

PORTS *and* HARBORS

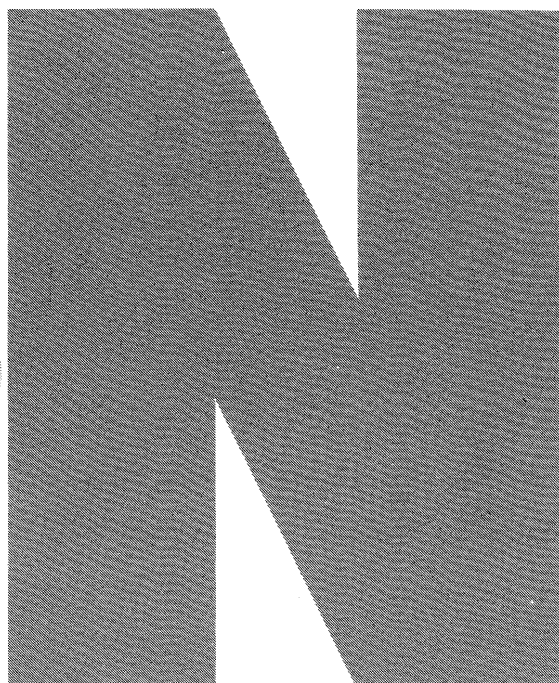
April, 1985 Vol.30, No.4



Hawke's Bay Harbour
New Zealand

The Publisher: The International Association of Ports and Harbors

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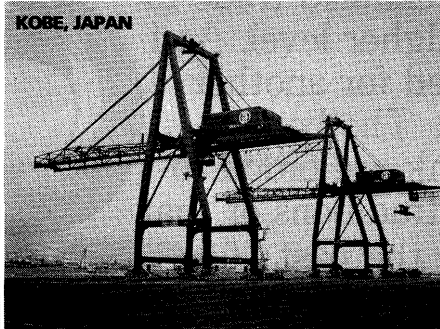
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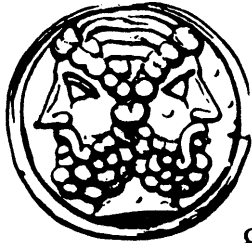
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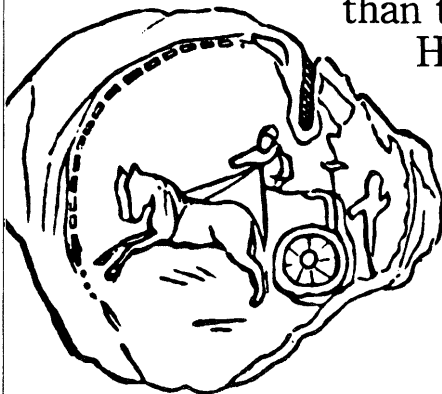
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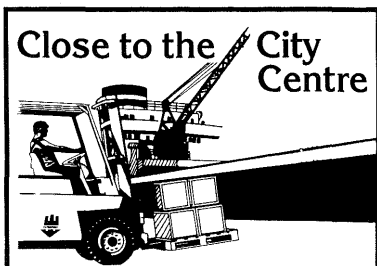
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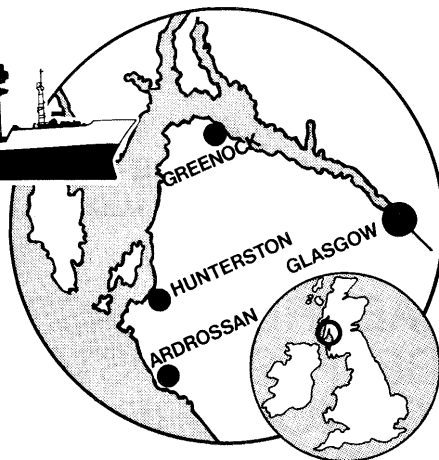
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PORTS *and* HARBORS

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IAPH announcements and news

Board Meeting by correspondence on April 4 formalizes the agenda of the Hamburg Conference

To formalize the agenda of the plenary sessions of the forthcoming 14th Conference in Hamburg, Secretary General Sato, under the authorization of President Tozzoli, called for a meeting of the Board of Directors by correspondence to be held on April 4, 1985 and asked the members to vote on the draft agenda of the Conference, which we reproduce hereunder together with the program.

