leasing companies for containers, however, container operations came to be as easy to set up as conventional liner operations. Accordingly, in the third generation, many national-flag shipping companies in the developing countries of South-East Asia, the Middle East and South America began to participate in container operations.

In order to compete with the newcomers established in developing countries, the traditional container operators in advanced countries came to serve many ports in developing countries on the trade routes in addition to limited ports of call in existing services. Thus, networks providing feeder services to trunk line services were sometimes reorganised in accordance with the changes in the ports of

Table 1. PROGRESS OF CONTAINERISATION

	The First Generation	The Second Generation	The Third Generation	The Fourth Generation
Chronology	Age of domestic coastal services before 1966	Age of short international service across one ocean since 1966	Age of long international services through plural oceans since 1971	Age of round-the-world services since 1984
Examples of services	Coastal services in U.S.A. and Australia	Trans-Atlantic and trans-Pacific services	Services between Europe and Far East, and U.S. West Coast and Europe	Round-the-world services by U.S.L. and Evergreen
Territories Containerised	U.S.A., Australia	Advanced countries such as U.S.A., Europe, Australia, Japan, etc.	Developing countries in South-East Asia, Middle-East, South America, etc.	World-wide including China, India and Countries in Africa
Containers	Pre-ISO Standard size ... 17', 24', 35' long	ISO Standard size ... 8/8'-6' x 8x20'/40'	High cube type ... 9', 9'-6' high	Deviation from ISO Standard size ... 45', 48' long
Container-ships	Mainly, converted ships with on-board cranes "Gateway City" "Hawaiian Citizen" 135.7mx22mx7.7m 141.8mx21.3mx9m 7,785DWT 10,282 DWT on-board crane  35'-60(deck)+35'-166(hold) 24'-112(d)+24'-296(h) 24'-408 total 35'-226 Semi-containerships also engaged.	Purpose-built Ships of 700 - 1,500 TEU capacity "America Maru" "Hakozaki Maru" 175mx25mx9.5m 200mx30mx9.5m 15,440 DWT 19,914 DWT  228 TEU(d)+488TEU(h) 354 TEU(d)+656 TEU(h) 716 TEU 1010 TEU Ro/Re-ships also appeared	Purpose-built ships over 2,000 TEU capacity (Panamax size) "Kurobe Maru" "Frankfurt Express" 242mx32.2mx10.5m 271mx32.2mx13.0m  850 TEU(d)+979 TEU(h) 1105 TEU(d)+1940TEU(h) 1825 TEU 3045 TEU LASH and Seabee appeared and disappeared	Purpose-built ships over 3,000 TEU capacity (Possibility of over-Panamax size) "ECONOSHIPS" "Over-Panamax" 279mx32.2mx11.65m (Planned) 57,800 DWT 39.6m (Breadth)  996 FEU(d)+1232FEU(h) 2228 FEU about 5500 TEU
Quay-side container cranes	Alameda, Matson Terminal Rated capacity 25.4t, 30-5m/min(hoist) x125m/min(traverse) Total weight 350t, 27.85m(outreach) x10.37m(span) x15.63m(clear lift)	Kobe, Maya-Pier 25.4t, 30x130 464t, 33.5x16x19.5 Yokohama, Hommoku 30.5t, 36x160 600t, 32x30x21	Yokohama, Hommoku 30.5t, 49x152 640t, 36.1x30x27 Telescopic spreader Brisbane, BATL 36t, 40x152 850t, 37.3x25.3x29 Telescopic spreader	Rotterdam, ECT 55t, 50x210 1250t, 50x35x30 with 2nd trolley 60 cont/hour Tacoma, Sea-Land 40.6t (48.8t in future) 1000t, 39.9x30.5x27
Container terminals	Straddle carriers, Clark-525, 1 over 1, 165 PS (24')	Mitsubishi Vsc20, 1 over 1, 180 PS (20') " Vsc40, 2 stacking, 190 PS (40')	Mitsubishi Vsc2023 (20') 2 over 1, (40') 2 stacking, 180 PS " Vsc4023, 2 over 1, 200 PS (20'/40')	Mitsubishi Vsc4233, 3 stacking, 2x200 PS, (20'/40') Nellen 904, 4 stacking, 2x180 PS (20'/40')
	Transfer cranes, (2 cont. lanes + 1 traffic lane) x 2 over 1	(6 + 1) x 3 over 1	(6+1) x 4 over 1 (semi-automatic)	
	Large forklift trucks, Yard use tractors	Top-lift trucks, Side loader		
		Computerised	Computerised, Semi-automatic operation	Computerised, Advanced automatic operation
Remarks			Feeder service networks land-bridge operation	NVOCC Integrated service of surface with air transport

call of trunk line services.

In principle, an increase in the number of ports of call on a service route invites a fall in the working efficiency of containerships. In such cases, container services will gradually approach a similar situation to that existing in the later phase of conventional high-speed liner services, characterized by low working efficiency on ships because of greatly increased port time. Container operators are faced with the dilemma of either upgrading their service and collecting more cargoes by calling at additional minor ports, or maintaining high working efficiency on ships by neglecting the minor ports.

On the other hand, every container operator has found itself faced with unprecedentedly severe competition due to the participation of the newcomers. As a result, strategies to raise the turnover of container fleets are becoming increasingly important to overcome the competition among container operators.

Taking these problems in the latest, or third, generation into consideration, a strategy to be adopted by container operators in the next, or fourth, generation is anticipated, revolving round the following three points:

Firstly, the size of containerships will tend to be enlarged to over 3000 TEU capacity, and even the restriction on ship sizes imposed by the Panama Canal may be ignored by some container operators whose services do not include that waterway, in order to reduce the transport cost per container by masstransport.

Secondly, returning to the original principle of container services as clearly described in "The Key to Low Cost Transport" by Mr. Mckinsey, trunk line services by large capacity ships will select a very limited number of major ports, which are well supported by feeder service networks, to call at.

Thirdly, the concept of round-the-world services will become a reality so as to achieve the efficient utilization of containerships and containers by the integration of existing independent container services based upon the demands of respective shipping routes.

These three points are inconsistent with each other in some cases, but overlap in others.

Round-the-world services pioneered by US Lines and Evergreen are integrating all three points into a comprehensive whole.

These circumstances and concepts are expected to herald a new era of containerisation, that is the fourth generation. Thus, now it can be said that "Containerisation enters the Fourth Generation"!

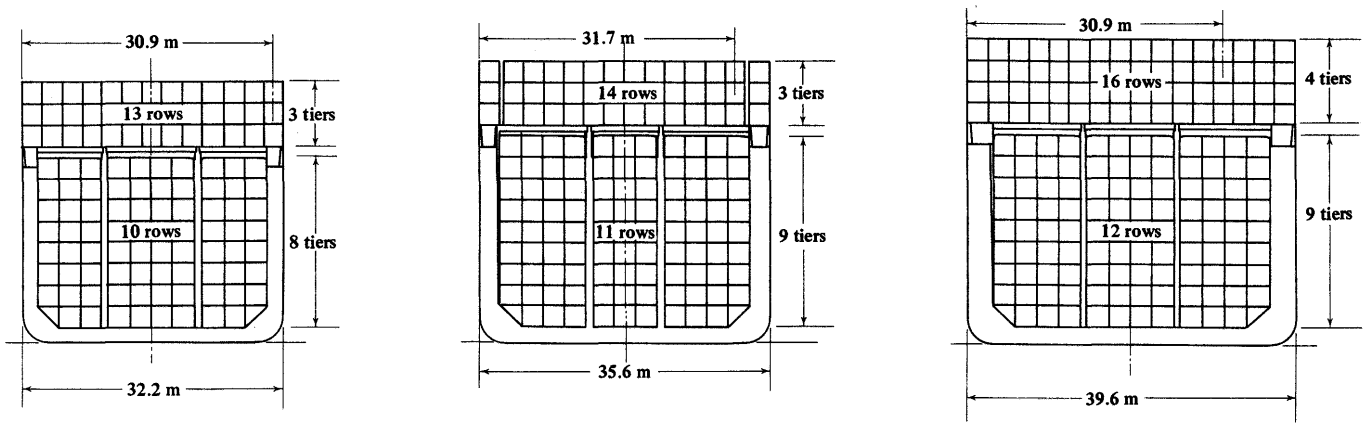
In this generation, China, India and countries in Africa will be containerised and the age of global containerisation will be with us. However, new problems such as coexistence and conflicts between existing container operators as carriers and NVOCCs as forwarders, and intermodal transport in which surface is integrated with air transport, will certainly occur in this generation.

It is estimated that the maximum capacity of PANAMAX size containerships of 10 rows of containers abreast in hold, 13 rows abreast on deck, 8 tiers in hold and 3 tiers on deck, according to the normal design, is about 3500 TEU, as shown in Fig. 1. Of course, a capacity of over 4000 TEU, like that of US Lines' ECONOSHIP, may be attainable by increasing the block coefficient and the tiers of containers stacked on deck.

The maximum capacity of over-PANAMAX containerships 35.6 m in breadth, as shown in the middle of Fig. 1, is estimated at 4500 TEU, where there are 11 rows by 9 tiers in hold and 14 rows by 3 tiers on deck. In this case, a capacity of 4500 TEU capacity is obtained with a PANAMAX size of ship by the special design above-mentioned, so the possible gain from making over PANAMAX ship may be faint. For an over-PANAMAX size of ship, as shown in Fig. 1 (right), the maximum capacity is estimated as 5500 TEU in the case of 12 rows by 9 tiers in hold and 16 rows by 4 tiers on deck. The gain of over-PANAMAX size is remarkable in these ships. Therefore, this type is most likely to appear in the fourth generation.

Where fleets of huge containerships with capacities of more than 3500 TEU are used, the number of ports of call must be reduced to a minimum in the container service in order to ensure the maximum efficiency for the fleet. The containers to be handled at the ports of call in such cases include large numbers of containers transshipped to or from feeder ports by small relay service ships, in addition to containers directly delivered to consignees or received from shippers through the port of call. Thus, the ports of call so selected will handle more transshipped containers than they did before. Container handling at the ports of

Fig. 1. Containership Midship Section



PANAMAX

OVER-PANAMAX

call will have to take the efficiency of the transshipping operations between the trunk and feeder service ships into consideration. This situation will involve large-scale automation of container handling, because the handling of containers transshipped between trunk and feeder services, which are both under the control of the same operator, will be more easily automated than the handling of containers to consignees and from shippers through the terminal gates, which is sometimes outside the control of the terminal operator.

However, there will of course be difficulties in putting the above-mentioned strategy into practice in the fourth generation. The technology for building over-PANAMAX containerships, other than the best method for stacking containers on their decks, has been fundamentally mastered. As regards stacking, the usual practice of lashing cargoes with steel wires and rods sometimes causes problems concerning the stability of the containers when ships undergo severe rolling, and the safety of long-shoremen is sometimes endangered especially when the containers are stacked to a height of more than 4 tiers in ports. Furtheremore, this practice requires many man-hours and accordingly leads to high labor costs.

To cope with these problems, some innovations such as the buttress method employed by Sea-Land and the on-deck cell-guide method used by ACL have been developed. Devices of sufficient strength and able to perform safe, quick and labour-saving operations will be indispensable for the fourth generation.

Automated container terminals will require a high initial investment. In the case of operations by over-PANAMAX containerships, therefore, the number of ports of call of trunk line services will be strictly limited from the viewpoint of ensuring efficient operations and due to the high initial investment needed. For example, in the Far East and South-East Asia, one or two ports will be enough for the territory of Japan and South Korea, one for Hong Kong and Taiwan and one for Singapore, Malaysia, the Philippines and Indonesia. Therefore, unprecedentedly severe competition will occur among the existing ports having container terminals in order to survive. In Europe, several ports such as Rotterdam, Hamburg and Felixtowe have provided huge container cranes to cope with over-PANAMAX containerships in advance, so as to establish a lead over their competitors. The fourth generation in the field of ports and harbours is, in fact, just dawning.

The trend to enlarge the size of containers will also be one of the features of the fourth generation. Following the increase in the height of high-cube containers to 9′-6″, the lengths of containers will be extended to 45′ or 48′ – over the standard length of 40′ set by the ISO. Moreover, according to the predictions of Mr. G. Grebe of APL, even the width of the containers will be extended to 8′-6″ to compete with the domestic van trailer size in the USA, which has been affected by the recent alteration in the road regulations. Needless to say, enlargements in the size of containers beyond the ISO Standard will surely be effective in lowering transporting and handling costs per measurement ton of cargoes. On the other hand, ISO Standard containers are versatile in that they can be handled all over the world. Therefore, in the fourth generation, container operators will be faced with the difficult choice of either adopting containers over the ISO size because of their competitiveness or adopting ISO-size containers because of their potential for use throughout the whole world. Furthermore, ISO/TC104 has newly organized WG 4 to investigate the future improvement of standards on containers, and Mr. V. Grey, Chairman of TC104, has often expressed his personal opinion on the possibility of reviewing the necessity of providing stacking strength on each container. Personally, I do not believe that deviation from the ISO standard on containers will come about. This is because they will not be compatible with the structures and devices of existing containerships and handling equipment, and to become so will require large conversions to their existing hardware or complicated attachments or equipment in addition to the existing hardware, such as an extension in their width to 8′-6″.

Manufacturers' Innovation Toward the Fourth Generation

It is safe to assume that the trend will be to enlarge the size of containerships and handling equipment in the fourth generation.

However, this development would clearly be unfeasible if the enlargement of the handling equipment and the increased quantity of containers handled were to cause a corresponding increase in the handling time in each port. It is particularly anticipated that the enlargement of the fundamental dimensions of the quay-side container cranes will lead to a quicker handling cycle time per container than that of existing container cranes in the third generation. This means that container cranes in the fourth generation can be expected to include some additional innovative devices – to perform quick handling, if possible, in addition to high-speed hoisting and trolley-traversing.

Fortunately, there is already one good example of such high-performance container cranes already in operation, which can be called the pioneer of the fourth generation. It is employed at ECT in Rotterdam Port and is manufactured by Nel-Con. As shown in Fig. 2, such cranes have huge dimensions, such as a 50 m outreach and 30 m lift above rails, a high lifting speed of 125/50 m/min and a high trolley traverser speed of 210 m/min. Furthermore, the provision of a second trolley and traverser leads to a remarkable reduction in the handling cycle time. In theory, these cranes will be able to handle 60 containers per hour, which means they will achieve nearly twice the existing handling speed.

Some other innovative devices* for performing quick container handling on the quay-side container cranes, consist of the following three elements, as shown in Fig. 3:

i) A traverser, which is a large pallet for supporting two containers, and which shuttles quickly between the sea- and land-side legs of the crane along the portal structure.
ii) Twin trolleys, which are mounted on the girder-boom of the crane. They are able to handle two containers, that is to say one container for each trolley, side by side and at the same time. They are able to traverse either jointly or independently.
iii) A device, mounted on the trolley, for monitoring how the containers are stacked on deck under the boom of the crane. With the help of computers connected to it, it determines the shortest path for the spreaders to handle above the containers on deck. It is also helpful for performing exact spotting operations. Furthermore, this device will be able to cut the road to the full automatic operation of the quay-side crane.

Fig. 2.

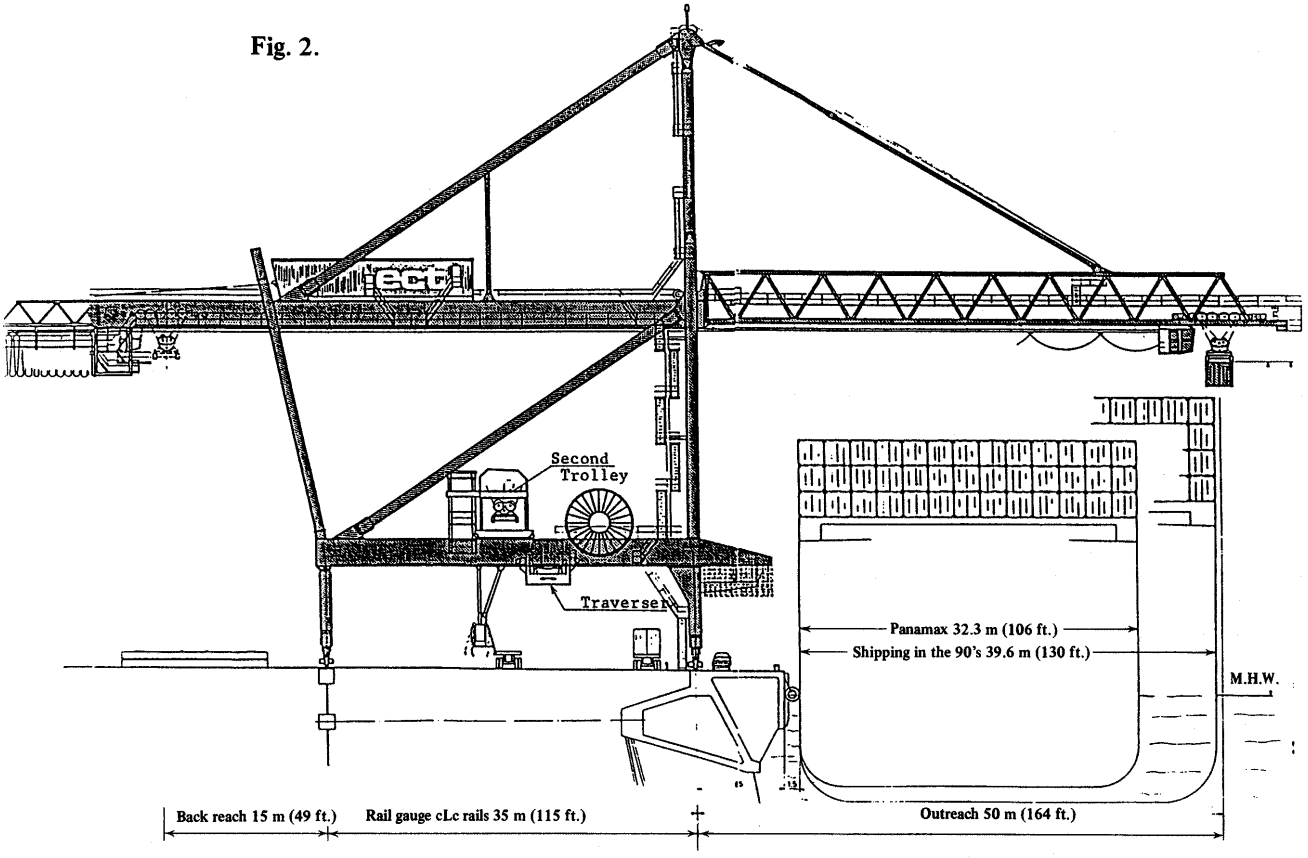


Fig. 3.

