

PORTS *and* HARBORS

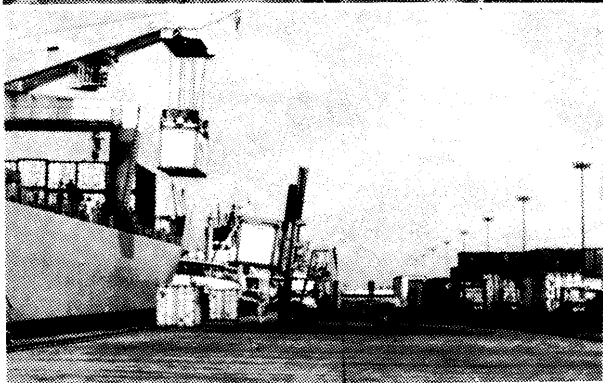
March, 1983 Vol. 28, No. 3



Port of Gladstone
Australia

The Publisher: The International Association of Ports and Harbors

Kotohira-Kaikan Bldg., 2-8, Toranomon 1-chome, Minato-ku,
Tokyo 105, Japan



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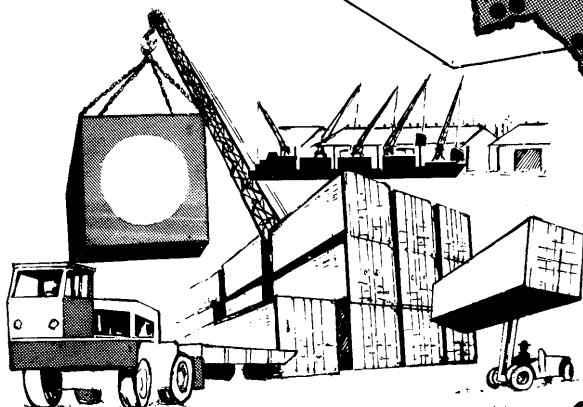
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CALABAR PORT

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WARRI PORT

The Nigerian Ports Authority operates
six ports as shown in the above map of
Nigeria.



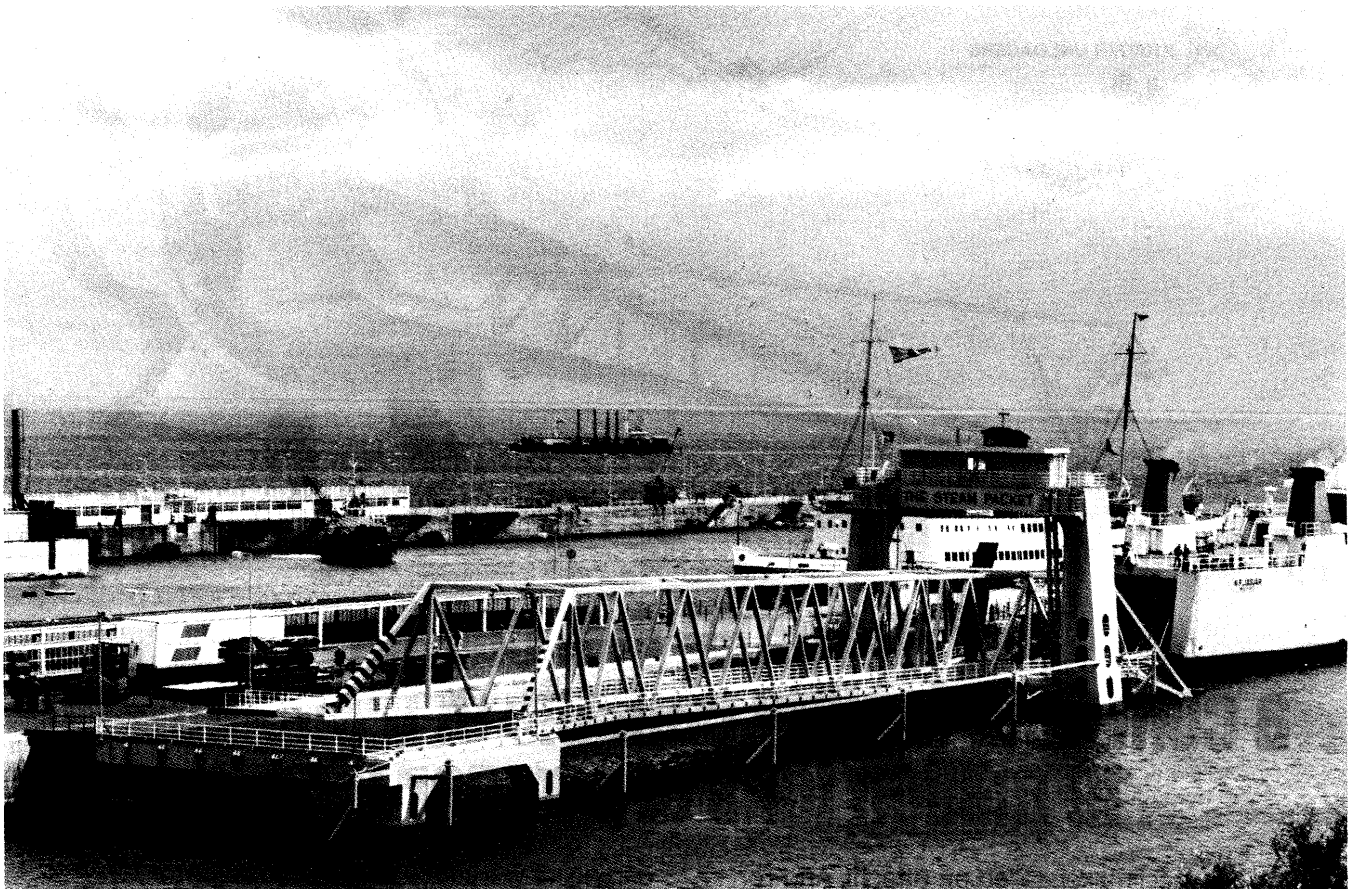
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TCB0082

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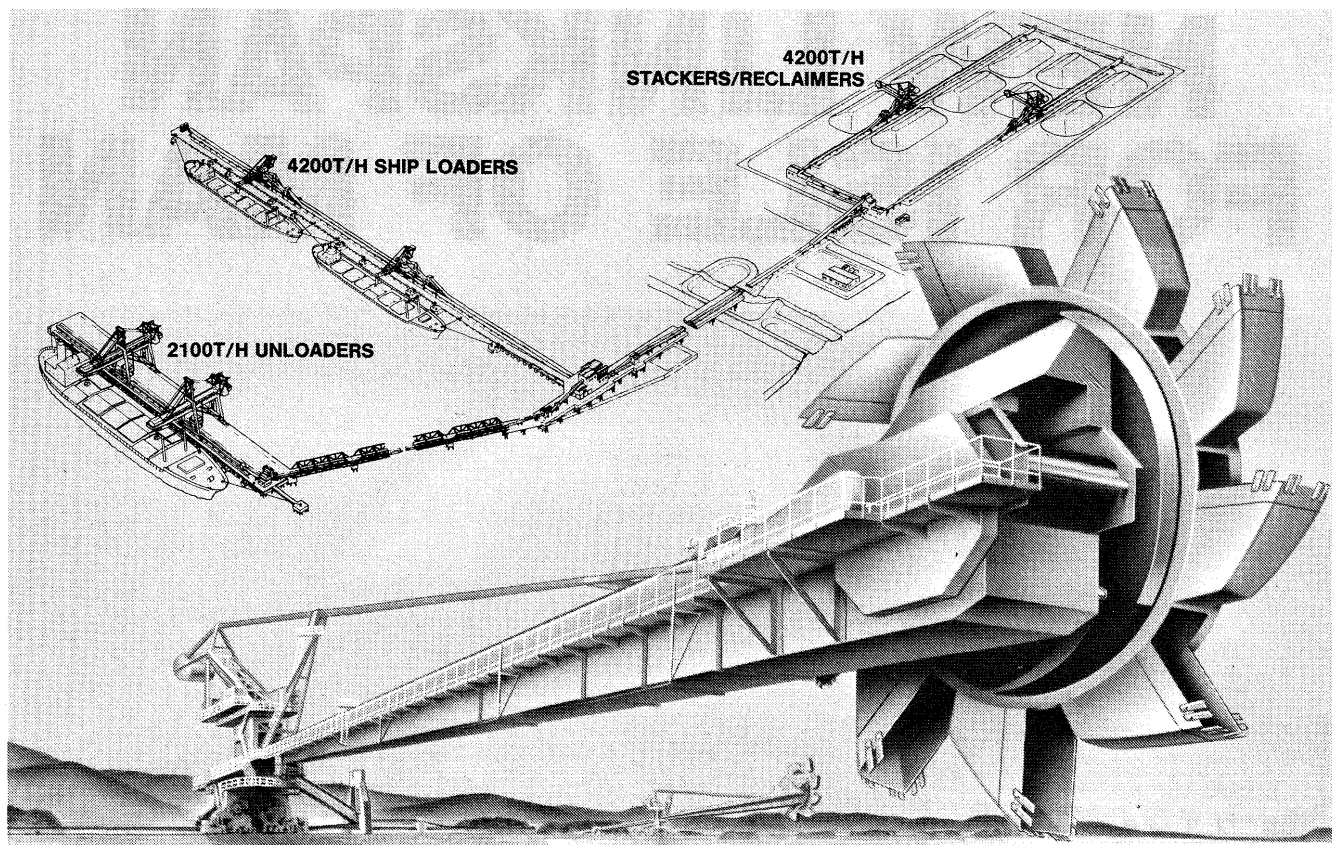
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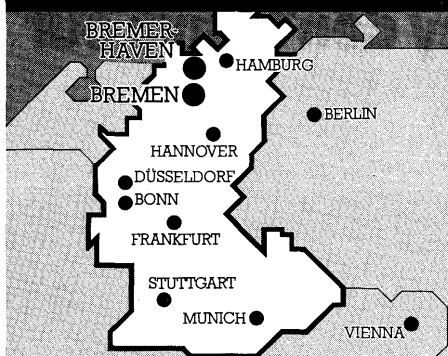
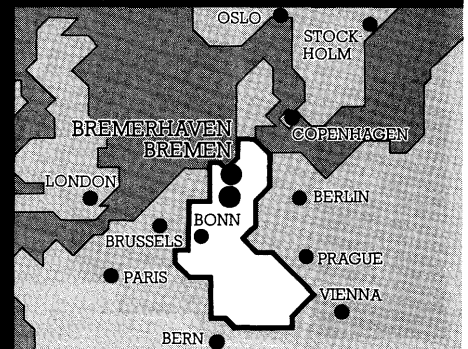
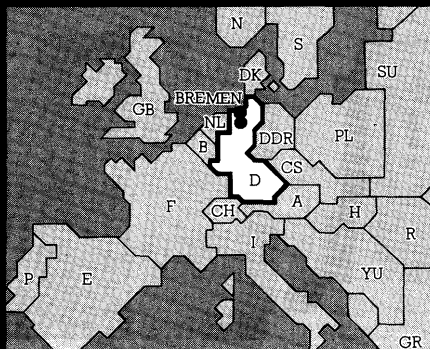
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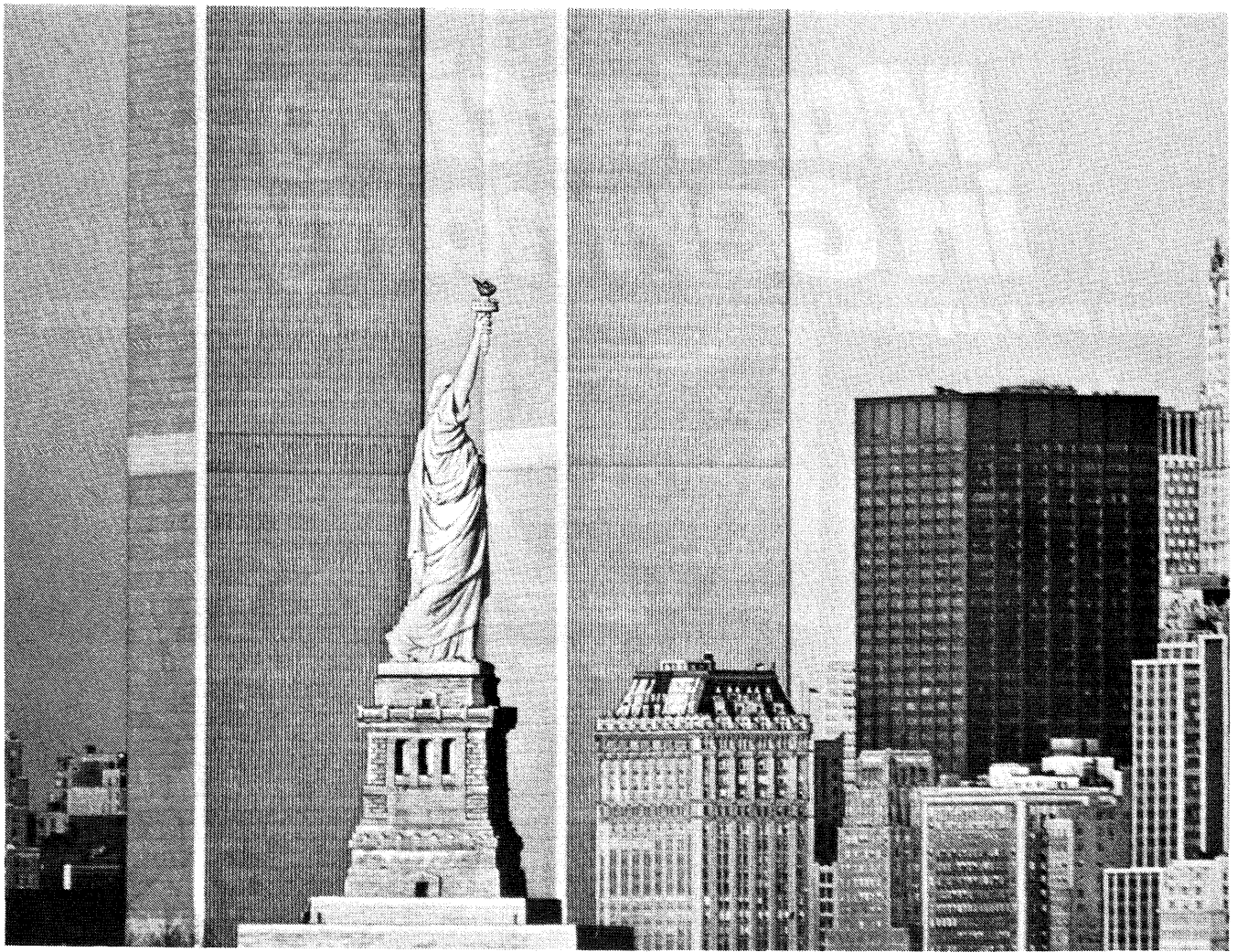
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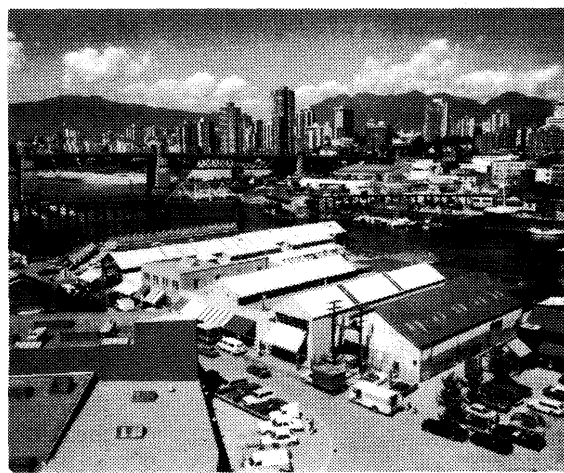
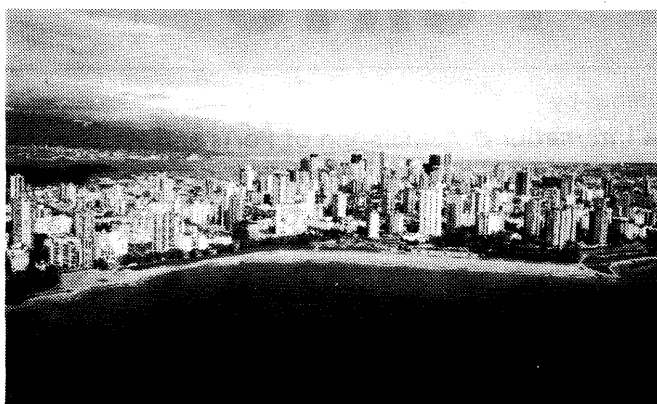
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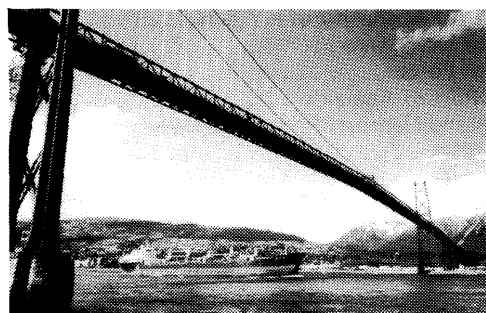
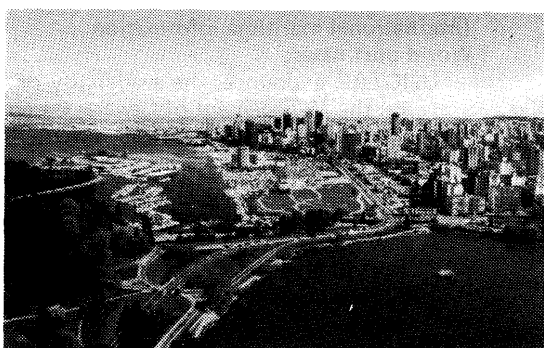
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Conference***

***June 4 - 11, 1983
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Welcome Messages to the 13th IAPH Conference

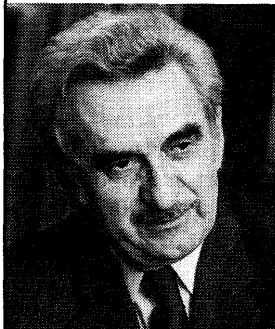


I would like to take this opportunity, as Minister of Transport for Canada, to especially invite you to attend the 13th Biennial International Association of Ports and Harbours Conference.

I am particularly pleased that this most important gathering is being hosted by the Port of Vancouver and will afford all ports throughout the world the opportunity to communicate with each other and to exchange ideas.

Yours sincerely

The Honourable
Jean-Luc Pepin
Minister of Transport



On behalf of the people and the Government of British Columbia, may I extend a warm invitation to you to attend the 13th Annual International Association of Ports and Harbours Conference, being held here in Vancouver, British Columbia on June 4-11, 1983.

Vancouver is one of the most beautiful cities in the world, set in a panorama of mountains and sea, and our beautiful Province offers many interesting places to sightsee or relax after your conference.

We hope you will come here for the 13th Annual International Association of Ports and Harbours Conference, and

please be assured a warm and friendly welcome awaits you in British Columbia, Canada.

Yours sincerely,

W.R. Bennett
Premier

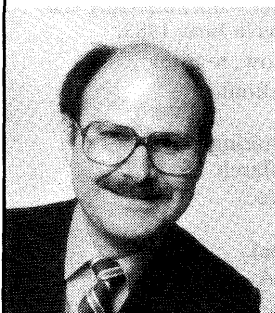


On behalf of the citizens of Vancouver, and our City Council, I look forward to welcoming you to our vibrant city.

It is indeed an honour for our beautiful Port of Vancouver to be chosen to host the 13th Biennial International Association of Ports and Harbours Conference during the week of June 4th to 11th, 1983.

I am sure that you will enjoy the beauty and excitement in Vancouver as much as you enjoy the city's greatest heritage, our people.

Michael Harcourt,
Mayor of Vancouver



PORT OF VANCOUVER
PORT DE VANCOUVER

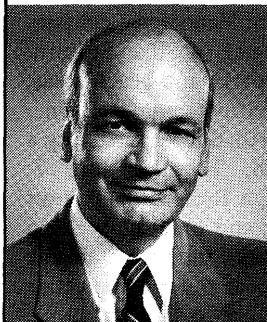
On behalf of the Port of Vancouver — the host port for the June 1983 I.A.P.H. Conference — I extend a warm invitation to you to participate.

I can assure you that you will find this event on Canada's beautiful West Coast to be a richly rewarding one in every respect.

Your host port is dedicated to making this Conference a most memorable one and we are well on the way with our preparations.

I hope to see you in Vancouver!

B.A. Ekstrom, P. Eng.
Acting General Manager
Port of Vancouver



Vancouver Conference topics wide ranging

Two working sessions, a synthesis session and a final joint working session of the IAPH and International Association of Airport and Seaport Police (IAASP) provide the format for the IAPH conference.

The initial working session, June 7, will involve a keynote speech, group discussion and a report of the discussion results by individual group leaders. Following the keynote speech, delegates will break into previously arranged groups. They have the choice of group selection when completing their conference registration form.

The second working session, on June 9, will comprise a keynote speech, followed by a discussion led by representatives of the European Port Data Association, after which there will be a demonstration of automated data processing techniques.

On the same day as the second working session, there will be a joint working session for IAPH and IAASP delegates with a keynote speech on "Contingency Planning to Combat International Threats and Disorder", followed by a panel discussion.

The synthesis session, June 10, provides an opportunity for the chairman of each conference working session to present summaries of their sessions. Open discussion from the floor is encouraged.

Ports involved in the coal trade will find the theme of a June 7 presentation attractive. This event from 14:15 to 17:00 hours, is built around the subject "The Expansion of Roberts Bank Coal Port", a part of the Vancouver Port that is destined to become one of the world's largest coal exporting facilities.

Engineering and environmental aspects of Roberts Bank will be examined in detail during the session. The way in which community relations have been developed will also be outlined. Discussions will follow towards the conclusion of this part of the afternoon's program.

Many tours are scheduled for Conference sightseers: Port of Vancouver

A series of tours during and after the conference will offer visitors an opportunity to become more familiar with the Port and the region around it.

On Wednesday, June 8, a tour day will permit delegates and guests to view the Port and the city sights. There are two tours available. Port tours by water will be conducted from 09:00 to 12:00 noon and from 14:00 to 17:00. The optional tours are a city tour from 09:00 to 12:00 noon and a Roberts Bank coal port tour from 14:00 to 17:00. Roberts Bank is some 20 miles southwest of the city.

For the ladies there will be a City of Vancouver sightseeing tour on Monday, June 6, departing at 14:30 and returning at 17:30, through the city's fine parks and beach areas, and the unique shopping areas of Chinatown and Gastown.

Also offered is a tour of the North Shore, including a skyride to scenic Grouse Mountain, Tuesday, June 7, departing at 09:00 hours; on June 8, a Roberts Bank tour departing at 09:00 and 14:00 hours; and on June 9 a trip by the Royal Hudson steam train along the mountainside route to Squamish and through some of the most spectacular scenery in Canada, returning by cruise ship Britannia.

On Friday, June 10, the ladies's program includes a tour of the University of British Columbia and its famous Museum of Anthropology; with lunch at the popular waterside restaurants on Granville Island. This tour departs at 09:00 and returns at 14:00.

Many delegates have indicated their interest in wider-ranging post-conference tours. There is an Alaskan cruise ship tour of seven days on the Rotterdam, the largest cruise ship sailing this vacation route, with departure date Saturday, June 11.

The luxury liner Sun Princess also offers a seven-day cruise to Alaska on this very modern vessel. For those who want to experience the delight of the lofty peaks of the Rocky Mountains there is a seven-day Explorer tour, also departing Saturday, June 11, that will take visitors by luxury airconditioned coach to some of the finest scenery and natural wonders on the North American continent.

A three-day tour, departing June 11, includes a day in Victoria on Vancouver Island, the beautiful capital of British Columbia, a cruise from Victoria to Seattle and two days visiting Seattle and its port.

Tour reservations may be made on conference registration forms. The Port of Vancouver, through Westours, Princess Cruises and the Port of Seattle, will assist with information and confirm reservations.

The 13th Conference: Joint Session with IAASP

The following is a tentative program of the Joint Session with International Association of Airport & Seaport Police (IAASP) which is scheduled from 09:00 to 12:00 on Thursday, June 9, 1983, as announced by the Conference Co-ordination Committee: —

- 09:00—09:15 Introduction
- 09:15—09:45 Dr. Brian Jenkins, Director, Security and Subnational Conflict, The Rand Corporation
- 09:45—10:15 Coffee break
- 10:15—10:45 Contingency planning and response exercise
- 10:45—12:00 Panel on "Contingency planning to combat international threats and disorder management"



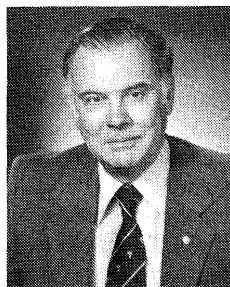
We are looking forward to sharing our warm hospitality and breathtaking beauty with you in June, 1983.

Make your commitment now, register early! Registration forms should be returned to:

**IAPH Conference Co-ordinating Committee no later than March 15, 1983
c/o Venue West Conference Management Services Ltd.
#1704—1200 Alberni Street
Vancouver, B.C., CANADA
V6E 1A6**

IAPH announcements and news

Mr. F.J.N. Spoke retires from Port of Vancouver: Acting General Manager, Ekstrom takes over IAPH Conference functions



Mr. F.J.N. Spoke

The Port of Vancouver recently announced that Mr. F.J.N. Spoke would be retiring as General Manager, effective February 1, 1983.