Provisional Agenda

1: THE OPENING CEREMONY

08:45/10:00, May 06, 1985 (Monday)

1. Welcome Address and Introduction of the Dignitaries by the Conference Chairman
2. Welcome Address by Lord Mayor
3. Welcome Address by the Minister of Transport of the Federal Republic of Germany
4. Address by the EC Commissioner for Transport
5. Address by the IAPH President
6. Address by the IMO Secretary-General
7. Address by the Hamburg State Minister for Transport
8. Announcement of the Chairman and Members of the Conference Committees by the IAPH President

2: THE FIRST PLENARY SESSION

10:00/12:00, May 06, 1985 (Monday)

1. Opening Address by the President
2. Report by the Chairman of the Credentials Committee
3. Declaration of a quorum for the Conference
4. Report by the Secretary-General
5. On the Settlement of Accounts for 1983/1984
 - 1) Board Chairman's report on the conclusion of the Joint Meeting of the Board and Exco on the Settlement of Accounts
 - 2) Recommendation by the Chairman of the Budget Committee
 - 3) Adoption
6. On the Budget for 1985/1986
 - 1) Board Chairman's submission of the proposed budget for 1985/1986
 - 2) Recommendation by the Chairman of the Budget Committee
 - 3) Adoption
7. On the amendment of the By-Laws, if any
 - 1) Board Chairman's submission of proposed amendment
 - 2) Explanation of the proposed amendment by the Chairman of the Constitution and By-Laws Committee