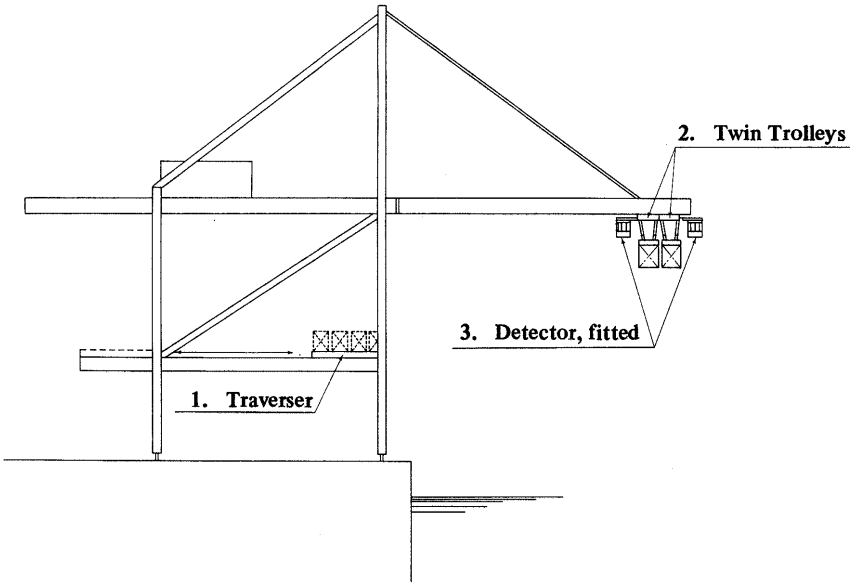
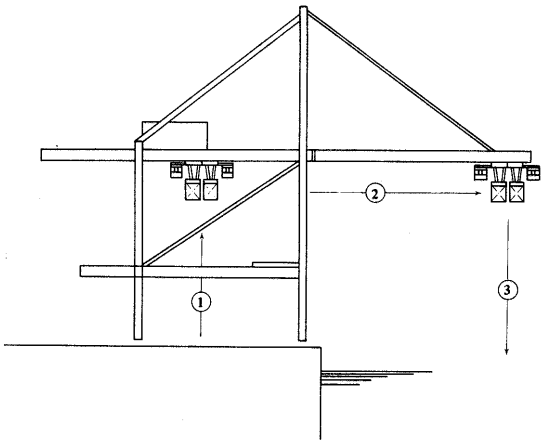
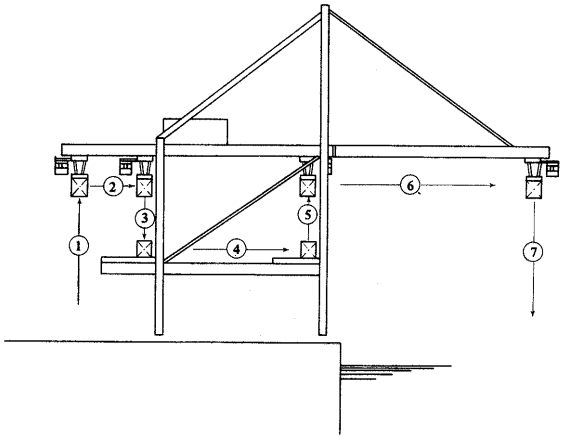


Fig. 4. Application of Operation of Twin Trolleys

a) Joint operation



b) Independent operation



By incorporating the above three elements into the container crane, several quick handling applications can be performed as per Fig. 4, case by case. As the effect of mounting twin trolleys on the girder-boom guarantees at least twice the handling ability of ordinary cranes, this innovative crane can handle an extraordinarily large number of containers per hour due to the combined effects of the traverser, the monitoring device and the increased speed of both the hoisting and trolley traversing operations.

A combination of the innovative quay-side container crane with a traverser with rail-mounted yard-use gantry cranes, as shown in Fig. 5, results in a very efficient container handling system in the terminal, the so-called "Traverser System." As the containers are conveyed directly between the container crane and the yard-use cranes, no vehicles such as yard-use tractors or trailers are necessary. In this system, both twin-trolley type and ordinary type (single trolley) quay-side container cranes can be used. This system has been judged to be suitable for terminals which require a large container stowing capacity and handle a relatively high number of LCL containers.

In the near future, as a result of requests from container operators, many excellent ideas and practical, innovative devices for efficient, quick container handling for huge containerships of over the PANAMAX size can be expected from manufacturers all over the world.

For the manufacturers of container handling equipment, too, containerisation is just into its fourth generation.

*These devices are patented by Mitsubishi Heavy Industries, Ltd.

* * * *

(Continued from page 10)

– Membership Notes –

Changes: –

MarIntec S.E.A. (Pte) Ltd. (Singapore)

Address: 44, Jalan Merah Saga #03-44
Telex Number: RS24200 TMSR
Office Phone: 473 4050

Korea Port & Harbour Association (Korea)

Address: 102, 1-ka, BuKsung-Dong, Chung-gu, Inchon 160
Office Phone: (032) 73-7136/9

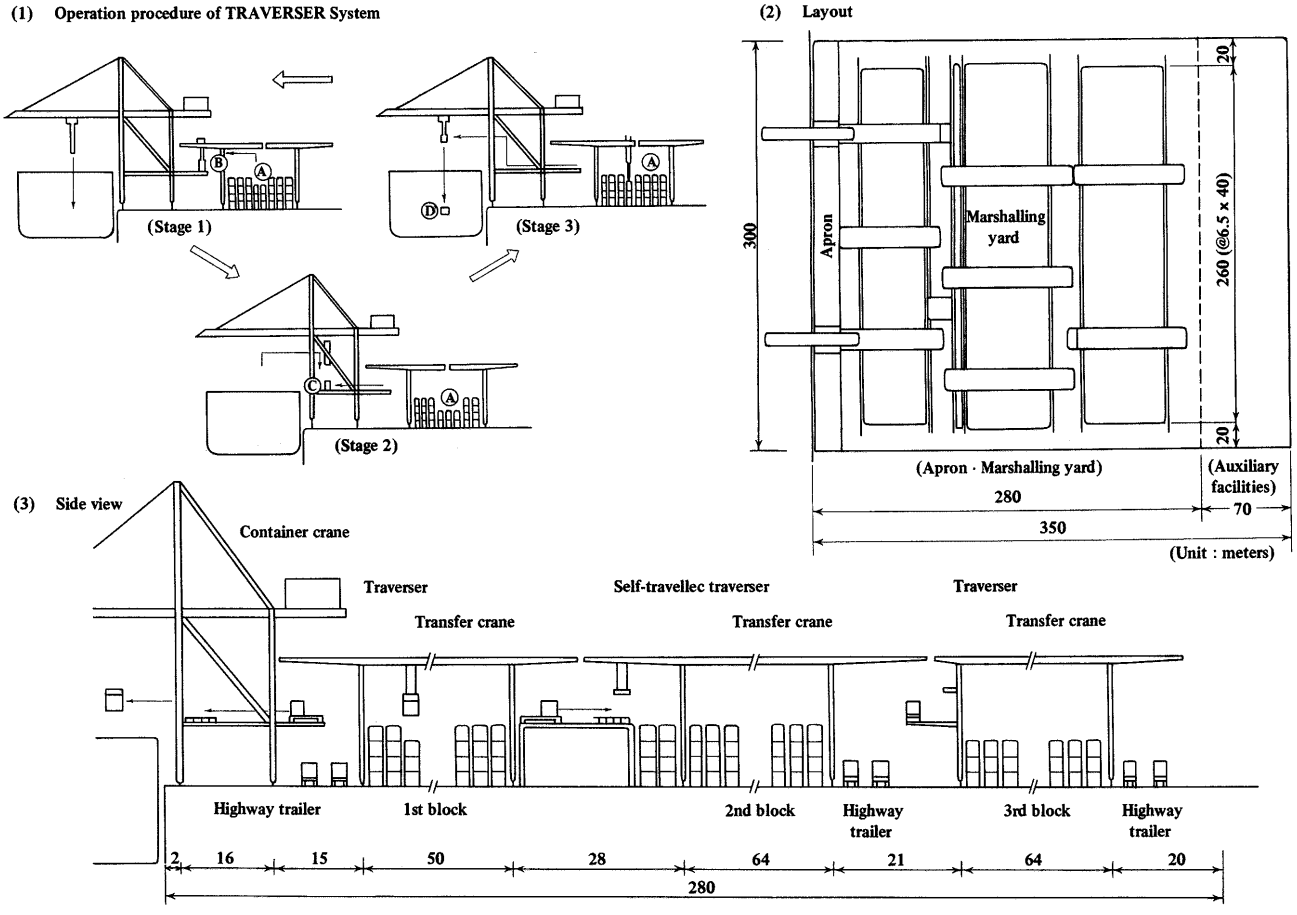
Papua New Guinea Harbours Board (Papua New Guinea)

General Manager: Mr. P.L. Drang
Dy. General Manager: Mr. S.S. Tao
Secretary: Mr. C.S. Punaha
Chief Engineer: Mr. A.J. Vaughan
Financial Manager: Mr. L. Wungen
Board Members: Mr. L. Debessa, Chairman
Mr. R. McAlister
Mr. K. Bong

Soros Associates (U.S.A.)

Assistant Vice President: Mr. Nathan Frawert

Fig. 5. Traverser system



Port of Brisbane

(Extracts from "Annual Report 1983-84, Port of Brisbane Authority")

Chairman's report (extract)

1983-84 was always going to be a good trading year for the Port of Brisbane – but no one could have anticipated just how good.

For the first time, the overseas cargo handling figure for a financial year went through the 10 million (mass) tonnes barrier.

The final result was 10,843,500 (mass) tonnes – up 21 per cent on 1982-83 and equivalent to 15,105,800 revenue tonnes.

The total trade through the port, including the river trade, reached 11,308,000 (mass) tonnes, or 17,209,000 revenue tonnes.

Early, positive signs for the above results occurred with the good rain that fell over much of Queensland in May and June 1983, ending the drought.

Among the first to take advantage of the improved conditions were the grain growers, and their energies were rewarded with bumper crops. As a result, record export tonnages became available.

Another of the port's front-runners is coal – a new venture, which already has exhibited its growth potential by lifting exports 14.5 per cent (more than 100,000 tonnes) in a single year to 837,000 tonnes. The port's major coal handler (Queensland Bulk Handling Pty. Ltd.) is confident of ever-improving results.

An ordinary feature of the port's trading performance was that of containers. Total number of TEUs handled was 96,318 – 3,077 less than in 1982-83. A great deal of this loss can be attributed to a changed pattern for motor vehicles (previously moved in containers) now being shifted as loose cargo.

DEVELOPMENTS

A new and larger export grain terminal, costing $36.5 million and due to be operational by late 1985, is under construction on the Fisherman Islands. The terminal will be able to handle 60,000–80,000 d.w.t. ships which is more than twice the size of the average carrier now calling at the Pinkenba facility.

The islands' undertaking is a joint project involving the Queensland Grain Handling Authority with an investment of $28 million, and the Port of Brisbane Authority which is providing $8 million.

Other major developments started during the year were:

- a bulk, raw sugar export terminal, costing $36.7 million, under construction on a former abattoir site, at Colmslie and due to be operational by July 1985.
- start of construction by Sunstate Cement of a clinker grinding plant for the production of cement; total cost will be $14.3 million; due to be operational by July 1985.

In undertakings such as these is embodied at least part of the reason behind the consistently solid trading performance of our port. The Authority is always ready to encourage and assist new trading initiatives, recognising that sometimes it is the growth factor which is of greater importance than immediate viability.

The board and management of a port must give as much attention to future business as to current trade.

Proof of that approach can be found in the fact that at the end of the financial year, the Authority had an accumulated investment of about $70 million on new port developments on the Fisherman Islands. Industry's investment in the more recent developments (coal, cement, sugar and grain) totals about $160 million.

PROMOTIONAL

The Authority again sponsored and entered the parade of the city's Warana Festival and – once again – I must thank the many staff members who turned out so enthusiastically to support and man the Authority's entry. I am pleased to say that their efforts this year were rewarded with a "highly commended" certificate from the Warana organisation.

Warana is one way for the Authority to publicly participate in its region of influence and it does so willingly.

However, there also is a need for the Authority to be aware of overseas trends and to play its part in the international cargo movement scene.

Therefore, the Authority is a participating and active member of the International Cargo Handling Coordination Association and the International Association of Ports and Harbors.

The Authority's 28 minute documentary movie film called: "BRISBANE – A PORT ON THE MOVE", was completed during the year. The film was accepted by Fox Columbia for national distribution. It is due to be released in Queensland and the Northern Territory theatres in July and to go on screen in southern states' theatres, beginning in August.

The film was made over a period of seven years. Basically, it records the development of port facilities on the Fisherman Islands (Brisbane River mouth).

Not only was it considered of sufficiently high standard for general viewing through the public theatres, but the Education Department has placed copies into its film library for the benefit of all Queensland shcools.

ENVIRONMENT

Our general objectives include the optimum protection of the ecology and the environment, whilst making the islands more accessible for public recreational activities.

A wide tract of the islands (about 100 ha.) will be preserved in its natural, wetland state to encourage wild life.

The general proposal was formulated only after a long and careful study which included considerable research by independent consultants.

However, the public is cautioned not to expect miraculous visual changes in the short term. Major port development of the islands is an on-going and priority task. It could be a few years before our environmental strategies begin to produce obvious benefits.

CONTAINER TERMINAL

As from March 12, Brisbane Amalgamated Terminals Ltd. was issued with a "permit to occupy" No. 2 container terminal, Fisherman Islands, as a lead in to a lease over the terminal area.

Another stevedore has indicated a desire to be located on Fisherman Islands. To this end, joint discussions have been held with the Minister for Water Resources and Maritime Services (Hon. J.P. Goleby) and the company concerned.

The board has looked at plans prepared by senior management which would allow the much needed development to take place – a development encouraged by the minister and consistent with the port's master plan for the utilisation of the islands.

Every initiative has its share of probelems; but, the community and the users of the port can be assured that the Authority in resolute in its ambition to create an even more efficient and functional port for the benefit of all Queenslanders.

Hon A.M. Hodges
Chairman

Consolidated statement of income and expenditure

For the year ended June 30, 1984

	1984 $000	1983 $000
Income		
Harbour, wharf, berth, river dues and mooring fees	16,853	14,091
Dock services	2,449	3,023
Rental	2,896	2,845
Dredging services	2,661	1,930
Maintenance, construction and other services	1,239	717
Interest	811	911
Fisherman Islands' services	633	770
Profit (loss) on sale of fixed assets	(75)	65
Miscellaneous	306	96
Total Income:	27,775	24,453
Expenditure		
Direct labour and expenses	10,212	9,696
Indirect labour and expenses	5,823	5,185
Salaries	3,952	3,839
Interest	5,228	4,745
Depreciation	3,753	2,739
Capitalised cost of internal development work	(2,949)	(4,264)
Total Expenditure:	26,021	21,942
Net Income	1,754	2,510
Accumulated Funds at Start of Year	22,907	20,397
Accumulated Funds at Year End	24,662	22,907

Consolidated balance sheet

As at June 30, 1984

	1984 $000	1983 $000
Current Assets		
Cash	16	242
Debtors	2,092	1,587
Investments	3,810	6,070
Inventories	622	621
Work in progress	867	961
Other debtors and prepayments	45	236
Total Current Assets	7,455	9,719
Non-Current Assets		
Long term receivables	–	130
Sinking Fund investment	1,588	962
Fixed assets	79,228	73,233
Total Assets	88,272	84,045
Current Liabilities		
Creditors and accruals	3,693	3,076
Employee provisions	1,509	1,431
Financial debt	2,800	4,996
Lease liability	150	–
Trust Fund	979	41
Total Current Liabilities	9,133	9,545
Non-Current Liabilities		
Employee provisions	473	481
Financial debt	40,205	41,111
Lease liability	3,294	–
Provision for major repairs and dredging	702	200
Total Non-Current Liabilities	44,676	41,792
Accumulated Funds and Reserves		
Capital works reserve	9,800	9,800
Accumulated funds	24,662	22,907
Total Accumulated Funds and Reserves	34,462	32,707
Total Liabilities and Reserves	88,272	84,045

(Continued from page 24)

Balance of Income Available for Renewal of Assets and Other Purposes	44,166	20,074
Add – Newcastle Harbour Deepening		
– Interest on Deposits	563	1,394
– Profit on Sale of Fixed Assets	366	255
– Repayment of Sinking Fund Loans	290	–
	1,219	1,650
	45,386	21,725
Deduct/Add – Abnormal Items		
Prior Period Adjustments	218	2,143
	45,605	19,581
Applied To:		
Contribution to Consolidated Fund	13,279	11,075
Transfer – Newcastle Harbour Deepening Account	563	1,622
Provision for Annual Leave	1,132	3,050
Provision for Extended Leave	2,990	850
Provision for Retirement Benefits	14,219	1,850
Sinking Fund Contributions –		
Private Borrowings	4,213	1,454
Deferred Payments Loans	–	–
Capital Reserve – Specific Asset Purchase	3,000	–
	39,398	19,902
Surplus to Accumulated Funds	6,206	(320)

The Maritime Services Board of New South Wales

(Extracts from "Annual Report 1983–84, The Maritime Services Board of New South Wales")

President's review (extract)

I have the pleasure in presenting the 49th Annual Report of The Maritime Services Board of New South Wales which reviews the Board's operations and includes the statement of accounts for the year ended 30 June 1984 as well as the Auditor-General's certification of those acccounts.

It is indeed pleasing to report that the 1983/84 financial year was a record one both in respect of overall trade and the Board's surplus for the year.

Import and export cargoes handled through the ports of the State totalled 80.5 million tonnes, an increase of 8.9 million or 12.0 percent higher than in 1982/83. The surplus was $6.2 million compared with a deficit of $321,000 last financial year.

The significant increase in trade resulted from record oversea exports of coal some 33.9 million tonnes, up 5.3 million tonnes or 18 percent over the 1982/83 figure. Further the breaking of the drought permitted 2.7 million tonnes of wheat to be exported and this was 1.3 million tonnes more than last year.

Each of the four major ports in the State increased its total tonnage over that of 1982/83. In this regard trade through Sydney Ports (Port Jackson and Botany Bay) was 33.6 million tonnes, up 2 million tonnes or 6.3 percent. Newcastle trade was 27.7 million tonnes an increase of 4.3 million or 18.2 percent and Port Kembla handled 16.9 million tonnes up 2.8 million or 20.0 percent.

The State's minor ports at Clarence River, Trial Bay and Twofold Bay recorded a total trade of 2.2 million tonnes essentially the same as in 1982/83.

Because of the increase in trade the Board's nett operating income rose to $228.8 million (excluding interest earned on deposits) or some $37.7 million above 1982/83. This coupled with a constraint on operating expenditure resulted in a surplus of $6.2 million for the year after allowing for major allocations such as $13.3 million to the Consolidated Fund, strengthening of the provisions for Employee Retirement and Leave Benefits, and an amount of $3.0 million set side for the commencement of a development of new office premises at Kent Street, Sydney.

As reported in my 1982/83 annual review, the Board that year, commenced a major reorganisation of its management structure and this has now proceeded to the stage where all changes are essentially completed. The various Divisions shown in the organisation chart, with the exception of the Commercial Division, are now operating in their new role and it is pleasing to record that very favourable comment on the way the new structure is operating has been received from the Board's clients at Sydney, Newcastle and Port Kembla.

The Minister for Public Works and Ports the Hon. L.J. Brereton, M.P. announced on 1 May 1984 that the Government intended restructuring the composition of the Board itself and a Bill to this effect, entitled The Maritime Services (Amendment) Act 1984, was introduced into Parliament on 16 May 1984. It was assented to on 28 June 1984 and is to be proclaimed on 17 August 1984.