In view of the fact Mr. Jack Barratt, who was the Chairman of the Co-ordinating Committee for the 13th IAPH Conference, has suddenly and tragically passed away, Mr. Spoke has consented to a request of the Port of Vancouver Authorities to make himself available during February and March of this year to ensure continuity for the Conference preparations.

Mr. B.A. Ekstrom, the Assistant General Manager, has been designated by the National Harbours Board as Acting General Manager of the Port of Vancouver until such time as Mr. Spoke's permanent successor has been appointed. Mr. Ekstrom is taking over Mr. Spoke's IAPH conference functions for the host port and in this context his welcoming message, together with those from other host dignitaries, is introduced in this issue.

Following earlier correspondence announcing his retirement, Mr. Spoke wrote to IAPH President A.S. Mayne, on January 13, 1983, recommending that Mr. Ekstrom be elected by the Association as Conference Vice-President and at the same time be appointed as Conference Chairman. On the authorization of President Mayne, the Secretary General circulated letters to call meetings by correspondence of all Regular Members of the Association and of the Board of Directors concerning the proposed appointment, with the voting date set at March 7, 1983.

According to Mr. Spoke's letter to the President, preparations for the Conference are proceeding as well as can be expected, and no particular difficulties are foreseen.

Mr. Spoke's involvement in IAPH affairs dates back to the early 70's when the Organizing Committee for the 8th IAPH Conference was formed by the host ports, Amsterdam and Rotterdam, in 1971. Mr. Spoke was one of the principal members of the Organizing Committee representing the Rotterdam side.

Following the 1973 Conference, Mr. Spoke was elected as a Director of IAPH from the Netherlands, and appointed as a member of the Constitution and By-Laws Committee.

He deepened his participation in the various IAPH activities when he moved to the Port of Vancouver to assume the post of General Manager. He was appointed as a member of both the Large Ships and Containerization Committees for the term 1977-1979, and at the 11th Conference in France held in 1979 was appointed as a

member of the Executive Committee. At the 12th Conference held in Nagoya in 1981, he was appointed as the Conference Vice-President. He attended the 8th, 10th, 11th and 12th Conferences of IAPH and at each conference played an important role, once as a conference committee member, the other times as one of the leaders of the working sessions.

Mr. Spoke has played a valuable role for the Association, and has been one of the brains behind many of our activities, and we will be sorry to lose his services. However, we are convinced that those who succeed him within the Association and in the Port of Vancouver, will certainly continue their efforts for the furtherance of our goals.

We would like to express our heartfelt thanks and appreciation to Mr. Spoke for his long and dedicated service to the development of the Association, and extend to him our wishes for a happy retirement. (Also see the article on page 29)

Board election under way for the new term

For the election of the Directors and Alternate Directors for the new 2-year term which will come into effect after the 13th Conference and last until the 14th Conference in 1985, Secretary General Sato circulated a letter to all members of the Board of Directors requesting them to take the necessary action. They were asked to inform the Head Office of the result by March 31, 1983.

The number of Directors and Alternate Directors is based on the Section of the By-Laws which reads:

"There shall be one Director (and one Alternate Director) from each country represented by not more than ten Regular Members of this Association, two Directors (and two Alternate Directors) from each country represented by more than ten and not more than twenty IAPH Regular Members, three Directors (and three Alternate Directors) from each country represented by more than twenty Regular Members, the six appointive members of the Executive Committee and, subject to the approval of the Board of Directors, one Director (and one Alternate Director) from each country represented only by one or more Associate Members of this Association." By-Laws further provide that "in order to serve as an elective member of the Board of Directors, such Director must be an officer or employee of a Regular Member of the Association, and that in the event such Director shall cease to be an officer or employee of a Regular Member, a vacancy shall be deemed to exist".

It is urged that those new member countries whose national Directors and Alternate Directors are not yet represented on the Board, should carry out their election, without fail, and send their names to the Secretary General so that their influence can be felt during the next term.

IAPH Dredging Task Force Fund 1983: Contribution Report

Papua New Guinea Harbours Board US\$100.00

IAPH Papers to LDC Scientific Group, IMO

Col. Herbert R. Haar, Jr., Chairman of IAPH Dredging Task Force, in his letter of January 12, 1983, submitted to Mr. Manfred K. Nauke, Head, Marine Science Section, Marine Environment Division of IMO, the IAPH papers for the Seventh Consultative Meeting of Contracting Parties to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, which is scheduled to be convened in London from 14 to 18 February, 1983.

The two papers are reproduced on page 11.

Mr. Bastard attends the African Ports Symposium

Mr. Paul Bastard, the Immediate Past President of IAPH and Inspector for all non-autonomous French ports, Ministère de la Mer, attended the 2nd African Ports Symposium which was held in Libreville, Gabon, November 24-26, 1982. The symposium was organized by the Port Management Association of West and Central Africa in collaboration with the Ecole National des Ponts et Chaussées of Paris.

The African Ports Symposium, according to the invitation letter which the Head Office had previously received from Mr. P.N.Njie, Secretary General of the Port Management Association, is a two-yearly round table gathering which brings together African and non-African experts concerned with the development and management of the ports in their sub-region. It seeks to give an insight into the trends of ports development in the eighties. The first African Ports Symposium was held in Douala, Cameroon, in June, 1980 with participation of a number of international organizations.

Following the symposium, the 10th anniversary of the Port Management Association of West and Central Africa took place. Although Mr. Bastard was unable to remain to deliver his goodwill message in person at the anniversary, he sent the following message to Mr. N'Gann Yonn, President of the Association on behalf of IAPH, with a copy to the IAPH Head Office.

Mr. Bastard's message read:

Mr. President,

Being the Immediate Past President of the International Association of Ports and Harbors, I am taking the opportunity afforded by my presence at the Symposium in Libreville to convey to you, on the occasion of the 10th Anniversary of your Association and its 9th Council meeting, the most sincere good wishes of IAPH.

Though they concern different geographical areas, the aims of our Associations are the same: above all, to defend the interests of maritime ports and consequently those of the nations to which they belong. At the same time, our organizations exist to facilitate and foster international trade for the benefit of all the world's economies. Lastly, we aim at creating strong links of solidarity, of mutual esteem and of friendship between the representatives of the various port authorities. The continued forging of such relations will undoubtedly ensure our success.

Thus, we at IAPH wish from the bottom of our hearts to associate with the activities of your Association, to which we wish every success and prosperity in the years ahead.

Yours sincerely,

P. Bastard

Immediate Past President of IAPH

Visitor

On the afternoon of February 3, 1983, Mr. Howard A. Mann, Vice President of Swan Wooster Engineering Co., Ltd. an Associate member of IAPH from Vancouver, Canada, visited the Head Office and was met by Secretary General Sato and his staff. Mr. Mann was in Tokyo for a business meeting with a group of Japanese construction firms. He has been in the Association since 1963, once serving as the 1st Vice-President and attending almost all the conferences. Mr. Mann is reportedly assisting the Coordinating Committee of the forthcoming Vancouver Conference, and he assured Dr. Sato of his continued efforts to make the conference a success. His valuable experience will be greatly appreciated.

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IAPH submits Two Papers to the Seventh Consultative Meeting of Contracting Parties to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 14–18 February 1983, IMO

Report of the Ad Hoc Scientific Group on Dumping

Matters Related to the Disposal at Sea of Dredged Material

Submitted by the International Association of Ports and Harbors (IAPH)

1. Introduction

1.1 The International Association of Ports and Harbors ("IAPH") has been invited to attend the Seventh Consultative Meeting of Contracting Parties to the London Dumping Convention (the "Convention") as an observer in order to participate in the consideration of matters relating to the disposal at sea of dredged material. (LDC, Circular Letter No. 892, 8 September 1982). IAPH ports have a vital interest in the effect of the Convention upon essential dredging operations, particularly those requiring the disposal of dredged material that may contain substances listed in Annex I to the Convention. The concerns of IAPH have been presented to Contracting Parties at the Fifth and Sixth Consultative Meetings, and at intersessional meetings of the Ad Hoc Scientific Group. Contracting Parties' consideration of these port concerns has led to IAPH's ongoing study of – and report upon – the use and effectiveness of a number of "special care" techniques designed to mitigate the effects of disposal of dredged material contaminated with substances listed in Annex I.

1.2 Following the Sixth Consultative Meeting, IAPH was invited to attend the sixth intersessional meeting of the Ad Hoc Scientific Group – which was held in Paris, France on 25–29 September 1982 – to participate in the discussion of special care measures and other matters relating to dredged material. The outcome of that meeting will be discussed in the report of the Ad Hoc Scientific Group. In this submission, IAPH wishes to invite Contracting Parties' attention to two studies which are presently being carried out by IAPH regarding the treatment of dredged material under the Convention.

2. The Continuing IAPH Study of "Special Care" Techniques

2.1 At the Sixth Consultative Meeting, Contracting Parties confirmed the view of the Ad Hoc Scientific Group that certain of the "special care" measures proposed by IAPH showed promise and should be conducted as field research projects while greater information was gathered

on their effectiveness. (LDC VI/12/3). The IAPH observer further expressed the continuing interest of IAPH in making its expertise available at future Consultative Meetings and at meetings of the Ad Hoc Scientific Group in the consideration of dredged material under the Convention.

2.2 At the Paris meeting of the Ad Hoc Scientific Group, IAPH presented a document entitled "An Updating of Special Care Measures for Safe Disposal of polluted Dredged Material in the Marine Environment", which was prepared by Dr. Willis E. Pequegnat, who serves as consultant-oceanographer to IAPH and is a member of the IAPH delegation in attendance at this Seventh Meeting. A report upon Dr. Pequegnat's presentation is set forth in the report of the Ad Hoc Scientific Group.

2.3 IAPH wishes to express to this Seventh Consultative Meeting its continuing willingness to present Contracting Parties and the Scientific Group with further reports upon the use of "special care" techniques throughout the world in the disposal of polluted dredged material. In this regard, IAPH will be prepared to submit to the next meeting of the Scientific Group a further report, prepared by Dr. Willis Pequegnat, regarding the experience gained with the use of special care measures since the IAPH submission at the Paris Meeting. The growing experience with the use of these techniques, it is hoped, will afford a recognized basis for the carrying out of certain essential dredging operations within the framework of the Convention.

3. The IAPH Submission Regarding Development of Additional Criteria for the Classification of Substances to Annexes I and II

3.1 At the Sixth Consultative Meeting, Contracting Parties agreed that criteria for the inclusion of substances in the Annexes should be developed and proposed by the Ad Hoc Scientific Group (LDC VI/12/3). At the intersessional meeting of the Scientific Group in Paris, there was considerable discussion among the delegations regarding the development of such criteria, with the view expressed by some delegations that an effort should be made to develop "numerical criteria" for classification purposes. These view are described in the Report of the Ad Hoc Scientific Group.

3.2 In Connection with the development of further classification criteria, IAPH expressed to the Scientific Group a willingness to undertake a new study, subject to appropriate authorization and funding, that would compare the properties of Annex I substances in dredged material with the properties that these substances exhibit in pure

chemical form. The physical characteristics of sediment are known to lessen the adverse effects of Annex I substances in dredged material. In the view of IAPH, scientific data regarding these characteristics may properly warrant separate treatment of dredged material and make application of "numerical standards" derived from tests on pure chemical substances inappropriate.

3.3 The Ad Hoc Scientific Group expressed appreciation to IAPH for its proposal and invited IAPH to undertake such a study of the effects of Annex I substances in dredged material, with particular emphasis upon hydrocarbons. The Scientific Group expressed the view that such research would be of great assistance to the Scientific Group when considering the assignment of substances to the lists of Annexes I and II at future meetings.

3.4 IAPH is pleased to report to the Consultative Meeting that it has obtained the necessary authorization and funding to undertake the proposed study according to the terms of reference established by the Scientific Group. The study is being carried out by Dr. Willis Pequegnat on behalf of IAPH, with a view to its completion in time for presentation at the next intersessional meeting of the Scientific Group. The scope of the IAPH study is set forth in the draft outline attached to this submission as Annex I.

4. Action by the Consultative Meeting

4.1 IAPH invites Contracting Parties to take note of the two IAPH undertakings described above relating to the treatment of dredged material under the Convention.

Annex I

AD HOC SCIENTIFIC GROUP ON DUMPING: DEVELOPMENT OF ADDITIONAL CRITERIA FOR THE CLASSIFICATION OF SUBSTANCES TO ANNEXES I AND II

Draft Outline of Proposed IAPH Submission – Application of Classification Criteria to Dredged Material

I. Introduction

- A. The interest expressed by Contracting Parties and the Ad Hoc Scientific Group in the development of additional criteria for classification of substances to Annexes I and II (with particular consideration of the development of numerical standards).
- B. The invitation of the Scientific Group to IAPH to address special characteristics of dredged material in connection with the development of additional classification criteria.

II. The Basis for Classification of Substances to Annexes I and II Under the Convention

- A. The distinction between the Annexes and the original classification of substances.
- B. The adoption of General Guidelines for Classification of Substances to Annexes I and II to the London Dumping Convention (LDC IV/12, Annex 2).
- C. The adoption of a Procedure and Method of Approach for Preparing and Maintaining a List of Hazardous Substances or Groups of Substances (LDC V/12, Annex 4).
- D. The Concerns of IAPH regarding the treatment of dredged material containing Annex I substances in

the same manner as Annex I substances in pure chemical form.

1. Special and distinctive characteristics of dredged material which mitigate the effect of Annex I substances (e.g., dilution, sequestering ability, changes in oxygen and pH).
2. Mitigative potential of "special care" measures.
3. Inappropriateness of applying numerical standards derived from testing of pure chemical substances.
4. Possibility of "overstatement" of adverse effects and "overregulation" of dredged material for reasons unrelated to impacts in the marine environment.

III. Characteristics of Sediment that Minimize or Mitigate the Effects of Annex I or Annex II Substances

- A. Dilution/Mixing
- B. Sequestering ability
- C. Changes in oxygen and pH
- D. Enhancement of sequestering ability through the use of "special care" measures.

IV. Mitigative Effects of Dredged Material on Annex I & II Substances

- A. Literature Search for Post-1972 Data on
 1. Chemical properties and relationships to dredged material of
 - a) petroleum hydrocarbons
 - b) organochlorines, especially PCBs and chlorinated pesticides
 - c) mercury species and compounds thereof
 - d) cadmium species and compounds thereof
 2. Laboratory vs. field-determined properties of the above substances with emphasis upon
 - a) toxicity
 - b) persistence
 - c) bioaccumulation
 - d) potential for trophic level (food chain) biomagnification
- B. Literature Search for Post-1972 Data on
 1. Chemical properties and relationships to dredged material of
 - a) arsenic species and compounds
 - b) zinc species and compounds
 - c) lead and its compounds
 - d) chromium and its compounds
 - e) nonchlorinated pesticides
 2. Laboratory vs. field-determined properties of the above substances with emphasis upon
 - a) toxicity
 - b) persistence
 - c) bioaccumulation
 - d) potential for trophic level biomagnification
- C. Comparative Analysis of Similarities and Differences Between Annexes I and II in pure form, and their Effect in Dredged Material, with particular reference to the Scientific Basis for Differences in Classification.
 1. Difference in effects of Annex I substances when in pure chemical form and when contained in dredged material. (mitigative effects)
 2. Similarity in effects produced by Annex I substances contained in dredged material and the effects produced by substances classified to Annex II.
 3. Effectiveness of "special care" measures in mitigating the effects of Annex I substances in dredged material.

4. Appropriate methods of determining the actual effect of dredged material containing Annex I and Annex II substances on the marine biota (including limitations in the use of laboratory test procedures).

V. Conclusion

Consideration of Proposed Amendments to the Annexes to the Convention

Matters Related to the Disposal at Sea of Dredged Material

Submitted by the International Association
of Ports and Harbors (IAPH)

1. Introduction

1.1 The governments of Kiribati and Nauru have proposed two amendments to Annexes I and II of the London Dumping Convention for consideration at the Seventh Consultative Meeting. They propose to amend paragraph 6 of Annex I (which prohibits the disposal of **high level** radioactive waste or matter) to establish an absolute prohibition against the dumping of **all** radioactive waste or radioactive matter, **regardless of level, form, content, or method of containment**; and they propose to delete paragraph D of Annex II, which presently allows the dumping of low level radioactive material under a "special permit".

1.2 The International Association of Ports and Harbors ("IAPH") has attended the Fifth and Sixth Consultative Meetings, and has been invited to attend this Seventh Meeting, as an observer to participate in the consideration of matters relating to the disposal at sea of dredged material. The concerns expressed by IAPH at previous meetings have related to the disposal of dredged material containing substances listed in paragraphs 1-5 of Annex I. Radioactive waste or matter has not been involved. However, the proposal of the governments of Kiribati and Nauru to amend Annex I to prohibit disposal of **all** radioactive waste or matter, **regardless of level, form, content or method of containment**, could seriously effect IAPH ports and interfere with needed dredging operations in a manner that, IAPH believes, is not intended.

1.3 Virtually all harbor sediment contains some radioactive matter at naturally occurring background levels. In addition, waterways in the vicinity of nuclear power plants, certain mining operations, hospitals, and military installations may have low levels of radioactive wastes from these sources in their sediment. Any prohibition against the ocean disposal of such dredged material would have far reaching impacts upon affected ports and harbors for reasons that bear little relation to the occurrence of adverse effects within the marine environment.

1.4 A further concern of IAPH is that the prohibition proposed by the Governments of Kiribati and Nauru, if adopted, might be urged as an absolute one that admits of no exception. The proposed prohibition would be contained in paragraph 6 of Annex I, which is not covered by the "trace contaminants" exception of paragraph 9. The breadth of the prohibition — against the disposal of all

radioactive wastes or matter, **regardless of level, form, content or method of containment** — might also be urged as excluding applicability of the "rapidly rendered harmless" exception of paragraph 8. If the prohibition were applied in this manner, essential dredging operations could be halted, with resulting impairment of dependent waterborne transportation. IAPH recognizes and shares realistic concerns about the disposal of radioactive wastes. However, the prohibition that has been proposed goes far beyond that necessary to safeguard the marine environment. IAPH invites Contracting Parties to take note of these port concerns.

1.5 In connection with consideration of these amendments at the Seventh Consultative Meeting, IAPH also takes note of the "Procedures for Preparation and Consideration of Amendments to Annexes to the London Dumping Convention" (LDC Res. 10 (V)) and the "Procedures for the Circulation of Proposed Amendments to the London Dumping Convention" (LDC Res. 9 (V)) which Contracting Parties were invited to implement by the Fifth Consultative Meeting. (LDC V/12, Annexes II and III). These procedures recognize that Contracting Parties require sufficient time to consider both the implications and the wording of any amendments and that frequent amendments to Annexes may cause procedural and administrative difficulties for Contracting Parties in accepting and implementing such amendments. Contracting Parties expressed the view that any amendments to an Annex to the Convention proposed by a Contracting Party should be referred to the Ad Hoc Scientific Group (or any other appropriate expert group) for consideration from a scientific point of view. The Ad Hoc Scientific Group (or such other group) would then bring forward to a Consultative Meeting for consideration any proposed amendment it regards as desirable from a scientific point of view.

1.6 The amendments proposed by the Governments of Kiribati and Nauru, and the technical support document that has been distributed in support of the amendments (LDC VII/Inf. 2), have not been submitted to or reviewed by the Scientific Group. In view of the technical nature of the scientific data involved, and taking note of the procedures recommended at the Fifth Consultative Meeting, IAPH invites Contracting Parties to consider referral of the amendments to the Ad Hoc Scientific Group for appropriate consideration of the support document — as well as for presentation of other technical views by members of the Scientific Group. Such referral would allow for appropriate consideration of port concerns that would be directly affected by the amendments as presently written.

2. Action by the Consultative Meeting

2.1 IAPH invites Contracting Parties to consider the views expressed above and to refer the amendments to Annexes I and II proposed by the Governments of Kiribati and Nauru to the Ad Hoc Scientific Group for consideration at its next intersessional meeting.

Open forum: Port releases:

Containerization Growth in ESCAP Region

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(Text: Courtesy of Shipping and Trade News, Tokyo)

One of the remarkable features of containerization of late is its rapid spread into the developing countries. With a view to monitoring its growth in the region, as well as its impact and ramifications, on shipping and trade, the Economic and Social Commission for Asia and the Pacific (ESCAP) has been conducting a series of surveys on containerization in several selected countries.

The first report was issued in 1980 concerning four countries, viz., India, Malaysia, the Philippines and Thailand. The second report published in late 1982 followed up the developments in the above four countries, with the addition of two countries — Pakistan and Sri Lanka, to expand the scope of the survey.

Developments in the Region

The recent report observes that, despite the staggering world recession which triggered waging competition among carriers, as well as severe impediments in port and inland infrastructures, containerization is already an irreversible trend in all six countries. It is not only growing in the trade with developed countries, but in trades between the developing countries themselves (e.g. Sri Lanka/Pakistan — tea, Malaysia/Pakistan — rubber, etc.) and even in the domestic inter-island trades (e.g. the Philippines).

Shippers in the region, who had felt that containerization was a burden forced on them by their trade partners a few years ago, now have come to realize its advantages such as ease in packaging and safe outturn, and are endeavoring more to adapt themselves to this new mode of transport for their own reasons.

Container penetration to inland areas is still very limited, owing to the lack of such facilities as road, rail or handling equipment. Inland transport charges are often prohibitively high and customs regulations are sometimes so archaic and cumbersome that shippers or consignees are but to give up applying for through transport. Labor practices in some ports pose major constraints to the flow of containers away from the port area.

While attempts are being made to set up inland container depots (ICD) or dry ports and link these points to outlets ports by rail or road (e.g. India, Pakistan), multi-modal transport has not yet grown to any meaningful

extent. Consequently, most containers are still stuffed/unstuffed within the port area, depriving shippers and other parties concerned of the full advantages that containerization is supposed to provide.

Its advantages, however, appear to have been realized more markedly in sea transport. Mechanized, all weather loading/unloading has reduced ship's port time noticeably and has proved effective in easing chronic congestion the ports in the region used to suffer. In fact, one impetus that prompted Indian lines to venture into containerized services was the habitual congestion in Bombay, where container-ships given the preferential berths enjoyed a big advantage over conventional ships that had to lie idle waiting for berths for weeks. The figures in Table 1 speak for themselves on the situation in Bombay.

Table 1 Conditions in the Port of Bombay

Period	Average port stay (days)		Ship-days lost awaiting berths		Average service time per thousand tons of cargo handled (days)	
	Conventional	Container	Conventional	Container	Conventional	Container
1978/79	15.65	3.50	6,155	160	3.06	1.34
1979/80	13.89	4.06	2,942	263	2.81	0.89
1980/81	10.49	2.42	1,237	49	2.33	0.81

Excessive competition is the phenomena of the day in any of the shipping fields, container trades in the region being no exception. The areas surveyed are in the midst of intense competition that has eroded the rates on containers considerably. To cite a few, it has been reported that a discount of 22.5 percent was being offered for some coveted cargo in the FEFC area, while in Bombay, the average revenue per container to the U.K. dropped from \$2,200/2,400 in 1981 to \$1,600/1,700 by early 1982. In May 1982, the Thai Government expressed concern over the ill effect on national lines inflicted by a rate decline in the Bangkok/Japan trade which reportedly ranged from 30 to 50 percent. The harm of excessive competition should be felt severer by the financially weak carriers of developing countries and the adoption of some measures to arrest the trend was widely urged.

While most countries look forward to the implementation of the UNCTAD 40/40/20 formula for cargo sharing among conference carriers, a question was raised by some shipping executives of Indian lines that the UNCTAD scheme might be outdated if put in practice and agreement between consortia should be considered more viable in assuring national lines a fair share of a particular market.

The heart of the question seems to be that given the predominant participation of non-conference lines in a

trade, as is the case with the container trade in India, say 60 percent, the national lines of conferences would be assured of only 40 percent of the remaining 40 percent under the UNCTAD scheme, that is 16 percent of the entire trade. Are the national lines supposed to be satisfied with that share?

Either way, pending the implementation of the UNCTAD code, self-help would be the only way for survival and, toward such end, forming consortia or joint services among themselves or with developed countries lines was the matter of serious concern.

Be that as it may, the six countries surveyed have experienced rapid growth of containerization as seen in Table 2.

Table 2

Ports	Number of TEUs handled*		
	1979	1981	Growth rate
Malaysia, Kelang	117,281	148,305	26.0
Penang	35,179	56,339	60.1
Phillipines, Manila**	249,044	258,728	3.9
Thailand, Bangkok	164,248	241,496	47.0
India, Bombay	76,838	132,195	72.0
Cochin	13,829	29,919	116.3
Calcutta	4,478	27,952	524.2
Madras	4,432	15,080	240.2
Pakistan, Karachi	22,768	60,170	164.3
Sri Lanka, Colombo	16,557	50,004	202.0

Source: ESCAP Study, 1982

*Including empty containers

**Manila International Port and South Harbour only.

Position of the National Shipping Operators

The degree of container penetration in the six countries varies according to socio-economic conditions and geographic characteristics relevant to ocean transport. The Far East countries have been exposed to containerization since the early 1970s, with the two entrepôts of Hong Kong and Singapore as the axis of feeder services. Now both ports hold high ranks among the world container ports, each deriving a large proportion (40-45 percent) of its annual throughputs (1.5 million and one million TEUs in 1981) from transshipment.