The amendment is designed to separate the operational function from policy formulation and is in line with changes the Government has made to other large statutory authorities in recent years. The legislation provides for a Board of from five to seven members including a part-time chairperson, a staff elected member and a full time general manager.

The capital works programme this year has essentially been associated with completion and consolidation of recent major projects and preparing environmental and engineering studies for future development.

The Board has however placed special emphasis on port safety issues particularly at tanker terminals and this report covers details of work undertaken at the Port Botany bulk liquids berth with this in mind.

It will also be noted from the report that the total time lost due to industrial disputation has been significantly reduced from 1982/83 which period in itself was down considerably from 1981/82. This level of industrial stability markedly enhanced productivity particularly in the operation of the coal loaders and was one of the major factors in the record coal exports.

The number of pleasure craft using the State's waterways continues to increase with more than 98,000 boats being registered and 177,000 persons licensed as drivers. The education of the boating public in boating and water sport safety remains a major priority of the Board and television, radio and press campaigns have been used during the year. It is pleasing to note that despite increasing boating activities, reported accidents further decreased this year by some 24%.

J.M. Wallace
President

Balance sheet

As at 30 June, 1984

	1983-84 $000	1982-83 $0000
Capital and Retained Earnings		
Capital Debt –		
Loan Liability to the Treasurer	186,522	189,402
Loans Raised by the Board	193,517	195,396
Loans Raised by Treasury Corporation	15,600	–
Loan Liability – Port Kembla Further Development Act – 1971	5,229	5,229
Loans Raised under Deferred Payments Scheme	374	–
	401,244	390,028
Other Capital –		
Commonwealth Sinking Fund Contributions and Coal Loading Works Grant	9,809	9,271
Newcastle Harbour Deepening Levy	86,241	85,575
Earnings Expended on Assets	144,990	144,990
	241,041	239,837
Retained Earnings –		
Loans Repayment Reserve	10,174	6,251
Capital Reserve – Specific Asset Purchase	3,000	–
Accumulated Funds	6,513	307
	19,688	6,558
	661,974	636,424

Represented by		
Fixed Assets –		
Property, Plant, etc. (At Cost)	698,722	676,467
Less Accumulated Depreciation	82,934	70,510
	615,787	605,957
Investments –		
Shares in Kooragang Coal Loader Limited	7,525	2,125
Current Assets –		
Stores and Materials	2,341	2,028
Debtors	30,935	25,056
Less Doubtful Debts	555	364
	30,380	24,691
Short Term Investments – General	36,540	49,544
– Sinking Funds	43,303	
	79,843	
Cash and Cash in Transit	3,658	6,661
	116,224	82,925
	739,536	691,008
Less –		
Current Liabilities –		
Creditors	30,537	23,968
Trust – Newcastle Harbour Deepening Account	2,611	5,301
	33,149	29,269
Provisions –		
Annual Leave	4,187	3,050
Extended Leave	9,698	5,868
Retirement Benefits	23,429	8,931
Dredging	2,744	2,744
Future Maintenance Coal Loading and Other Plant	4,352	4,720
	44,412	25,313
	77,562	54,583
Total	661,974	636,424

Statement of income and expenditure

For the year ended 30th June, 1984

	1983-84 $000	1982-83 $000
Income		
Port Management	221,371	184,931
Charges on Cargo	93,164	77,983
Charges on Vessels	25,051	21,558
Commercial Charges	14,809	14,953
Coal Loading Charges	88,345	70,435
Waterways Management	5,909	4,765
Interest on Deposits	8,520	6,012
Miscellaneous Sources	1,529	1,373
Total Operating Income	237,331	197,082
Expenditure		
Port Management	88,053	83,102
Operations	24,679	23,216
Sundry Services	11,238	12,403
Coal Loading Facilities	52,136	47,482
Waterways Management	4,584	4,271
Maintenance of Properties and Equipment	21,023	18,911
Depreciation	12,577	10,934
Administrative Expenses	27,055	22,563
Management and Administration	25,036	21,197
General Charges	1,858	1,240
Audit Fee	160	125
Financial Charges	39,869	37,224
Interest – Capital Debt	20,203	19,942
Interest – Borrowings	18,696	16,730
Loan Management & Flotation	683	351
Doubtful Debts	286	200
Total Operating Expenditure	193,164	177,008

(Turn back on page 22 bottom)

Townsville Harbour Board

(Extracts from "Annual Financial Report and Cargo Statistics 1983–1984, Townsville Harbour Board")

Chairman's message (extract)

The slight improvement in trade through the Port of Townsville in 1983/1984 indicates that the Board can look forward with some optimism to the coming year. In spite of the general recession in the economy the cargo throughput of the Port increased slightly to 2,163,793 tonnes compared with 2,157,789 tonnes the previous year. By far the most encouraging result is that Exports were the highest since 1976/1977. Unfortunately, Imports were the lowest for 12 years. However this adverse ratio is probably a reflection of the national trading imbalance, rather than being directly attributable to economic and other preconditions present at the Port of Townsville.

Several export records were established, viz Sugar 608,062 tonnes, zinc concentrates 405,976 tonnes and lead 200,770 tonnes. Not surprisingly the mining and sugar industries increased their share of the Board's export trade from 37 and 29 percent in the previous year to 38 and 32 percent respectively this year.

Throughout the year the Board continued to carry out essential development in the Port. Expenditure on major capital projects was:–

Bulk Sugar Terminal Stage 11B	$1,616,145
Construction of a Work Boat and Dump Barge	209,525
Improvements Small Boat Harbours	168,029
Developmental Dredging of Berths	205,318
Amenities Building No. 3 Berth	101,410
Reconstruction No. 4 Berth	92,249
Street Lighting	55,889
Removal of Magazine Hill	53,314

The Reconstruction of No. 4 Berth and Removal of Magazine Hill expenditures are for preliminary works only. Both these projects will get underway in the next financial year and involve a total expenditure of $2.5 million. The construction of a breakwater off Benwell Road to bund a new 100 hectare reclamation reflects the Board's expectation that there will be an ever increasing demand for lands, adjacent to the Port for new industries, in the years ahead.

The Board is also confident that expenditure of $205,318 on developmental dredging in Berths 2 and 3 will make the Port much more attractive for the larger container and bulk vessels which are becoming commonplace. The reconstruction of No. 4 Berth will ensure that Townsville has a dedicated bulk liquids berth which will capture a large slice of the molasses trade now being handled at other ports.

During the year the Fishermen's Marina at Ross River

was completed. This facility together with commercial pile and buoy moorings is Ross River and a dedicated fishermen's wharf has placed Townsville in the forefront of facilities for the commercial fishing industry. The confidence of the industry in Townsville is reflected in the rapid increase in commercial fishing vessels operating out of Townsville in the last two years. At the height of the season more than 150 vessels were operating from the Port and turning over an estimated $15 million in the City itself.

The Board is cognisant of the role of major Port users and has maintained its policy of keeping charges as low as possible. To this end Tonnage Rates and Harbour Dues were increased by only 10 percent and 5 percent respectively during the 1983/1984 period. Tonnage Rates were last increased in 1978. Also, the increases in Tonnage Rates and Harbour Dues have been kept well below inflation.

A.G. Field
Chairman

Receipts and disbursements

For the year ended 30th June

	1984 $000	1983 $000
Harbour Fund		
Balance 1st July	297	3,521
Receipts		
Harbour Dues	3,740	3,584
Tonnage Rates	1,071	826
Channel Development Charge	15	46
Rents	293	384
Rental in Advance	101	–
Plant Hire	13	25
Water & Electricity Charge	104	91
Interest on Investments	271	287
Other Operating Receipts	265	185
Capital Receipts	208	196
	6,086	5,629
Sub-Total	6,383	9,150
Payments		
Administration	680	593
Dredging	539	582
Wharves Maintenance	256	227
Lands & Tenancies	117	83
Plant Hire	98	73
Wharf Supervision	143	127
Water & Electrical Services	240	212
Interest	1,573	1,396
Other Operating Costs	905	915
Loan Commitments	785	798
Capital Expenditure	633	3,841
	5,975	8,852
Balance 30th June	408	297

Balance sheet

As at 30th June, 1984

	1984 $000	1983 $000
Accumulated Funds	17,311	15,820
Reserves		
Long Service Leave Sinking Fund	160	160
Assets Replacement Fund	64	30
Special Loan Redemption Fund	78	264
Maintenance Reserve Fund	82	88
	386	543
	17,697	16,364
Represented by		
Current Assets & Investments		
Cash at Bank and on Hand	100	214
Term Deposits, S.T.M.M., Commercial Bills	2,918	1,922
Stores	67	71
Debtors	342	307
Prepayments	–	–
	3,429	2,517
Deduct Current Liabilities		
Sundry Creditors	278	258
Contract & Sundry Deposits	6	17
	285	276
Working Capital	3,144	2,240
Fixed Assets		
Wharves	9,986	9,857
Less Redemption Reserve	237	
	9,748	9,857
Lands & Tenanted Buildings	37,819	
Less Redemption Reserve & Advances	28,068	
	9,751	3,922
Small Boat Harbours & Facilities	1,231	462
Major Plant – Cranes	1,579	
Less Redemption Reserve	1,312	
	267	294
Dredging Plant	154	230
Workshops	1,146	56
Miscellaneous Plant	130	130
Electrical Distribution	112	96
Wharf Supervision	77	62
Store Facilities	3	3
Administration	612	645
Engineering	15	14
Fire Services	8	6
Access Roads	53	17
Channels & Swing Basins	6,013	6,013
Parks, Gardens, Cleaning	2	7
Work-In-Progress	2,865	10,029
	32,194	31,849
Intangible Assets		
Relocate Molasses Terminal	1,145	1,374
	33,339	33,223
Deduct Long Term Liabilities		
Special Advances	2,731	
Less Redemption	1,550	
	1,180	1,201
Advance on Rental	3,912	4,339
Loans		
General	13,693	13,559
	18,786	19,100
	14,553	14,123
Accumulated Funds	17,697	16,364

Philippine Ports Authority

(Extracts from "1983 Annual Report, Philippine Ports Authority")

General Manager's review (extract)

In 1983 overall volumes declined reflecting the effects of the country's economic recession, especially during the last quarter of the year. For instance: total cargo volume dropped from 72.8 million tonnes last year to 69.2 million tonnes or a decline of 4.9%; and the 139,261 total calls by all types of ships nationwide was 4.6% less than in 1982. However, against the trend of these key indicators, the number of passengers using sea transportation grew by 8.6% to 18.9 million. While the downturn reduced the pressure on the ports, it forced cutbacks on programmed developmental projects, maintenance and dredging.

As expected, containerization continued to grow. Tonne-wise, the 8.1 million total (2.4 million foreign and 5.7 million domestic) represented a rise of 12.5%, and in terms of the more conventional twenty-foot equivalent units (TEUs), the overall total of 781,119 TEUs in 1983 (foreign 305,667 TEUs and 475,762 domestic) was 8.9% above that of the previous year. The Port of Manila continued to handle most of the containers accounting for 96% of the foreign container volume and 55% of the domestic traffic. The total foreign TEUs in Manila was 293,301, a growth of only 1.3% while the total 262,260 domestic TEUs represented an increase of 6.1% from 1982.

The growing acceptance by the public of containers was evidenced by the increase in container traffic despite the decrease in total cargo volumes. Thus, the demand for more modern facilities is especially pronounced. Fortunately, the Third IBRD Ports Package progressed satisfactorily. Accomplishment at the end of the year was 42% in Cebu; 47% in Iloilo; 22% in Cagayan de Oro; and 30% in Zamboanga. All four are expected to be operational in 1985. The contract for the ADB-assisted Phase II development for the Manila International Container Terminal was approved and, if peso funds are available, may be started next year. Hopefully, negotiations with ADB for a Domestic Container Terminal at the Manila North Harbor will be re-opened in 1984.

Mainly because of mandated curtailments in our infrastructure, maintenance and dredging programs, the Authority's financial performance was most satisfactory. For the year under review, total revenue was ₱428 million, expenditure was ₱319 million, operating income was ₱170 million, and the net income of ₱109 million increased retained earnings to ₱496 million. Our two covenants with IBRD and ADB were safely met: the Return on Operating Assets (ROA) was 9.7% and the Debt Coverage Ratio (DCR) was 2.77, against the minimum requirement of 7% and 1.75, respectively.

The above expenditure figures do not include outlays for capital projects being separately treated as increases in fixed assets. During the year, ₱190 million was required from Corporate funds in support of the various Infrastructure Programs. At the end of the year, total assets amounted to ₱4,000 million of which ₱3,168 million was in fixed assets (₱1,802 million operating assets, ₱649 million non-operating and ₱716 million as constructions-in-progress). On the other hand, liabilities increased to ₱1,109 million, while networth stood at ₱2,891 million.

At the end of the year, PPA had a personnel strength of 2,110 or 71% of what is authorized. A total of 174 of them benefited from various in-house and other types of training. A total of 2,168 dockworkers from all ports of the country took courses to upgrade their skills. An accreditation program with the Asian University in Manila was effected with our Port Personnel Training Center so that its courses are now recognized and credited towards elementary, high school or college units. Also, a scholarship program for qualified children of employees of the Authority was established. It is hoped that this program can be expanded in the future to include children of dockworkers.

E.S. Baclig, Jr.
General Manager

Balance sheet

As of December 31, 1983

	1983 ₱000	1982 ₱000
Assets		
Current Assets		
Cash on hand and in banks	227,985	173,489
Temporary investment	291,757	232,788
Accounts Receivable	44,854	39,944
Other current assets	125,693	124,747
Total Current Assets	690,291	570,969
Permanent Investment		
Bond Sinking Fund	10,286	9,705
Fixed Assets		
Non-Depreciable Assets		
Land	604,732	604,732
Construction in progress	716,649	418,185
Total Non-Depreciable Assets	1,321,381	1,022,917
Depreciable Assets		
Land Improvement	2,253,792	2,254,244
Furniture, Fixtures & Eqpt.	555,487	441,020
Total Depreciable Assets	2,809,280	2,695,265
Less: Accumulated Depreciation	963,086	887,855
Total Net of Depreciation	1,846,193	1,807,410
Total Fixed Assets	3,167,574	2,830,327
Deferred Charges		
Pre-Operating Expenses	–	–
Deferred Dredging	127,393	138,224
Total Deferred Charges	127,393	138,224
Other Assets		
Port Feasibility Studies		20
Contingent Assets	4,134	1,033
Total Other Assets	4,134	1,054
Total Assets	3,999,681	3,550,280
Liabilities and Net Worth		
Current Liabilities		
Accounts Payable	₱240,553	₱93,505
Other Current Liabilities	13,157	10,963
Total Current Liabilities	253,710	104,469
Long Term Liabilities	854,909	645,952

(Continued on next page bottom)

Port of Los Angeles

(Extracts from "WORLDPORT LA 1984 Annual Report")

Executive Director's report (extract)

During the past year, the Port of Los Angeles has begun to realize the competitive advantages of its ambitious, five-year capital development program. This schedule for new construction and redevelopment is providing the Harbor Department with a new financial base from which continued progress will be assured in the next decades.

Los Angeles is experiencing a rush of seaborne commerce as the global economy prompts new customers to seek out world ports prepared to handle their cargoes. Available waterfront areas for future expansion and state-of-the-art terminals and equipment have attracted these new customers and encouraged growth by existing tenants.

Although industry-wide slowdowns in petroleum and bulk commodity traffic were recorded, our total revenue tonnage figures reflected a strong 28% increase in general cargo traffic. Increased cargo movement to and from our Pacific Rim neighbors positions the Port of Los Angeles even more to the forefront of West Coast port operations. For example, cotton, one of our largest export commodities, increased last year to four million bales passing over our docks on their way from California, Arizona and Texas to the Far East.

Undoubtedly, the catalyst for our new growth and efficiency was the 1983 completion of our harbor deepening project. As anticipated, this long-awaited project opened our facilities to today's larger cargo-carrying vessels.

Increases in containerized cargo through the Port of Los Angeles emphasize the need for the Intermodal Container Transfer Facility (ICTF), soon to be under construction near the harbor. A recently completed feasibility study for the ICTF forecasts a growth in container throughput of between 7.5% and 10% annually over the next six years.

This 150-acre terminal will be the largest facility of its kind in the United States. It is also a revolutionary cooperative effort by the Ports of Los Angeles and Long Beach and Southern Pacific Transportation Company. This unique concept includes financial guarantees by Southern Pacific for the construction costs. Southern Pacific will operate the $40 million facility. Administered by a five-person Joint Powers Authority to which each of the ports appoints two members and a fifth member-at-large is elected, the ICTF should be operational by early 1986, with an annual throughput of 200,000 containers anticipated by 1990. The ICTF's completion will eliminate the costly and time consuming need to truck containers from the harbors to a downtown Los Angeles railyard.

As container traffic continues to grow, vessels in mari-

(Continued from page 26)

Other Liabilities		
Contingent Liabilities	232	188
Total Liabilities	1,108,852	750,610
Net Worth		
Capital Contribution	2,390,768	2,395,756
Surplus Reserves	3,804	3,467
Retained Earnings 1982/1981	400,446	330,887
Less: Correction on Prior Year's Earning Balance	13,017	10,372
Add: Net Income from Operation	108,827	79,932
Retained Earnings – 1983/1982	496,255	400,446
Total Net Worth	2,890,828	2,799,670
Total Liabilities and Net Worth	3,999,681	3,550,280

Revenue and expenses

For the years ended December 31, 1983

	1983 ₱000	1982 ₱000
Revenue from Operations		
Entrance/Clearance Fees	–	4,799
Berthing Charges	27,252	37,281
Anchorage Fees	2,601	–
Tonnage Dues	–	16,144
Wharfage Dues	175,094	160,757
Storage Charges	34,117	26,723
Arrastre Income	84,444	79,694
Port Usage Fee	21,805	–
Lay-up Fee	1,279	–
Harbor Fee	18,952	–
Other Income	25,688	16,292
Fund Management Income	36,890	33,545
Total Revenue	428,126	375,239
Less: Operating Expenses		
Personal Services:		
Salaries & Wages	31,543	32,696
Social Security Premium	4,196	3,879
Manpower Development	602	1,119
Professional Fees	157	125
Other Staff Benefits	22,206	21,478
Total Personal Services	58,706	59,300
Maintenance & Operating Expenses:		
Repairs & Maintenance	19,740	32,717
Supplies & Materials	1,879	2,357
Fuel, Oil & Lubricant	589	1,184
Light, Power & Water	3,747	3,143
Rent	3,339	2,986
Travelling	1,663	1,932
Security Services	4,430	4,014
Representation	492	402
Communication Services	757	635
Athletics	180	908
Taxes, Licenses & Fees	12,841	10,383
Insurance	1,982	1,098
Advertising & Promotions	180	323
Donations & Contributions	–	31
Bank Charges	5	9
Miscellaneous	1,599	812
Auditing Services	3,223	2,996
Meetings & Conferences	399	488
Medical Expenses	752	631
Interest on Loans	80,420	36,116
Depreciation Expenses	78,534	71,460
Amortization of Deferred Dredging	32,970	27,128
Amortization of Vitas Project	10,861	–
Amortization of Pre-Operating Cost	–	34,244
Total Maintenance & Oper. Expenses	260,593	236,007
Total Operating Expenses	319,299	295,307
Net Income (Loss) from operations	108,827	79,932

time service today are often designed for flexibility in cargo transportation and handling. This is particularly true of certain breakbulk vessels which by industry demand also carry a limited number of containers. Similarly, our shoreside cargo handling facilities are meeting the needs of these sophisticated, multipurpose vessels.

Port efficiency was improved in the fall of 1984, when the Port provided office space and computer equipment for the implementation of the Automated Cargo Clearance Entry Processing Technique (ACCEPT) system of the U.S. Customs service. Already in place in other locales, this system is a computerized cargo inspection and control system designed to expedite processing of Customs documents.

In addition, the Port is strengthening its cooperative relationship with the principal labor organizations responsible for efficient cargo movements. Particularly noteworthy is the recent formation of a Port of Los Angeles-International Longshoremen's and Warehousemen's Union Liaison Committee to further enhance communication and problem solving.

Containerization is but a part of the diversification of facilities offered by the Port of Los Angeles. The capital development program includes a new automobile handling terminal at Berths 195–199, a lumber depot in an area recently acquired from Upland Industries (subsidiary of Union Pacific), and consolidation of passenger services at the new Los Angeles World Cruise Center to be located in part of the terminal formerly occupied by American President Lines.

This World Cruise Center reflects a passenger increase of some 340% since 1979 at the Port of Los Angeles. The Center will be able to accommodate five cruise ships simultaneously while offering passengers the most modern and efficient convenience features. The project also represents a landmark agreement with a consortium of the seven cruise lines currently calling at the Port. These lines have formed L.A. Cruise Ship Terminals, Inc. to operate the facility and financially guarantee the Port a return on its investment. Five embarkation/debarkation areas, parking for more than 4,000 vehicles, an efficient traffic pattern served by a tram system and easy access to public transportation will be featured.

The concept of the World Cruise Center is accentuated by other improvements in various stages of development along the west side of the Port's Main Channel. Further developments include the expansion and improvements already completed at Ports O' Call Village and the 1985 completion of the West Channel/Cabrillo Beach Recreational Complex. The latter includes a 1,200-slip marina to be operated by the Los Angeles Harbor Department, sportfishing facilities, an improved beach, a salt marsh, youth camp, restaurant, hotel and other visitor accommodations.

As we look toward the next few years of our capital development program with its projected expenditures approximating $500 million over five years, we are proposing to issue revenue bonds and other debt instruments to fund 20 priority projects. These projects, along with land acquisitions, are estimated at $270 million including construction for tenants holding long-term leases. Bond funds, together with revenue from our operations, will enable the Port to accomplish its capital development goals in the immediate future while maintaining a reasonable cash reserve for contingencies. In this way, we are assured of completing our new facilities as they are needed to meet increased shipping demands.

Looking beyond the five-year scope of Port development, we are enthusiastically supporting the projections recently released by the U.S. Army Corps of Engineers on land and facility needs in San Pedro Bay to the year 2020.

The 2020 Plan outlines the need for 2,600 acres of additional land in the Ports of Los Angeles and Long Beach. The four-phase program of dredging, landfill and construction is the first cooperative effort of this magnitude between the ports and the Corps. The 2020 Plan projects tens of thousands of new jobs which will, in turn, generate economic growth throughout Southern California.

The Port of Los Angeles' plans for economic viability are firmly based in its capital development program. This unprecedented program is even now offering distinct advantages to the Port user and enhancing our ability to serve the world shipping community. But we at WORLDPORT LA are indeed looking beyond to the needs of that same community as they are projected to the year 2020.

Ernest L. "Roy" Perry
Executive Director

Balance sheets

June 30, 1984 and 1983

Assets

	1984	1983
	$ thousands	
Current assets:		
Cash and cash equivalents – cash on hand and on deposit with City treasurer	45,569	73,990
Accounts receivable, less allowance for doubtful accounts of $550 in 1984 and $500 in 1983	12,066	8,950
Materials and supplies	1,099	1,591
Prepaid expenses	335	613
Total current assets	59,069	85,144
Cash and cash equivalents, restricted as to use – bond funds	5,071	4,347
Properties:		
Land	120,296	112,064
Harbor facilities and equipment, less accumulated depreciation of $114,734 in 1984 and $92,653 in 1983	247,311	194,777
Construction in progress	47,183	52,203
Preliminary costs – capital projects	1,244	1,171
Net properties	416,034	360,215
Notes receivable	12,501	302
Total assets	492,675	450,008

Liabilities, Equity and Retained Earnings

Current liabilities:		
Trade accounts payable	8,166	6,381
Accrued construction expenditures	2,850	7,465
Bond indebtedness outstanding:		
To be paid within one year	2,241	2,286
Bonds and coupons not yet presented for payment	450	35
Accrued interest	1,118	515
Accrued employee benefits	3,099	2,680
Deferred interest income	796	–
Total current liabilities	18,720	19,362
Long-term liabilities:		
Notes payable	8,000	4,000
Bonded debt – Harbor Revenue Bonds		
First issue of 1960	890	2,520
Second issue of 1960	2,536	2,711

First issue of 1965	2,445	2,985
First issue of 1971	9,780	10,315
	15,651	18,531
	(2,241)	(2,286)
Less amount to be paid within one year		
Net bonded debt – long-term	13,410	16,245
Other liabilities	1,153	706
Total long-term liabilities	22,563	20,951
Total liabilities	41,283	40,313
Contributions/land valuation equity	78,314	78,314
Retained earnings	373,078	331,381
Total equity and retained earnings	451,392	409,695
Commitments and contingencies	–	–
Total liabilities, equity and retained earnings	492,675	450,008

Statements of operations

Years ended June 30, 1984 and 1983

	1984	1983
	$ thousands	
Operating revenues:		
Shipping services:		
Dockage	6,062	6,043
Wharfage	38,729	32,995
Storage	202	556
Demurrage	860	475
Pilotage	2,377	2,353
Assignment charges	1,540	1,392
Cranes	3,290	2,527
Total shipping services	53,060	46,341
Rentals		
Land	18,572	15,365
Buildings	859	387
Warehouses	2,031	1,907
Wharf and shed revenue	544	472
Total rentals	22,006	18,131
Royalties, fees and other operating revenues:		
Fees, concessions and royalties	2,459	1,885
Oil royalties	2,826	3,077
Other	241	352
Total royalties, fees and other operating revenues	5,526	5,314
Total operating revenues	80,592	69,786
Operating and administrative expenses:		
Revenue-producing facilities	15,354	15,870
Nonrevenue-producing facilities	1,890	2,814
General operating	9,642	10,136
Administrative	8,817	10,897
Total operating and administrative expenses	35,703	39,717
Income from operations before depreciation	44,889	30,069
Provision for depreciation	10,911	9,243
Income from operations	33,978	20,826
Nonoperating revenues:		
Other income and expenses, net	1,459	28
Interest income from investments	6,876	11,457
Interest expense on bonds and note	(616)	(1,129)
Net nonoperating revenues	7,719	10,356
Net income	41,697	31,182

Financial forecast in perspective

Cargo Movement

A financially successful port has as its foundation the movement of cargoes which reflect the demand on its facilities. The volume of high value general cargo, which generates most of the Port's shipping revenues, has grown 44% over the past three years and is projected to increase 48% between 1984 and 1989.

The reasons for this growth are:

(Continued on next page bottom)

Ten-Year-Highlights

	1984	1983	1982	1981	1980	1979	1978	1977	1976	1975
	$ millions									
Cash										
Cash Balance – Rev Fund	45.6	74.0	91.0	68.7	72.0	62.8	50.5	33.0	23.9	21.7
Cash Balance – Bonds Funds	5.1	4.3	4.4	4.2	5.0	5.4	8.0	7.9	8.7	9.3
Property										
Total Property	530.7	452.9	373.9	344.6	313.0	282.9	259.2	247.5	243.4	234.9
Allowances for Depreciation	114.7	92.7	83.9	78.6	72.6	68.5	63.9	59.6	58.0	55.2
Net Property	416.0	360.2	290.0	266.0	240.4	214.4	195.3	187.9	185.4	179.7
Replacement Cost New	1,023.7	892.4	792.0	696.1	649.1	591.3	563.3	N/A	N/A	N/A
Construction & Maintenance										
Additions to Properties	78.9	79.4	32.0	30.5	30.0	24.6	11.5	8.4	9.3	11.0
Maintenance Expenses	4.1	6.0	3.9	4.2	4.6	4.2	2.3	3.0	1.9	1.5
Employees										
Salaries Paid	20.3	19.4	17.6	14.8	12.5	11.4	11.4	10.3	9.6	9.2
Number of Employees	672	672	677	654	614	601	598	585	548	548
Rates										
General Cargo Tariff Rate	3.90	3.90	3.55	3.55	3.25	3.00	2.60	2.25	2.00	1.50
Basic Dockage (600')	1395	1395	1268	1158	961	700	620	620	620	539
Required Rate of Return	10%	10%	10%	10%	10%	9%	9%	9%	9%	9%
Bonds										
Bonding Capacity*	321	237	299	281	336	285	225	117	76	70
Bond Coverage Ratio	13.7	10.5	12.9	12.2	11.0	9.6	7.9	4.8	3.7	3.5

*Assumes 1.5 coverage ratio, 9% 30-year bonds for 1981 thru 1984 and 6% 30-year bonds for 1975 thru 1980

Associated British Ports

Chairman's review 1984 (extract)

Following satisfactory results in 1983 and a good start to 1984 it is disappointing to report a loss for 1984 as a whole. At the same time, we are now able to look forward to considerably improved prospects for 1985.

During 1984, the coal industry dispute and the associated national dock strikes resulted in a loss of revenue at our ports of about £12 million, and the operating profit was down to £2.5 million. After heavy severance costs and other exceptional factors the pre-tax result for the year was a loss of £6.4 million (1983 profit £14.5 million). After a tax credit of £5.7 million, the loss was £0.7 million.

The Directors consider that the results in 1984 are not representative of the underlying strength of the Company or of its prospects for 1985. They are therefore recommending a final dividend of 5.5 p which, together with the interim dividend of 3 p declared on 13 September 1984, makes a total of 8.5 p net per share in respect of 1984 (1983 – 8.5 p).

In addition to the loss of revenue arising from the coal strike, problems at Southampton, which sustained an operating loss of over £6 million, also contributed to the setback in the 1984 financial result. Essential improvements in working methods met with protracted opposition from the main operational employee groups. Nevertheless, a satisfactory settlement was achieved early in 1985 which has enabled the container port to recommence operations on a fully competitive and commercially viable basis.

Faced with the problems encountered in 1984, we have taken firm action to protect the long-term viability of the business. Job reductions have been inescapable and the number of employees has been reduced through severance schemes and natural wastage to 7,322 at December 1984 and just below 7,000 at March 1985 compared with 8,600 at December 1983. This meant that severance costs in 1984 were exceptionally heavy, but the resultant change in the cost structure will substantially benefit financial results in 1985 and later years. There will be some further job reductions during 1985, but these are likely to be on a more limited scale.

Measures are also being taken to reduce the costs of providing security at the Group's ports by replacing the British Transport Police, who have operated at the majority of the Group's 19 ports, with private security firms. This system has already proved effective at a number of ports in the Group. The change will bring total savings of about £2 million (over 50%) in a full year.

Humber Ports

Excellent results have been achieved by the four ports in the Humber group, despite the fall in coal exports.

At **Grimsby and Immingham** several new services were gained. The construction of the terminal to handle liquefied petroleum gas for Calor Gas Limited and Conoco Limited and other products is well advanced, and the terminal is expected to be operational in late 1985. Universal Pipe Coaters Limited, a joint venture with Humberside Sea and Land Services, has completed its first contracts.

At **Hull** steady progress has been made in restoring the port to financial and commercial success. Major economies have been achieved together with improved throughput of container and ferry traffic. Encouraging signs for 1985 include the modernisation of the grain silo complex by Cargill UK which has doubled storage capacity. The decision by North Sea Ferries to build new larger vessels for the roll-on/roll-off services between Hull and Rotterdam and Zeebrugge is an excellent development, and new port facilities are being constructed to come into operation during 1987.

Because of the sharp fall in fish landings during recent years, a Bill was introduced in Parliament to relieve ABP of the statutory responsibility for the Hull Fish Docks. Subsequently, cost reductions and an improving revenue trend removed the need for the Bill, which has now been withdrawn. Discussions are in progress with Hull City Council on the development of areas of land adjacent to the Fish Docks.

Goole also performed well, although the coal dispute significantly reduced exports. Grain imports and steel exports were considerably higher than in 1983 and the

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(Continued from page 29)

a) The Pacific Rim countries which in fiscal year 1984 contributed 46% of the Port's total cargoes are expected in economic growth to outpace all other regions of the world.
b) Completion of new terminals which are under our capital development program will further accelerate this growth.

Operating Revenue

The Port has shown stable sources of revenues, in spite of a flat economy, over the past five years. Total operating revenue is expected to increase by 51% over the next five years. Rental income is projected to increase by approximately 71% over the same period, attributed to the intermodal container transfer facility, marina projects and acceleration of current leases. Fairly wide distribution of sources and of revenues, long-term agreements, and the non-reliance on any single purpose facility assures and stabilizes the future cash flow of the Port.

Operating Income

Operating income before depreciation and interest is expected to increase from $30 million in fiscal year 1983 to $66 million in fiscal year 1989, an increase of 120%. Gross operating revenue during the same period is projected to increase by 75% which reflects an improved margin of profitability at the Port.

Debt Capacity

Based upon conservative but realistic revenue forecasts, the Port clearly has the capacity to incur the necessary indebtedness to finance its capital projects. The debt coverage ratio projection of 1.8 shows that the Port can service all additional debt required to meet its planned capital expenditures of $501 million over the next five years and also maintain a proper reserve to take advantage of future business opportunities and to protect the Port against downside risks.

opening of the Boothferry Terminal in January 1984 more than doubled unit load throughput. As a result of this success, the terminal will be expanded during 1985.

Southampton

I have already referred to the problems encountered at Southampton. As a result of an agreement concluded with the workforce in late January 1985 major reforms have been achieved, principally in working practices and manning levels on the container berths. Total numbers employed have been reduced from 2,400 to just over 1,400, and the port has been able to offer customers reductions of about 25% in cargo handling rates. This has resulted in the welcome return to Southampton of Trio Lines and the Southern Africa Europe Container Service, the port's two major container customers. We are actively seeking to attract more container business and to develop the Southampton Free Trade Zone in association with our partners. Regrettably, however, it has been necessary for the Mayflower Terminal (a joint venture with the C.Y. Tung Group) to suspend operations.

South Wales

The coal dispute had a major impact on the South Wales Ports with exports reduced by over a million tonnes, about 70%. The effect of the dispute was particularly severe at **Swansea.** By contrast, **Barry** saw the welcome return of the Geest banana traffic with a new 10 year agreement. A £2 million fruit and general cargo terminal is being constructed at the port.

Cardiff has had a difficult year, although 300,000 tonnes of cereals were exported for Ceres (U.K.) Limited during the first year of the grain terminal's operation. As part of ABP's land development programme, contracts have been exchanged with the South Glamorgan County Council for the purchase by that authority of 14 acres of land at Cardiff, on which a new County Headquarters will be built. The Secretary of State for Wales has recently approved the application for an urban development grant towards the costs of the major 70 acre redevelopment scheme being undertaken at Cardiff by Tarmac.

Other Ports

Business continued to expand at several of the nine 'Small' Ports, where we see the potential for strong growth over the next few years.

At **Lowestoft,** a new terminal was opened as a joint venture with Coastal Container Holdings Limited and is now handling a variety of traffics.

Unit load and passenger business on the regular services from **Plymouth** to France and Spain reached record levels. In view of the excellent prospects, a second roll-on/roll-off berth is to be developed at the port, which will more than double the port's unit load capacity by 1986.

Results at **Ayr** and **Garston** were seriously affected by the coal dispute, but **Barrow** continued to benefit from the British Gas explorations in Morecambe Bay, and a new terminal for the storage of condensates, a by-product of the gas extraction process, has been completed at the port.

Prospects

Since the beginning of 1985, there have been some important developments affecting the Company's prospects. Coal shipments resumed in early March and are building up steadily. At Southampton, container throughput is on a rising trend following the resumption of operations in late February, and the port is now able to offer fully competitive prices for container business. The performance of the Humber and some of the Small Ports has also been very encouraging.

A further helpful factor with longer-term implications has been the abolition of Development Land Tax in the Chancellor's 1985 Budget proposals. As a significant landowner, we welcome the removal of this tax, a change which will enhance the prospects for land development projects currently under consideration.

Provided that the ports industry now enjoys a period of stability, 1985 should see a substantial recovery in the Company's profitability. I intend to report to shareholders on current performance at the Annual General Meeting to be held on 21 May.

Keith Stuart
Chairman

Associated British Ports Holdings PLC

Preliminary Announcement of Results for the Year to 31 December 1984

	1984 £m	1983 £m
Turnover	138.2	154.3
Operating profit (before exceptional items)	2.5	16.5
Exceptional Items	(8.6)	(1.9)
Operating profit (loss)	(6.1)	14.6
Investment Income	1.2	2.4
Interest Payable	(1.5)	(2.5)
Profit (loss) on ordinary activities before taxation	(6.4)	14.5
Taxation	5.7	(4.9)
Profit (loss) on ordinary activities after taxation	(0.7)	9.6
Minority Interests	0.1	–
Profit (loss) before employee share scheme and extraordinary items	(0.6)	9.6
Employee Share Scheme (net of taxation)	(0.3)	–
Extraordinary items (net of taxation)	–	Cr. 8.6
Profit (loss) attributable to shareholders	(0.9)	18.2
Dividends	(3.4)	(3.4)
Retained profit (loss) transferred to reserves	(4.3)	14.8
Earnings per share	(1.6p)	23.9p

Group Results

	1984 £m	1983 £m
Turnover		
Humber Ports	50.6	50.3
Southampton	40.2	49.6
South Wales Ports	31.0	35.8
Other Ports	16.4	18.6
Total	138.2	154.3
Operating profit (loss)		
Humber Ports	7.7	7.1
Southampton	(6.3)	2.5
South Wales Ports	(0.8)	2.9
Other Ports	2.1	4.1
	2.7	16.6
Expenses borne by holding company	0.2	0.1
Operating profit (before exceptional items)	2.5	16.5

International maritime information: World port news:

Publications

"Supplement 1983 Facilities in Ports for the Reception of Oily Wastes (Results of an enquiry made in 1976–1978)"

IMO Sales No. 547.84.04.E price £5.00

"International Conference on Revision of the International Regulations for Preventing Collisions at Sea, 1972 (1985 Edition)"

IMO Sales No. 904.85.01.E pirce £3.50

IMO Secretariat, Publications Section, 4, Albert Embankment, London SE1 7SR, U.K.

"Maps – U.S. Waterways and Ports"

Three new maps of the major waterways and ports of the contiguous United States are now available, from the U.S. Corps of Engineers. The black and white maps update an inland waterways map published in 1975, and show the major commercial waterways and about 225 locks presently in operation or under construction. These waterways stretch for more than 25,000 miles and serve some 250 ports in the Mississippi River Basin, the Great Lakes, and along the Atlantic, Gulf, and Pacific coasts. The three maps, available in small, medium and large sizes, include:

*Major Waterways and Ports of the United States
*Major Waterways and Ports of the Central and Eastern United States
*Major Waterways and Ports of the U.S. Pacific Coast (available in small or large size).