Containerization in this area presents a colorful picture of varieties, from largest full-containerships to small feeder ships or converted coasters, from enormous portainers to makeshift mobile cranes, and appears gradually approaching its maturity.

In contrast, the Indian subcontinent has not a single port that can accommodate second/third generation containerships even now. Containers to/from this area are either taken by semi- or medium-sized containerships or transshipped at Middle East ports westward or at Singapore eastward. National lines' fleet is confined to converted or purpose-built containerships less than 1,000 TEU capacity. Momentum is gathering, however, and with the completion of new terminals at Colombo, Madras, Karachi or Nhava Sheva (satellite of Bombay) toward the mid-1980s, containerization is envisaged to expand by leaps and bounds.

(a) Malaysia

Its public corporation, the Malaysia International Shipping Corporation (MISC) has by far the most advanced and well-balanced containership fleet among the six countries.

It consists of two 2,770 TEU type in the FEFC routes, two 530 TEU type in the Straits/Australia, four 680/800 TEU type in the Far East/Middle East and two 570 TEU type in the Straits/Japan trades. Further it operates two regional feeder ships of 230 TEU capacity each and now embarking on containerizing the home trade between Peninsular and East Malaysia. No doubt, its fully-equipped home ports, Kelang and Penang, have provided a basis for its quick development.

Noteworthy would be the MISC's consistent policy to form a joint service, or join a consortium, with the operators in trade-partner countries, in containerizing a particular trade. Its partners or consortia include Scan-Dutch in Europe, JUMBO Line in Oceania, MACOL in the Middle East and Interasia Line in Japan.

Such multi-national cooperation partnership may have assisted MISC in expanding its market, leveling off the risks involved and acquiring technologies.

(b) The Philippines

Besides the modest participation in container trade by Maritime Company of the Philippines, Galleon Shipping Corp. commenced services to the U.S. in 1978. The company has since expanded its fleet and, by early 1981, owned and operated four purchased ships and five new buildings ranging from 230 to 620 TEU capacity. At one time Galleon provided monthly multi-purpose service from the Far East to the U.S. East Coast and Gulf, as well as fortnightly services to the U.S. West Coast.

Too rapid expansion however, appeared to have placed the company in financial difficulties in late 1981, which called for a radical reorganization. The company had to request rescue from the government and in early 1982, now renamed National Galleon Shipping Corporation, restarted its only-container service to the U.S. West Coast with three newer ships at 20 days interval, the other six ships having been disposed of elsewhere. The reasons behind this retreat were many but no doubt the fierce trans-Pacific competition prevailing at that time was one of them.

Coincidentally, a unique operation was attempted by Philippine International Shipping Corporation (PISC) in the Far East/Europe trade. PISC commenced operation in 1977 with five second-hand bulk carriers, viz. three 74,000 dw/t and two 40,000 dw/t type, each converted into container/bulk combined carriers to accommodate 950 TEUs on top of coconut/palm oil in bulk and tapioca. Starting with a monthly frequency, the service encompassed Bangkok, Manila, Kelang, Hong Kong, Singapore, thence Jeddah, and U.K./Continent.

In such combined operations, there would always be difficulties in satisfying both the accurate sailing schedule to attract containers and the layday requirements in bulk trade in one voyage. A long-term contract of bulk cargo, solid yet allowing flexible operations, is considered a base for such services. Lacking it or not, or probably faced with complexities of multi-port operation, PISC had to virtually terminate its service by early 1981, despite a relatively favorable tramp market prevailing then.

In contrast to the limited success in the overseas route, progress in the domestic container trade in the Philippines is remarkable. In 1980, the North Harbor of Manila which is assigned for domestic trade handled cargo in containers of 1.7 million tons, well matching that in the trade of 1.8 million tons the same year. The ratio of containerization at the North Harbor was estimated at over 40 percent in 1981.

Services were extended from Manila to 13 outports in central and southern Philippines, with major terminals at Iloilo, Cebu, Cagayan' de Oro, Zamboanga, Davao and General Santos, by 12 domestic lines employing more than 20 containerships of varying capacity (45/300 TEU).

Competition among lines is as intense as elsewhere, that has led to the observation on the need for rationalization, either by merger or consolidation between carriers.

Incidentally, in April 1982 the Maritime Industry Authority (MARINA) announced a seven-year shipping development plan wherein \$300 million was earmarked for inter-island shipping. Encouraged by this timely policy, the domestic container trade in the Philippines could grow to be more efficient and as an integrated part of national transport.

(c) Thailand

A more conservative approach has been taken by Thai lines towards containerization. In fact, two multi-purpose ships of modest capacity (545 TEUs each) were built as early as in 1977 by a Thai operator meant for the Europe route, which had to be sold or chartered out owing to the failure in negotiations with the FEFC. While subsequently the state-backed joint venture, the United Thai Shipping Corporation (UNITHAI) was formed among three Thai lines and admitted in the European conference in 1979, its service has been primarily break-bulk oriented, with only limited number of containers to be secured.

Thailand has depended almost entirely upon feeder services as far as long-haul containers to/from the U.S. or Europe are concerned. Only in its trade with Japan, have direct weekly services been provided since July 1981, by the Japan/Bangkok Container Club, of which Thai International Maritime Enterprise is a member, contributing one containership (396 TEU) out of four similar types employed by the group.

While so far the Thai lines have opted for acquiring second-hand tonnage rather than new buildings, the government's fifth Five-Year Plan calls for the expansion of its own fleet to enable new services to the U.S. or Australia by national lines. Vis-a-vis the proposed new facilities at Sattahip to be completed in a few years, the choice of ship types and the manner of operations (direct or feeder) should be the core of problems to be tackled in the very near future.

Currently, the purchase of six ships including two each of semi- and full-containerships (both 7/10,000 dw/t) to be owned by the Thai Maritime Navigation Co., would appear to be under government scrutiny.

(d) India

Containerization on the west coast of India has grown under strong influence from the Middle East. The rapid growth on the Gulf as from the mid-1970s attracted a number of container carriers from Europe, the U.S. and Australia. While full-size ships were prevented from calling at Indian ports because of the limited facilities, medium-sized containerships or ro/ros (300/700 TEU type) commenced serving Bombay or Cochin in the mid-1970s, along with feeder ships via the Gulf ports or Singapore. Lacking suitable back haul cargo from the Gulf, empty containers freed in the area flooded into Indian or Pakistani ports seeking whatever cargo that could fill them.

This pattern would tend to depress the rate level as

carriers may accept any rate if slightly higher than the cost of returning empty containers back to the origin. The control of conferences in the trades has been seriously eroded and reportedly more than half of the container exports from west India have been secured by outsider lines.

In contrast, the progress in the east coast of India has been relatively slow until quite recently. The central port in the area, Calcutta, calls for a long deviation from the trunk line (Singapore/Colombo), which along with rather poor cargo prospects has deterred entry by outsiders, while conference lines' semi-containerships have gradually expanded services to the U.K., the Middle East, the U.S., Oceania, Africa, etc.

Full-fledged containerization appears to be gathering real momentum in the Bay of Bengal area only since early 1982, with the start of new feeder services by two lines, COBRA and the Ceylon Shipping Corporation, both via Colombo. With the advent of new services a sign of intensifying competition has been observed.

Another major port on the east coast, Madras, has so far experienced only modest handling of containers. With the completion of the new terminal under a phased target date set from April 1983, Madras is likely to become the first port in India to accommodate third-generation containerships. Its superior physical and geographical conditions may well enable Madras to compete with Colombo position in the Bay of Bengal area.

Faced with competition from foreign carriers, the Indian lines have gradually adapted themselves to the new means of transport. Almost 40 percent of liner tonnages of the Shipping Corporation of India (SCI) had been converted to cater for containers by early 1982. Scindia Steam Navigation (SCINDIA) and India Steamship Co. (ISC) followed suit. Their container services were extended to the U.K./Continent, the U.S., the Black Sea, Africa, Australia, and to a lesser extent the Far East.

As their containerships are mostly converted ones from conventional liner vessels, their capacity is rather limited, being around 200/300 TEU each, obviously dictated by the conditions of their home ports. Now that redirection to full-cellular type is almost a matter of course, its timing and financing appear to be the crux of their problems.

In an attempt to rationalize their services from India to the U.K./Continent, SCI, SCINDIA and ISC formed a consortium called the Indian Container Lines (ICL) in April 1981. Under the scheme, each line was assigned a fixed number of sailings per year so as to compose fortnightly service jointly. While the schedule is announced under the name of ICL, each line is to canvass cargo for its own ship issuing bills of lading individually.

Exchange of space of pooling of revenues are not adopted. As such the joint service is not a tight one compared with other examples, yet it constitutes a means of pooling resources and competing with other groups. During the first year of its operation ICL provided 27 sailings westbound lifting 7,837 containers and 29 sailings eastbound carrying 8,506 containers.

The arrangements appear to be in a trial period and extended to a subsequent period.

To cope with the intensifying competition, discussions were held between the ICL and COBRA group in early 1982, which resulted in an agreement on a common tariff structure and on the floor level to which freight rates could be brought down to secure cargo when competing with

nonconference lines.

(e) Pakistan

Trading circumstances in Pakistan are similar to those on the west coast of India. In 1982, a total of 16 carriers were operating regular container services to/from Karachi either by cellular, ro/ro or semi-containerships and by now all the major trades except Africa have been more or less containerized.

The Pakistan National Shipping Corporation (PNSC), virtually the sole national line established in 1974, has a fleet of 47 ships as of early 1982, out of which 14 were delivered within the preceding two years under a fleet modernization plan. The newer ships are of combination design offering multi-purpose facilities for both container and break-bulk cargo, each having a maximum capacity of 400 TEUs (one ship has 700 TEUs). They are currently employed in the U.K./Continent, the U.S., the Far East and the Middle East trades.

It is the expressed aim of PNSC to gradually phase out conventional/multi-purpose operation and concentrate more on container-only services, probably starting next with the Far East service.

(f) Sri Lanka

Container service from Sri Lanka dates back to 1972 when a feeder ship of a U.S. carrier called at Colombo, but progress was rather slow until 1978/79. Once spurred, however, containerization has developed by leaps and bounds and it appears that it will keep this pace for some time to come. By 1982, containers penetration is observed to have reached the level of 30 percent of total exports.

The principal export item, tea, is perfectly suited for containers, its shipments to the U.K./Continent having been completely containerized. Rubber and fiber also, after some initial troubles, are successfully containerized. An increasing volume of garment exports has provided another impetus.

The Ceylon Shipping Corporation (CSC), formed in

1969 and 100 percent government-owned, is the sole national line in the liner trade. Faced with the need for modernization and assisted by the government, CSC placed an order for 10 newbuildings composed of seven full-cellular and three multi-purpose (container fitted) ships, to be delivered from end-1981 onward.

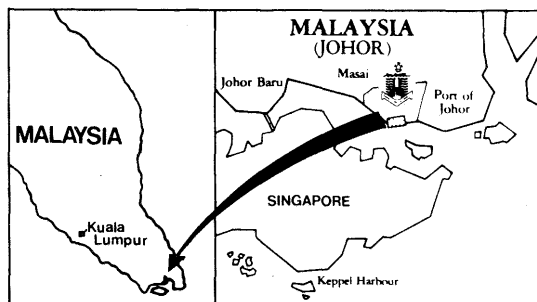
In June 1980, CSC started a fully containerized service to the U.K./Continent with two 560 TEU type ships chartered from the Singaporean line. Subsequently, it containerized the Red Sea/Singapore service jointly with the Pacific International Line, the original ship (325 TEU) having been replaced by two new ships in April 1982. With the series of deliveries to follow, new ships will be phased into the services to the Middle East and the Far East including Japan.

On account of its topographical position, Sri Lanka has excellent potential to develop as a hub for transshipment. A new feeder service was inaugurated by CSC with a 170 TEU capacity ship from mid-1982 between Colombo and the Bay of Bengal ports. This could help accelerate the growth of containerization in this area and, with the completion of the new terminal in Colombo around 1984, Sri Lanka will play an important role as a pivot for feeder services.

ESCAP Committee on Shipping, Transport, Communications

Eventually, the above ESCAP Committee (Shipping, Ports and Inland Waterways Wing) held in Bangkok from Dec. 7 to 13, 1982 considered the various issues and problems brought about by containerization. The meeting realized that it has generated many problems for national shipping operators, shippers, port and port management and policy formulators, the effects of which were felt keener during the time of recession. The consensus reached was to discuss these issues in depth at an intergovernmental meeting or other fora to be called probably this year, among policy-makers, planners and experts concerned with shipping ports and shippers.

JOHOR PORT AUTHORITY



In four short years, our facilities are fully utilized. To cope with increasing demand, we have sought to urgently and drastically increase the capacity.

In the process of implementation are specialised bulk terminals for grain and fertilizer, multi-purpose berths, a container terminal and a dangerous cargo jetty.

When completed we would be able to cope with varying requirements in modes of handling.

Our utmost concern is efficiency and economy of service. We expand to ensure you these.

Johor Port ... continuing to give trust and confidence to all.



Johor Port Authority

P O Box 66, Pasir Gudang,
Johor Bahru, Johore, MALAYSIA
Tel: 073-66601/5 (5 lines)
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Ports of Cameroon

(Extracts from the "Analyses of Maritime and Port Activities")

Douala/Bonaberi

During the year 1981, the Douala/Bonaberi port alone handled 94.1% of the total cargo traffic of all the ports of Cameroon (foreign, domestic and fishing traffic together) with 3,554,043 tons as against 3,336,745 tons in 1980. This figure was up by 5.2% or 187,304 tons over the previous year's figure.

Total gross tonnage was 10,415,317 tons, showing an increase of 468,920 tons or 4.7% as compared to the 1980 figure which was 9,946,397 tons.

Foreign trade traffic amounted to 3,533,499 tons, this makes an increase of 185,368 tons or 5.5% as compared to the 3,348,131 tons recorded in 1980.

A total of 1,194 foreign trade vessels entered all the Cameroonian ports as against 1,190 in the previous year. The figure for 1981 therefore shows an increase of 4 vessels or 0.3%.

Classification by type and percentage of total number is as follows:

- General cargo ships . . . 61.3% as against 64 % in 1980
- Container ships 8.9% as against 7.8% in 1980
- Oil tankers 8.7% as against 8 % in 1980
- Mineral carriers 6.1% as against 7.8% in 1980
- Banana carriers 4.5% as against 4.4% in 1980
- RO/RO 7.2% as against 5.6% in 1980
- Others 3.1% as against 2.7% in 1980

Classification by country of origin is as follows:

- (Entries and exists in tons)
- French 30.64% as against 21.7% in 1980
- Cameroonian 8.8 % as against 12.4% in 1980
- Yugoslavian 7.5 % as against 5.4% in 1980
- Liberian 6.5 % as against 7.7% in 1980
- Panamanian 6.1 % as against 4.8% in 1980
- Greek 4.8 % as against 6.8% in 1980
- British 3.5 % as against 6.0% in 1980
- Dutch 3.2 % as against — in 1980
- Russian 2.8 % as against — in 1980
- Pakistani 2.6 % as against — in 1980

Domestic and fishing traffic recorded as increase of 10.4% as they went from 18,614 tons to 20,550 tons.

Exports

Exports through the Douala/Bonaberi port declined this year, for the first time since 1977. They decreased by 38,965 tons (–4.0%) in dropping from 964,861 tons in 1980 to 925,896 tons in 1981.

This drop was mainly due to the decrease in the export of timber, which represents 45% of the total exports through the Douala/Bonaberi port.

Imports

Imports through the Douala/Bonaberi port recorded an increase of 224,333 tons, or 9.4%, as they reached 2,607,603 tons in 1981.

Port Operation

On the whole, the functioning of the Douala/Bonaberi port was satisfactory, as can be seen from the following data.

Berth Occupancy Rate

The global average berth occupancy rate improved as well as that of general cargo berths. These rates were 62.4% and 73.4% respectively, whereas they were 67.3% and 74.7% the previous year. This means the port's productivity was good, and would have been even better had the timber wet dock been put into service. Timber carriers would then have been received in a specialised unit with the effect of reducing the general berth occupancy rate.

Daily Output

The average daily output per ship went up from 793 tons to 905 tons, an increase of 112 tons (+14.1%) that reflects the improvement of the operation system in force.

Ships' Berthing and Waiting Times

The average berthing time went from 3.4 days in 1980 to 3.2 days in 1981, despite the increase in average cargo tonnage from 2,814 to 2,959 tons over that period. The average waiting time decreased from 20 hours to 12 hours.

Control, Port Security and Operating Conditions

Steps have been taken to tighten up security within and around the port, with control stations at all the entrances.

These measures shall be reinforced by the increase in the number of security officers, the elaboration of an appropriate juridical framework, and finally the purchase of a sufficient amount of equipment.

The construction of a shed for dangerous goods has now been completed and it should be put into use in the very near future. The installation of a fire detection and automatic extinguishing system is anticipated.

Container and Ro/Ro Traffic

25,097 boxes were handled in 1979, 35,365 in 1980 and 45,403 in 1981. This shows a sustained increase in the last three years. This is far above (28.3%) the estimated figure for 1981 of 27,000 boxes. In terms of tonnage the figure went from 411,007 tons to 553,056 tons.

On inward traffic, 24,530 boxes were handled as against 19,496 boxes in 1980 (+5,034 boxes or 25.8%), with loads amounting to 304,760 tons as against 215,449 tons in 1980 (+89,311 tons or +41.4%).

On outward traffic, 20,873 boxes were handled against 15,867 boxes in 1981 (+5,006 boxes or +31.5%), weighing 248,296 tons as against 195,558 tons in 1980 (+52,738, +20%).

In 1981, 506 vessels berthed at the container terminal, of which 119 were full container ships and 45 were roll on/roll off ships.

The full container ships carried 28,294 boxes (both imports and exports) as against 17,018 in 1980, thus registering an increase of 11,276 boxes (+66%).

The Ro/Ro ships carried 5,749 boxes in 1981 as against 5,376 boxes in 1980, marking an increase of 383 boxes (+7%).

Average berthing time for full container ships was 25 hours as against 21 hours in 1980. The average output was 10 units/hour as against 9 units/hour in 1980.

Average berthing time for Ro/Ro ships went up from 26 hours to 28 hours between these two years for an output which increased from 4 units/hour to 5 units/hour.

Average stocking time for import containers at the terminal was 22 days, and that for export containers was 12 days.

Kribi

Analysis of Port Activities

Total output of Kribi port declined by 49,528 tons or 23.0%, from 264,680 tons in 1980 to 165,152 tons in 1981.

This fall was attributable to the decline in timber traffic, which accounts for over 70 percent of the total traffic of that port. Actually, timber traffic through Kribi port decreased by 45,516 tons, or 25.3%, from 180,669 tons in 1980 to 140,153 in 1981.

Besides that, inward traffic into that port also dropped by 3,997 tons (or 53.8%), from 7,530 tons to 3,533 tons.

The number of ships which entered that port was 93 during the year under review, as against 133 ships the previous year, making a difference of 40 ships, or 30.4%.

This disappointing performance of Kribi port was due to the emergence of a number of problems, the most important of which was the stiling of the Kienke pass. Many steps have been taken to tackle this situation with only very limited success.

However, a dredging programme has just been completed, and it is anticipated that by the end of the rainy season, the dredging process will be complete.

On a similar theme, a valve barge will be made available to carry out maintenance dredging work at that port. Consequently, it is hoped that all these measures will contribute to the efficient operation of Kribi port.

Limbe/Tiko

Analysis of Port Activities

Total output of Limbe/Tiko port amounted this year to 24,576 tons. This figure was 2,422 tons or 8.9% lower than that of the previous year, when 26,998 tons of cargo were handled at this port.

No import traffic passed through Limbe/Tiko port in the year in question, unlike the previous year when 2,178 tons of import traffic were handled.

Export traffic also decreased by 244 tons or 0.9%, from 24,820 tons in 1980 to 24,576 tons in 1981.

A cause for satisfaction came from the cocoa traffic, which recorded an increase of 2,026 tons or 25.5% from 7,932 tons in 1980 to 9,958 tons in 1981.

No coffee cargo was exported, as the National Produce Marketing Board preferred using Douala port where better output conditions exist.

The number of ships that called also declined by 12 ships or 34.2%, from 35 ships in 1980 to 23 in 1981.

However, measures are being taken to improve operating conditions at the Limbe/Tiko port, with a view to improving its total output.

Garoua

Analysis of Port Activities

Between 1979 and 1980, the traffic at Garoua port declined by a tremendous 97 percent, from 8,551 tons to 250 tons.

The following year, total output of this port rose again to reach 10,138 tons, despite the fact that SODECOTON and COTONTCHAD continued using Douala port as their port of transit.

Imports of fertilizers, with 3,091 tons, and exports of cotton cakes, with 6,147 tons, contributed to this tonnage, carried by three ships as against one in the previous year.

Study—Project

I — Achievements in 1981

The improvement of berths Nos. 1 and 2 resulted in the provision of 280 m of quay frontage where 8.50 m water depth is available. It is designed to handle LUCAM and CELLUCAM traffic.

The Caisse Centrale de Cooperation Economique (CCCE), the Banque de Développement des Etats de l'Afrique Centrale (BDEAC), and the Ports Authority took part in the financing of this project.

II — Work in Progress

This includes:

- The deepening of the channel in four phases, to reach 7 m and 9.50 m at the bar. This work is being financed by the Ports Authority at a yearly cost of 336 million CFA francs.
- The extension work for the oil research facilities area, which comprises the construction of 23 ha surface area upstream and 50 ha downstream. This work is being financed by the Cameroon Government for a total amount of 7 billion CFA francs. It was due to last 26 months as of July 1981.
- The construction of a port zone reserved for the UDEAC countries and Chad, comprising the development of an area of 20 ha. This zone will be equipped with 8 warehouses covering the network of the port. Financing came from the BDEAC (500 million CFA francs), the FED (1.8 billion CFA francs) and the Cameroon Government (400 million CFA francs). The work was due to last several months.

(Continued on next page bottom)

Port of Brisbane

(Extracts from Annual Report 1981-82,
Port of Brisbane Authority)

Chairman's review (extract)

In retrospect, the 1981/82 financial year was a period of promise, progress and problems — all in considerable measure.

Most of the promise of the preceding twelve months began to materialise. Substantial progress was made and will continue, in spite of a world wide trade recession.

As the year rolled on, the "promise" of further Fisherman Islands development started to unfold. We saw the continuation of the construction of operational and control buildings for container terminal No. 2, plus the construction of an export coal facility (due to be stockpiling by November 1982). At the same time, the Authority received proposals to use islands' land to establish grain and mineral ore facilities, plus a cement manufacturing plant and wharf installations.

All of these things represented good news for the port in general. However, the islands' success as a natural and valued port site is now attracting the attention of peripheral and/or allied industry. There is a strong demand for space in the port. A balanced approach needs to be adopted in the allocation of land and water space and not every request will be able to be met in full.

Certainly, the Authority will always use its best endeavours to promote and foster development to maximise the use of resources, particularly keeping in mind the overall good of lessees and the public in general. In the same manner that any governing body plans an equitable and

"best use now and in the future" approach, so, too, does the Board of the Authority.

First ship

It was satisfying and reassuring sight when on August 9, 1981 the "Columbus Queensland" steamed across Moreton Bay to become the first ship to use the Fisherman Islands' container handling facilities. The ship berthed under the terminal No. 1 crane.

Since that day, T. 1 has gone from strength to strength. I am assured by the operators, Brisbane Amalgamated Terminals Limited, that in spite of an international downturn in trade, the company is facing the future with confidence. Negotiations to bring T. 2 to a full operational stage are continuing. It was a pity to see the name Brisbane Wharves and Wool Dumping Pty. Ltd. disappear as an operating company from the Port of Brisbane. The firm had played leading roles in helping to open up substantial sections of the port — first the Bulimba Reach area in the 1920's; the Hamilton Reach in the 1930's and 1940's; and had a commanding part in establishing Brisbane as a container port. Its port history, under one name or another, can be traced back to the early 1900's.

However, during 1981/82, BWWD's management saw business and economic advantages in blending the company's operational and marketing services with those of Brisbane Amalgamated Terminals Limited, and both terminals now operate under the one name.

New port facilities

Queensland Bulk Handling Pty. Ltd. is hopeful of exporting the first tonne of coal through its new islands'

(Continued from page 19)

III — Short Term Projects

- 1) — Construction of a terminal designed to handle fruit and general cargo, equipped with a berth offering 220 m of quay frontage and 9.50 m draft, a shed of 6,500 m² with facilities available for the storage of fruit, and mobile handling facilities.
The project will be financed by the World Bank and the Ports Authority. The terminal will come into operation by 1984.
- 2) — Plans are under way for the implementation of a new computer system. This project is being financed equally by the World Bank and the Ports Authority.
- 3) — The purchase of a performing tug-boat for high sea operations.
- 4) — The purchase of a dredger.