Order from: the U.S. Army Corps of Engineers, Water Resources Support Center, Attn: WRSC-ISW (Publications), Casey Building, Fort Belvoir, VA 22060-5586.

(AAPA ADVISORY)

"Dictionary of Maritime Terms: Mercantile and Naval Shipping"

Edited by a team of professionals under the direction of John Siemss. Sponsored by the Port Authority of Hamburg, West Germany.

In five languages: German, English, French, Spanish, Italian.

1300 abbreviations common with the British, US, French, Spanish, and Italian Merchant marine and navy.

1984. 838 pages. 60,000 terms. Cloth $80

This dictionary has been compiled for the use by anyone connected with international shipping: export/import firms, insurances, banks, brokers, lawyers, consultants, international freight forwarders. It will be equally useful to sailors in international waters. A brief appendix lists the most important international shipping papers in all five languages plus Portuguese, Danish, Swedish and Dutch.

(Published under the German title "Schiffahrts-Woerterbuch" by Horst Kammer Verlags- und Handels GmbH, Hamburg, West Germany. Distributed in North America by IR Publications Ltd. 35 West 38th Street, #3W, New York, NY 10018, Tel. 212/730-0518.)

Brazilian port news in brief

- ABEP, the Brazilian Association of Port Entities, held panel about the participation of the private initiative in the ports, which has been increasing in the area of container handling.
- The operations of the Consortium of the Container Terminal of the Port of Rio Grande, established by the companies which handle this type of cargo in the port of the southern state, led by Lloyd Brasileiro, have been started experimentally.
- In 1984 the Port of Santos invested 7 billion cruzeiros of its own income in installations and equipment, showing that it has overcome the finantial difficulties that caused, last year, a deficit of 5 billion cruzeiros in 1983.

(PORTOS e NAVIOS)

Canadian coal trade statistics

Canadian coal exports last year reached a record 25.1 million metric tons (mmt). That was 47 percent greater than the 17.0 mmt exported in 1983 and 55 percent greater than the 1980–83 average. Canada's leading customers in 1984 were Japan (16.5 mmt), South Korea (3.6 mmt), Brazil (1.1 mmt), Taiwan (746,287 mt), West Germany (418,008 mt), and France (416,745 mt). Significantly, Japan last year upped its take of Canadian coal by 50 percent, while sharply curtailing its imports from the United States. Brazil, France, and South Korea offer other examples of traditional U.S. markets where Canadian coal is making serious inroads. Canadian coal imports, most of which come from the United States by way of the Great Lakes, rose 27 percent in 1984 to 18.4 mmt, their highest level since the early 1950s, reflecting the strong performance of the Canadian steel industry, inordinate demand for U.S. steam coal resulting from the deferred start up of certain Ontario Hydro nuclear power stations, and buyers' hedging against a U.S. coal strike. A statistical record of Canada's coal trade for the past five years follows:

CANADIAN COAL TRADE 1980–1984

(metric tons)

	Exports	Imports
1984	25,138,069	18,352,260
1983	17,010,641	14,346,032
1982	16,003,606	15,481,393
1981	15,853,818	13,782,903
1980	15,288,581	15,517,944

(AAPA ADVISORY)

Free Trade Zones, "SEZ" who? — The province of British Columbia, at least

By Keith G. Dixon
Canadian Importers Assoc.

Canada's first Ministers, under the leadership of the Prime Minister, the Right Honourable Brian Mulroney, held their two day meeting in Regina on February 14th and 15th. Much of the two-day agenda was devoted to trade and economic matters, and it quickly became apparent that the Western provinces were more enthusiastic about the concept of free trade with the U.S. than the central provinces, particularly, Ontario, whose delegation was lead by the new Premier, the Honourable Frank Miller.

Public comment and, no doubt, much private comment on international trade matters, was made by Premier Bennett of British Columbia, and his government's recent initiative to develop Special Enterprise Zones (SEZ). The proposals that the government of British Columbia have in mind for their Province, centre on a wide variety of concessions and enducements, not the least of which is an exemption from Customs duties and procedures, traditionally associated with the international free trade zones concept.

Presently there are more than 500 tariff free zones, free ports, export processing zones and other duty protected areas in 76 countries around the world. There is not one free trade zone or form thereof in Canada. With the introduction of the Inward Remission Processing Order on March 1st, 1979, Canada made a feeble effort at accommodating Canadian manufacturers and producers who need materials and parts for their Canadian products prior to export. Any Canadian officer, familiar with this legislation will claim that it is by far the best "duty free manufacturing zone" concept in the world today. This claim (which is incorrect), is based on the fact that any Canadian located anywhere in the nation, can use the Inward Processing Remission Order to facilitate the import of goods which, when re-exported, become eligible for duty-free treatment. Customs can rightly claim that this facility does not require boundaries or fences, nor does it require audit by Customs officers in the field, but it is a characteristically confusing and papermaking procedure that must be followed.

The argument in support of international free trade zones within Canada remain as valid as ever, and even though attempts have been made to persuade the Federal government of the merits of this concept, success has yet to be achieved. Sydney, Nova Scotia and Stephenville, Newfoundland, have yet to be granted this facility. Hopefully, the initiative of the Province of British Columbia added to the list of present and earlier applicants, (such as the City of Winnipeg), will find greater favour with the new Federal government.

Establishment of the duty-free manufacturing trade zone is not automatically a passport to success in the generation of manufacturing facilities and jobs. Indeed, 30 of the more than 115 U.S. free trade zones reportedly have yet to really "get off the ground", while others established in the fifty year-old legislation in this area are eminently successful.

In a recent interview, Mr. Sandy Peel, Deputy Minister of Industry and Small Business Development in British Columbia is quoted as saying that while there have been yet no formal negotiations with the Federal government such negotiations would not be contemplated until such a decision is reached by British Columbia's cabinet. Mr. Peel is also quoted as saying "If we wish to diversify our economy and attract the world to our province, then FTZ's could possibly play that role," adding that zones, while their economic impact would not be felt immediately, could "go a long way towards economic diversification."

(Port of Halifax)

Container loading at Nanaimo wharf marks start of TEU handling here

The word "container" has been a much-used term in the language of shipping for many years now. In the trade magazines, for instance, it has become part of the pertinent information describing a vessel – deadweight, registered, gross, tonnage and container capacity – if it is a container-type vessel.

The tremendous growth of the box system of moving goods has revolutionized the industry. It was back in the '60s that transportation and shipping people began to realize that if their business was going to make use of the growing trend toward automation, it could only become possible by means of a standardized unit.

A box that could be handled by relatively simple equipment, take an infinite variety of goods, adapt to sea and land transportation by vessel, truck or train, and be the same identical unit throughout the world, was the answer.

Now, of course, we have container ships, container ports, unitized trains, intermodal transport and all the other terminology of the transportation industry, which can prove quite baffling to an outsider.

TEU's for example: a vessel may be described as a 500 TEU carrier. Containers, in the shipping sense, are 20-foot equivalent units or TEU's. Nowadays there are 40's as well as 20's of the eight-foot wide and eight-foot deep boxes.

First Container Loading

All of which is a long preamble to the following item. Nanaimo's Assembly Wharf had its first shipment of containerized cargo recently. Harmac Dawn loaded eight containers of Port Alberni newsprint.

A small beginning but a significant one, indicating this port's readiness to move with the times and fulfill its logical role as Vancouver Island's land-sea distribution point. It also reinforces Nanaimo Harbour Commission's decision to invest a considerable amount of money in providing equipment for container handling in order to be ready when needed.

Nanaimo's first steps toward container handling may be small in comparison to developments in the big seaports, but the move indicates Nanaimo Harbour Commission's policy, to move with the times and be prepared for future growth in the ever-changing world of shipping. *(Nanaimo Harbour News)*

Glen G. Macrae appointed Chairman: North Fraser Harbour Commission

Mr. Glen G. Macrae has been appointed Chairman of the Commission replacing Graham Kedgley whose term as Commissioner has ended. Mr. Macrae is an established lower mainland businessman with expertise in the transportation of barged aggregates and marine construction. He was first appointed to the Commission in 1980.

Port of North Fraser, adjacent to the City of Vancouver, the municipality of Burnaby and the township of Richmond, encompasses the north and middle arms of the Fraser River. The Commission is responsible for the administration and regulation of all marine activities within the Port, which include some 75 kilometers of shoreline.

Minerals and petroleum boost port tonnage in 1984: Port of Quebec

Strong shipments of minerals and petroleum products generated a 14% increase in tonnage at the Port of Quebec in 1984. A versatile import, export and transhipment center, the port handled a total of 17,723,000 tons of cargo, up from 15,571,000 tons in 1983.

Port activity is closely linked to rapidly evolving regional, national and international economic conditions. Economic recovery and a stronger U.S. steel industry resulted in a major upturn in the transhipment of minerals at the Beauport terminal for solid bulk cargo. A total of 1,455,000 tons of minerals were shipped through the port, more than doubling the 1983 figure.

In the liquid bulk category, the volume of petroleum products increased by nearly 2 million tons to a total of 6,917,000 tons in 1984. The increase was largely due to intensified activity at the Ultramar of Canada Ltd. Saint-Romuald refinery. The company has upgraded its refining capacity to convert the residue from crude distillation, which otherwise would be sold as heavy oil, into lighter products such as gasoline now marketed through an expanded distribution system.

A general slowdown in business had an adverse effect on the tonnage of grain handled in 1984, which fell to 8,084,000 tons compared to 8,519,000 tons in 1983. However, the Port of Quebec is well prepared to capitalize on any major increase in grain shipments.

A leader in grain handling technology, Bunge of Canada Ltd. completed jointly with the Port of Quebec a new facility for self-unloading vessels in 1984, increasing vessel unloading capacity by 150%. Other improvements to the grain terminal, such as the construction of a high-speed unloading facility for unit trains, all part of a $14.5 million joint investment program, are contributing to Bunge's record of performance in the handling of grain for export.

The 500,000 ton bench mark was once again surpassed in the shipment of general cargo in 1984, guaranteeing a year of full employment for the port's longshoremen. A 57% increase in the export of dairy products, to a total of 190,000 tons, was a major contributing factor. In 1984, the Canadian Dairy Commission designated the Port of Quebec as the basing point for skimmed milk powder in the province of Quebec, generating an estimated annual 40,000 tons of additional cargo.

In order to provide controlled-temperature storage for this additional tonnage moving through the Anse au Foulon general cargo terminal, the Port of Quebec invested nearly $2 million to enlarge Shed 101 by 5550 m^2.

It is also interesting to note that in 1984, Quebec continued to gain in popularity as a port of call for cruise vessels, welcoming 15,400 passengers, an increase of 7% over 1983.

In general, 1985 will be a year of consolidation at the Port of Quebec and 1984 tonnage levels should be maintained. The outlook is promising for bulk cargo such as minerals and petroleum, while in the general cargo sector shipments of dairy products should rise slightly. The major investment in port facilities in 1985 will involve the upgrading of shed space for general cargo at the Estuary sector.

The port's national significance and financial viability, combined with local interest in its management enabled the Port of Quebec to attain the status of local port corporation on June 1st, 1984. The additional authority in property management, contracting and tendering and the setting of rates then assumed by the corporation provides the flexibility to rapidly respond to the needs of port clients and users, in pursuit of a common goal of growth in business at the Port of Quebec. *(Port de Quebec)*

Navigation underway: Port of Thunder Bay

The Port of Thunder Bay's 1985 navigation season officially opened at 0324 hours, Tuesday, April 2, when the M.V. JOHN B. AIRD came abeam of the light at the port's Kam River entrance and headed for Thunder Bay Terminals Ltd. to take on 30,000 tonnes of potash.

Owned by Algoma Central Railway of Sault Ste. Marie, Ontario, the M.V. John B. Aird is 223 meters in length. She was the first vessel through the Soo Locks when they officially opened on April 1 and her journey to Thunder Bay took about 28 hours.

The Lakehead Harbour Commission hosted an "Opening of Navigation" celebration to welcome Capt. Bruce Shepperd and to honour the occasion. Well over one hundred members of the port community were on hand to bring greetings.

Dennis E. Johnson, Chairman of the Port Authority, presented Capt. Shepperd with the traditional "top hat" and a Port of Thunder Bay lazerwood clock. Chief Engineer Murray Corbin also received a clock in recognition of the event.

This year's season opened four days later than last year's March 29 opening when sister-ship Algoport opened the season.

U.S. Ports — Governing Bodies

According to the U.S. Maritime Administration, the U.S. seaport industry at the end of 1983 consisted of 183 deepdraft ports dispersed along the Atlantic, Gulf, Pacific and Great Lakes coasts, including ports in Alaska, Hawaii, Puerto Rico and the Virgin Islands. AAPA, based on extensive research, has determined that there are 105 public seaport agencies in the United States (of which 76 are AAPA members). The difference between MarAd's numbers and AAPA's is explained by the fact that there are a

fairly substantial number of private ports or public harbors served only by private terminals, none of which have port authorities. Furthermore, in certain states (such as Georgia, North Carolina and South Carolina), several ports fall under the jurisdiction of a single state ports authority.

As the table below suggests, a substantial majority of port authority governing boards are appointed (66 of 105). Elected port commissioners are most prevalent in the Pacific Northwest, Texas and, to a relatively limited extent, in Florida. Nine have no governing bodies whatsoever, while three were indirectly elected – meaning, in these instances, the port authority or navigation district commissioners are statutorily the same individuals who comprise the commissioners of the county or parish.

U.S. Port Commissioners – Elective Status

Region	No Governing Board	Appointed	Elected	Indirectly Elected*	Total
North Atlantic	3	14	1	0	18
South Atlantic	2	6	3	1	12
Gulf	1	14	7	2	24
South Pacific	1	11	2	0	14
North Pacific	2	2	14	0	18
Great Lakes	0	19	0	0	19
Total	9	66	27	3	105

* County or parish commissioners statutorily comprise the governing body of the port authority or navigation district.

(AAPA Advisory)

Vessel calls statistics: New York Maritime Association

Statistics compiled by the Maritime Association of the Port of New York shows a total of 39,011 vessels arrived at what the Association terms "the 11 leading" ports in the continental U.S. That was up from 37,992 vessels in 1983. The complete list is as follows:

Vessel Arrivals at Eleven Leading Ports

Port	1984	1983
Los Angeles-Long Beach	6,975	6,539
New York-New Jersey	6,153	6,136
Houston	4,740	4,720
New Orleans	4,082	3,933
San Francisco	3,779	3,621
Hampton Roads	3,068	3,058
Baltimore	2,986	3,076
Philadelphia	2,827	2,814
Columbia River	2,178	2,127
Seattle	1,521	1,257
Boston	702	711
Total	39,011	37,992

(AAPA Advisory)

Port engineering seminar: AAPA

A challenging prospect is AAPA's seminar, "Port Engineering Challenges in the Eighties – Landside and Waterside." The dates are May 20–22, the place – the Ramada Inn in Vicksburg, Mississippi. On the agenda are a series of panels dealing with a number of timely issues of pressing relevance to port planning and engineering functions. Topics include:

- The importance of mitigation efforts in permitting and authorization procedures.
- The reality of delays in permitting and project authorization cycles and possible solutions.
- Engineering requirements for intermodal transfer facilities at ports.

Computer simulation for port development to be featured at U.S. MarAd's research symposium

The use of computer simulation for harbor planning and waterway development will be featured at a symposium to be held May 29 and 30 at the U.S. Maritime Administration's Computer Aided Operations Research Facility (CAORF), located on the campus of the U.S. Merchant Marine Academy, Kings Point, New York.

The Symposium is being co-sponsored by the U.S. Army Corps of Engineers, the American Association of Port Authorities, and the Panama Canal Commission.

The main topics of the symposium will serve as a framework for four workshops to be conducted during the two-day period. The workshops will examine the "Use of Simulation in Determining Criteria for Safety in Harbor and Waterway Design", "Fidelity of Simulation in Harbor and Waterway Development", "The Application of Navigator Simulation Models in Harbor and Waterway Development", and "Marine Simulation as an Aid to National Defense Considerations". The purpose of the workshops is to define and address important issues and problematic areas to which research should be directed.

GPA surpasses container tonnage record

Georgia Ports Authority has outdone itself again, exceeding its previous monthly container tonnage record by nine percent. March 1985 recorded 267,310 tons of containerized cargo moving over GPA's CONTAINERPORT. The previous record was set in October 1984 with 244,397 tons handled.

This results in a 31 percent increase in tons of containerized cargo handled in 1985 fiscal-year-to-date over 1984 fiscal-year-to-date. Seven of the months in fiscal year 1985 are among the top ten all-time, accounting for the brunt of the tonnage increase.

The significant performance of March 1985 has helped to place fiscal year 1985 tonnages one-half million tons ahead of last year's projections. If this productivity continues, results of fiscal year 1985 will reach 2.9 million tons, comprising a 28 percent increase over fiscal year 1984.

Port of Houston ends year with 28% increase in tonnage

The Port of Houston Authority has recorded a 28 percent increase in revenue tonnage for 1984, according to Linda Reese, controller. Revenue tonnage reached 16,757,208 for the year, a jump over 1983 figures of 13,119,215. Preliminary totals for overall tonnage, including channel industries, reached 84.8 million tons, a 14 percent increase over 1983's total of 74.6 million tons.

Substantial increases in commodities such as steel, bulk materials and container movements as well as increases in other general cargoes, were noted as having the most influence in the totals.

Steel imports for the year swelled to a total of 3.5 million tons, a 72 percent increase, over 1983 figures of 2 million tons. The Bulk Materials Handling Plant recorded a total of 1.2 million tons for the year compared to last year's total of 813,087 for a 49 percent increase. Container movement at the Turning Basin and Barbours Cut Container Terminal reflected a 23 percent increase with 372,280 TEUs handled. General cargo tonnage reflected a 38 percent increase over the 1983 total of 6.3 million tons with 8.7 million tons handled in 1984. Auto shipments increased by 21 percent, with 291,353 units imported over 1983's total of 241,165.

Major construction projects completed in 1984 included the addition of Berth No. 4 at the Barbours Cut Container Terminal, the installation of a new shiploading system at the Bulk Materials Handling Plant and the completion of Wharf No. 32 in the Turning Basin area for a total of $35.5 million. *(Port of Houston Magazine)*

Long Beach Harbor Headquarters in Silver Anniversary

Past mingled with present recently when the Port of Long Beach Administration Building celebrated its 25th birthday, complete with speeches and a cake cutting ceremony. Pictured on stage during introductions were, from left, Port Executive Director James H. McJunkin, Charles L. Vickers, who was General Manager when the building was built, Harbor Commission President Jim Gray, Commissioners Richard G. Wilson and Louise DuVall, former Commissioners Llewellyn Bixby, Jr. and James G. Craig, Jr., Bob Hoffmaster, Chief Harbor Engineer in 1960, Patricia Curry, newly selected Miss Port of long Beach for 1985 and Port Princesses Elita Hotaling and Terri Hammer. In the quarter century since the building was completed, trade through Long Beach has increased 600 percent, and the number of Port employees only 30 percent. Long Beach is now the Pacific Coast's busiest harbor.