IV — Mid and Long Term Projects

- 1) — Cape-Limboh: Studies for the construction of a deep sea port at Cape-Limboh are now completed. Technical and economic studies for the construction of a commercial port are also available.
The first phase of this work will be the construction of a port entirely for the purpose of serving the refinery.
The cost of these studies is 100 million CFA francs, and is being met by the FED and the Ports Authority.

- 2) — Rocher-du-Loup: Plans for the construction of a deep sea port South of Kribi together with the development of the south and south-eastern regions of Cameroon comprise three parts:
 - Analysis of the various options available.
 - Drawing up of an initial investment programme resulting from the consolidation of these options.
 - Choice of a port site within a functional and coherent unit including the port, the town, the industrial port zones and the land infrastructure networks.The first phase of these studies is already available. Additional studies, related to the timber industry, bauxite, traffic in transit, and sea transport have also been carried out, as well as topography and survey work at sea.
The cost of these studies is estimated at 243 million CFA francs, financed by the Fonds d'Aide et de Cooperation (FAC).
- 3) — Wouri estuary maintenance works: studies related to these works are scheduled for completion in 1982, sponsored by the Ports Authority for an overall cost of 50 million CFA francs.
- 4) — Extension and re-structuring of naval repairs activities: discussions are well advanced concerning this project, which is due to start during the 5th five-year Development Plan.
- 5) — The purchase of two gantry cranes for container traffic.

facility early in 1983.

Meanwhile, Adelaide Brighton Cement Ltd. requires an area for a clinker receival point, plus crushing plant; and, the State Wheat Board foresees the need for major export grain handling installations. Upstream at Colmslie on the old abattoir site, the Authority remains hopeful that satisfactory arrangements will be reached between the negotiating parties to permit the construction of a facility to handle the export of bulk sugar.

Another very important developmental issue under consideration, and which revolves around the outcome of talks and investigations of several parties, is the question of opening up the commercial potential of Darling Downs coal deposits. The questions being studied are (1) the best track down the range to the coast; (2) what terminus (region) should the coal trains use; and (3) where in that region should the coal port be located.

The Authority believes that there is a good case for the coal terminal on the Fisherman Islands where infrastructure already exists and environmental problems are less than elsewhere. In addition — for a large export coal trade — it is a feasible and economic proposition for the Port of Brisbane Authority to provide far greater depths of water than now are available to handle the bulk carriers. Vessels of 150,000 to 200,000 d.w.t. could be accommodated at the Fisherman Islands with safe passage across Moreton Bay. These greater depths could be achieved by a planned dredging programme, including the opening of the North East Channel. The North West Channel has served Brisbane well as the main path into and out of the port. However, the cost of deepening this channel for large bulk carriers is significantly more than opening the North East Channel. The oil and grain trades also would benefit from this deepening.

Standard gauge rail

But, just as crucial to the Port of Brisbane is the provision of standard gauge rail direct onto the Fisherman Islands.

A standard gauge rail connection to the islands has been under scrutiny by both federal and state governments for some time. The provision of such a system into the port area would give us far greater promotional powers and operational flexibility in the national and international market place. One of the immediate advantages, of course, would be that the Authority could expect to see a considerable increase in cargo from northern New South Wales centres.

Trade

There is no doubt that 1981/82 saw a worsening of the world trade situation. Most international merchants believe the only word to describe the total scene is "recession". At best, the trade scene is listless. We can only hope that the decline has bottomed and that we can look forward to a sustained period of recovery.

In spite of the conditions described above, the Port of Brisbane again recorded a very satisfactory year as far as tonnage throughput is concerned.

Disputes

Regarding industrial matters in general, I would like to make the following personal comment:

For as long as anyone can remember, industrial trouble has been part of Australia's waterfront and ports' scene.

Yet, our nation's well being is virtually dependent on the smooth and uninterrupted flow of cargo across its wharves. We are an exporting country and can honestly claim to be one of the major suppliers of food and primary produce to the world.

Unfortunately, industrial trouble has all but destroyed our reputation for reliability, even to the extent where some international companies now are concerned with insurance risks on ships/cargoes involved in trade to Australia. That is a terrible indictment of our society and the Australian way of life.

The "message" should be clear to everyone at every level of business, in every industry. Our whole approach to matters industrial needs new direction. We need renewed faith and purpose to replace intransigence, selfishness and greed, now dominating so many disputes and strikes in this country. It is understandable that we should — all of us — be concerned with improving our living and working standards. That's good, honest, healthy ambition. However, let that goal not be sought at the expense of, or damage to, our livelihood and employment. Above all else, we must protect the industry that feeds and clothes us. Surely, that is just common sense.

Warana

Around the world, port authorities recognise the need to bring home to the people in a port's region of influence, the importance of the role played by a port authority in the day-to-day and commercial life of that region.

In these days, where a port's operational scenes are moving away from the city centres, and cargo is "hidden" in containers, the public no longer sees the movement of different types of cargo. Therefore, people no longer identify with a port.

To counter this, ports everywhere are endeavouring to promote their worth and engender a public feeling that the people do share in the fortunes of their port.

One of our recent public moves was to participate in the 1981 Warana Parade, which the Authority sponsored. Our float took the lead position and as it also was International Ports Day, the Warana organisation had asked all parade participants to adopt a "nautical — but nice" theme. It was a great day. In addition, the Authority presented the trophies for the parade's various class winners.

Finally, I would like to say that 1982/83 will be another eventful year for the Authority in continuing with a programme of development to keep pace with the State Government's policy of encouraging industry to develop the State's resources.

In this regard, the Authority has proved its capabilities in the past and approaches the future with confidence.

Hon. A. M. Hodges
Chairman

Consolidated balance sheet

as at June 30, 1982

	1982	1981
Current Assets	\$	\$
Cash on hand and at bank	238,799	65,084
Debtors	1,660,123	1,303,644

(Continued on next page bottom)

Wellington Harour

(Extracts from Annual Report and Accounts 1981,
Wellington Harbour Board)

Chairman's address (extract)

Shipping Arrivals for the year totalled a record 8,766,340 net register tons, an increase of 897,094 tons or 11.4% on last year's figure of 7,869,246 tons.

The manifest tonnage of cargo handled at the port was 5,846,756 tons, an increase of 333,673 tons or 6.1% on last year's tonnage of 5,513,083. The manifest tonnage for the year was just 2,236 tons short of the 1976/77 record figure of 5,848,992 tons.

Increases were recorded in most categories of cargo including inward general cargo from Other Overseas Ports (up 166,186 tons or 26.9%) and bulk petroleum products (up 91,084 tons or 11.1%). The only significant decreases in cargo were in general cargo outward to Other Overseas Ports (down 32,009 tons or 3.7%) and outward to Australian Ports (down 18,115 tons or 24.7%).

The tonnage of cargo in conventional ships increased significantly from 281,578 tons last year to 405,326 tons (up 43.9%), continuing the most pleasing improvement which commenced during the second half of the previous year and contributed substantially to this year's satisfactory results.

The throughput of containers at the Thorndon Container Wharf increased from 67,720 TEUs last year to

73,053 TEUs or by 5,333 (7.9%). Total container movements including repositioning of containers and containers landed and re-shipped increased from 75,571 TEUs to 80,669 TEUs.

The Annual Accounts show a balance of \$5,081,774 in the Working Account compared with \$2,255,666 last year.

After meeting loan repayments, payments to Sinking Funds and contributions to Special Funds, there was a surplus of \$342,864 transferred to Capital compared with a deficit of \$946,036 last year.

The increased tonnage for the year, the Board's unremitting attention to costs and improved efficiency contributed to the substantial increase in the surplus in the Working Account. Together with retrospective increases in leasehold rents the opportunity was provided for increased appropriations to Special Funds to strengthen and begin to restore those essential reserves following several years of net deficit.

Gross income rose to \$28,871,300 (last year \$22,784,237), reflecting the higher level of trade and an increase in charges from 1 October 1981.

Operating expenditure at \$19,142,269 (last year \$16,614,550) showed an increase of 15% with working expenses rising by 16% and maintenance by 11%. Salaries, wages and levies, including super-annuation subsidies but excluding wages paid on capital works increased by \$2,033,230 (15.48%) to \$15,164,276 from \$13,131,046

(Continued from page 21)

			1982	1981
			\$	\$
Investments	3,749,223	1,200,000		
Inventory	118,000	114,998		
Work in progress	1,443,962	1,449,246		
Other debtors prepayments	214,244	189,603		
Total Current Assets	7,424,351	4,322,575		
Non-Current Assets				
Long term receivables	—	225,000		
Sinking fund investment (at cost)	594,735	454,079		
Fixed assets	66,397,572	64,394,155		
Total Assets	74,416,658	69,395,809		
Current Liabilities				
Creditors and accruals	3,885,182	1,923,427		
Employee provisions	1,783,186	1,505,708		
Total Current Liabilities	5,668,368	3,429,135		
Trust Fund	78,511	60,384		
Non-Current Loans	38,472,234	38,274,437		
Accumulated Funds and Reserves				
Capital works reserve	9,800,000	7,800,000		
Accumulated funds	20,397,545	27,831,853		
Total Accumulated Funds and Reserves	30,197,545	27,631,853		
Total Liabilities and Reserves	74,416,658	69,395,809		
Income				
Harbour, dock, wharf, river dues and mooring fees			13,572,319	9,937,390
Dock services			3,454,051	4,388,483
Rental			1,906,973	1,256,753
Interest			386,803	341,918
Dredging services			3,498,717	3,654,105
Maintenance, construction & other services			547,750	275,953
Fisherman Islands expenditure recoveries			365,562	—
Profit on sale of fixed assets			375,149	5,878
Miscellaneous			157,325	103,732
Total Income			24,264,649	19,964,212
Expenditure				
Direct labour and expense			8,509,996	7,957,901
Salaries			3,360,500	2,228,828
Indirect labour and expenses			4,332,780	4,009,593
Interest			3,540,243	2,297,213
Depreciation			2,716,566	2,563,108
Capitalised cost of internal development work			(764,722)	(512,908)
Doubtful debts			95,000	—
Total Expenditure			21,790,363	18,543,735
Net income before extraordinary items and appropriations			2,474,286	1,420,477
Extraordinary items			91,406	57,400
Transfer to Capital Works Reserve			(2,000,000)	(1,000,000)
Surplus for the year			565,692	477,877
Accumulated funds at beginning of year			19,831,853	19,353,976
Accumulated funds at year end			20,397,545	19,831,853

Consolidated statement of income and expenditure

for the year ended June 30, 1982

last year.

No loan money except for Renewal loans was raised during the year and gross loan liability now stands at \$40,934,773 (last year \$40,898,105).

Capital expenditure totalled \$1,060,540 of which \$225,989 was provided from loan money and \$834,611 from depreciation and reserves.

The continued and alarming increases in all costs but most significantly in wage costs, to which I referred in my report last year, continued into the year under review more than offsetting improved productivity and economies in operations. Following a full financial review in February and again in May 1982, after the end of the first half year, the Board decided to propose a general increase in charges (with some exceptions) to take effect from 1 October 1982 but decided, after the bringing into force of Wage and Price Freeze Regulations on 23 June 1982, not to proceed with the proposed increases in Bylaw charges. It was concluded that if the Wage and Price Freeze Regulations had their intended effect the increases which had been proposed may not be necessary but that the position would require to be kept under close review. A small increase in tug hire charges was subsequently approved with effect from 1 October 1982 on account of increased sales tax on diesel fuel.

In this connection it must be said that the Regulations appear to have had some success in breaking the inflationary spiral which had been approaching the dangerously accelerating stage where cost consciousness was becoming submerged in the expectation of successively increasing wages, costs and prices.

Concern must be expressed, nevertheless, at the situation which will arise upon the expiry of the Regulations in 1983. The measures by which it is hoped the Government will succeed in restoring and retaining stability in the economy will be one of their most important tasks in 1983 and beyond.

The high and consistent performance in the turnaround of container ships at the Wellington Container Terminal continued during the year and new records were set during the visit of 'N.Z. Pacific' from 20/22 February 1982. During the 1st shift on Sunday 21 February the average gross container handling rate throughout the full period of the seven hour shift was 60.00 per hour. A record 675 refrigerated containers were loaded and in little more than 2½ days 16,780 tons of cargo were discharged and loaded. These figures demonstrate the capability of container shipping and an efficient terminal organisation working seven days a week.

The Court of Enquiry into the circumstances of the grounding of M.V. 'Pacific Charger' outside the entrance to Wellington Harbour on 21 May 1981 reported its findings in January 1982. Having considered the report of the Court the Board decided that all the matters raised by the Court should be thoroughly examined and be followed by whatever proper action would best promote the highest standards of safe navigation both in the approaches to Wellington Harbour and in all New Zealand coastal waters. That work has proceeded accordingly. Action has been taken on matters within the Board's competence and co-operation extended to the Ministry of Transport on other more wide-ranging matters of national concern through a committee of officers chaired by the General Manager.

After reporting on other matters of more local significance Mr. King concluded by acknowledging the efforts and co-operative assistance of the Deputy Chairman, Mr. I.P. Carr, the Chairman of Committees, the General Manager and all officers and staff of the Board.

J. King
Chairman

Balance sheet

as at 30 September 1981

	1981	1980
Current assets	3,927,791	4,099,303
Less current liabilities	1,320,929	1,265,859
Working capital	2,606,862	2,833,444
Investments	11,453,017	9,950,041
Fixed assets	45,849,680	47,138,107
	59,909,559	59,921,592
Less term liabilities		
Public debt (net of Sinking Fund)	37,575,796	38,919,479
Net assets	22,333,763	21,002,113
Public equity represented as follows		
Capital	6,538,485	7,413,684
Revenue reserves, etc.	11,453,017	9,950,041
Sinking fund reserve	4,342,261	3,638,388
	22,333,763	21,002,113

Revenue and appropriation statement

for the year ended 30 September 1981

	1981	1980
Income		
Shipping charges	2,174,436	2,010,524
Shipping services	1,471,506	1,335,060
Cargo charges	8,219,363	7,098,597
Cargo handling charges	8,355,824	8,075,071
Licences and fees	130,962	93,015
Sundry revenue	169,915	152,219
	20,522,006	18,764,486
Less expenses	20,520,739	18,033,802
(Interest)	(2,823,707)	(2,769,184)
(Depreciation)	(1,082,482)	(1,083,796)
Net Revenue from Port Operations	1,267	730,684
Other income		
Rents	1,131,025	972,044
Interest on harbour fund	241,183	129,700
	1,372,208	—
Surplus before appropriations and Loan Repayments	1,373,475	1,832,428

International maritime information: World port news:

UNCTAD announces the availability of materials for a training course on the Management of General Cargo Operations

Improving Port Performance is a project organised by the United Nations Conference on Trade and Development (UNCTAD) and financed by the Swedish International Development Authority (SIDA). It forms part of a concerted effort being made by UNCTAD's Shipping Division to encourage developing countries to give higher priority to maritime training and to assist local port management institutes to develop a greater training capability. The Improving Port Performance Project has three stages:

- the centralised preparation of validated training materials for the delivery of courses by local instructors;
- the training of instructors from port management institutes to enable them to conduct UNCTAD-developed training courses in their own countries;
- the provision of further advice and assistance, as necessary, to help developing countries to implement these training programmes.

The first course to be developed under this project is entitled Management of General Cargo Operations. The materials for this course are available in English and will be available shortly in French, Spanish, Arabic and Portuguese. These materials provide a basic course for traffic officers, quay and shed superintendents, etc., from both the public and private sector. The objective of the course is to train this level of management to become better-equipped to plan and organise the handling of cargoes in ports, making the most efficient use of available resources.

The training materials, which comprise a series of audio-visual programmes and a comprehensive trainee's workbook, have been designed for delivery by local training instructors. The workbook contains all the exercises, case studies, group exercises etc., to conduct the programme. Discussions and practical work related to local conditions will supplement the pre-prepared materials to make a complete course. Full instructions on how to conduct the course are given in a trainer's handbook which includes a day-by-day workplan covering all activities.

More specifically, the course consists of 18 audio-visual programmes which have been developed in 8 study units as follows:

- UNIT 1 Introduction to the Course—1 programme
- UNIT 2 Measurement of Port Performance—2 programmes
- UNIT 3 The Ship Operation—3 programmes
- UNIT 4 The Quay Transfer Operation—4 programmes
- UNIT 5 The Storage Operation—4 programmes
- UNIT 6 The Receipt Delivery Operation—1 programme
- UNIT 7 Operations Planning—2 programmes
- UNIT 8 Berth Management—1 programme

The materials have been designed to provide an integrated course covering all aspects of general cargo operations.



One study unit leads on from another to give a course of about one month's duration. However, some of the units form the basis for shorter courses. For example, the Ship Operation Unit could be run as a one-week course which may be followed not only by port personnel but also by shipping agents; the Quay Transfer Operation Unit would form a useful one-week course on equipment operation, care and maintenance suitable for junior engineers and other technical staff, and the Storage Operation Unit constitutes a further one-week course which could be shown to customs authorities. In this way, UNCTAD has provided not only one integrated course but the possibility of running a series of shorter courses to meet the needs of the ports and other related maritime industries.

The materials are offered as a complete set comprising:

- 18 film-strips
- 18 audio-cassettes
- 40 copies of the trainee's workbook
- 4 copies of the trainer's handbook
- 1 35 mm film-strip projector plus spares.

Although the development costs for the Management of General Cargo Operations course materials have been financed by SIDA, UNCTAD will have to recover from users the production, projector and air freight costs. These amount to US \$3,000 per set. Organizations in developing countries wishing to obtain a set of the material, or to make further enquiries, are invited to contact:

Director
Shipping Division
UNCTAD
Palais des Nations
CH-1211 GENEVA 10
Switzerland

Two instructors are required to run the UNCTAD/SIDA Course on the Management of General Cargo Operations. It is essential that both instructors have a detailed knowledge of the training materials and possess the necessary training

skills to organise and conduct it. One of the training instructors should have a minimum of five to seven years experience in the traffic or operations department, preferably with a background or interest in training. The second instructor could be a generalist with a training or educational background although, again, operational experience would be an advantage. Throughout the course these two instructors will be supplemented by local line managers who will be invited to lead discussions, assist in group exercises, and provide technical back-up. UNCTAD is presently conducting a series of seminars specifically designed to train instructors to conduct the Management of General Cargo Operations course. Further details are available on request.

Improving Port Performance heralds a new concept in port management training: one that allows local training officers, with a minimum of preparation, to conduct a series of high-quality management courses in their training centre. They can then proceed by conducting training for groups of up to 12-15 people at a time, more personalized tuition for groups of 4-6, or even training on an individual basis for managers to brush up their skills.

UNCTAD is ready to provide an experienced instructor, if required, to assist port management institutes in conducting the Management of General Cargo Operations course for the first time. This should help to ensure that repeated organization of the course follows an efficient pattern.

Report of the Ad Hoc Scientific Group on Dumping

(Extracts from IMO document: LDC 7/3)

1 Introduction

1.1 The sixth meeting of the Ad Hoc Scientific Group on Dumping was held in Paris, France, from 27 September to 1 October 1982, following a decision made by the Sixth Consultative Meeting (5-9 October 1981).

3.3 Review of information on "special care" techniques for the disposal of contaminated dredged material

3.3.1 Document LDC/SG.6/3, submitted by the **International Association of Ports and Harbors (IAPH)** was introduced by Mr. W. Pequegnat. The report described the recent development of special care measures for the disposal of polluted dredged material and drew attention in particular to:

- .1 the plans for a borrow pit capping in the New York harbour (United States).
- .2 the capping projects carried out or planned in the ports of Ijmuiden, Rotterdam and near the Hoek van Holland (Netherlands); and
- .3 in situ capping of polluted dredged material developed in Japan.

3.3.2 The Ad Hoc Scientific Group was also informed of a so-called Anti-Turbidity Overflow System (ATOS) and of water separating and filtering systems used in Japan. These systems were developed for the reduction of environmental turbidity during dredging and the production of relatively unpolluted cakes of dredged material, respectively.

3.3.3 During the discussion of the IAPH paper many comments were made and points were raised which are summarized as follows:

- .1 the sites of capping carried out so far are situated in relatively low energy areas and for using such techniques proper selection of a site was very important;
- .2 long-term effects regarding migration of pollutants and stability of the cap were not yet known and more experience was needed before a clear decision could be made as to whether or not the method was environmentally safe; and
- .3 the environmental hazards of the operation of dumping polluted dredged material would have to be assessed in each case before a decision for capping could be made.

3.3.4 In its conclusion the Ad Hoc Scientific Group, although recognizing that the results presented have shown that capping might, in some areas under certain conditions, be a relatively safe method, emphasized that further research and investigations were needed before capping could be recommended generally as a safe technique for the disposal of dredged material containing Annex I substances. Contracting Parties should be invited to submit information on such experiments carried out in their countries. The attention of the Consultative Meeting was also drawn to the fact that some experts felt that the dumping of dredged material contaminated with Annex I substances, even if later capped with clean material, was not allowable under the provisions of the London Dumping Convention.

3.3.5 The Netherlands delegation noted that a quotation from Mr. van der Burgt in the IAPH paper presented by Mr. Pequegnat could be misinterpreted in that it would mean that dumping at sea of heavily contaminated dredged material was also considered to be an appropriate solution; this is certainly not the case.

3.3.6 The Ad Hoc Scientific Group expressed appreciation for the document prepared by the IAPH and thanked Mr. Pequegnat for the presentation.

8 Action to be taken by the seventh consultative meeting

8.1 The Seventh Consultative Meeting is invited to take note of the foregoing information and to approve the report. In particular, the Consultative Meeting is invited to:

- .6 note the outcome of the discussions held under item 3 and in particular to:
 - .6.2 consider whether the dumping of dredge material contaminated with Annex I substances, even if later capped with clean material, was allowable under the provisions of the Convention (see paragraph 3.3.4);
 - .6.3 invite Contracting Parties to submit information on experiments carried out in their countries with capping operations (see paragraph 3.3.5);

Programme of meetings, 1983: International Maritime Organization

17-21 January	Sub-Committee on Fire Protection—28th session
7-11 February	Sub-Committee on Stability and Load Lines and on Fishing Vessels Safety—28th session
14-18 February	Seventh Consultative Meeting of Contracting Parties to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter
21-25 February	Sub-Committee on Containers and Car-

	goes—24th session
28 February - 4 March	Sub-Committee on Ship Design and Equipment—26th session
7-11 March	Legal Committee—50th session
21-25 March	Marine Environment Protection Committee—18th session
20-22 April	Sub-Committee on Standards of Training and Watchkeeping—16th session
26-28 April	Executive Committee on the International Oil Pollution Compensation Fund—9th session
12 May	*Committee on Technical Co-Operation—23rd session
13 May	*Pre-Council Budgetary Working Group
16-20 May	*Council—50th session
6-17 June	Maritime Safety Committee and Expanded Maritime Safety Committee—48th session
27 June - 1 July	Sub-Committee on the Carriage of Dangerous Goods—35th session
12-16 September	Sub-Committee on Radiocommunications—26th session
19-23 September	Legal Committee—51st session
26-30 September	International Oil Pollution Compensation Fund—Assembly—6th session
10-14 October	Sub-Committee on Bulk Chemicals—12th session
17-21 October	Sub-Committee on Safety of Navigation—28th session
4 November	Council—12th Extraordinary session
7-18 November	Assembly—13th session
18 November	Council—51st session
5-9 December	*Marine Environment Protection Committee—19th session

* Tentative.

Publications

"Inter-Governmental Conference on Convention of the Dumping of Wastes at Sea"

Sales No. 532.82.03.E, Price £1.50 (English)

"Inert Gas Systems for Ships Carrying Petroleum Products in Bulk"

Sales No. 858.82.16.E, Price £2.50 (English)

"Procedures for the Control of Ships" (Resolution A.466(XII))

Sales No. 819.82.13.E, Price £2.00 (English)

IMO Secretariat,
Publications Section,
101-104 Piccadilly,
London W1V OAE, U.K.

"The 7th International Symposium on the Transportation of Dangerous Goods by Sea and Inland Waterways" Proceedings by ICHCA Canada

Over 600 pages & include 48 technical papers; Price Canada \$80.00

"15th ICHCA Conference Proceedings"

350 pages & include 39 technical papers; Price Canada \$50.00

ICHCA Canada
P.O. Box 2366

Station D, Ottawa
Ontario Canada
K1P 5W9

"Scuttling: A Special Study"

Price £7.50

ICC International Maritime Bureau
Maritime House, No. 1, Linton Road,
Barking, Essex IC118HH, U.K.

Mr. G. Maffait publishes "DES VOILES VERS L'AMERIQUE"

Mr. Georges Maffait, an Associate Member of IAPH from France, who has long been engaged in UNCTAD's aid programmes as a port expert, has recently published a book entitled "DES VOILES VERS L'AMERIQUE" (Sails toward America), written in French, according to his December 28, 1982 communication to the IAPH Head Office.

The book, he states, relates some historic events involving the rivers, ports and surrounding seas of South America, from 1492 to 1820.

Those who are interested in purchasing this book, please apply to: Mr. G. Maffait

— Villa "Las Ardillas", Bd., des Cyprès 125, Domaine de la Vallée, 84420 La Croix Valmer, France

The price is FF85 (US\$13) plus mailing costs.