Container throughput up 35% at San Pedro Bay ports: Port of Los Angeles

Third quarter figures show container throughput at San Pedro Bay ports up more than 35% from last year.

"This would indicate only a minimal effect of reported local customs delays on the overall growth of container movement here," says Steve Resnick, Director of Marketing for the Port of Los Angeles.

"While having serious temporary impact on a number of shippers, the reported delays, largely attributable to the changeover by U.S. Customs to the ACCEPT program and problems processing quota merchandise, are expected to be eliminated once Customs staffing and automation problems are behind us," Resnick adds. "And considering the tremendous volume through the San Pedro Bay ports, we probably have fewer problems than most ports on a percentage basis."

The short-term condition is not deterring Fortune 500 companies and foreign based giants using sophisticated computer models to establish cost and service comparisons from considering Southern California as the hub for their nationwide distribution of commodities, according to Resnick.

Port of New Orleans plans automated tie to Customs

The Port of New Orleans has moved one step closer to establishing an automated cargo documentation system that would be linked directly with the U.S. Customs Service's Automated Commercial System (ACS) now under development. The Port has entered into Phase II of a contract with internationally recognized Cyber Data Systems, a division of McDonnell Douglas Distribution Systems Co., to design the necessary systems.

The key to the entire operation will be a computerized service center established by the Port to serve the local maritime community. The service center would act as an electronic conduit for channeling cargo information between all elements of the community and Customs. The automation of commercial cargo processing by Customs as well as the Port of New Orleans combined with the use of selectivity techniques in inspections by Customs should materially expedite the movement of import cargo through the Port. In a later phase the same automated system would also accelerate the throughput of export cargo as well.

The services normally performed by freight forwarders or custom house brokers would continue to be performed by them, even by those who have their own automated systems. By using the Port's service center, however, elements of the local maritime community would be able to interface with the Customs ACS central computer in Franconia, Virginia, which would provide for the release and entry of cargo documentation electronically.

The $130,000 contract with Cyber Data to be completed by mid-July will also provide selection of the necessary equipment, staffing and training requirements, and coordination with all elements of the New Orleans maritime community. The contract also provides for system design that will allow more of the inhouse functions of the Port to be automated.

If the Board of Commissioners of the Port of New Orleans (Dock Board) gives its approval, Phase III, the actual installation of the system, would be initiated immediately, with part of the system estimated to begin operation as early as the end of this year. *(Port Record)*

$20,956,000 for eight Federal navigation projects: Port of NY & NJ

The Port Authority of New York and New Jersey, the City of New York and the State of New Jersey have jointly urged Congress to appropriate $20,956,000 for eight Federal navigation projects in the Port of New York-New Jersey during fiscal year 1986. The proposed Federal budget allots $1.6 million less – $19,356,000 – for seven of the projects.

Anthony J. Tozzoli, Director of the Port Department of the Port Authority, Borden R. Putnam, New Jersey's Commissioner of Commerce and Economic Development and Susan Frank, Commissioner of the City's Department of Ports and Terminals presented the testimony to the Subcommittee on Energy and Water Development of the House Committee on Appropriations.

"we believe that this increase is indeed modest," Mr. Tozzoli said. "Though the increases are minor, the purposes they will serve are major. We cannot ask for less, nor can these purposes be accomplished with less."

The eight projects, with their Federal allotments, are:

Projects	Funding	Recommendations
Studies	Federal Budget	Port
Kill van Kull-Newark Bay Channels NY & NJ	$600,000	$700,000
New York Harbor and Adjacent Channels NJ	400,000	400,000
Arthur Kill Channel-Howland Hook Marine Terminal – NY & NJ	0	200,000
Construction		
New York Harbor Collection and Removal of Drift Project – NY & NJ	$3,700,000	$5,000,000
Maintenance		
Newark Bay, Hackensack and Passiac Rivers – NJ		$14,656,000
Bay Ridge and Red Hook Channels – NY		
New York and New Jersey Channels		
New York Harbor Projects – NY & NJ		

Kill van Kull-Newark Bay Channels Study Project

Mr. Tozzoli of the Port Authority described the Kill van Kull-Newark Bay Channels Study Project as "an especially critical need." He pointed out that it was authorized by Congress in 1972 and that it would deepen the approaches to the Port Authority's containerport complex in Newark and Elizabeth, New Jersey from the existing depth of 35 feet to as much as 45 feet and would include the widening of several areas. "Ship lines using these facilities have put us on notice that they cannot and will not tolerate further delays in the provision of adequate water depth for their growing fleets of larger vessels," he told the Subcommittee.

Construction in the approach channel must begin during Fiscal Year 1986, Mr. Tozzoli added, to meet the pace of a bistate port development plan for expansion and modernization of container terminals, including $270 million for facilities at Port Newark, at Elizabeth and at Howland Hook, Staten Island. "Since both the Department of the Army and Congress have recommended construction of this channel improvement in proposed or pending public works legislation, we are recommending an additional appropriation of only $100,000, from $600,000 to $700,000," he said.

New York Harbor Collection and Removal of Drift Project

Mr. Tozzoli said that the New York Harbor Collection and Removal of Drift Project had been authorized in 1974 and had been underway since 1976. Under it, 2,230 sunken hulks and 149 decaying shore structures that are the sources of dangerous and costly harbor drift will be removed. "This project has made major advances in waterfront clearance," Mr. Tozzoli said. "It has widespread bistate community participation and it is continuously gaining momentum as its benefits become increasingly known and visible. In addition to its essential navigation benefits, this project opens the way for renewed land use and redevelopment and improved waterfront aesthetics. Increasing the appropriation recommended for this project from $3.7 million to $5 million will permit the extension of waterfront cleanup work to other areas in Brooklyn, Bayonne and to Shooters Island, which lies in the Arthur Kill between Elizabeth and Staten Island."

New York Harbor and Adjacent Channels

Commissioner Putnam of New Jersey noted that $400,000 had been budgeted in fiscal year 1986 for the completion of a feasibility study for deepening of the Claremont Terminal Channel and continuing a similar study for the Port Jersey Channel, both of which connect terminal points in Jersey City and Bayonne with the main Anchorage Channel. The Claremont Channel study was authorized by Congress in 1968 and the Port Jersey study in 1980. The consolidated study effort will determine the feasibility of deepening the Claremont Channel, now at 24 feet, and the Port Jersey Channel, now at 35 feet, to accommodate deeper draft vessels. "The users of these channels urgently require deeper water to reduce shipping costs, increase their ability to continue to participate in the commodity export market, service growing fleets of larger vessels and provide safer access to their facilities," the Commissioner said.

While funding appears sufficient to complete the Claremont Channel segment, Commissioner Putnam said, the Port Jersey Channel portion should be accelerated and completed before the scheduled date of June, 1987. "The Port Jersey Channel," he declared, "serves 10 container

lines at a privately financed, 100-acre facility, which was built at a cost of $50 million and employs more than 600 people. This terminal handled 363 vessel calls in 1984 and more than 12 percent of the total container traffic in the New York-New Jersey Port."

Arthur Kill Channel-Howland Hook Marine Terminal

Commissioner Frank of New York City said that the Arthur Kill Channel-Howland Hook Marine Terminal Project was "of the highest priority to the City of New York." The Howland Hook Container Terminal, largest in the city, is undergoing $5 million in improvements and negotiations are underway with its tenant, United States Lines, for an $85 million expansion plan. The shipping firm has recently introduced a new generation of jumbo containerships and plans to make Howland Hook one of two sites on the East Coast where the big ships will be berthed. "Under present conditions," declared Commissioner Frank, "the jumbo ships have access to Howland Hook only at high tide. Deepening the Arthur Kill is vital if we are to provide efficient service, and it will result in substantial economic benefits for the port."

The U.S. Army Corps of Engineers is completing a feasibility study, authorized by Congress in 1979, that will examine a deepening of the Arthur Kill Channel to 42 feet as far as the Howland Hook terminal and to 40 feet for major private users such as Exxon and the Gulfport terminal on Staten Island. The Corps is expected to complete its study this year.

"Unfortunately, no funds for a study project were recommended in the Fiscal Year 1986 Federal Budget," Commissioner Frank said. "We are therefore requesting an appropriation of $200,000 to enable the Corps to proceed with continued planning and engineering on completion of the feasibility study."

Commissioner Frank also took time to urge the Subcommittee to fund construction of a deeper and wider channel in Sheepshead Bay, Brooklyn, following a recommendation by the Corps of Engineers. "Sheepshead Bay is home to the largest commercial and recreational fishing fleet on the East Coast," she said. "The existing Federal channel, which is six feet deep and 100 feet wide, is neither deep enough nor wide enough to allow free passage of the fishing vessels. They are subject to severe traffic congestion and the significant potential for accidents."

Commissioner Frank requested $250,000 to fund the channel project. Within Sheepshead Bay, the channel is to be deepened to 10 feet and widened to 200 feet. Outside the Bay, the channel is to be deepened to 12 feet and widened to 250 feet. The City will provide the local share of the channel improvement cost and plans a $4 million renovation of the piers to offer modern berths and other infrastructure improvements.

Revenue up 11% eight months into 1984-85 FY: North Carolina State Ports

Meeting in Charlotte for the first time since opening the Charlotte Intermodal Terminal in January, 1984, the North Carolina State Ports Authority Board of Directors was told Tuesday (April 2) the ports authority was in good financial shape eight months into Fiscal 1984 – 85.

Revenues for the Ports Authority's combined operations at Wilmington, Morehead City and Charlotte totaled $11.1 million or 11% over last year's $10.1 million. Profit for the eight month period was $901,148 but $500,000 lower than last year.

The State Port of Wilmington showed the most dramatic revenue increase for the period with $9.1 million earned and an associated profit of $1.3 million. Revenue was up 16%.

The State Port of Morehead City is divided into two separate facilities – bulk and general cargo.

The Bulk Handling Facility recorded revenues of $1.1 million and a profit of $848,000 eight months into the fiscal. The General Cargo Terminal recorded revenues of $1.9 million but experienced a loss of $438,000.

The Charlotte Intermodal Terminal (CIT), an inland storage and staging area for containers, serves as the "West Gate" for the Port of Wilmington. Containers arrive at the CIT and are shipped by rail to Wilmington at substantial transportation savings.

As a result of the CIT operation, revenue at Container Central in Wilmington is up this year $60,000, dockage is up $80,000, and wharfage is up $62,000, according to W.W. Edwards, Deputy Director for NCSPA Operations.

Building on the past . . . expansion continues: NC State Ports

By Bill Stover

Following completion of a $12.5 million expansion program at its Wilmington facility in 1984, the North Carolina State Ports Authority is now looking toward the next two years for further expansion of its container handling capabilities and facilities.

Originally scheduled for 1989, the State Ports Authority is moving ahead with a proposed $17 million plan to construct an additional 900 foot container berth south of and adjacent to the existing container facility and purchasing a fourth container crane.

The SPA now hopes to have this new addition in operation by the end of 1987 – two years ahead of its original plan.

Adm. William M.A. Greene, executive director of the North Carolina Ports, cited a number of reasons for this revised expansion schedule.

"The container business at Wilmington is expected to mushroom over the next several months and we expect to see phenomenal growth in the number of boxes handled and the number of container vessels calling at our facility," Adm. Greene said. *(Carolina Cargo)*

Oakland auto import team tops in U.S.

The Port of Oakland, the International Longshoremen's & Warehousemen's Union, Pasha Maritime Services and Automotive Services, Inc., have been recognized by Subaru of America, Inc. for having the best damage prevention record of any of the auto maker's nine U.S. entry ports in 1984.

It was the third consecutive year that the Oakland port agency, the union and the two private sector firms have been so honored by Subaru. At an awards ceremony held in Oakland, Frank Pozzi, National Port Marine Damage Specialist on the staff of Subaru of America's headquarters office in Pennsauken, New Jersey, credited superior labor-management teamwork for holding damage to the company's products discharged at Oakland to .18 percent. The record was achieved on a volume of more than 27,000 passenger cars and light trucks delivered during the calendar year, and entailed more than 100,000 man hours by ILWU personnel alone.

"These results are also an indicator of the skill and motivation possessed by the individual personnel engaged in our operations at Oakland," Pozzi noted.

Specialized auto carrier vessels operated by Subaru of America call at the Bay Bridge Terminal every 28 days. In one of the most labor intensive of modern marine terminal operations, the vehicles are driven ashore in relays by longshore crews and parked in the backup apron of the terminal yard. They then are driven to the processing facilities of Automotive Services, Inc., less than a quarter mile from the terminal, where they are prepared for shipment to dealers in northern California, Utah and Arizona, and through the Subaru distribution hub in Denver, to dealers in the Rocky Mountain states.

Planning and development become one department: Port of Portland

Marriage of the Port's planning activities with land development and land sales is "an idea whose time has come," reports Ken Johnsen, the new Port director charged with making the marriage work.

"This is an evolutionary step. It moves us in some logical directions – causing some key former planners to join operating departments they formerly supported," Johnsen explains.

"Planning and Development will now be the planning arm for the real estate assets of the Port, leaving specific, business-related planning projects to the operating departments, now augmented with their own planning expertise," Johnsen said.

Planning and Development will be doing land planning, land development, land acquisition, land sales and the issuance of Port Industrial revenue bonds to stimulate the local economy.

Johnsen said pulling planning together with the Port's land development and sales activities has "kind of evolved" over the last few years.

"Looking at the big picture, we've now come into a period where implementation is needed of the many plans it has taken the Port a number of years to develop," Johnsen said.

"Beginning in the early 1970s, there was an urgent need for the Port to have master plans to guide its various business enterprises – but there was equal need for the community to approve these plans.

"After years of public hearings, citizen task forces and inter-agency and governmental approvals, we have complete community support for master plans at all Port airports, Port industrial parks, the Portland Ship Repair Yard – even agreement on a comprehensive harbor development plan through the Marine Terminals Master Plan.

"While we'll be emphasizing land sales and leases heavily in our business plan, it is important to recognize the Port is coming off a record land sales year. Our Industrial Parks Division has sold more than $7 million worth of Port land, including an all-time record sale of $5.5 million for 74.2 acres in Washington County to NIKE for its world headquarters," Johnsen said.

Johnsen said particular emphasis will be put on marketing Port properties, which are the backbone of the area's "Columbia Corridor" – a 6,500-acre, 16-mile-long and 1.5-mile-wide corridor of land south of the Columbia River – and the "Sunset Corridor" in Washington County.

(Portside)

Port of Richmond experiences cargo increase for 1984

The Port of Richmond experienced a substantial increase in cargo during 1984. Almost 16 million short tons of general cargo and liquid and dry bulk commodities moved across the docks, an increase of nearly a half-million tons over the previous year. Ship and barge calls from 27 different shipping lines totaled 1989. At the City-owned terminals, the emphasis was on exports, with 55 percent of the cargo destined for overseas countries. In terms of tonnage, the Port of Richmond is the leader among Northern California ports and is in the top 30 nationwide.

Port of San Francisco's corner on trade

Container growth in the Transpacific grew by 72% in 1984. Intermodal cargo posted an 85% increase. The re-establishment of direct rail service to San Francisco in May and the inauguration of the Intermodal Container Transfer Facility in October stimulated growth in intermodal traffic through the Port.

Calendar Year 1984 (Metric revenue tons)

	Container	Intermodal
Q1	136,519	26,052
Q2	166,842	33,288
Q3	162,819	41,420
Q4	234,633	48,222

(Wharfside)

WSU could IMPACT Port of Seattle's business

By Terence Day

Washington State University's International Marketing Program for Agricultural Commodities and Trade (IMPACT) could have quite an impact on the Port of Seattle, as well as on the state's economy.

The fledgling center, which was launched with a $48,000 appropriation from the 1984 legislature, was created to help strengthen the state's economy through increased exports in agricultural and forest products.

Potential benefits from increased exports are very large. Dr. A. Desmond O'Rourke, IMPACT's interim director, said every $1 increase in agricultural export sales leads to an additional $2 increase in economic activity in the rest of the state's economy.

"For every additional agricultural job created by exports, three off-farm jobs are created, mostly in inland transportation and port activities," O'Rourke said.

Developing the state's economy never has been more challenging than it is now, he said. Many aspects of the state's economic situation are becoming more difficult – including agriculture, which is not as able to provide a stable base for other segments of the economy as formerly.

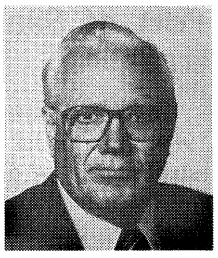
O'Rourke, an agricultural economist who specializes in marketing, said 10 crops out of Washington's top 20 are in economic trouble. For many of them, he believes, the road to better economic times leads to Pacific Northwest ports.

Exports not only bring needed dollars to the economy, but they bolster prices farmers receive for their crops – adding still further to the economy.

O'Rourke said IMPACT's research will provide a foundation upon which products and markets can be developed, but the center itself will not develop markets through promotional activities. Promotion will be left to the private sector and to other agencies.

To accomplish its mission, WSU will ask the state lengislature for $2,124,000 for the 1985 – 1987 biennium, to make IMPACT fully operational. *(Tradelines)*

Agriculture leader re-elected Port President: Seaway Port Authority of Duluth



Russel G. Schwandt, president of the Minnesota Agri-Growth Council, has been re-elected president of the Board of Commissioners of the Seaway Port Authority of Duluth.

The Sanborn, Minn., farm leader is currently serving his second six-year term on the Authority Board of Commissioners after having been re-appointed in January by Minnesota Gov. Rudy Perpich. Schwandt was first appointed to the Port Authority in 1979 by then-Gov. Albert Quie.

A grain farmer, Schwandt is widely recognized as a leading spokesman for agriculture's needs in transportation, particularly through the Great Lakes and St. Lawrence Seaway system. Schwandt pledged to "continue to take a very active role in pushing for our world port and maximize its benefits to our statewide community."

Port of Charleston adds new ro/ro ramp for service at any of its four terminals

The first wheels to roll over the Port of Charleston's new ro/ro ramp and into the hold of a ship were those of tractors, combines, hay balers and front-end loaders in a joint charter shipment to Europe. This equipment was closely followed by trailer trucks hauling containers.

The new $1 million floating ro/ro ramp is now available for service at no charge to all ro/ro vessels. It can be positioned within an hour's notice at any of Charleston's four terminals.

With its 100-ton capacity, the ramp is designed to acommodate two ships at either end, loading or discharging cargo. The entire structure has a length of 180 feet and a width of 80 feet, wide enough for ro/ro vessels with double stern ramps. It has been overlaid with bridge grating, and the dock ramp is hinged to adjust automatically to the tide's ebb and flow, so that it can be used under any tidal conditions.

Charleston's terminals are located within minutes of the open sea, allowing rapid turnaround for all ships calling the port. The addition of the floating ro/ro ramp to Charleston's facilities is part of a continuing plan to offer ocean carriers and shippers the best port services on the eastern seaboard. *(Port News)*

Another record-breaking year for Charleston led by containerized cargo

Calendar 1984 was a record-smashing year for the Port of Charleston and the South Carolina State Ports Authority. Previous highs were surpassed in container, general, bulk, and total cargoes.

Container cargo, which tallied 2,827,978 tons, led all individual cargo classifications and was 14 percent ahead of the 2,471,843 tons moved in Calendar 1983. Bulk and leased cargoes totaled 1,025,308 tons, as compared with the 1983 figure of 818,072 tons; and breakbulk cargoes, at 966,459 tons, were down only two percent from the previous year total of 988,017.

Container TEU's (twenty-foot-equivalent units) in 1984 totaled 420,149, another Port of Charleston record.

General cargoes totaled 3,794,437 tons, up a solid ten percent from the 1983 figure of 3,459,860.

Despite the strength of the U.S. dollar overseas, 1984 cargoes continued to be export heavy, though import cargo tonnage increased somewhat over that of 1983. Exports accounted for 59 percent of total container volume, 56 percent of breakbulk, 62 percent of bulk and leased cargoes, 58 percent of general cargoes and 59 percent of total cargo tonnage.

Trade Development marketing efforts during 1984 combined to bring about recovery of tonnage in several breakbulk commodities, such as lumber and wood products, paper, textiles and fibers, machinery and parts, and iron and steel products. Some new container business was cultivated during the year as the result of added containership service as well as through increases in container volume by many long-standing container lines at Charleston.

Focus on containers

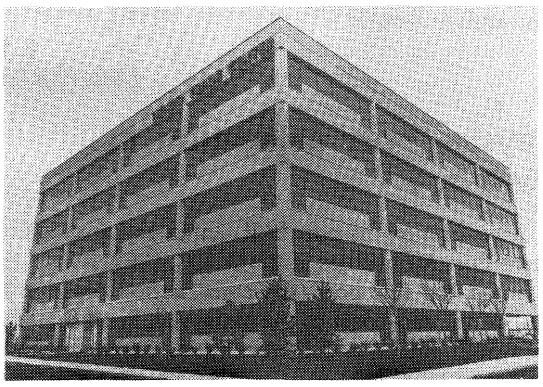
Throughout 1984, the Port of Charleston concentrated its ongoing expansion and physical improvement efforts on the containerized cargo trade.

At the all-container Wando Terminal, where throughput exceeded one million tons, construction is well underway

on a 40-acre container storage area. An additional berth and a second 200,000-square-foot container freight station are also planned. The project represents a commitment of more than $2 million.

At North Charleston, 10 miles upstream from Charleston's downtown terminals, an $8 million project has been launched to convert the general cargo facility to a 100-percent container terminal. North Charleston Terminal's annual throughput also exceeds the million-ton mark. The conversion is expected to be completed within the year. Major improvements made there during 1984, to accommodate Evergreen Line's increased service, included the addition of a fourth container crane, the demolition of old warehouses to make room for a 40-acre container storage area, and the purchase of new container handling equipment worth more than $1 million. Evergreen Line had selected Charleston as its U.S. South Atlantic load center for the line's "round-the-world" service that began last September. *(Port News)*

Port of Tacoma dedicates new World Trade Center



In special ceremonies dedicating the first phase of the $15 million Port of Tacoma World Trade Center, Washington State Governor Booth Gardner cited the role this facility will play in economic growth and trade development. The Governor stated, "We can't sit casually by and expect the business opportunity to come to us. We're in a new era. We're going to be competitive, and what you're doing here in the Trade Center and in the ports is just one part of a very important equation from which all of us are going to benefit in the long-term."

The Trade Center, which is located just off Interestate 5 on Port of Tacoma Road, features 61,000 square feet of leasable space in the first-phase, five-story, tower. Major tenants include Sea-Land, which will occupy 21,000 feet of office space, and the Port, which has 3,000 feet on the main floor which it will use for Commission meetings and other general business purposes.

With the April 5th dedication of the new facility, the Port of Tacoma joined a network of 37 other such Centers located throughout the world. Seventeen more are under construction, and 25 others are in the planning stages. Over 50,000 individuals are affiliated with the World Trade Center Association network.

The trend of the Port working with private developers will continue in the future. According to Larry Killeen, executive director at the Port of Tacoma, "With the marriage of Port ground leases and private sector dollars, we can make positive things happen on the tideflats." Other parcels of Port land are also designated for development through similar co-ventures with the private sector. Killeen added, "We feel this is the best way to stimulate the regional economy and provide the citizens of Pierce County with the best return on their revenues which help support the Port."

"By utilizing the World Trade Centers Association network," explained Port Commissioner John McCarthy, "we plan to make more and more people aware of the Port of Tacoma. We're working to give the Port, the City, and the County a stronger identity in the world of trade."

Port of Tacoma expands its Foreign Trade Zone

The Port of Tacoma has received authorization from the U.S. Department of Commerce to expand its Foreign Trade Zone #86 to 638 acres. The Port was first granted a 16-acre FTZ in 1983, but interest generated in the FTZ by various companies made it clear to the Port that additional area would be needed to meet its long-range marketing goals.

The expanded FTZ includes 11 parcels of land and 13 existing buildings in the Port's Industrial Development District. All parcels are currently zoned for industrial use and are available for lease from the Port.

FTZ's offer a number of advantages to importers, exporters, and manufacturers. Since an FTZ is considered legally outside of the United States for U.S. Customs purposes, foreign and domestic goods can be stored, processed, or manufactured in an FTZ duty-free.

Goods are subject to duty only when they leave the zone to enter the U.S. market. No duty is charged if the goods are reshipped from the FTZ to a foreign country. Products consumed in the U.S. are levied a duty that excludes the cost of any American components and labor that went into the final product created in the FTZ.

With the expanded FTZ, the Port can provide an important asset to new businesses or expansion-minded existing industries that use imported parts or raw materials. According to Port executive director Larry Killeen, "Much of the land in the expanded FTZ is vacant, and we are ready to develop it to suit specific user operations. This flexibility will enhance the Port's ability to successfully attract new business and new jobs to the Tacoma area."

The Antwerp Seafarers' Centre

Ecumenical cooperation in the port of Antwerp

Four seamens' missions with a long tradition of welfare for seafares united, The Apostleship of the Sea, the Missions to Seamen, the British Sailors' Society and the Deutsche Seemanns-mission, to form together «The Antwerp Seafarers' Centre».

Faced with the big changes, both in the seafaring world, as well as in the society of the sixties, brought the four seamens' missions, which had each their own club, to a turning point in their care for seafarers.

It was the time the container traffic was in full expansion and the shortened stay of the ships in port gave the seafarer less time to go ashore. The majority of the ships sail a multinational crew. The seafarer lives every day on board in a pluralist and multinational community. The number of nonwestern is growing every day.

It was also the time that in the society the cultural and religious splitting-up was built down to a greater openness and tolerance. The regular contacts between the seamens' chaplains and the reality of the life of a modern seaman brought them to feel themselves responsible for all seafarers. Out of their christian conviction, they desired to be in service for all seafarers regardless of race, nationality, religion or philosophical conviction. Cooperation and the building up of ecumenical seamens' centres in Antwerp were the goals they had in mind.

Since 1970 the following welfare projects were realized: First – the «Antwerp Mariners' Club» at the Noorderlaan 171, near the container terminals and conceived as a service for ships with a short stay in port.

Second – was the uniting of the four existing clubs in town. The «Stella Maris», the club of the Apostleship of the Sea which had the best facilities and hospitality, opened its doors for that experiment. Thus giving birth to the ecumenical club «Antwerp Seafarers' Centre» at the Italiëlei 72.

Sport facilities

These two centres offer the seafarer the following services: bar, snacks, shop and souvenirs, telephone, mail, exchange, television, newspapers and table games. In addition, the ASC has hotel accommodations for 30 seafarers. The figures of last year prove that the seafarers appreciate the service offered to them. Approximately 50,000 seafarers from more than 100 different nationalities visited the two centres, the hotel booked 6,000 nights and 13,000 foreign telephone calls were made.

Third – was the taking over of the Swedish sports ground at the Ooster-weelsesteenweg near Quay 135, under the name «Antwerp Mariners' Sports Ground». In 1983, the sports ground was used 80 times for football or other sporting activities. It is open to all seafarers who like to play football, volleyball and athletics. The Sports Ground has also a small clubhouse and disposes of sportswear.

Services

In addition to the facilities of these welfare centres the seamens' missions provide the following services:

Shipvisiting:

Daily visits of the incoming ships. Human contact is very important for the seaman. We welcome the seaman, invite him to the centres and provide him information about the port and the town of Antwerp. Last year more than 6,000 ships were visited.

Library services:

The missions take care of the ships libraries of the Belgian, British and German ships. The other nationalities can obtain or exchange paperbacks. In 1983, 120,000 books left Antwerp aboard ships.

Visits to seamen in hospitals:

A team of volunteers visit every week all the sick seamen in the hospitals of Antwerp. More than 500 were visited in 1983.

Chaplainship:

The chaplains of the different denominations look after the pastoral care and the religious services for seafarers on board as well as in the centres.

Social evenings:

In the weekend and on public holidays, social evenings are organized in the ASC with dancing and entertainment.

Meeting facilities:

The ASC is at the disposal of all maritime organizations or groups of seafarers for meetings or festivities.

The «Antwerp Seafarers' Centre» collaborates with the other seamens organizations in the «Antwerp Seamens' Welfare Committee». It is also a member of the «International Christian Maritime Association» (ICMA).

The «Antwerp Seafarers' Centre» is a free initiative supported by all who are kindly disposed toward seafarers and the seafaring world.

P. Dyck
(HINTERLAND)

Malaysian port delegation in Antwerp

A delegation of the port of Kuantan was received by the Antwerp Port Authorities at the W.T.C. Club.

Kuantan is a new port (the construction began in 1978) located at the east-coast of the Malaysian Peninsular (South Chinese Sea) and is in full expansion. Cargo turnover for 1982 was 450,000 tons and for 1984 a record 850,000 tons is expected, while forecasts for 1990 indicate a cargo volume of 3 million tons.

The port's hinterland is rich of natural resources. Wood and palm oil are the main commodities shipped via Kuantan.

Port Manager Haji Fadzil Bin Mohd Yusof pointed out that a container terminal is under construction; initially Kuantan will be served by a feeder service with Penang, Port Kelang, Singapore and Bangkok.

Some 50 representatives of Antwerp companies attended the information session at the W.T.C.-Club. Mrs. Norhayati Sulaiman, representing the Malaysian Ambassador and Messrs R. Vleugels and W.H. Osterrieth welcomed the participants. *(HINTERLAND)*

A new regular line service between Bordeaux and Africa

When she called in the Port of Bordeaux on the 15th April 1985, MV ARISTEE started up a new regular link to West and Central Africa. The line is being introduced by SOCIETE NAVALE CAENNAISE.

The 10,500 dwt ship, sailing under the French flag, during her inaugural call load 300 t of general cargo. The shipping line intends to make monthly calls at Bordeaux,

thereby strengthening our position vis-à-vis Africa, while ports of call outbound from Europe will be Dakar, Abidjan, Lomé, Libreville, Port-Gentil and Pointe-Noire.

Le Havre leads French ports for traffic by value

The brochure published each year by the French Board of Customs on the areas served by the main Common Market ports gives some very interesting facts about the value of goods falling into the category of international trade.

In 1983 Le Havre once again headed the list of French ports, with goods valued at 176 thousand million francs, or a quarter of the total value of all foreign trade merchandise passing through French ports during the year. Le Havre, which topped the list both for incoming and outgoing traffic, thereby confirmed its reputation as a port for high-value cargoes – a point which carries weight with the companies that already use it and is an additional plus in the competition with foreign ports.

(Port of Le Havre Flashes)

France's first freeport area opened in Le Havre

Leading exporters, international companies and merchants have always been keen to see special areas set aside, easily accessible by land and sea, where they could stockpile goods free of tax until a customer came along and bought them.

The exigencies of world-wide trade today show more clearly than ever the validity of the idea, with international traders always on the look-out for buffer zones where they can put their products aside until they are needed for dispatch to the end-user.

At the present time there are over 400 such places round the world benefiting from special Customs treatment and 10% of all world trade passes through them.

The Port of Le Havre Authority has for many years been engaged in systematically improving the facilities it can offer international traders and the introduction of industrial and commercial bridgeheads for overseas countries was part of this process.

The French Cabinet decisions of November 2nd 1983, backed by close collaboration between the Port Authority and the French Board of Customs, led to the introduction on February 8th 1984 of special Customs treatment for what are now known in France as "magasins francs" or "free warehouses".

The first such arrangement in France, it allows for duty and taxes to be suspended at different points of the port area and is available to the owners of the goods or their representatives.

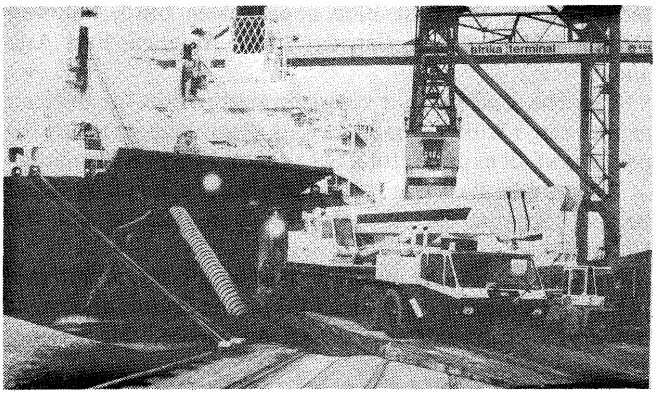
There are numerous advantages: no restrictions as to products, quick implementation, administrative simplicity, stockage for up to 5 years, no bond requirement, and a single body, the Port Authority, to deal with.

The first free warehouse operator to receive Port Authority approval was Gondrand & Co, the international forwarding agents and transporters, who are already stocking goods of overseas origin in Le Havre, mainly from Brazil and Korea.

The free warehouse system is bound to give considerable impetus to the bridgehead role played by Le Havre in international trade and there are already twenty other requests for approval under examination.

(Port of Le Havre Flashes)

Hamburg tops one million box mark



Hamburg went over the one million TEU hurdle for the first time in 1984. In all 1,073,428 TEU (10 million tonnes) were handled, admitting the port to the small circle of "container millionaires" and strengthening Hamburg's position among the ten most important container ports in the world. East Asia remains the major trade area with a share of 35 per cent, followed by Europe, America, Africa and Australia/New Zealand. The current year is expected to produce further container growth for Hamburg, especially because Hamburg is one of the ports of call in the new "round-the-world-services", which include only a few selected European ports in their routes.

West German imports and exports profit from recovering economy; German ports demand end to competitive distortions

Hamburg, West Germany's largest port, last year handled 35.6 million tons of cargo of all kinds, exported or imported by Germany. This is an increase of 8.9 per cent over 1983 and is equivalent to a 16.2 per cent share of Germany's foreign trade shipped by sea up 0.4 per cent. (Total cargo volume for Hamburg was 54 million tons in 1984.)

"Despite the disadvantages arising for German ports from the rigid German hinterland cargo rates, we were able to stabilize our market share," Mr. Klaus-Dieter Fischer, a member of the board of Port of Hamburg – Marketing and Public Relations (regd. Assn.), said. "This underscores our efficiency and the quality of service which Hamburg has to offer," he added.

He called on the West German government to take steps which will create a framework to end the competitive distortions for German ports, which arise from the fixed price structure for domestic hinterland transports. Border crossing transports in contrast, can be negotiated under flexibile terms. This is drawing an increasing volume of

cargo from the German ports. The resulting distortion of competitive conditions could not be compensated by the small leeway allowed under present regulations. He said the government was called upon to create a liberal and flexible framework to end the distortion.

Of the total German cargo handled by Hamburg in 1984, 27.5 million tons were import cargo (1983 – 26.0 millon tons). The Scandinavian countries took the number one position among the trade partners with 5 million tons of cargo imported via Hamburg. Great Britain followed in second place, the East Bloc countries in third, followed by the United States, Canada, South America, East Asia and Africa.

The Far East was the clear top destination for German export cargo with 1.6 million tons, equivalent to nearly 20 per cent of all exports (total 8.1 million tons) via Hamburg.

The Middle East was in second place, followed by Great Britain, Scandinavia, the Gulf Region, Africa and the United States.

"These figures demonstrate Hamburg's important role as hub in European trade. In addition, the figures document our port's major role in the East Asia trade," Mr. Fischer said.

Among the federal states, Hamburg obviously took the lion's share of cargo handled by its port. Fully 22.8 million tons of the total were Hamburg trade.

Bremen and Hamburg Chambers of Commerce for change in law

The Chambers of Commerce of both Bremen and Hamburg have called upon the Federal Government to abolish the competition distortions in the hinterland traffic which exist to the detriment of the German seaports. The narrow, national, tariff regulations must be approximated closer to the liberal EC-regulations for frontier-crossing traffic which currently benefit the routeing of German export goods via foreign seaports. As the Germen traffic industry has failed to produce sufficient remedies along suggested lines on a voluntary basis, the chambers are now calling for statutory measures.

This will, in a letter to the Federal Economics Minister, Dr. Martin Bangemann, be founded on the fact that competition flaws, contingent upon political disposition, can only be removed by means of political dispositions.

In this connection it is also being stressed that the credibility of the Federal Government's European policy must not be allowed to suffer. The EC-Commission is also planning proposed measures to free the border-crossing, just as well as the national, seaports hinterland traffic in the Community, from all competition-distorting restrictions of capacity and political-pricing nature. Thereby the goal of equality for "the blue and the green borders", for which the seaports have been constantly striving, would be achieved. *(Bremen International)*

Port tonnage exceeds 27 million ton mark: Port of Amsterdam

International sea-going goods traffic handled in the Port of Amsterdam in 1984, set an all-time record, exceeding the 27-million ton mark, an increase of about 15 percent, according to provisional figures. Increases were seen in nearly all sectors, with dry bulk cargoes especially high.

Ore traffic showed an increase of 21.4 percent over 1983, to 1.323 million tons; while coal shipments totalled 4.211 million tons, an 81.5 percent increase. A 17.9 percent fall in grain shipments to 1.828 million tons was amply compensated by a 41.6 percent hike in the shipments of animal feeds/derivatives, at 4.526 million tons. *(report)*

Port approaches now at 50 feet: Port of Amsterdam

As of December 1st, the sea approaches to Amsterdam's port mouth at Ymuiden had been deepened to accommodate vessels drawing up to 50 feet. This is the first stage in a medium-term plan to deepen the port approaches from 47.5 feet to 54 feet. This will enable larger dry bulk carriers to reach an expanded deep water bulk terminal at Ymuiden.

Larger bulk carriers, for ore and coal, have lower freight rates which means that Amsterdam can be more competitive in attracting these cargoes for distribution throughout Europe. Bulk carriers drawing more than 45 feet (the 90,000 dwt range) are prevented from entering Amsterdam by depth limitations imposed by tunnels under the North Sea Canal. When the 54 foot level is reached later this year, the outer port will be able to handle fully-laden vessels in the 150,000 dwt range. *(Report from Amsterdam)*

1984 U.S. Shipping Act compares in significance with Mannheim Agreement: Mr. C.H. Kleinbloesem

"Maritime transport is in constant flux because it must adjust all the time to changing market conditions and an ongoing technological revolution. We are facing new challenges and are curious to know what changes in maritime transport the next few years will bring."

Thus spoke Mr. C.H. Kleinbloesem, general economic adviser to the Port of Rotterdam management, discussing the subtheme "Round-the-world container services: a challenge to world ports, and Rotterdam's answer", at the tenth Triport Seminar in Kobe.