Note: Mr. Maffait is the author of the essay entitled "Some Golden Rules to Follow to Ensure the Complete Failure of International Cooperation Missions", which appeared in the April 1982 issue of "Ports and Harbors".

OCEANEXPO/OCEANTROPIQUES 83 to be held in Bordeaux, 11—15 October 1983: TECHNOEXPO (an Associate Member of IAPH)

OCEANEXPO/OCEANTROPIQUES 83 is the opportunity to be seized to obtain a better knowledge of developing countries and to know where to invest, go into partnership, sell and buy.

OCEANEXPO/OCEANTROPIQUES, which is being held for the sixth time -and the fifth time in France-, is the only event of this kind in the world.

At the fourth event in 1980, 223 exhibitors from 38 countries (21 developing and 17 industrialized countries) attracted 9136 visitors representing 90 different nationalities.

While OCEANEXPO is for companies and bodies from industrialized countries, OCEANTROPIQUES, which was set up in 1980, enables developing countries to present their achievements, activities and projects concerning the seas, rivers, lakes and lagoons and their future needs.

OCEANTROPIQUES therefore enables these countries, which have practically all an access to the sea or to lakes and rivers, to highlight their potential for investors, businessmen and manufacturers in developed countries.

The arrangements have thus been made at the 6th OCEANEXPO and 2nd OCEANTROPIQUES for commercial, technical and business meetings between representatives of the industrialized countries and developing

countries -for the benefit of all parties concerned.

Enquiries: TECHNOEXPO, 8 rue de la Michodière, 75002 Paris (France) Phone: (1) 742 92 56—Telex: 211897 F Tecexpo

World Dredging Congress 83 & Seatec IV, Singapore, 19–22 April 1983

The Seatec event's long involvement in Asia's dredging and port construction industries, combined with the 1983 World Dredging Congress, means that key executives from dredging companies, dredger builders, equipment suppliers and port authorities, will gather in Singapore to discuss matters of mutual interest. This presents an opportunity for all suppliers within the dredging industry to promote their sales activity in an unrivalled and unique business atmosphere.

The World Dredging Congress is expected to host over 300 delegates from around the world and the exhibition, an integral part of the event, will attract many more visitors, particularly from South East Asia. Every endeavour is made to encourage contact many more visitors, particularly from South East Asia. Every endeavour is made to encourage contact between delegates and exhibitors—buyers and sellers. If your company is in the dredging industry, Singapore and Seatec IV is the place to be. Of particular relevance are:

Dredger builders, Dredging equipment suppliers, Dredging contractors, Hydrographic survey, Diesels.

Enquiries: World Dredging Congress Organiser, MarIntec S.E.A. (Pte) Ltd, MarIntec House, 208/210, 1/F Lavender Street, Singapore 1233. Tel: 2928288 Telex: RS 26418 MARTEC

International (post-graduate) courses of the International Institute for Hydraulic and Environmental Engineering (IHE), Delft, the Netherlands

Since 1957 international courses have been organized at Delft under the auspices of the University of Technology and the Netherlands Universities Foundation for International Cooperation (NUFFIC) at the Hague.

The following courses are offered:

1. International Course in Hydraulic Engineering (11 months) Branches:
 - a. River Engineering
 - b1. Hydraulic works in river valleys
 - b2. Hydraulic works in deltaic areas
 - c. Land and Water development
 - d. Experimental and computational hydraulics
 - e1. Coastal engineering (harbour division)
 - e2. Coastal engineering (marine division)
2. International Course for Hydrologists (11 months)
3. International Course in Sanitary Engineering (11 months)
4. International Course in Environmental Science and Technology (11 months)
5. International Seminar on Port Management (5 weeks)

Candidates should have a B.Sc. degree of a university and at least three years of practical experience. Annually

some 250 academics are participating in the courses, coming from all over the world, although predominantly from developing countries.

The medium of instruction is English. The tuition fee is Dfl. 4.000,—(abt. USA \$ 1450,—).

Detailed information can be obtained from:

NUFFIC

Badhuisweg 251

2597 JR The Hague

The Netherlands

tel: 070- 574201

St. Lawrence Seaway debt

Legislation ratified by Congress and approved by President Reagan before the close of the 97th Congress relieves the St. Lawrence Seaway Development Corporation of the remaining portion of its debt obligation to the federal treasury. In signing the appropriations bill for the Department of Transportation and related agencies, President Reagan eliminated the need for huge toll increases on the waterway in 1986 when the Seaway would have to begin paying back the staggering sum of \$9.5 million annually to the federal treasury. The payback rate currently stands at about \$2 million per year. Cancellation of the debt will not affect a 10 percent toll increase planned for the 1983 Seaway season.

Seaway Development Corporation Administrator David Oberlin said the debt relief would clear the way for vital maintenance and improvement work that has been deferred in recent years. By law, that work must be paid for by the Seaway. The action taken by Congress and the President affects the \$110 million owed in principal for construction of the Seaway. (AAPA ADVISORY)

MarAd projects update

Port Financing Study

The 1974 U.S. Maritime Administration's Office of Port and Intermodal Development (MarAd) study on Public Port Financing In The United States is being updated in coordination with AAPA's Finance Committee. The original study was born out of the mid-70s debate over federal funding support for port facilities projects. It examined in detail the financial management challenges facing ports and alternative methods of port financing for the future.

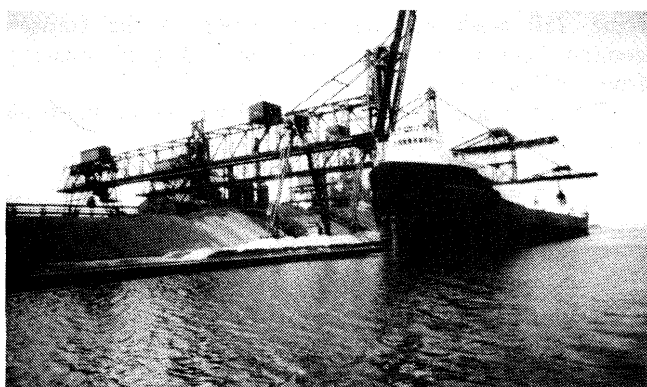
Risk Management Guidebook

MarAd is also planning a study to develop a Port Risk Management Guidebook that would provide a guide to solving common port risk management problems.

The proposed study would amount to continuation of the MarAd sponsored research, Port Public Liability Insurance/Risk Management Study, completed in 1980 in cooperation with the Pacific Coast Association of Port Authorities (PCAPA). The report concluded that many ports lacked strong internal administration of insurance and risk handling, and that improvement in basic risk management techniques could result in premium savings and less severe losses. (AAPA ADVISORY)

A new transshipment distribution centre in operation: Port of Hamilton

The Hamilton Harbour Commissioners in conjunction with Seaway Terminals (Bulk Handlers) are pleased to



announce the completion of a new transshipment facility on Pier 14 at the Port of Hamilton. The facility was constructed to be operated for Occidental Chemical Company of Tampa, Florida. The new \$180,000.00 facility will be operated as a transshipment distribution centre for their live stock feed (Dicalcium Phosphate Feed Grade). The material, an estimated 15-20,000 tonnes annually, will be brought by ship from Florida for local distribution from the facility in Hamilton. Their Hamilton location will strategically serve the agricultural community of Ontario, primarily the Golden Horseshoe market. The Hamilton Harbour Commissioners welcome this new bulk terminal operation to the Port of Hamilton and add Occidental Chemical Company to our other agricultural related operations within the Port. The Hamilton Harbour Commissioners will continue to expand and diversify the Port of Hamilton in our efforts to attract new industry and commerce to the Port.

Hamilton Harbour capital budget announced

A five-year capital spending plan for Hamilton (Ont.) Harbour has been approved by the Hamilton Harbour Commissioners on December 15, 1982. The plan calls for outlays totalling \$18.3 million on developments and improvements to harbour facilities.

Major items in the plan include \$10 million for the development of the East Port development scheme with \$2.75 million budgeted for the construction of roads and services in 1983 and \$2 million for other capital improvements and equipment.

Port of Montreal completes a masterpiece of the Port model

After years of work by a highly skilled, dedicated artisan, an intricate piece of work, which might be considered as the status symbol of the Port of Montreal, has been completed. The masterpiece is a model of the port and the craftsman who fashioned it is Noël Laverdière.

Most major ports have models but this one is unique. From all the information accumulated it can be stated with assurance that no model of any other major port can match it for its size, complete accuracy and attention to detail. It is the fruition of nine years full time work by Laverdière prior to his retirement due to ill health.

The model, which is 63 feet long and 10 feet wide, depicts the 14 1/2 mile length of the harbour plus large segments of the City of Montreal and the communities on the south shore of the St. Lawrence River.

Built to a horizontal scale of 100 feet to the inch and a vertical scale of 50 feet to the inch, it includes, in minute detail, all wharves, sheds, container terminals, the dry docks, grain elevators, passenger terminals, oil terminals and refineries, the entrance of the St Lawrence Seaway, railway lines, roads, light standards, trees, the four bridges and the high voltage power lines that cross the river within the harbour limits and a great many other details. Scale models of ships which include tugboats, tankers, bulk carriers, container vessels, passenger ships, the floating crane («Hercules») and others are part of the model.

The City of Montreal portion of the model is shown in similar detail. All buildings, from single dwellings to high rise office structures are reproduced to scale. Autoroutes, railway yards and all other facilities that are part of a big city form part of the model.

The model was built in sections two feet square in Laverdière's workshop. These sections were then fitted together on a massive table in a large room in the Port of Montreal building. The model, table and supports weigh 33 000 pounds. Prior to construction of each section, Laverdière consulted plans, aerial and ground level photos and made personal inspections of the area.

The number of individual items in the model is a source of astonishment. There are 40 000 buildings, 65 000 cars and trucks, 6 000 pieces of railway rolling stock, 10 000 light standards, 15 000 trees and innumerable other items. 33 ships are afloat in the river which is kept flowing by a pump that circulates 350 gallons of water. The ships, carved from pine, were given seven coats of paint and a coat of a special varnish to provide protection from the water. More than 2 800 tiny pieces of plexiglass were required to fashion the reproduction of Victoria Bridge. Cotton fishing line was first used for the high voltage power lines but the humidity caused it to contract and the pylons were pulled over. Synthetic material was then substituted. Every item in the model was hand fashioned by Laverdière.

As changes occurred in the port or in the adjacent urban areas similar modifications were made in the model. At the present time it is an exact replica, in miniature, of the entire harbour and adjacent areas.

The model has been examined by many thousands of interested viewers, including high ranking government members and officials, port operators, shipping executives, trade missions and many other visitors from Canada and abroad. There have been many expressions of amazement at the size of the model, the high quality of workmanship and the tremendous adherence to detail.

The model is not merely a show piece but has many practical uses. For one thing, it is a highly productive marketing aid. It serves as an ideal means of introducing present and prospective customers to the port's broad range of facilities. In our climatic extremes it is possible to hold discussions with customers and important visitors in comfortable surroundings. Fourteen and a half miles can be walked and the entire port inspected in a distance of 63 feet.

It is also of inestimable value as a working tool for port planners. Perhaps its greatest value in terms of future returns is found in its use for educational purposes. By means of the model, groups of senior students have been instructed in the main features of the port, its capacity for handling imports and exports and its value to the communi-

ty and the country. These young people represent the future political and business leaders and it is expected that the knowledge acquired will influence them in decision making years hence.

Cargo loading presents brighter outlook now: Nanaimo Harbour

Nanaimo wharves are a scene of activity once again. Export cargo loading has swung into high gear following settlement of the 17 day shutdown of B.C. ports due to a labour contract dispute.

Forest products are being loaded for the export market at all berths at the Assembly Wharf while the largest lumber cargo ever to be loaded in the port has just been completed at Duke Point.

Port Manager Lloyd Bingham has sounded a note of cautious optimism in viewing the current shipping scene and expresses hope for continued activity.

In spite of work slowdowns which culminated in the 17 day port shutdown by the B.C. Maritime Employers' Association, Port Manager Lloyd Bingham says he is optimistic that Nanaimo will set a new record this year for lumber shipments. Last year, lumber shipments on the export market, totalled just over one million tonnes, he said.

Mr. Bingham says that Nanaimo had been hard hit by the year long dispute over a contract between B.C. Maritime Employers' Association and the International Longshoremen's and Warehousemen's Union.

"We're glad a settlement was reached and that it wasn't six and five percent by government legislation, because that would have put us right back into a productivity problem."

Mr. Fred J.N. Spoke retires after 9 years: Port of Vancouver

Fred J.N. Spoke will be taking early retirement as General Manager of the Port of Vancouver, effective February 1, 1983.

Mr. Spoke, 62, will have been with the Port of Vancouver nine years as of that date.

"I feel a great attachment to this Port," he said, "but having guided her destiny through nine hectic and often frustrating years, I feel it is time to reduce my workload and enjoy my private life more fully." He will continue to reside in the Vancouver area.

Mr. Spoke said one of his major goals has been to obtain meaningful decision-making powers for local port management. The new Ports Act provides the basis for this. The future of the Port of Vancouver can be very bright indeed. Opportunities are limitless if only all vital elements of the Port community work together effectively, and if governments will recognize what a tremendous asset this Port represents, he said.

After military service as an engineer officer in the Dutch Army in the Caribbean and Southeast Asia, Mr. Spoke came to British Columbia in 1951. Over the period until 1967, he participated at a senior administrative level in many projects connected with hydro and thermal electric generating development and the pulp and paper industry expansion.

In 1967, he moved to Rotterdam, the largest port in the world. He completed, first, a very extensive building program for the University of Rotterdam and then joined the Port as Deputy Managing Director, a post he held for

four years.

He is a member of the Association of Professional Engineers of B.C., The Engineering Institute of Canada, and a number of national and international associations and councils. In 1979, Mr. Spoke was appointed to the Executive Committee of The International Association of Ports and Harbours—the most influential international port organization. In 1981, he was elected a Vice-President of the I.A.P.H.

Mr. Spoke has served also on the Vancouver Economic Advisory Commission, an advisory body to the City of Vancouver Council.

Roberts Bank work progresses: Port of Vancouver

In accordance with environmental regulations, the dredging of the enlarged ship basin at Roberts Bank and reclaiming of land for additional terminals was halted during the summer months.

This was considered necessary by the Department of Fisheries & Oceans in order to prevent potential harm to the large schools of coho and pink salmon fingerlings which inhabit the area during the summer, as well as to prevent the possible loss of crab larvae which is produced in the area between the two causeways during early summer.

After permission was received from Fisheries to commence dredging in early August, the strike of construction unions delayed a start on the work until early September. Since that time, much has been accomplished and the site for the last two terminals has risen well above water level using material dredged from the enlarged shipping basin.

At the same time, Westshore Terminal's construction of a large new berthing pier offshore of its terminal and the concrete foundations of that company's new tandem rail car dumpers has continued. The latter is nearing ground level, rising from its base 65 feet below.

In the meantime, the design of a substantial breakwater to provide safe moorage for the tugs used to assist berthing of vessels, and of buildings to house the Port's facilities on the site, are both proceeding.

It is hoped that winter storms, which plagued the progress of dredging last year, will be minimal this winter to enable the dredges to complete their work by the end of February, 1983, and thus allow considerable additional work on roads, rail and other facilities during next spring and summer.

U.S. port authorities: AAPA

For a foreign visitor, even one knowledgeable in port affairs, the U.S. port system appears to be anything but a system. In most countries, port affairs are centralized under the auspices of a national port authority. In others, there may be a combination of national and locally-operated or autonomous ports. In general, however, the patterns are clear and lines of authority and divisions of responsibility are easily discerned.

The United States, however, is unique in many ways. The first consideration is simply the size of the industry itself—189 commercial ports located on the Atlantic, Gulf and Pacific coasts, and on the Great Lakes, in addition to Hawaii, Guam, Puerto Rico and the Virgin Islands. Second is the fact that historically, port development and operation in the United States has been a local or state function. Port

authorities themselves reflect the varying statutes, regulations and political propensities of the individual states. What this means is that there is considerable variety in the structure, powers and even the purpose of port authorities in the United States.

That complexity becomes evident just in looking at the 80 port authorities that comprise the U.S. corporate membership of the American Association of Port Authorities. Some are administrative divisions of state government. Others are in effect public corporations set up under state law and directed to develop specific port areas in the public interest. Some are state port authorities with responsibility for the several ports that may lie in a given state. In other instances, states have created port administrations that are basically political subdivisions of the state, frequently called navigation districts, which like other such subdivisions (e.g., school districts or townships) have the power to tax and float bonds. In addition there are county and municipal port departments and, to further complicate the picture, bi-state port authorities with jurisdictions covering two states.

In the North Atlantic, the preference appears to have been for public corporations, state port administrations and bi-state ports. State port authorities are most common in the South Atlantic. Independent navigation districts are particularly popular in the Gulf and Pacific Northwest, while municipal port departments are favored in California.

Another indication of complexity of the U.S. port industry is the way in which the various types of port authorities are administered or held responsible to the public. Most U.S. port authorities (though there are exceptions) are governed by a board of commissioners (or directors) which oversee port policy and operations as custodians of the public interest. But among the 80 U.S. member port authorities, most boards (48 to be precise) are appointed, usually by a governor (sometimes with the advice and consent of the state legislature), mayor, city council or county commissioners. Twenty-two boards, however, are elected by local voters. Nine have no board whatsoever. Elected boards are most common among independent navigation districts. On the other hand, state port authorities and other state-chartered port corporations are generally appointive. Typically, state port departments do not have a board of any sort. An idea of what the pattern is like across the country, at least among AAPA member ports, is shown in the table below.

U.S. port authority commissioners/directors

	Appointed	Elected	Elected/ Appointed	No Commissioners/ Directors	Total
North Atlantic	8	—	—	5	13
South Atlantic	5	2	1	2	10
Gulf	12	6	—	2	20
South Pacific	10	2	—	—	12
North Pacific	3	12	—	—	15
Great Lakes	10	—	—	—	10
Totals	48	22	1	9	80

The AAPA research staff is planning to collect the

enabling acts, charters and other such documentation for a volume that will be used to illustrate the varying nature of port administration in the U.S. Such a document should be useful to the members, to entities thinking of forming port authorities of themselves and for insights into the nature of public administration in the United States. We will be calling on you for assistance in this endeavor sometime in the immediate future. We think it is a promising project and hope we can count on your cooperation.

Port of Baltimore import car activity remains constant despite 1982 recession

Import automobile activity in the port of Baltimore during 1982 kept pace with the strong volume it reported in 1981, despite a world recession and sagging automobile industry, according to statistics released by the Maryland Port Administration.

A total of 236,627 cars were imported over Baltimore piers in 1982, the MPA says. This was a less than 1 percent decline from the 238,358 vehicles which were imported via the port in 1981.

By comparison, Jacksonville, the leading American port for import of cars, handled a total of 296,970 vehicles during 1982, a decrease of nearly 4 percent from the number of automobiles it handled in 1981. Los Angeles, a major West Coast automobile import center, handled 109,587 cars during 1982, less than half the number handled by Baltimore, the MPA says.

1982 foreign commerce in Port of Baltimore projected to reach 32, 632, 100 tons

Foreign waterborne commerce in the port of Baltimore during 1982 is expected to reach 32,632,100 tons, according to statistics prepared by the Maryland Port Administration. Comparable import-export trade in 1981 was 34,344,322 tons.

The cargo figures were reported by the MPA as a yearend statement and are based on partial actual monthly statistics, and projections for the remainder of the 12-month calendar period.

Container cargo, long a preeminent Baltimore cargo category maintained a volume similar to that which was reported in 1981. Total container cargo, both foreign and domestic, will amount to 4,320,000 tons in 1982. Container cargo handled by Baltimore in 1981 reached 4,346,350 tons.

Despite the fact that portwide container statistics remained virtually unchanged, there was an almost 10 percent increase in this business at MPA-owned facilities—from 3,316,600 tons in 1981 to an estimated 3,627,000 tons in 1982. Container traffic on privately-owned terminals dropped from last year's 1,029,750 tons to a 1982 estimated 693,000 tons, a decline of 32.7 percent.

The 1982 yearend statement makes these statistical conclusions:

** Total foreign commerce volume down 5 percent.

** Import cargo volume down 11.5 percent.

** Export cargo volume down 1.1 percent.

** Total bulk cargo in foreign commerce down 6

percent.

** Total general cargo in foreign trade down 4.8 percent.

Grain trade registered a healthy gain of 18 percent, according to the projections. The substantial boost in grain shipments during the year resulted in a slight increase—0.06 percent—in the port's export bulk category.

On the other hand coal was down to 11,754,168 tons from last year's high of 12,869,914 tons; ore imports were down to 5,595,700 tons from 6,524,612 tons; and petroleum declined to 1,350,000 tons from 2,113,665 tons. In total, all bulks in 1982 were down to 27,381,600 tons from 28,756,187 tons in 1981.

Total export-import general cargo of all kinds in 1982 amounted to 5,250,500 tons, of which 3,390,300 tons will be carried as container business. The total represents a decline of 6 percent from last year, although the foreign container business registered a 2.1 percent improvement. Furthermore, the port's portion of container cargo against total general cargo reached a healthy 64.5 percent, one of the highest ratios among the leading ports of the world.

W. Gregory Halpin, Maryland Port Administrator, said that the cargo figures reaffirm the port of Baltimore's ability to limit cargo losses during a time of severe worldwide recession in international trade. The figures reflect well on Baltimore's stature as a leading American port, he said.

"I think there must be a message to be noted about these container tonnage statistics", Mr. Halpin observed. "The fact that MPA facilities showed an improvement in cargo handling in a declining portwide market, has to say that we have been doing something right in our facility development programs over the years.

"Also, the fact that container foreign commerce continues to grow in the port of Baltimore attests to the fact that we are a preferred shipper's gateway, that container goods traffic still prefers Baltimore to many of our competitor ports", he said. "This bodes well for the port in the years of world economic recovery ahead", Mr. Halpin predicted.

"When 10 percent of the American work force is unemployed, and there is similar or worse unemployment in other parts of the world, the demand for goods declines", he said, "when people buy less because they are living on unemployment payments, it lessens demand which further lessens production. When worldwide consumption is down, worldwide trade is down.

"Baltimore in 1982 withstood the recession better than most global ports, he said. "A look at the big four bulk commodities tells the story of 1982. Import ore and petroleum shipments are down because industrial production is down in the United States so there is less need for raw manufacturing materials and the fuel to generate plants. Export coal is down because manufacturing plants in Europe and Asia are not operating at former levels and also need less fuel.

"Only grain, whose market is determined by overseas agricultural production and consumption, is on the incline because of foreign crop failures and new international export grain agreements made by the U.S. government", he explained.

A total of 3,501 ship arrivals were recorded during the year, 272 less than in 1981. Also, 2,368 ships traversed the Chesapeake and Delaware Canal in 1982, or 154 less than

the previous year. The declines were 7.2 percent and 6.1 percent, respectively.

Two highlights of 1982 for the port were the completion and opening of the giant Berth 13 at Dundalk Marine Terminal in October. This new facility with two new container cranes and over 30 acres of backup space added a 750,000 ton annual container capacity to the terminal, and is the last major construction project to be made operational at the facility.

Also, at about the same time of year, phase one of the project to construct a spoil disposal facility at the Hart-Miller Island site was completed. The entire project should be completed by the end of 1983, by which time it is hoped that a solution to the national dredging impasse will have been found by Congress and the long-awaited Baltimore channel deepening and widening can commence.

During the year the placing of more than 3.3 million cubic yards of the Fort McHenry harbor tunnel dredge spoil in a landfill area along the Canton Seagirt waterfront was completed creating a 146-acre enclosure. This site will be converted before the end of the 1980s into a new container terminal with an estimated capacity of 2.25 million tons of cargo annually.

"All in all, despite the current temporary declines, the port of Baltimore's present is far from alarming, and its future is bright, indeed", Mr. Halpin said.

Baltimore Maritime Exchange monitors Port's vessel activity

Nearly 4,000 merchant ships call the port of Baltimore each year. The job of tracking them belongs to the Baltimore Maritime Exchange.

The Maritime Exchange, an information resource agency, compiles a list of vessel arrivals and departures each day. Its data, which includes weather reports, is made available by telephone request and in a print format to 165 persons who pay an annual \$200 membership fee for it. All of the agency's information is continuously updated.

The Maritime Exchange's four employee staff works from a Recreation Pier office on the historic Fells Point waterfront. Daily contact with incoming ships prior to their arrivals in port is maintained by radio transmission using a rooftop antenna and one located high atop the Chesapeake Bay Bridge, 400 feet above water.

The agency's services are important to private port operators since efficient dockside cargo handling is dependent on accurate berth scheduling, says Joseph Rafferty, director of the Maritime Exchange.

"Our radio transmits to give optimum turnaround time", Rafferty says. "We save steamship companies thousands of dollars by providing accurate ETAs at a reasonable price. We also publish a report of vessels due to arrive in port the following week. In it we list each ship's name and its Baltimore agent".

To gather information on ships beyond its radio range, the Maritime Exchange works with the U.S. Army Corps of Engineers and the Association of Maryland Pilots. The Corps of Engineers supplies the agency with data on ships entering and leaving the Chesapeake and Delaware Canal, while the Maryland Pilots Association telephone information about ships steaming their way up the mouth of the

Chesapeake Bay near Cape Henry. The Maritime Exchange receives this synopsis four times daily.