Mr. Kleinbloesem pinpointed five causes of these changes:

1. The growing role played by codes so that cargo is not shared out on market bases.
2. Developments in the USA where market mechanisms are taking the place of regulations in both domestic transport and in trade with the rest of the world. Deregulation of air, road and rail transport; the Shipping Act of 1984 which permits service contracts and time-volume rates, and the rise of intermodal transport (i.e. combination of maritime and other transport).
3. Demand for faster delivery systems to keep inventory costs down.
4. The modern computer-based tracking and information systems.
5. The trend towards ever larger ships to profit from economies of scale.

Developments in the United States are of special importance. Mr. Kleinbloesem found that deregulation in that

country had made it much easier for carriers to respond to market changes. Old restrictions have been either abolished or revised, putting greater emphasis on competition. The key to the future seems to be intermodalism, in the shapes of intermodal rates (one price covering several transport links) and multimodal carriers (firms carrying goods by several modes of transport).

"The new legal climate in the USA makes it possible for carriers to quote door-to-door prices. All kinds of combinations are conceivable, such as maritime transport co-operating with road haulage, inland shipping and railways. To date many shipping lines have quoted intermodal rates independently. But now that maritime carriers and conferences have in large measure been freed from American anti-trust restrictions, conferences too, can quote door-to-door tariffs. Hence intermodal rates may well become a dominant factor in transportation. They give shipowners more control of cargo routes. Carriers will have to be more alert in finding alternatives to curb costs, picking lowercost ports.

Another important feature of the 1984 Shipping Act is that it gives shipping companies and conferences a chance to rationalize in any way they see fit. All this can have consequences for existing agreements or pools in other parts of the world, for the sizes and types of ships used, for the sailing schedules of the liner services and for the number of ports of call in a range.

Round the world

Mr. Kleinbloesem compared the significance of the new U.S. Shipping Act with that of the Mannheim Agreement, the international treaty which guarantees freedom of shipping and goods transport on the river Rhine. He reminded his listeners that intermodal rates and multimodal transport firms have a long tradition in Europe.

He pictured the round-the-world container services against this background. These services, four of which will be in operation soon (two by Evergreen and one each by USL and Barber Sea Line), mean fewer but bigger ships calling at fewer ports. They bolster the trend towards base ports, with feeder services to other harbours. The trend had been started already by the growing size of container ships and increasing offerings of door-to-door transport.

"The impact of this development on the ports is plain," said Mr. Kleinbloesem. "Ports which choose to remain candidates for gateway" status, will be faced with the demand for specialized container terminals capable of handling thousands of containers per ship in a hurry. They will have to provide larger berths and deeper water, and advanced systems for terminal operations."

Rates under pressure

Converting ports into such cargo centres will put extra pressure on the capital which ports and private wharfingers have available for investmest in development and expansion. At the same time port charges will come under increasing pressure. Now that shipowners are gaining more and more control of cargo routes, they can pick the ports capable of meeting their requirements at the lowest cost, even if hinterland transport prices are higher. Accordingly, the influence of shippers or consignees on the choice of ports will decline. Freight may become "port blind".

Will the smaller ports lose a great deal of their business as a result? Mr. Kleinbloesem does not think so, unless the hinterland trade of these ports would shift to the main port. Other ports in the range will maintain their levels of volume handled, but the goods will be landed by smaller ships. *(ROTTERDAM EUROPORT DELTA)*

Far East link for Southampton: Associated British Ports

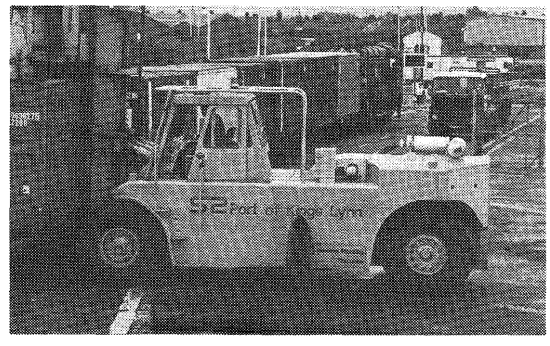
ABP's Port of Southampton and the Port of Keelung in Taiwan recently established a sister port affiliation at a special twinning ceremony in Taipei.

At the ceremony, Southampton's Port Director, Dennis Noddings, and the Keelung Harbour Bureau endorsed a formal agreement on the exchange of trade and technical information and the promotion of co-operation and friendship between the two ports.

In token of the agreement, port officials exchanged bottles of water taken from the harbours of Southampton and Keelung.

The two Port Authorities announced the affiliation during a two week trade visit to the Far East being made by Associated British Ports to market the Port of Southampton and the Southampton Free Trade Zone.

Port developments at King's Lynn



Associated British Ports have published a new colour brochure highlighting recent developments at the East Anglian Port of King's Lynn.

The brochure gives prominence to the new container terminal in the Bentinck Dock. Completed last October, the new terminal offers first class facilities, including 2 acres of reinforced concrete storage space with high mast lighting and security fencing. Container throughput at King's Lynn in 1984 amounted to 4,800 TEUs, and the new facilities will boost the port's capacity to over 25,000 TEUs per annum.

The port is now marketing the new terminal and is keen to attract container operators using vessels carrying up to 200 TEUs, with traffic particularly for the East and West Midlands which are readily accessible from King's Lynn.

Other new developments described in the brochure include a bulk scrap exporting facility and a common user bulk liquid storage terminal, both of which were inaugurated last year.

London barges arrive at Tilbury

Nine barges for Cory Waste Management's specialist lighterage fleet were discharged from Dock Express Shipping bv's heavy lift vessel Dock Express II at the Port of London Authority's Tilbury Docks recently. Designed to take London's new containerised refuse system, the barges, in this instance, delivered straight from yards in Holland and Teeside, were off-loaded alongside No 40 Berth in under six hours. Once in the water the berth's conventional quay cranes commenced loading the barges with their empty containers, previously delivered by road from the manufacturers in Gloucestershire.

Both barges and containers were ordered by Cory Waste Management's parent company, Wm Cory and Son Ltd as part of a 15 year contract won to transport London's compacted refuse by container to landfill sites in Essex. In total 36 barges and 250 containers were ordered at a cost of £10m.

Eight of the barges discharged were of the smaller 35 metre "Cringle" type due to operate from the GLC's Cringle Dock refuse station at Battersea. The other barge discharged was the larger 47 metre "Wangas" type which is to operate from the newly built Western Riverside Solid Waste Transfer Station at Wandsworth and is to be officially opened on 14th May by the GLC's Ken Livingstone. After the container loading was completed the barges were taken from the dock by Cory Lighterage tugs to the company's riverside premises at Charlton to await gradual introduction into service.

PLA's 40 Berth was chosen for this particular barge discharge operation as there was both ample storage for the containers, and as Tilbury Docks' sheltered waters made the shipping off operation safe from wind and tidal problems.

Adelaide's QE2 welcome 'best in the world'

It was a right royal occasion befitting a much-loved Queen: Adelaide's glittering welcome to *QE 2,* hailed by many as the best which the luxury liner has received anywhere in the world.

Massive doses of early publicity couldn't satisfy the tens of thousands of South Australians who flocked to Outer Harbor to share in the excitement of the first visit to Adelaide by Cunard's 67,000 tonne flagship.

It was a perfect February morning when the super liner glided alongside number two and three berths as the Royal Australian Navy band struck up a stirring rendition of Rule Britannia.

Thousands of onlookers jammed the adjacent wharves, while a colourful flotilla of small craft, overflowing with champagne-popping merrymakers, followed the "Queen" up the channel.

On board, the passengers broke into spontaneous applause as the band beneath them played Waltzing Matilda.

And all around, the air of adventure prevailed.

It was the beginning of a day that would leave international attention focussed on Adelaide.

The warm welcome, the well-planned reception and the professional handling of all aspects associated with the visit left authorities talking in terms of Adelaide "being the best". *(SPJ)*

The Port of Darwin in profile

History and Location

Darwin in the foremost deep water port in the north of Australia.

It is situated on the southern shore of Beagle Gulf in position latitude 12 degrees 28 minutes South, longitude 130 degrees 50 minutes East.

The vast natural harbour, almost 1,000 square kilometres in extent, was named "Port Darwin" by Lieutenant Stokes in September, 1839. With H.M.S. Beagle safely at anchor in what was subsequently called Shoal Bay, Lieutenants Stokes and Forsyth boarded a long-boat in the early hours of 9th September to explore the coastline to the south and east.

After navigating past mangrove swamps and creeks infested with mosquitos and crocodiles, the exploration team alighted at the base of a cliff which, because of its chalk-like consistency, became known as Talc Head.

From the top of the cliff, the morning sunlight revealed the vast extent of the harbour. Lieutenant Stokes later wrote that the view from the cliff "afforded us an opportunity of convincing an old shipmate that he still lived on in our memory". Stokes named the harbour "Port Darwin" in honour of his friend Charles Darwin, the eminent and controversial biologist.

However, it was not until some thirty years later, when George Goyder arrived to establish a settlement in the north of Australia, that the site currently occupied by the Port of Darwin was selected.

The first jetty was established from sandstone hewn from the cliffs of the hill overlooking the location. The hill, which was named Fort Hill, had been chosen because it offered a good view of both the waters of Port Darwin and the surrounding coastline.

In the last few years, an extensive development programme has been taking place on the same site. The programme, totaling $35 million when completed, is transforming the Fort Hill Wharf area into a modern container handling port, including new wharves, a roll-on/roll-off facility, and a rail-mounted, gantry container crane.

The Port Authority

The Darwin Port Authority is a statutory body which was established on 1st January, 1984, replacing the previous Northern Territory Port Authority which had been in existence since 1963.

The change of name took place in order to avoid confusion concerning the Authority's area of jurisdiction and to facilitate more overt promotion of the Port of Darwin itself.

The Darwin Port Authority Act (1983) significantly enlarged and broadened the functions and powers of the Authority. In general terms, the Authority is responsible for the control and management of the land, water ways and facilities within the Port of Darwin. The Authority consists of a Chairman and two Board Members:

Chairman: Mr. I.D. Gordon
Board Members: Mr. R.T. Ibbotson
Mr. R.V. Lowry

New maritime centre planned for Sydney

A new multi-storey maritime centre will be built on the historic Grafton Bond site in Kent Street, Sydney, for the Maritime Services Board of New South Wales.

The site is adjacent to Caltex House.

The State Minister for Public Works and Ports, Mr. Laurie Brereton, announcing the $100 million project in October last, said that the existing Maritime Services building in Circular Quay West, which was designed in the mid-1930's, no longer met the needs of the Board which now had offices spread throughout four City buildings.

The MSB's head office property will revert to the Government and will be retained in redevelopment plans for Sydney Cove, Mr. Brereton said.

The Grafton Bond will be retained and restored and will be leased for business, commercial and entertainment purposes.

The Minister said that the MSB would allow developers to submit various proposals within specified guidelines for the redevelopment project. The main option being investigated is for a twin-tower block on the site, one of 20 storeys and the other 27 storeys. The smaller tower will become the new head office of the Maritime Services Board and the larger tower will be leased to developers in order to fund the project.

The twin towers will have sweeping views over the $200 million Darling Harbour development, a Bi-Centenary project featured in *Ports of New South Wales,* Vol. 4 No. 9 of June 1984.

The maritime centre is expected to become the home for the nation's maritime, shipping and freight enterprises, encompassing all services connected with overseas trade and nautical communications.

The building works proposed by the Board will result in the construction of one of the most exciting new developments seen in Sydney for several decades.

The use of the excavated sandstone, for early Colonial building restoration, will inexorably link the new project with Australia's past.

The development is planned to be completed and ready for official opening in 1988, the year of the Bi-Centenary.

(Extracts from Ports of New South Wales)

Merchant bank carries out study on privatization: Port of Kelang

A merchant bank, Aseam-bankers Malaysia Berhad, was appointed to carry out a study on the privatization of the container terminal.

The two-month study included examining the various alternatives available for privatizing the terminal; the financial impact of each alternative on the KPA; the proposals submitted by the private sector interested in taking over the terminal; and recommendations on how privatization should proceed under each of the alternatives.

Three alternatives have been considered for the privatization of the terminal viz., outright sale of the terminal; a joint venture operation with the KPA as one of the partners; or the leasing of the terminal to a private operator.

Other factors which were considered in making the recommendations were the position of the employees concerned, the maintenance and investment of equipment and the financial implications for the KPA. The last is of particular importance as the container terminal contributes about 50 per cent of the total net surplus of the KPA. The study looked into areas of joint responsibility e.g. dredging and security where apportioning of the costs between the KPA and the private operator has to be spelt out.

(WARTA LPK)

Port Kelang introduces integrated gang system

The integrated gang system (IGS) began on January 1, 1985. Its implementation means that there is no longer separate labour gangs for work onboard ships and on the wharf.

General Manager Encik Hashir Abdullah described the IGS as a means for better utilisation of labour. He said, "The new system will not only allow for more efficient use of port labour but will also provide more opportunities for the workers to acquire new skills. Instead of the present division of labour between wharf gangs and stevedore gangs, the IGS integrates the two categories of workers into one single gang complete with the various skills required for cargo handling onboard ship as well as on the wharf. As there is no longer any distinction between the wharf or stevedore gangs there will be greater flexibility in labour utilisation."

The current method of labour supply at the port is a carry-over from the days when labour was provided by private companies. When the KPA took over cargo handling services in 1973, the practice of having different gangs for work onboard ships and work on the wharf was continued.

The integrated gang system breaks down the dichotomy between the various groups of workers and integrates them into a flexible and, potentially, more technically skilled workers.

As a result of the integration of wharf and stevedore gangs there are now more workers available to form additional gangs. Hence under the IGS the number of gangs will increase from the current 140 to 172. In addition there will be a pool of 23 gangs to serve as back-up to meet any shortages.

Port workers will benefit from the IGS as there will not only be an increase in pay for them but also better opportunities for acquiring new skills. Each worker involved will receive a special IGS allowance of $45 on a PTH (Personal to Holder) basis. *(WARTA LPK)*

New port records set with QE2 call: Lyttelton Harbour

New Port records were set when the world's second largest passenger ship, Cunard's Queen Elizabeth 2, berthed at Lyttelton for an eleven hour visit in mid February to let

her 1,400 passengers set foot on the South Island in the course of her luxury cruise around the world.

By the time the *QE2* returns to New York, the starting point of the cruise, her passengers will have cruised in the Caribbean, visited South America, New Zealand, Australia and Southeast Asia. They will have sailed in the Pacific, Atlantic and Indian Oceans.

Prior to her visit to Lyttelton, the longest ship to visit the Port was the battle cruiser, *HMS Renown,* which was 242.05 metres overall. She called at Lyttelton almost 65 years ago, in May.

The *QE2* is 294 metres long and 67,140 gross tons but, despite her length and weight, Lyttelton's Harbourmaster Captain Jack Barbour, who piloted the liner to her Cashin Quay berth, said that she was "an absolute joy" to handle. The only passenger vessel larger than the *QE2* is the *Norway,* formerly the *France* which is 70,202 gross tons and is 315 metres long.

Lyttelton was a port of call as part of the *Queen Elizabeth 2* three-month 31-port 1985 Golden Route World Cruise and to mark the liner's first call, Mr. G.E. Wright, Chairman of the Lyttelton Harbour Board, presented the ship's master, Captain Robert Arnott, with the first of a limited edition of prints of the John Gibb painting of Lyttelton, the original of which is owned by the Board.

(PORTSIDE)

Greater efficiency, improved service to its customers predicted by Wellington Harbour Chairman John King

Outlining the many administrative and personnel changes of the past year, Mr. King said the Board is confident that the customers will notice the changes, and that the moves are a prelude to Wellington becoming once more the leading port in New Zealand.

Mr. King noted that, although shipping arrivals for the year ended September, 1984, reduced to 3,324 compared with 3,448 the previous year, the manifest tonnage increased more than 500,000 tonnes.

The 9.5 per cent increase brought tonnage to 5,791,403 tonnes, with increases most notable in coastal general cargo and imports of general cargo.

General cargo imports rose by 30 per cent, while export general cargo decreased by 9.4 per cent, leading Mr Keith Spry to warn about a reliance on imports when there are indications the country can not afford to maintain them. The future of this port lay in generating export cargo across its wharves, he said.

Surplus

Mr. King reported a surplus of $372 for the Capital Fund this year, a turn around from the deficit of nearly $2 million last year.

"A very good recovery," he said, "but it will still be necessary to do a lot better."

Major items of capital expenditure were the Aotea Quay development which cost $480,000 in the year, and the rail ferry berth No.2 alterations, costing $170,000.

Reviewing major developments affecting the harbour, Mr. King said the Board had considered the need to dredge the harbour entrance, developing the KoroKoro foreshore with a private developer wanting to establish an aquarium, tavern and boating facilities, and consideration of leasing and developing the patent slip area.

Prospects Bright

Prospects look bright, he continued. "We have a new management structure, and this is linked to a Corporate Plan.

"We have improved and added to our management tools so that the latest high technology is available to those managers."

Together, these developments will benefit all who depend on the board for their trade, livlihood and service, Mr. King said.

All this and much more *will confirm our determination* to ensure the 'New Look Port Wellington' is a successful reality, he concluded. *(BEACON)*

K.P.T. "Chair" in transport sciences

A K.P.T. "Chair" in transport sciences has been set up in the Economics Department of Karachi University to impart education and to conduct Research on the subject of Transport. An agreement to this effect has already been executed between the Karachi Port Trust and Karachi University. The K.P.T. has allocated Rupees Two lacs to meet the recurring expenditure to be incurred in this connection every year. Therefore, at a function held on 12th January at K.P.T. Staff College, Rear Admiral M.I. Arshad, H.I. (M), S.Bt., Chairman, K.P.T. handed over first cheque of Rupees two lacs to Dr. Jamil Jalibi, Vice Chancellor of Karachi University.

According to the agreement the course framed for the transport chair will be revised after every two years. In the initial stage education on the subject of transport will be imparted upto the honours level and thereafter expanded to Masters and Ph. D. Degrees level.

On this occasion while explaining the salient features of the agreement, the Chairman, K.P.T. said that an Advisory Committee, headed by the Vice Chancellor of Karachi University, has been constituted for the purpose. The Committee comprises two representatives from Karachi Port Trust and two from Karachi University. Besides the Secretary of the Chartered Institute of Transport will act as a Secretary of the Advisory Committee.

He said that the growing intricacies in different sectors of transport like Shipping, Rail and Road Transport, had prompted the K.P.T. to decide for the establishment of the Chair in Transport Sciences at Karachi University. He pointed out that any defective mode of transport on the part of any sector of transport affects the efficiency of the other sector of transport, therefore, it had become vitally important to consider the transport sector as a science.

At the conclusion of his address he said that by initiating the Establishment of K.P.T. Chair on Transport Sciences the Karachi Port Trust had fulfilled its national obligation towards the promotion of country's trade and economy.

(KPT News Bulletin)

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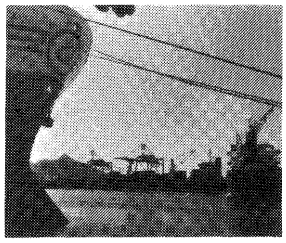

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