The informational services provided by the Maritime Exchange are not confined to use by commercial port interests. The agency, for instance, played a major role in Baltimore's Bicentennial Celebration when it kept the city's Tall Ships Committee apprised of each tall ship's longitudinal and latitudinal coordinates as it made its way to the Inner Harbor. The information was helpful in arranging aerial photography of the entire Tall Ship armada.

The Maritime Exchange also once obtained emergency medical treatment for an ailing crewman after receiving a late-night radio request for assistance from the crewman's ship. The agency contacted the U.S. Coast Guard and other medical organizations, thus preventing the crewman's illness from worsening.

Perhaps the most unusual telephone requests for vessel docking information come from prostitutes, Rafferty says. Since prostitution is illegal in the State of Maryland, the Maritime Exchange refuses to release the information in these instances. Proficient telephone screening is necessary, Rafferty says, because the prostitutes are clever and wily in seeking data on a ship's whereabouts.

"They use children to make the calls", Rafferty says. "We know its them because we hear them coaching and prompting the kids in the background".

The Baltimore Maritime Exchange was formed in 1797 when David Porter, a retired sea captain, first started spotting ships with a telescope from Federal Hill. Porter used to raise the flag of each vessels steamship company as it entered the port as a signal for the city's Custom House to begin merchant bidding on the ship's cargo. Until 1964, the Maritime Exchange operated in a similar manner to Porter, using a 46-inch telescope at Northpoint to spot incoming ships.

This procedure was modernized with the erection of a radio tower near the Bay Bridge and the increase of its transmission with construction of an actual antenna atop the bridge six years ago. Today the 84-year-old telescope formerly used at Northpoint sits on a shelf at the Maritime Exchange office—a constant reminder of the agency's progress and expansion.

Export firm act praised as boon to trade: Richard L. McElheny

With the recent passage of the Export Trading Company Act, there could not be a "more exciting time" than now to be involved in international business.

Richard L. McElheny made this observation during a recent speech before the Houston chapter of the International Transportation Management Association.

McElheny is the director general of the International Trade Administration, U.S. and Foreign Commercial Services. The International Trade Administration is an agency of the U.S. Department of Commerce. McElheny reports directly to the Secretary of Commerce, who reports to the president.

The U.S. and Foreign Commercial Services has more than 450 domestic trade offices, with one in Houston, and approximately 700 overseas offices. The field representatives are responsible for such duties as counselling small and

medium-sized businesses on how to get involved in international trade.

McElheny said the offices worked with 5,000 small and medium-sized companies last year. The foreign trade those companies were responsible for totalled approximately \$1.5 billion in 1981, creating 46,000 jobs, he said.

Such figures, McElheny said, help explain why U.S. exports have increased, even in the face of a weak economy. But, he noted, the volume of merchandise trade has dropped. America's export trade is accountable for approximately 10 million jobs, McElheny said, and when the merchandising market declined 12-15 percent last year, 2 million jobs were lost. If the market would not have dropped, then the current unemployment rate could be at 8 percent, he said.

Working Americans have a great deal of pride in their work, McElheny said, but American products get beaten out in international competition. He quoted a Washington Post survey that concluded the countries that are doing the beating are the ones found to have less pride in their work than Americans do.

To capitalize on international business, the U.S. must remove structural trade barriers that prevent American companies from competing with foreign countries on equal terms, McElheny said. He said President Ronald Reagan's tax incentive program and accelerating the rate at which capital improvements can be depreciated are steps in the right direction.

The U.S. Department of Commerce will help promote change by maintaining its position for free and open markets, he added. McElheny stressed that government, management and labor must work together to solve mutual problems.

Such actions are evidence that America is beginning to knock down structural trade barriers that McElheny said other countries eliminated decades ago. He feels the Export Trading Company Act is the legislation that will give American companies the statutory freedom needed to compete with foreign countries in the world trading arena.

The bill allows banks to be partners in an exporting company, allowing businessmen to obtain that all-important financial backing in the form of a partner. McElheny said the U.S. was the only country that had precluded banks from forming export companies.

Anti-trust immunity also has been extended under the law to exporting companies. Firms can now join forces with other companies, perhaps ones with international trading experience, and zero in on foreign markets.

Or, small companies could join with banks and form an export company. Research and development manpower could also be shared, McElheny said.

The business opportunities that will open up with the passage of the law will be limitless, he said. As long as a partnership does not restrict domestic commerce, McElheny said, then there will be no anti-trust problems. (*Port of Houston Magazine*)

CE Maguire preparing master plans for \$150 million Jacksonville Port expansion

CE Maguire, the international architectural, engineering and planning firm, an Associate Member of IAPH, recently

announced completion of a preliminary phase of a master plan for a \$150 million dollar project to upgrade and expand the Port of Jacksonville, Fla. The plan was commissioned by both the Jacksonville Port Authority and the City of Jacksonville Planning Department.

"This Jacksonville assignment demonstrates our capability as a total services engineering company in planning, designing and implementing transportation and port facility projects of considerable size. The Authority's consideration to upgrade their facilities is part of the growing national recognition that we need to maintain, and in some cases, substantially upgrade the nation's ports, highways, bridges, roads and waste facilities", said John L. Slocum, president, CE Maguire.

Maguire forecasts that increased port traffic by the year 2005 will necessitate extensive engineering improvements and capital expenditures for the port, the largest of its kind for importing automobiles into the United States.

The plan proposes diversification of port facilities to accommodate modern container and other unitized general cargoes to supplement Jacksonville's traditional capabilities for automobiles and liquid and dry bulk cargoes.

Export business continues strong at the Port of Charleston



A prime example is this group of 21 locomotives and 42 trucks awaiting shipment to Casablanca on a Lykes Line vessel. Staged at the South Carolina State Ports Authority's Columbus Street Terminal, these locomotives ranged from 115,000 to 153,000 pounds each. Built by the Electromotive Division of General Motors Corp., these units are part of a project involving several shipments.

Major projects for South Carolina State Ports Authority

Two major capital improvement projects have been authorized recently by the State Ports Authority governing board. One is the purchase of a \$2,437,067 crane and the other doubling the size of the Wando Terminal container freight station.

The 150-ton gantry crane, being constructed by American Hoist & Derrick Co., St. Paul, Minn., will be erected at Columbus Street Terminal. An existing 30-ton gantry there will be moved to Union Pier, said Executive Director W.

Don Welch.

When completed next September, the new crane will provide Columbus Street with long-needed intermediate heavy-lift capability. Presently, the terminal's biggest gantries are 75 and 50-ton units which occasionally must be "married" for cargo handling. The famous 400-ton "Monster" nearby, a fixed, shear-leg derrick, is ideal for lifting equipment weighing more than 150 tons.

The Wando freight building, completed early this year but rapidly being outgrown, contains 93,840 square feet of enclosed space. The 782' x 120' container stuffing and stripping facility also provides an additional 19,550 square feet under a 782' x 20' covered platform.

A \$2.75-million project, the freight structure expansion is under contract to Poinsett Construction Co. of Greenville, the low bidder. Upon completion, that concrete-and-steel building will be the SPA's largest, stretching 1,564 feet in length.

At its October 13 meeting, the SPA board employed Goldman, Sachs & Co. of New York to arrange a revenue bond sale. The issue of approximately \$10.5 million, expected to be marketed in December, will complete the financing of the Wando Terminal Project.

The authority was authorized in 1980 to issue \$24 million in bonds but instead issued bond anticipation notes in January, 1981. The notes were renewed last January in the amount of \$20 million, the other \$4 million being retired.

Construction cost savings and deferring the rail ferry system at the Wando reduced the bond funding need to the \$10.5 million level. The board will decide this month the amount, interest rate and duration of the issue.

Long Beach Harbor wins AAPA Awards



Winning the Award of Excellence for Annual Reports and also for Slide Presentations designed for a general community audience, the Port of Long Beach has taken top honors in two categories of the American Association of Port Authorities' annual Communications Competition, following judging of over 100 entries in New York. Pictured from left are Clovis Putney of Garrison-Putney Productions, who produced the Port's new 17-minute multi projector slide presentation, Long Beach Harbor Commission president Richard G. Wilson, Chuck Davis, president of Davis & Associates who produced the winning annual report and Donald C. Fleming, Port Public relations director.

New warehouse for general cargo: Port of Mobile

The Alabama State Docks is noted for the speed and efficiency with which it moves both export and import cargo from shipper to destination. With convenient dock-side rail tracks and truck lanes, cargo can be transferred from incoming vehicles directly to waiting ocean-going vessels.

However, shipping schedules and other logistical matters many times require that cargo be left in storage to wait for the arrival of transportation. To more efficiently accommodate general cargo that must be stored, the Alabama State Docks is in the midst of a massive effort to upgrade existing warehouses and to build new ones.

A modern 37,000-square-foot warehouse to store Alabama lumber products was completed in 1978 and a huge warehouse facility encompassing some 94,000-square-feet was put into service in 1980.

Now the State Docks has taken another significant step forward with the awarding of a contract to construct a modern 100,000-square-foot warehouse at Pier South A.

The new warehouse will replace what veteran waterfront observers say is the oldest warehouse structure at the State Docks, a building completed in the 1920's. Total cost for the work will be about \$2 million, including electrical service for the facility.

The warehouse will be 500 feet long and some of the existing outside walls will be used to build the new structure. The south wall, which faces the water, will be moved back to provide a 70-foot apron between the warehouse and the berth. To save on construction costs, existing foundations and concrete floors will be utilized.

The new structure will be modern in every way. New power and lighting systems will be installed, sprinklers for fire protection will be provided, and translucent upper panels will be utilized to take advantage of sunlight. The new warehouse is expected to take about nine months to complete.

State Docks Director Robert M. Hope explained that the current warehouse project is part of the Docks' long-range program to modernize the entire Wharves and Warehouses operation. He pointed out that over \$16 million has been spent in the last ten years on major repair work and new construction in the general cargo area.

The director said an additional \$4.3 million has been invested in machinery and materials handling equipment during the same period, bringing the total expenditure to more than \$20 million. This figure does not include the \$2 million for the current project which is being financed with State Docks income from operations. Plans are already underway for rebuilding three warehouses at Pier South B at an estimated cost of about \$4 million.

The 100,000-square-foot warehouse facility completed in 1980 at Pier South C consists of a 67,000-square-foot warehouse and 27,000-square-foot railroad service shed. The modern structure which is similar in design to the new warehouse to be built at Pier South A was constructed at a cost of \$2.3 million. The funds also came from operational revenues.

The all-metal 37,000-square-foot warehouse completed in 1978 was constructed specifically to accommodate Alabama lumber awaiting export to foreign markets. Prime

areas for the state's forestry products include Puerto Rico, the United Kingdom and Scandinavia. The lumber warehouse is located behind Berths 7 and 8.

Demand for warehouse space at the Alabama State Docks is expected to escalate with completion of the Tennessee-Tombigbee Waterway in a few years. The current program is designed to provide the necessary space for water-way shippers utilizing the Tenn-Tom.

New Orleans port officials, freight forwarders discuss means of increasing cargo

The Port of New Orleans as part of its ongoing effort to improve foreign trade through the Port is establishing closer working relations with foreign freight forwarders and customhouse brokers in New Orleans. At the invitation of the Port a number of representatives of forwarders and customhouse brokers met with Port officials to discuss how to move more cargo through the Port.

There was agreement that there needs to be stronger communication links between the freight forwarders and Port officials. One proposal that had general approval was the formation of a liaison committee that would meet on a regular basis. Other proposals were to encourage Port sales representatives to consult with forwarders before and after calling on Port accounts and to arrange for forwarders to participate more directly in regular meetings of the Board of Commissioners.

Edward S. Reed, executive director-general manager, Port of New Orleans, pointed out that "the Port wants to be guided by industrial support or opposition to its plans and proposals".

Reed and other Port officials reviewed the Port's program to improve its facilities. They noted that \$125 million was spent between 1976 and 1981 plus \$35 million in 1982 to build new wharves and reconstruct and renovate others both on the Mississippi River and in the tidal area served by the Mississippi River-Gulf Outlet (MRGO).

Currently the Port is building its new Jourdan Road Terminal at the junction of the Industrial Canal and the MRGO. The first two berths with a 144,000-square foot transit shed will be completed next May. There will also be a ten-acre backup marshalling area. The long-range program calls for a total of ten berths to be built within ten years to handle general cargo, containers, and ro/ro ships.

Plans for the Port's new foreign trade zone, to be located on approximately 75 acres directly north of the Jourdan Road Terminal, were outlined. The land was obtained from the city of New Orleans on a 99-year lease at the rate of \$1 a year. Bids are being received by the Port from private developers, and the selection of the company that will develop and operate the zone for the Port will be made in November. The new zone, which will replace the present 18-acre zone, will be large enough to permit the establishment of manufacturing operations of many types.

Plans were also described for the construction of a steel-handling terminal at Paris Road on the south side of the MRGO, using land purchased by the Dock Board in the 1950's. The purpose is to increase movement of steel cargo, particularly tubular products, through the Port. A large amount of imported steel that needs to be processed before final delivery is now being shipped to other ports

where processing plants exist. Adjacent to the proposed terminal are several hundred acres of land available to steel companies, which have expressed interest in establishing processing plants there. Large quantities of processed pipe, for example, are shipped to the Louisiana offshore oil and gas industry, and the Port anticipates that it could capture much of that cargo.

Port officials stressed that the Mississippi River wharves would not be neglected. They noted that the next major project would be to tear down the old Desire, Congress, and Pauline Street wharves and build a new major terminal at Desire.

The group was also told how the Port's new computerized information system will be used to increase cargo through the Port. The Port's top 200 accounts have been identified and are being analyzed to indicate how cargo can be handled more economically and expeditiously. Top accounts at competing U.S. ports will also be identified and analyzed to determine what cargo could be attracted to the Port of New Orleans.

World Trade Institute seminars: Port Authority of NY & NJ

Problem-solving approaches in international business operations will be the theme of new topics to be examined among the more than 100 seminars and conferences scheduled from January through July 1983 at the World Trade Institute, it was announced recently by The Port Authority of New York and New Jersey.

The programs will be held in New York in the 55th Floor meeting rooms of the Institute at One World Trade Center, in addition to Chicago, San Francisco, Houston, Boston, Dallas, Atlanta and other U.S. cities.

With the help of special advisory committees, the Institute has identified subject areas of major concern to international companies and has prepared seminars which will develop appropriate responses to their needs.

The seminars, most of them intermediate or advanced in nature and content, are taught by active practitioners from the various fields, and are geared to the needs of corporate executives, bankers, lawyers, accountants, and other professionals in international business and finance.

The World Trade Institute also conducts an Evening School of World Trade, geared since 1952 to provide understanding of documents, transactions, terms and policies in international trade operations and ocean transportation; a Language School, with 12 languages taught in regular and intensive courses, plus individual and on-site training; an Export Development and Information Group, with training and consultative services for developing countries under a grant from the United States Agency for International Development; and a worldwide business information service.

For copies of the complete catalog, with details on the January-July 1983 programs or for brochures on individual seminars, contact the Institute at (212) 466-3161, or write Information Department, The World Trade Institute, One World Trade Center, 55th Floor, New York, New York 10048. It is advisable to identify specific topics of interest, as new seminars are continually added to those described in the catalog. Individual brochures for upcoming

meetings will be forwarded along with the catalog.

Port of New York, New Jersey to get 20th Paceco portainer* crane



The Port of New York, New Jersey will soon have its 20th PORTAINER Crane in operation. The port's first PORTAINER Crane has been in operation since 1966.

The giant PORTAINER Crane was recently barge shipped from PACECO's manufacturing facility near Gulfport, Mississippi to the Universal Maritime Services Terminal at Port Elizabeth, New Jersey. This is the 291st PORTAINER Crane to be built by PACECO INC. and the fifth to be purchased by U.M.S..

A unique new and cost saving feature of the crane is its coating. It is one of the world's first container cranes to be blasted (steel shot) painted and cured in a completely controlled environment. Such exacting temperature and humidity control during application and curing will result in an extended coating life; up to twice that of field applications.

The modified A-Frame crane is rated at 40 long tons and is equipped with an articulating box girder boom to meet height restrictions.

Sea-Land's 20 years at Oakland celebrated

Sea-Land Service, Inc., introduced the concept of containerization at the Port of Oakland in 1962.

Following parallel courses over the past 20 years, Sea-Land and the Port of Oakland are today in the forefront of world containerization.

To celebrate the 20th anniversary of that successful association, the Port of Oakland made a presentation to Sea-Land at the Sea-Land Terminal on last November 17.

Herbert Eng, President of the Oakland Board of Port Commissioners, said the Port of Oakland honored Sea-Land for the 20 years of "outstanding service and successful operation as a pioneer in containerization".

"Since its opening in 1962, with 11 acres, one berth, and no container cranes, Sea-Land has grown to become the largest single facility at the Port of Oakland, covering some 65 acres, with two berths served by three container cranes".

"Over the same period, the Port of Oakland has grown to become the largest container port on the United States West Coast and among the top ten in importance in the

world”.

“Sea-Land has extended the operating agreement for its facility at the Port through March 31, 2000”.

“We are proud of our long and continuing association with Sea-Land and wish the company continued success in the years ahead”, Eng said.

Sea-Land employs a fleet of 10 energy-efficient, diesel-powered D-9 containerships—first introduced in 1980—on the Oakland-Far East route on a twice weekly frequency.

And all export cargo for Sea-Land’s micro bridge service between a dozen key inland American metropolitan centers and seven Far East countries funnels through the Oakland terminal.

Expanded four times over the past 20 years, the Sea-Land facility in Oakland now embraces three office buildings, two maintenance garages and 76,000 square feet of maintenance, warehousing and consolidation facilities.

The Sea-Land facility is also the site of a novel crane transfer system that makes it possible to move container cranes around a 60-degree corner between the Sea-Land facility and adjacent Berth 6. The giant crane turntable was first used to move one of four container cranes from the Sea-Land facility to Berth 6, expediting the operation of that terminal in December 1978.

Sea-Land employs 375 full-time employees at the terminal and downtown Oakland offices. In addition to its own staff, Sea-Land draws upon a large labor force of longshoremen, seamen, shipbuilding and repair and truck and rail services.

Sea-Land is today the world’s largest ocean-borne containerized freight carrier.

American President Lines expands 45-foot container inventory

American President Lines will increase its inventory of 45-foot containers by 180 percent in the next six months, in order to meet the needs of full- and less-than-containerload customers throughout North America and Asia.

The company’s stock of the extra-long, high-cube (9’6½”) units will reach 2050 by mid-1983.

At the same time, APL will increase its inventory of supporting chassis for the containers from 444 to 1238 units.

T.J. Rhein, APL vice president, marketing, said the success of the company’s pilot program with the 45-foot containers, coupled with studies showing growing demand for them, encouraged APL to expand its inventory.

The 45-foot containers can hold 27 percent more cargo than a standard 40-foot container. Because the inland transportation costs of moving containers are primarily determined on a per-unit basis, the larger vans result in reductions in drayage and rail charges.

These savings are particularly significant on full-containerload shipments of OCP (overland common point) cargo, where the customer can directly benefit from the lower per-unit cost of transporting the longer containers, and by eliminating transloading charges.

Inventory costs can also be reduced, through the more efficient movement of larger volumes to distribution centers, coupled with fast, reliable intermodal transport.

The longer container has been fully approved and meets all road and rail standards in the 48 contiguous states and in Canada. In Asia the 45-foot unit has been approved for use

in South Korea, Taiwan, the Philippines, Singapore, Macau and at APL’s CFS operation in Hong Kong.

The first production 45-foot containers moved from Keelung, Taiwan to the U.S. East Coast in late February, 1982. Total transit time for this combined ocean and rail service is only 20 days.

Ocean Terminal status report: Georgia Ports Authority

A central part of Georgia Ports Authority’s master terminal development plan involves consolidation of Savannah breakbulk operations at Ocean Terminal. This ambitious \$67 million plus investment will ultimately permit rededication of outmoded breakbulk facilities at Garden City Terminal to container operations. The overall goal is to achieve the utmost in centralized inventory and control, equipment deployment, and manpower utilization.

Work has begun on two of the major projects comprising the overall Ocean Terminal renovation. The first involves the conversion of slip one to a two berth, 800,000 square foot transit shed complex. The unused slip will be dammed, drained, and paved over to provide space for 1,100 feet of berthing with 200 foot margins plus the covered storage area. The configuration of the berths will permit them to be served by four of Ocean Terminal’s gantry cranes ranging to 175 tons in individual capacity.

The first phase of the slip I project involved the demolition of existing transit space back to the point where the dam across the slip will be constructed. The old decking will now be stripped back to permit construction of the foundation for the margins. When this work is complete, a new dock facing will be installed, and the berth will be available for use in early 1984.

The remainder of the project involves superficial repairs to the newer transit shed adjacent to slip 2, and construction of an adjacent shed over the existing track well. Next, older transit spaces will be demolished and a new building will be erected from the track well across the site of the old slip to the edge of the new berth. The construction timetable is designed to keep a sizable chunk of old or new transit space operational at all times to eliminate undue impact on day-to-day operations. The complete facility will be ready in 1985.

Site preparation has begun for construction of a third 200,000 square foot warehouse at Ocean Terminal. Pre-consolidation of surcharge material is underway to compact the site to make it suitable for construction. Given adequate time for settling, this method is more economical than mucking out or construction on piles and produces a more uniform base. Warehouse 3 will be available by mid-1984.

Plans also call for the construction of a fourth warehouse by 1985. However, emerging operational requirements may push the schedule forward so that it will be built simultaneously with #3. It will also be a 200,000 square foot structure providing Ocean Terminal with 1.3 million square feet of modern, high cube warehousing to back up the over 1.1 million square feet of transit space.

Other improvements at Ocean Terminal will include relocation and expansion of several existing transit sheds, paving of 50 acres of open storage, and provision of additional lighting. Development of the recently acquired 100

acres of land adjacent to the terminal will also begin in the near future.

During the intermodal era, many port growth in container volume has come at the expense of breakbulk tonnages. In Savannah, breakbulk numbers have actually risen since our entry into the container business. This phenomenon is due primarily to three factors. First, many of the breakbulks traversing Savannah's docks do not lend themselves to containerization—steel, machinery, forest products, etc. Secondly Savannah's reputation for breakbulk handling is unexcelled. Finally, the Port of Savannah has always responded to changing trade demands with the finest in facilities and equipment. The Ocean Terminal improvements reflect what our marketing analyses say about the future of the breakbulk business in Savannah, and they continue our tradition of timely, effective response.

Industrial Development Bonds encourage business expansion: Port of Seattle

By Warren Mantz

The Port of Seattle is actively helping businesses secure lowercost financing through an industrial development program that, at no cost to taxpayers, encourages construction of new or expanded facilities while providing lenders with tax-free interest.

The result should be an expanded local tax base and an increase or savings in jobs.

The Port is able to do this through a procedure approved by Washington State voters and the state Legislature in 1981. Now cities, counties and ports can provide "conduit financing" for industrial development facilities by certifying that the financing is for beneficial economic purposes that qualify for federal tax exemptions.

Procedures and safeguards established by legislation

The voters approved a constitutional amendment that permits issuance of bonds whose interest is sheltered from federal income taxes. The Legislature spelled out the procedures and safeguards that make the bonds an obligation only of the borrowers and not of the issuing agency nor the taxpayers of its district.

"The total credit behind the thing is the (borrowing) company's credit and whatever security it puts up", said Don Holman, of Preston, Thorgrimson, Ellis and Holman, the Port's bond counsel.

Certification and issuance of the bonds by the Port of Seattle is through a public corporation, the Industrial Development Corporation (IDC) of the Port of Seattle. Port Commissioners constitute the board of directors for the Port of Seattle's IDC. (The entity that sets up such a corporation—IDC—must approve its actions and supervise its financial arrangements.)

Project criteria

Unless the facility being financed is to provide energy to or dispose of solid waste from the residents of the district, it must be built within the district. So the facility and its operations are subject to local taxes and its jobs are accessible to local residents.

The state limits projects to those facilities in manufac-

turing, processing, production, assembly, warehousing, transportation, pollution control, solid waste disposal and energy. No retail stores or fast-food outlets would be eligible, for example.

The Industrial Development Corporation of the Port of Seattle adds the following criteria:

The corporation will consider only projects and proposals which will further the purposes and objectives of the Port of Seattle.

Bonds will be issued only for the financing of projects which broaden and strengthen the economic base of the Port District by enhancing trade and the movement of passengers and cargo by air or sea.

Those projects may include development or improvement of marine terminals and airport facilities, or which enhance trade via port-owned or operated airport and marine facilities; or which enhance or promote the Port's Comprehensive Scheme; or directly support and assist the movement of passengers and cargo by air or waterborne transportation, including aircraft and ship construction, repair and cargo-handling facilities, and connecting surface transportation facilities.

The corporation will not consider projects or proposals that:

- Unnecessarily or unjustifiably subsidize users: a reasonable need must be shown.
- Upset the balance of competition or create unfair competition.
- Duplicate adequate existing facilities.
- Are proposed by others than the directly interested party; are proposed by someone without a sound operating and financial history, or are not authorized by applicable laws.

If the application satisfies the IDC board, the board adopts a resolution taking "official action" on it. This qualifies any expenditures made after that date for tax-exempt status, but the action is not final approval for the project.

State and local approvals needed

The application and supporting documents must go to the State Department of Commerce and Economic Development, which must certify that the project meets the requirements of the law. The local governing agency with planning jurisdiction also must give approval.

After financial arrangements have been made with an underwriter or lender, who is satisfied that the project is financially sound, the Port Commission again must give its approval before bonds can be sold. When the industrial development corporation issues the bonds, it certifies they meet Internal Revenue Service requirements for tax exemption status.

Six projects could create several hundred jobs

As of October 1, the Port of Seattle's public corporation had taken "official action" on six applications. Of the six, only one had reached the stage where financing had been arranged.

That was the Douglas Management Co./Lynden Transport, Inc. transshipment center at Kent, which will cost an estimated nine million dollars, seven million of which will be financed by tax-exempt bonds. It will create 60 to 100 jobs.

Bond proceeds will provide \$15 million toward the \$31.7 million Todd Pacific Shipyards drydock and yard improvements project, which Todd is counting on to maintain its employment as Navy guided-missile-frigate contracts wind down, saving several hundred jobs.

Of the \$20-\$25 million involved in Marine Power & Equipment Co.'s plans, \$14.5 million would come from tax-exempt bonds. The firm plans to buy and develop a 15-acre Duwamish River tract and improve its Fox Avenue and Northlake Shipyards. An estimated 300 to 400 jobs would be created.

The Dearborn Terrace warehouse and assembly plant project would create an estimated 18 jobs. Some \$450-500,000 in bond financing would assist the \$850,000 development.

Three hundred jobs is the estimate for a warehouse office complex to be created by David A. and Sandra L. Sabey from the old Container Corporation of America building adjacent to the Port of Seattle's Terminal 106. A bond issue of \$2,995,000 and an Urban Development Action Grant of \$600,000 will assist the \$4.2-million project. The City of Seattle, which does not have a public corporation, urged the Port to consider the development.

Beloit Manhattan, Inc., producer and repairer of paper-processing equipment, plans expansion and improvements which will retain 43 jobs and create 28 more. The Port's IDC Corporation will issue \$10 million in bonds.

For clarification, it should be noted that state law defines "construction" or "construct" as construction or acquisition, and "revenue bond" means a nonrecourse revenue bond, note or other obligation.

In mid-September, the State Department of Commerce and Economic Development said it was aware of 38 local government bodies, including 22 ports, that had set up public corporations. It had before it 27 requests for determination of project eligibility. (*Tradelines, Port of Seattle*)

Meeting the export challenge of the 1980s—The Export Trading Act

By Brenda Burton

U.S. Representative Don Bonker calls it "... one of the most exciting trade issues in decades". It is the recently adopted Export Trading Company Act, a unique piece of legislation that creates no programs and appropriates no funds. It simply encourages businesses to increase exports by removing two barriers to their cooperating with one another. First, banks are allowed to become shareholders in such companies and second, antitrust certification is available for cooperative export efforts.

Bonker was addressing a group of 30 Northwest growers and producers from the forest, fruit and dry vegetables industries. The Port of Seattle invited them to attend a day of meetings to learn more about the impact of the legislation. Speakers focused on the provisions relating to antitrust, and on the practical aspect of taking advantage of the opportunities created by the bill.

There is ample evidence of the need to increase U.S. exports. The country has amassed a \$47-billion merchandise trade deficit over the past decade. Its exports amount to only 7.5 percent of the Gross National Product (GNP)—the lowest percentage of any industrialized

country. A Chase Econometric study estimates that export trading companies could increase the GNP \$27 to \$55 billion by 1985, reducing the federal deficit by \$11 to \$22 billion.

Despite the obvious economic rationale—and strong bipartisan support—the legislation was in Congress four and a half years. "The problem was that the bill tampered with two cherished sacred cows", explained Kermit Almstedt, who drafted the antitrust provisions of the Export Trading Company bill. Almstedt, a partner in the law firm of Preston, Thorgrimson, Ellis, and Holman in Washington, D.C., was formerly trade counsel to U.S. Sen. John Danforth.

Almstedt continued, "The bill allows banks to invest in export trading companies, eliminating our traditional separation of commerce and banking. And, it removes some of the uncertainty around our interpretation of antitrust laws".

Courts' differing interpretations of antitrust laws have left U.S. businesspeople confused and apprehensive about the consequences of cooperating in foreign markets. Over half of the businesspeople contacted in a *Congressional Record* survey stated that antitrust concerns were the biggest impediment to their pursuing export sales more aggressively.

The Export Trading Company Act addresses these concerns by establishing a simple procedure for obtaining clearance in advance of export activities. This clearance provides certified activities with protection from all relevant antitrust statutes.

How would it work? A company or companies applies to the Department of Commerce for certification, listing the activities they propose to engage in. The Commerce Department must evaluate their request within 90 days.

This evaluation consists of six questions: Do the activities promote exports? Do they result in a substantial reduction of competition within the United States, or unreasonably affect U.S. prices? Do they constitute unfair practices, or include acts which will result in the resale of exported items within the United States? Do they include licensing, except as is incidental to the sale of exports?

"Over 60 percent of our crop goes abroad now anyway", said one grower of dry vegetables. "There's no way an increase in exports wouldn't affect prices". Almstedt responded that the key was "unreasonable". He emphasized that the Commerce Department has a pro-business perspective, and is eager to see export trading companies formed. More importantly, once an activity has been certified, loss of antitrust immunity is prospective only. If conditions change and a particular activity loses certification, there is no liability for the time in which certification was in effect.

The Port's interest in export trading company legislation is an extension of the aggressive marketing role it has assumed from its earliest days. Richard D. Ford, executive director, described the act as a new tool to enable local producers to expand their international sales and trade through the Port.

Ford outlined a number of roles the Port might play in promoting export trading companies. For instance, the Port could act as a third party facilitator, assisting interested companies in their negotiations. It could participate in a number of export trading companies, bringing its expertise to joint ventures either as a partner or a service provider.

Daniel E. Dingfield, director of Marketing, said the Port would be taking a good look at all the possibilities over the next six to eight months. The Port's initial emphasis will be on natural resources, and one objective of the seminar was to open discussions with producers as to what role they saw the Port playing.

Dingfield emphasized that the Port's concern was preserving a neutral position, open to cooperation with a variety of partners. He also expressed the Port's preference for staying within its area of expertise. "We are not interested in getting into the 'buy low, sell high' business!"

What is an export trading company?

Richard V. Cooper, partner in charge of economic research for the international accounting firm of Coopers and Lybrand, outlined the factors needed for a successful export trading company (ETC).

An ETC first must have adequate financial backing and be able to extend credit. It must have access to marketable products and export related services within the United States. An ETC must understand the physical process of international trade—making a deal, arranging credit and delivering the product. It must understand the idiosyncracies of foreign markets. The ETC must know how to deal in foreign currency, and it must have the ability to handle not only international sales and distribution, but after sales, servicing as well.

The recently passed legislation leaves it to the marketplace to determine what form U.S. export trading companies will take. Producers of similar products might combine to cut costs and coordinate marketing. A port, freight forwarder or export management company might form the hub of a satellite model ETC, serving a number of producers in many markets. A large multinational might open its established international services to smaller companies, allowing their products to "piggyback" through its channels.

The U.S. Department of Commerce estimates that 20,000 smaller U.S. companies could be exporting but aren't. One of the objectives of current legislation is to get these companies into international trade. One seminar participant commented, "We get inquiries from the Middle East, but trying to follow up is like chasing the wind. I can't afford the time myself, but that could be done through an ETC".

Cooper's and Lybrand's research suggests small companies are more likely to use an ETC than to form one. Another seminar participant agreed emphatically. "I have enough trouble trying to run a sawmill without trying to run a trading company, too!" (*Tradelines, Port of Seattle*)

Stockton repeats with another top award in AAPA Contest

For a second consecutive year, the Port of Stockton was presented with a first place award of excellence for its periodical, *STOCKTON'S PORT SOUNDINGS*, by the American Association of Port Authorities 16th Annual Communications Competition.

Patricia Sangster, Manager of Publicity and Promotion for the Port, as editor headed the same award winning team to a repeat performance with Art Direction and Art by Dick Pike of Illustration Design, Typography by Ad Type

Graphics and Printing by Cal Central Press of Sacramento.

The Port which won top honors for its 1980 Annual report was also honored this year with a 2nd place award for Excellence for its 1981 version. Both Annual Reports were also produced by the aforementioned group.

Quadrilingual Vade-mecum of the Port of Antwerp

In spite of world wide recession the port of Antwerp expects an 8.5% traffic increase in 1982. Not bad at all when compared with the results of competing ports. How is this phenomenon to be explained? Mainly by an interaction of favourable local conditions which are applied with the necessary competence and flexibility by the Antwerp port companies.

A clear insight in this port structure can be gained by consulting the "Quadrilingual Vade-mecum of the port of Antwerp".

This publication in four languages (English, Dutch, French and German) is a loose leaf system, the modification sheets of which are available on a subscription basis.

The Who's who section has recently been completely revised and updated and was circulated as supplement Nr 42. About 1150 port associated companies are listed alphabetically as well as per lines of business. Entries include the addresses, telephone-, telex- and VAT-numbers of the various companies as well as their branches of activity. Moreover, every company was given the opportunity to mention the names of those staffmembers who are most competent to give practical information.

However, this Vade-mecum offers more than a mere list of associations, services and companies. It also includes 225 pages with regulations and tariffs applied by those bodies and firms. This section, realized in co-operation with the Antwerp Port Community (AGHA), is constantly updated. This is guaranteed by the City of Antwerp and the Port of Antwerp Promotion Association, who are patronizing the publication.

Delwaide Dock officially inaugurated: Port of Antwerp

On 25th November last, the new Delwaide Dock in the port of Antwerp was inaugurated officially by his R.H. King Baudouin in the presence of many Belgian dignitaries. The new dock and surrounding sites form a giant complex of some 350 ha. which fully meets the requirements of the most recent advances in cargo handling techniques. The Delwaide Dock is generally expected to stimulate port traffic thanks partly to the great efficiency achieved by the cargo handling firms which have been granted concessions at the dock.

The Delwaide Dock has an overall quay length of 4.7 km. The dock is 2,200 m long, 300 m wide at the landward end and 350 m at the end where the dock opens out into the Canal Dock.

The overall depth of the sites on both sides of the dock is 800 m. A total water depth of 16.75 m is available.

Private sector investments in the first phase amount to 5.5 billion francs, while public investments in the infrastructure have amounted to 2.2 billion francs.

Another 900 million have been invested by Belgian Railways in railway connections. The entire length of the

Delwaide Dock has been divided into five concessions which have been awarded to five individual terminal operators who have erected their own specialized terminals.

The northern side of the Delwaide Dock has been reserved for a bulk cargo terminal (Stocatra) and two general cargo terminals (Allied Stevedores and Seaport Terminals) while the southern side is reserved for two general cargo terminals (Hessenatie and Noord Natie).

The Port of Arhus—a Growing Harbour

The Port of Arhus in a nutshell:

Including the Eastern Division and the extension of the Container Terminal the land area of the Port of Århus will total 177 hectares.

The water areas inside the break-waters are 84 hectares in the present harbour and 33 hectares in the Eastern Division.

The Eastern Division will increase the length of quays from 11 to 13 km.

Maximum water depths are 11 metres in the present harbour and will be 13.5 metres in the Eastern Division.

The pilots' house on pier 3 accommodates the Port

Authority's own pilot service with its complement of 7 pilots and 10 boatmen on 24-hour duty.

The Port Authority owns 3 tugs—the biggest with a 2000 HP capacity—designed for icebreaking and fire fighting.

There are 30 cranes, 5 of which are owned by private companies. 3 of the cranes are in the Container Terminal. 1 additional container crane will be operative in 1984.

The Dannebrog Shipyard Ltd. with its 2 floating docks accommodating vessels of 16,000 and 7,000 dwt respectively is situated in the centre of the harbour.

The Port of Århus is one of Denmark's two base ports, which are the only Danish ports possessing bonded warehouses for duty-free storage.

5000 vessels aggregating 13 mio. grt call at the Port of Århus every year.

The turnover of goods totals 4 mio. tons annually—imports accounting for 3.1 mio. tons and exports for 0.9 mio. tons.

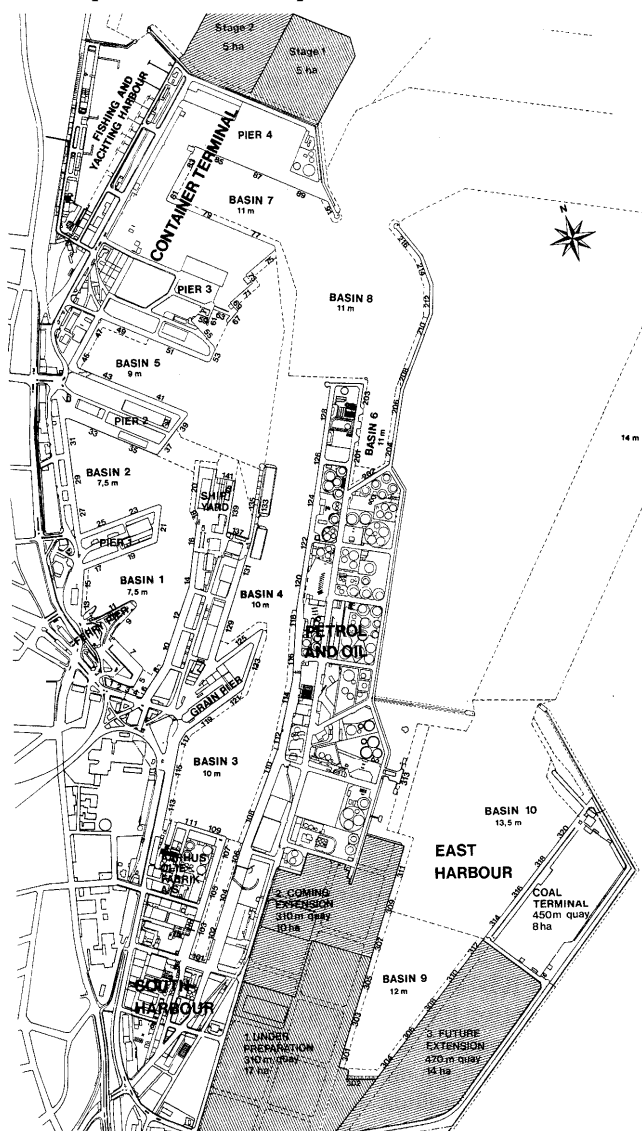
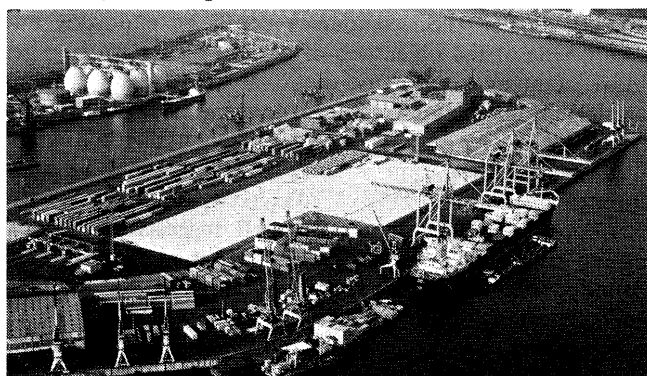
The annual turnover of the Container Terminal exceeds 125,000 container units of 20 feet each (TEU).

The Port of Århus is a self-governing institution under the Århus City Council, and its management is conducted by a 7-member Harbour Board presided over by Mr. Thorkild Simonsen, the Lord Mayor of Århus.

Through the Advisory Harbour Committee the Harbour Board works in close cooperation with trade and industry as well as with the trade organizations.

New Tollerort-Terminal has now been completed: Port of Hamburg

After publication of the December 1982 issue of this journal which carried a photograph of Hamburg's Tollerort-Terminal on its front cover, a new photograph of the newly completed terminal was received from Lager-under Speditionsgesellschaft. Both the old and new pictures are introduced here for your comparison.



British Transport Docks Board re-named Associated British Ports in move towards privatisation of Britain's largest ports business

Associated British Ports took over last December 31 as the successor to the state-owned British Transport Docks Board.

Mr. David Howell, Secretary of State for Transport, announced the change as a prelude to the privatisation of the 19-port group, which is Britain's largest ports business. The offer for sale of 49% of the equity in the new holding company, Associated British Ports Holdings PLC, is expected early in 1983. Until flotation, the Government holds 100% of the shares.

Mr. Keith Stuart, Chairman of Associated British Ports and of the holding company, said: "We have achieved considerable success over the last ten years. The geographical spread of our ports and the diversity of the traffics we handle ensure a solid foundation for the future. We welcome the change to Associated British Ports because it gives us increased freedom to make the most of commercial opportunities, to the advantage of the business as a whole".

During the 1970's the group was consistently profitable although more recently profits have been affected by the recession in 1981 that effect was accentuated by industrial disruption at Southampton. However operating profits for the first six months of 1982 recovered to £7.9 million—£5.3 million higher than for the corresponding period of 1981.

Financial advisers to the Government in the flotation are J. Henry Schroder Wagg & Co. Ltd. Merchant bankers to Associated British Ports are Kleinwort, Benson Ltd. Brokers to the offer for sale will be W. Greenwell & Co. and Cazenove & Co.

Background Note

Associated British Ports is Britain's largest ports business, handling over a quarter of the country's seaborne trade. The group's 19 ports are: Southampton; the Humber ports of Immingham, Grimsby, Hull and Goole; the South Wales ports of Newport, Cardiff, Barry, Swansea and Port Talbot; and a number of other ports comprising King's Lynn, Lowestoft, Plymouth, Garston, Fleetwood, Barrow, Silloth, Ayr and Troon.

The group has been self-financing for the last decade, and over that period its profitability has enabled it to carry out a substantial programme of new capital investment without borrowing.

ABP handles virtually every type of port business including containers, roll-on/roll-off traffic, bulk cargoes, motor vehicles, passenger traffic and general cargo, and has a growing involvement with the off-shore oil and gas industries.

Highest technical efficiency — echo not lacking: Bremen/Bremerhaven

The clearest favourable development of all West-German ports (the only port-group to have shown an increase in cargo-handling for also 1982) is to be attributed firstly to the technical and organisatory top efficiency resulting from extraordinary investment: the 3rd expansion-stage of the

giant container-terminal in Bremerhaven; the extension to the Industry-harbour locks in Bremen (now to Panama proportions); the modernisation of the Grain installation and numerous additional investments including—in 1983—a new banana-handling installation.

The Bremen ports, with their electronic information systems (which have already had years of testing and experience here) are meanwhile lengths ahead of their rivals. This, for its part, has had maximum benefits for the ports' customers who clearly profit as far as costs are concerned. This development will also be pursued in Bremen and Bremerhaven during 1983.

On August 19th a further section of the Container Terminal of Bremerhaven will be made operational—thereby becoming the largest unified container terminal in Europe.

Port workers taking further education courses: Port of Hamburg

Seen from the basic viewpoint of their technical equipment, the large-scale seaports all over the world differ from each other to only a minor degree. Investment and modernisation is practised every-where; at most the speed might be faster in one place and slower in another.

Far less uniform on the other hand is the degree of training of the labour force in the ports. At the same time no extensive explanations are required to show that the advantages of the new handling techniques can only be fully exploited if well-trained specialists are also available in large enough quantities who are able to master the new technologies.

For this reason the Port Specialist School was built in the Port of Hamburg; West German Chancellor Helmut Schmidt ceremonially opened it.

On this school, located immediately below the approach ramp to the Köhlbrand Bridge, will now be concentrated the entire advanced education work for the port operatives, which was formerly spread over various places in the port. Primarily the courses will take place here for acquiring the Port Operative's Specialist Certificate; in addition, however, technical courses will be given for crane drivers, fork-truck drivers, winch and deck hands, as well as special courses on dealing with dangerous cargo, and many other subjects.

In order to meet these tasks in the best possible manner, the school building has been equipped with a training unit which includes a "ship on shore", where the port operatives acquire practical experience for their work.

The "ship" is the 36 metre long, 15 metre wide and six metre high section of a general cargo ship which is fitted with various types of loading gear as well as a diversity of technical items of equipment, and also has a side port and a wide stern port. All this equipment, as well as an on-board and quay-side crane, forklifts, a Federal Railways waggon and a broad reinforced open air surface, help to provide practice-related training.

The ship's section was built at a Hamburg shipyard, transferred by floating crane to the Köhlbrand Bridge and fastened to a concrete foundation.—The total cost of the Port Specialist School amounts to eleven million DM; this was raised solely by the port economy.

The body responsible for this further education work is the "Forbildungszentrum Hafen Hamburg e.V.", an institution collectively established in 1976 by the Free and

Hanseatic City of Hamburg, the Association of Hamburg Port Enterprises, and the trade union for "Public Services, Transport and Traffic", and maintained by it ever since. Three full-time teachers and numerous honorary teachers give the theoretical and practical instruction.

The advanced training to the stage of Port Specialist Operative as a rule lasts two years. It covers two courses of 23 days each at the school as well as supplementary further training measures at the workplace, evidence of which must be provided. The course concludes with an examination before the Hamburg Chamber of Commerce; once it has been passed, the Port Operative's Specialist Certificate is duly handed over.

To date some 850 port workers have acquired this Specialist Operative's Certificate. With it they obtain the precondition for moving up into a higher, better paid position. Following completion of the Port Specialist School, the numbers of specialist operatives in the port is likely to rise even more quickly than in the past.

This is how the new generation of port operatives evolves; it is practically impossible to compare it with the type of previous generations. The "muscle man", in most cases unskilled and at best capable of handling the wheel barrow, has become the "transport professional". He masters the handling of also difficult technical apparatus, he applies his mind and feels a joint responsibility for the proper course of working procedures.

Whereas formerly human labour in the port was used mainly for hard physical work, today it can (and must) carry out more highly qualified activities: in the use of working apparatus, in the arrangement of working processes, or also in the reliable execution of craftsman's tasks on the fringe of cargo handling.

Seen from this point of view, the efforts towards qualitative further education of the port labour force are a necessary supplementation to current technical modernisation of the port terminals and handling facilities. It takes both components together to make the port into a really reliable instrument in worldwide goods transport.

Faster despatch of ships — Flexible port pilots' system: Port of Hamburg

Reorganisation of the pilotage system in the port is a year old. Its essential part was the foundation of a pilots fraternity—an arrangement for the port pilots on the pattern of the Elbe pilots. In the unanimous opinion of quay operators, brokers and shipping companies, this carefully thought out "privatisation" of the port pilots, who formerly had been officials or employees of the city of Hamburg, has proved to be extremely successful.

Since 1st July, 1981, when the "Port Pilots Law" came into force, no ships have had to wait for a port pilot, and every requested radar advice has been promptly provided. Despite increased traffic volume, all the additional problems in the winter months were mastered.

The reason for this widely praised improvement is that the fraternity's organisation system affords more flexible deployment of the 81 port pilots than was possible within a city administration. This accords not only with a long outstanding desire of the pilots themselves, but also a demand of the port economy.

Port of Helsingborg set a new record for tonnage handled in 1982

Total seaborne trade throughput at Port of Helsingborg in 1982 was 8,553,800 tonnes, compared to 8,031,800 moved in 1981. This is a 6.5 per cent increase over the result of previous year. The cargo volume represents the largest tonnage ever handled by the port in a year.

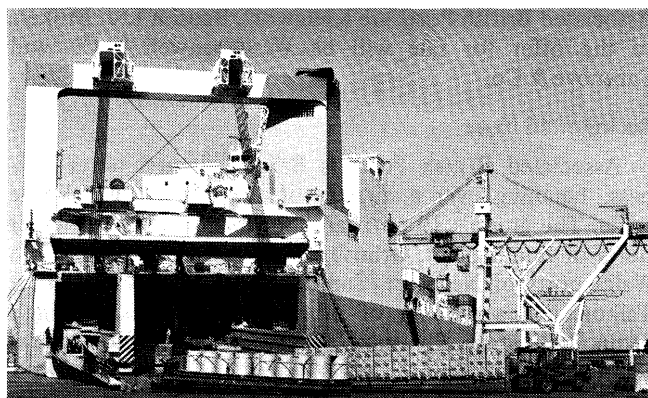
In spite of the significant rise, however, decreases occurred in some sections, among which may be mentioned the import of petroleum products, which fell from 771,000 tonnes to 709,000. Break-bulk cargo showed a decrease in the size of 5 per cent.

Trade by the railway ferries of SJ/DSB was up 11 per cent for both rail and lorry cargo. The Scandinavian Ferry Lines showed also a good increase of 13 per cent. Other unit traffic went up a few per cent. The volume of dry bulk cargo, such as grain and coal, accelerated considerably.

Ferry Traffic

The number of ferried automobiles to and from Denmark and Germany rose to 1,626,210, thus breaking all previous records. It should be observed that lorries alone were up 5.5 per cent. Passengers decreased by 7.1 per cent, though no less than 16,984,000 people travelled by the various ferry lines in 1982. This means in other words that more than 32 persons per minute used the Helsingborg ferries every day of the year in average.

The outlook for 1983 is good in spite of the current recession. The Port Authority expects on the whole unchanged traffic volumes for 1983, even if variations may take place between certain trade sections.



The Container Terminal is equipped for simultaneous handling of RoRo and LoLo units (Port of Helsingborg)

ANL achieves small profit in difficult year

The Australian National Line (the Government-owned international shipping operator) reported a profit of \$2.5 million for 1981/82 in its Annual Report tabled in Federal Parliament by the Minister for Transport and Construction.

Although lower than the \$7.1 million profit earned in the previous year, the small profit for this year was achieved in a period of depressed economic conditions worldwide as well as in Australia.

The trading situation for shipowners worldwide deteriorated during the year with over 1,000 vessels laid up and

the real value of fixtures in the tramp market the lowest ever, says the chairman of ANL Mr. N.G. Jenner.

However, the industrial climate had improved in recent months and there had now been a major policy initiative by the Australian Government to revitalise Australian shipping through the recommendations of the Crawford report.

If the spirit of co-operation displayed by the parties in the task force reporting on this matter can be carried forward into the workplace, then there must be every chance for the future of an increasing flag presence in overseas trade according to Mr. Jenner.

The amount of cargo carried by the Line's fleet of 33 ships reflected the economic downturn. The bulk trades division, operating 15 vessels in coastal and overseas trades, carried a total of 11.6 million tonnes, which was a reduction of 1.2 million tonnes on the previous year and partly resulted from the ending of contracts to carry coastal iron ore cargoes for BHP.

In the general cargo area the total number of container freight units carried by the Line's coastal and overseas container ships fell marginally to 212,116 twenty-foot equivalent units, from 216,096 teu's a year earlier.

The overseas liner trades had a difficult year with increasing competition for the available business, particularly from State-owned operators, which in many cases prevented freight rates being raised to recover unavoidable cost increases.

The coastal trades achieved their target return on capital although profitability was reduced by industrial disputes and by a significant decline in trading activity which has since led to the laying-up of one vessel.

Besides being a shipowner, ANL is also a major operator of container terminals throughout Australia. Several of these cater for the ships of other major operators, and last year the 11 ANL terminals increased their throughput from 384,000 to 402,000 teu's. They also dealt with a little under a million tonnes of non-containerised, or break-bulk cargo.

Looking ahead ANL report that in the new financial year economic conditions have worsened and pressure on freight rates will make some trades insupportable unless cost reductions can be implemented.

With little likelihood of improvement before 1985/86 the most rigorous cost control measures are being taken to maintain viability and place ANL in a position to take advantage of the opportunities which lie in the future, Mr. Jenner concludes.

Fine start on trade: Port of Brisbane

Following the good cargo through-put performance of 1981-82, the Port of Brisbane is off to a flying start in 1982-83. To the end of October, total trade was up 20.8% on the corresponding period last year.

The number of containers handled during October was 15,431 t.e.u.'s and included a through-put of 7,628 export t.e.u.'s with a monthly record of 109,900 tonnes (of containerised cargo).

Meat exports to the end of October had reached 140,000 tonnes—up 51.6% on last year's corresponding period, while coal at 234,800 tonnes (through Pinkenba) represented a 113.5% increase. A total of 131 cargo ships

entered the port during the month, compared to a 12 month moving average of 104.

Fisherman Islands coal terminal undergoes tests: Port of Brisbane

Queensland Bulk Handling Pty. Ltd. has begun full scale proving tests on the Coal Export Terminal, Fisherman Islands, as a preliminary to the commissioning of the installation.

The facility has been developed jointly by the port of Brisbane Authority and Q.B.H. (as operators) at a cost of \$28 million.

The terminal's General Manager (Mr. B. Everett) said he expected the first ship to be loaded through the terminal during the second week of February.

Tests were carried out over the weekend of December 18 and 19 on the rail receival facilities and the conveyors for two of the terminal's four stockpile areas.

Each stockpile area will hold 60,000 tonnes.

Six wagons of coal (about 280 tonnes) arrived on December 18 from Park Head, near Ipswich, for the tests.

Mr. Everett said the activity amounted to the actual commissioning of the terminal's first stage.

Q.B.H. expects to eventually handle about three million tonnes a year through the facility.

Investment survey mission visits Port of Adelaide



As 1982 drew to a close, one of the last major groups to make an inspection tour of the Port of Adelaide industrial estates and shipping facilities was the overseas investment survey mission from Japan. Headed by Mr. Taiichiro Matsuo (centre), chairman of the Marubeni Corporation board, the mission was strongly backed by the Japanese Ministry of International Trade and Industry and spent just on two weeks in Australia. At Mr. Matsuo's right, Mr. Kaneko, Consul-General for Japan. New trading, shipping and industrial relationships now developing between Japan and South Australia mean that the two areas will be working closely together well into the 21st Century.

Board system wins engineering excellence award: Maritime Services Board of N.S.W.

An engineering project developed by the Board has won an award offered by the Newcastle Division of the Institution of Engineers Australia, for "engineering excellence".

The real-time wave analysis system used in the Newcastle harbour deepening program won the award for a small project completed in the three years to November 30, 1981.

Thirteen projects were nominated, ranging from an oyster purification plant to a white-ant eradication system.

Judges commented that the real-time wave measurement and analysis system, begun in 1975, had used known technology in a unique manner.

It was a model of simplicity and had helped reduce the cost of the harbour deepening program, they said.

It was developed by Mr. Peter Youll, Planning Engineer, the Maritime Services Board with assistance in the early phases from Mr. Neil Lawson, director of Lawson and Treloar, engineering consultants.

The Port of Newcastle is being deepened from 11 m to 15.2 m below chart datum to permit the navigation of bulk coal vessels up to 120 000 DWT. Part of this project involves the removal of two million cubic metres of rock, some of which is located outside the breakwaters and exposed to ocean waves.

Drilling and blasting of rock in the area subjected to ocean wave activity is being carried out by two self-elevating platforms (SEPs). On completion of drilling and prior to blasting the platforms must make a transition from being supported on their legs to floating, so that they can be removed from the blasting area.

The two SEPs were built with a very fast jacking rate of six metres per minute and with a sophisticated shock-absorbing system connecting the legs to the platform, but the rigs cannot be jacked up or down when wave conditions exceed a certain limit.

Even though the rigs could survive bad conditions by remaining on their legs at a sufficient height above the water, this would entail loss of drilling time. In addition, the presence of the rigs in the channel could close the port to shipping.

From an operational point of view, therefore, it is vital that present wave conditions be reliably described.

Estimation of wave height by observation is difficult enough during daylight hours but is virtually impossible in darkness (drilling operations are carried out 24 hours a day). So the dredging contractor, West Ham Dredging Co. Pty. Ltd., decided that a real-time wave analysis system should be established. Through its electronics sub-contractor, Summit Electronic Systems, it co-operated with the Board in a joint project for this purpose.

Because of the large investment that the system is designed to protect, the system hardware has been designed for maximum reliability. Three Waverider buoys are used as the water surface elevation-sensing instruments. One offshore buoy and one inshore buoy were part of a traditional-type Waverider installation which had been operating since 1975. The second inshore buoy (closest to the shore) was installed to add reliability to the system and to ensure that at least two buoys were always operating.

The Waverider buoy signal is received at a shore based station. Each buoy has its own receiver/phaseslock loop/digitiser circuit with an additional spare set of circuits to ensure minimum down time.

Each buoy is continuously monitored and the signal is digitised once every half second to indicate the average position of the buoy over the previous half second. An arbitrary datum is established 2,000 cm below mean water level and the position of the buoy in elevation is resolved to 1 cm. A multiplexor samples all three channels and sends the 3 x 4 ASCII characters through the leased line, prefaced by a status character which indicates which buoys are not in position.

The characters are collected from the leased line by a PRIME 400 minicomputer running under a real time operating system. The Prime performs the required calculations and interpretations and sends these results back through the leased line to the West Ham site office. Input data is stored in a buffer while the calculations are performed so that no input data is lost. All raw data and results of analysis are stored on disc, to be dumped to magnetic tape at fortnightly intervals.

The system has been able to provide the dredging contractor with sufficient warning on most occasions and the provision of information from the Waverider system at Botany Bay (160 km to the south) now gives earlier notice of waves arriving from the south.

According to Mr. Youll, the system has considerable advantages over traditional methods of wave data collection and analysis because:

- there is an increase in reliability of the whole system resulting from the built-in early warning of a Waverider being hit or tampered with;
- data collection and analysis is a one-step process, instead of two or three steps, resulting in fewer manhours being spent in wave analysis and data storage;
- there are significant benefits in the description of storm events. This type of recording will eventually allow more reliable and rational methods of describing and predicting return intervals of storms.

Twenty-second Seminar on Ports and Harbors: Port of Nagoya

Every year, in collaboration with JICA (Japan International Cooperation Agency) and OCDI (Overseas Coastal Area Development Institute of Japan), the Ministry of Transport holds a port seminar within the framework of Japan's various overseas technical assistance programs (the Colombo Plan, etc.). Last year, 19 participants from 18 countries attended the seminar from November 1 to December 18, and there were reports and discussions on a wide variety of topics, including port and harbor administration and operation as well as construction techniques. Moreover, a ten-day case study was conducted at the Port of Nagoya during this seminar, from November 17 to 26.

Presentations were given on the port's history and current situation by officials in charge of its finances, facility maintenance, environmental conservation, port planning and construction. Visits were made to the Isewan Sea Berth, container terminals, wharves, warehouses and other port facilities, as well as to the Ise-Wan Hydraulic

Model Research Center and the Nagoya Harbor Worker Training School, which has drawn attention in recent years for its role in enhancing waterfront labor's technical level.

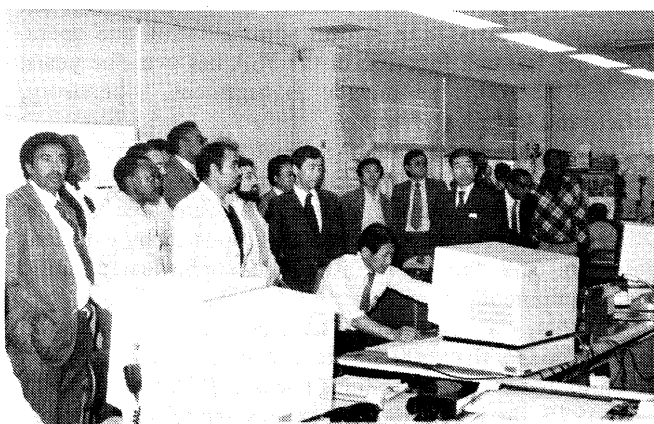
Factory tours were also made to two port enterprises, Nippon Steel and Toyota Motor. The case study ended on the 26th with a lively question and answer session.

During the study, presentations were made on both aspects of port functioning: software (people and systems) and hardware (equipment and facilities). Participants expressed the view that the situations in their respective ports were different in most respects from the Port of Nagoya.

Environmental protection is an area where the Port of Nagoya is making special effort; while to most participants it appeared particularly difficult to comprehend the linkage between investments in this area and the benefits derived, very favorable comments followed the talks on port construction techniques and engineering methods suited to different soils, since port construction problems are common to all countries.

Participants also showed strong interest in the breakdown of revenues and expenditures by the port's management body, Nagoya Port Authority.

They were not only able to gain a broad knowledge of Japan's ports from the seminar, it was also highly successful in deepening friendship between the Port of Nagoya and the participants' countries and ports and in fostering international understanding.



Seminar participants visited the control room for ship movement.

First call in the Port of Nagoya by full container ship on the China route (Tianjin); Number of fully containerized routes serving the Port reaches twenty

On December 5, 1982, the *Hua Jiang* (3,937 tons), a fully containerized ship owned by China Ocean Shipping Corporation (COSCO), made its first call in the Port of Nagoya, bringing the number of fully containerized routes serving the Port of Nagoya to 20 and further perfecting its container service.

The *Hua Jiang* will be sailing regularly, at the end of every month, with the semicontainerized *Funiushan* (10,498 tons). Together these two vessels link the Port of Nagoya with Tianjin Port.

Since December 1968, when the first fully containerized ship on the North American West Coast route entered the Port of Nagoya, containerized lines have been established one after another. Last September, following the long awaited European route, the Colombo route was opened, providing still better service. With the establishment of the China route and the arrival of the fully containerized *Hua Jiang*, all of the major container routes are now being served.

The volume of cargo handled between Nagoya and China expanded rapidly. In 1972 total exports and imports were 512,970 tons. This cargo volume more than doubled by 1981, when it reached 1,316,196 tons. Since the Port of Tianjin serves China's capital, Beijing, continuing growth in the volume of trade with China is expected.



Miss Nagoya welcoming the captain of "*Hua Jiang*", the first full container ship commissioned on the Tianjin route.

Wellington Harbour Board records first surplus in six years

In presenting his annual address, the Chairman Mr. John King told Board members that after meeting loan repayments, payments to Sinking Funds and contributions to Special Funds, there was a surplus of \$342,864 transferred to Capital compared with a deficit of \$946,036 last year.

"The increased tonnage for the year, the Board's unremitting attention to costs and improved efficiency contributed to the substantial increase in the surplus in the Working Account. Together with retrospective increases in leasehold rents the opportunity was provided for increased appropriations to Special funds to strengthen and begin to restore those essential reserves following several years of net deficit".

Mr. King also reported an 11.4 percent increase in shipping arrivals over last year bringing the total for the 1982 year to a record 8,766,340 net register tons.

At 5,846,756 tons the manifest tonnage of cargo handled at the Port was just 2,236 tons short of the record established in 1976/1977 and 6.1 percent up on last year's result.

Mr. King said the tonnage of cargo in conventional ships had increased significantly from 281,578 tons last year to 405,326 tons (up 43.9%), continuing the "most pleasing improvement which commenced during the second half of the previous year and contributed substantially to this year's satisfactory results".

Increases were recorded in most categories of cargo including inward general cargo from Other Overseas Ports (up 166,186 tons or 26.9%) and bulk petroleum products (up 91,084 tons or 11.1%). The only significant decreases in cargo were in general cargo outward to Other Overseas Ports (down 32,009 tons or 3.7%) and outward to Australian Ports (down 18,115 tons or 24.7%).

Mr. King reported an improved performance in containerised cargo.

"The throughput of containers at the Thorndon Container Wharf increased from 67,720 TEUs last year to 73,053 TEUs or by 5,333 (7.9%). Total container movements including repositioning of containers and containers landed and re-shipped increased from 75,571 TEUs to 80,669 TEUs".

Turning to the Board's accounts, Mr. King said the increase of about \$6,000,000 in gross income for the year under review reflected the higher level of trade and the increase in charges from 1 October 1981.

He reported the successful refinancing within New Zealand of the first of the Board's Swiss Franc loans. The remaining loan matures in October 1984 and the Board is providing for its repayment with an Exchange Risk Insurance Fund and through the Sinking Fund.

However, Mr. King expressed concern that the results of the Port's improved efficiency had been diminished by excessive increases in wages and all other costs.

"The continued and alarming increases in all costs, but most significantly in wage costs, to which I referred in my report last year, continued into the year under review more than offsetting improved productivity and economies in operations".

He explained that the Board had not proceeded with proposed general increases in Bylaw charges when the Wage and Price Freeze was imposed, as it was hoped the freeze would make such increases unnecessary.

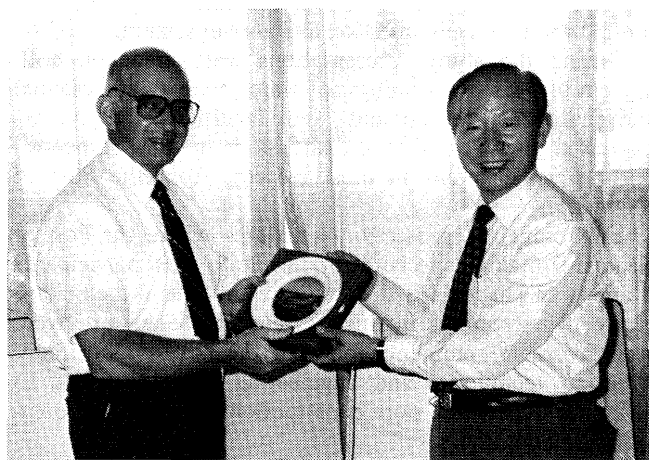
"In this connection it must be said that the Regulations appear to have had some success in breaking the inflationary spiral which had been approaching the dangerously accelerating stage where cost consciousness was becoming submerged in the expectation of successively increasing wages, costs and prices.

"Concern must be expressed, nevertheless, at the situation which will arise upon the expiry of the Regulations in 1983. The measures by which it is hoped the Government will succeed in restoring and retaining stability in the economy will be one of their most important tasks in 1983 and beyond", Mr. King concluded.

Port of Keelung hosts Port tour for the guests from SPA

S.C. Teng, deputy director, Keelung Harbor Bureau, Taiwan, presents Port of Keelung commemorative gift to guest Charles A. Marsh, director of trade development for the South Carolina State Ports Authority (SPA), during the latter's recent visit. Mr. Marsh, of Charleston, S.C., and Thomas E. Lloyd, the SPA's Far East general manager, from Hong Kong, were hosted by the Port of Keelung for a tour, port movie and luncheon. Other Keelung Harbor Bureau officials participating in the day's activities included

K.Q. Wang, chief engineer; C.H. Chang, deputy chief engineer and chief of machinery works; Ting-Chin Wang, harbor master; F.S. Wu, chief of public relations, and Jasper Y.C. Chu, superintendent, marine terminals department.



PSA Training Courses for 1983-1984

Training in the Port of Singapore Authority

This history of systematic training in the PSA dates back to 1959. The emphasis then was on operations training to upgrade the cargo handling skills of stevedores to meet the immediate operational requirements of the port. With the increasing sophistication in port administration and operations, the training function in the PSA has over the years, enlarged its scope to include management, supervisory, clerical and technical training.

Today, the PSA's Training Department comprises the Operations, Technical and Management Training Sections. The Department is staffed by competent and able Training Officers and Instructors. It is also supported by excellent classroom and library facilities and sophisticated audio visual equipment.

Together, the three main Training Sections organise and conduct no less than 600 different courses annually to meet the short and long term training needs of PSA's employees.

In 1975, the PSA decided to open some of its courses on port management and operations to participants from the ports of other developing countries in the region.

Organised on a non-profit making basis, the courses have attracted some 250 officers annually from the ports of the ASEAN and the Pacific regions, West Asia, India and Africa.

Courses for Overseas Personnel

The PSA offers to share its experience in port management and operations through the following 16 courses for 1983/1984.

Management and Administration Courses

- Port Management and Operations
- Port Security
- Attachment to Treasurer's and Accounts Departments
- Attachment to Training Department

Port Operations Courses

- Training for Operations Instructors

- Cargo Operations at Conventional Wharves
- Management and Operations of Tanjong Pagar Container Terminal
- Practical Pilotage Training

Port Engineering Courses

- Management and Maintenance of Port Equipment
- Practical Training in Overhauling Forklifts and Components
- Port Engineering and Project Management

Safety Courses

- Ship Inspection
- Principles of Fire-Fighting
- Shipboard Fire-Fighting and Prevention
- Oil Spill Control
- Oil, Chemical and Liquefied Gas Tanker Safety

These courses have been structured to include lectures, discussions and programmed visits to operational departments. Related courses are scheduled to run consecutively so as to provide participants an opportunity to participate in more than one course while in Singapore. These courses serve as a forum for participants from developing countries to exchange ideas and experiences on port management and operations to their mutual benefit.

General Information

1. Application Procedure

All applications should be:

- made on the application form provided in this brochure. Application for each course should be on a separate form;
- supported and sponsored by the relevant Port, Government or International Agency;
- accompanied by a bank cheque or draft for the total amount of course fees in Singapore Dollars; and
- submitted to reach the PSA not less than TWO MONTHS before the commencement date of each course.

2. Conditions for Acceptance of Applications

Organisations sponsoring their personnel for PSA training courses would be required to sign:

- a Letter of Indemnity as the courses include programmed visits and/or practical work; and
- a Letter of Guarantee to reimburse the PSA for all hospitalisation charges should any of their personnel require hospitalisation while attending these courses.

Participants are advised to take up travel and accident insurance policies to cover them in the event of death, disability, loss of or damage to personal properties for the duration of the training period.

3. Course Fees

Fees quoted are only for 1983 courses. Fees for 1984 courses are subject to revision.

4. Refund of Fees

If notice of withdrawal is given in writing within two weeks preceding commencement of the course, a 80% refund will be made or an administration charge

of 20% of the course fees will be levied. If notice of withdrawal is given in writing after commencement of the course, no refund will be made.

5. Cancellation

The Authority reserves the right to cancel any course if necessary.

6. Scholarships

Participants are normally sponsored by their ports/organisations for PSA courses. However, some participants have been sponsored to attend PSA courses under the Asean and Colombo Plan Training Awards Programme, Commonwealth Fund for Technical Co-operation, International Association of Ports and Harbors, International Labour Organisation, United Nations Development Programme and International Maritime Organisation. More information can be obtained from these organisations offering such awards.

7. Medium of Instruction

The medium of instruction is ENGLISH. As such, participants are expected to have a good working knowledge of English.

8. Certificate of Attendance

Certificate of Attendance will be issued to all participants who maintain full attendance at all lectures/sessions.

9. Meals and Refreshment

All courses include:—

- Welcome and farewell lunches; and
- Daily refreshment/snacks during tea/coffee breaks

10. Visa and Travel Arrangement

- All participants will be responsible for making their own visas and travel arrangements to and from Singapore. Consult your High Commission, Embassy or Consul for more information.
- On arrival at Singapore Changi Airport, participants:
 - should present their passports or internationally recognised travel documents to the Immigration officials and obtain from them the required approval to stay in Singapore for the duration of the training period; and
 - will be met by PSA's representative who will provide the necessary assistance to facilitate clearance of Airport formalities.
- Participants are advised to be in Singapore at least one day before the course begins.
- Participants will be transported to the PSA Training Centre on the first day of the course from designated hotels/hostels.

11. Accommodation

Singapore has numerous hotels to meet the accommodation requirements of participants. Your Embassy, High Commission, Consul or travel agent may be able to assist in making accommodation arrangements.

It is suggested that you choose a hotel or hostel near the Port for your convenience. The Authority can assist if required, in booking recommended hotels/hostels at concessionary rates for participants.

12. Living Allowance

Sponsoring organisations should ensure that their personnel have adequate funds before leaving for Singapore to cover all expenses including accommodation, meals, transport, medical fees and other incidentals in Singapore.

13. Climate & Clothing

Singapore is generally sunny with an average temperature of 28°C (82°F) during the day and 25°C (77°F) during the night. Lightweight casual clothing is recommended.

14. Further Enquiries

For further information, please write to:

Training Manager
Port of Singapore Authority
Tanjong Pagar Complex
280, Tanjong Pagar Road
Singapore 0208
Republic of Singapore.
Telex : RS 21507
Cable : "TANJONG" Singapore
Telephone : 2217711 Extension 820
ISSN : 0129-9808

Second container berth in operation: Port of Penang

The Commission in its quest to provide improved cargo handling services started operation on its second container berth in July 1982. The conversion of conventional cargo berth No. 5 started in September 1981. The work included the removal of a transit shed and trenching of the berth to house electrical cable for a second container gantry crane. When Butterworth Wharves was constructed in the sixties, the decking was strengthened for easy conversion to a container berth.

The additional berth was necessary to handle the increasing number of containers moving through the Port of Penang. In 1981, the Commission handled 56,339 TEU's and this volume is expected to reach 100,000 TEU's in 1985.

The Commission's ability to complete the conversion process together with the installation of a second container gantry crane within 9 months was due to the foresight in designing and constructing Berth No. 5 to enable installation of a container gantry crane when necessary.

Course Title	Fees Sing \$	Duration in weeks	1983									1984								
			MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
Management and Administration Courses																				
Port Management & Operations	2,000	3																3 21		
Port Security	1,100	2								3 14									8 19	
Attachment to Treasurer's and Accounts Departments	600	1			9 13												27 31			
Attachment to Training Department	600				16 20													24 28		
Port Operations Courses																				
Training for Operations Instructors	2,200	3	7 25																	
Cargo Operations at Conventional Wharves	1,700	3			3 20									7 25						
Management and Operations of Tanjong Pagar Container Terminal	2,000	3			23 10									28 15						
Practical Pilotage Training	2,800	2			3 13					24 4				7 18					22 2	
Port Engineering Courses																				
Management & Maintenance of Port Equipment	1,100	2				6 17									4 15					
Practical Training in Overhauling Forklifts & Components	2,200	3				20 8									18 6					
Port Engineering & Project Management	2,200	3				20 8									18 6					
Safety Courses																				
Ship Inspection	600	1	7 11							3 7		5 9							1 5	
Principles of Fire-Fighting	600	1								10 14		12 16							8 12	
Shipboard Fire-Fighting & Prevention	900	1								17 21		19 23							15 19	
Oil Spill Control	900	1								24 28		26 30							22 26	
Oil, Chemical & Liquefied Gas Tanker Safety	1,700	3								31 18									29 16	

NOTE : (a) * This course is offered once in every two years.

(b) No courses are offered during the months of December to February.

(c) Dates and fees for 1984 training courses are subject to revision.

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6. Portainer® Operation Supervising System

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