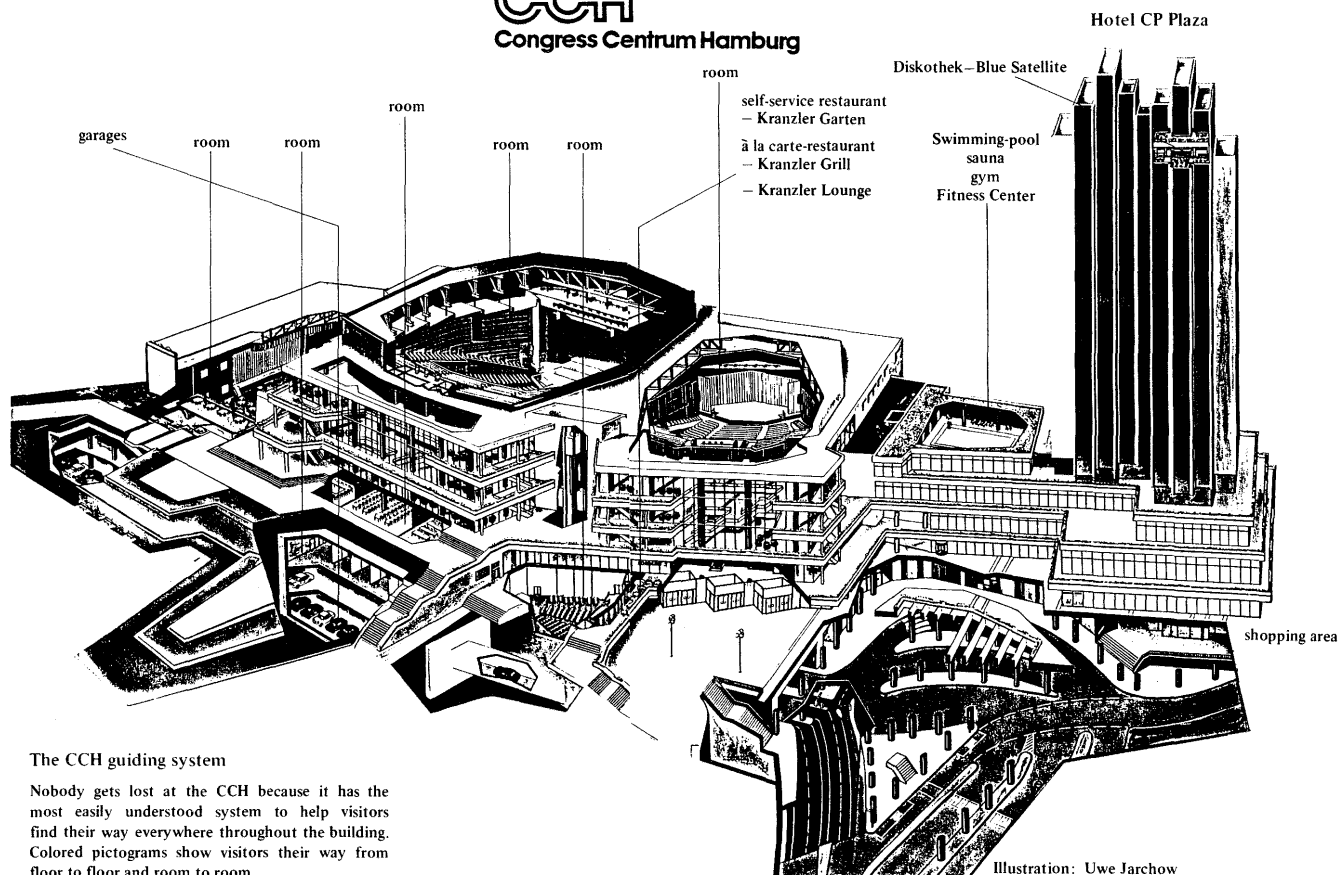
- 3) Recommendation by the Chairman of the Resolutions and Bills Committee
- 4) Adoption
8. On the amendment of the IAPH/BPA Agreement on Representation
 - 1) Board Chairman's submission of proposed amendment
 - 2) Recommendation by the Chairman of the Resolutions & Bills Committee
 - 3) Adoption
9. Report by the Chairman of the Membership Committee
10. Reports by the Chairmen of the Technical Committees
 - 1) International Port Development
 - (1) Introduction of the Recipients of the Akiyama Prize — the 1st Prize in the IAPH Award Scheme 1983/1984
 - Mr. D. Nunkoo, Mauritius Marine Authority
 - Mr. M. Meletiou, Cyprus Ports Authority
 - (2) Presentation of the Akiyama Prize (Silver Medal & Certificate)
 - 2) Port Safety, Environment & Construction
 - 3) Cargo Handling Operations
 - 4) Trade Facilitation
 - 5) Public Affairs
 - 6) Legal Protection of Port Interests
11. Reports by the IAPH Liaison Officers
 - 1) ECOSOC
 - 2) IMO (Including the IAPH/BPA Representation work)
 - 3) UNCTAD
 - 4) CCC
12. Other business, if any
13. Closing Address by the President

3: THE SECOND PLENARY SESSION AND CLOSING CEREMONY

14:30/16:00, May 10, 1985 (Friday)

1. Opening Address by the President
 - Silent prayer in memory of deceased IAPH colleagues
2. Resolutions related to committee activities, if any
 - 1) Report and recommendation by the Chairman of the Resolutions and Bills Committee
 - 2) Adoption
3. Report of the Chairman of the Honorary Membership Committee
4. Election of Honorary Members, to be followed by the presentation of the Certificate of Honorary Membership by the IAPH President
5. Resolutions of Appreciation to the Host Port and their people

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SECOND PLENARY SESSION (Continued)

14:30/16:00, May 10, 1985 (Friday)

5. Resolutions of Appreciation to the Host Port and their people
6. Report by the Chairman of the Nominating Committee on the proposed nominations of the IAPH Officers (President & Vice-Presidents) for 1985/1987
 - Election of the President and Vice-Presidents for 1985/1987
7. Address by the Outgoing President
8. Address by the Incoming President
9. Announcement of the Appointive Executive Committees Members for the next term by the New President
10. Announcement of the Chairmen of the Internal/Technical Committees by the New President
11. Announcement of the Place and Proposed Dates of the 15th Conference by the New President
12. On the election of the Conference Vice-President
 - 1) Recommendation by the Chairman of the Resolutions and Bills Committee
 - 2) Election
13. Invitation address by the Host of the 15th Conference
 - Film presentation
14. Change of Presidency
15. Declaration of the Closing of the 14th Conference.

Provisional Program

1: Overall Daily Program

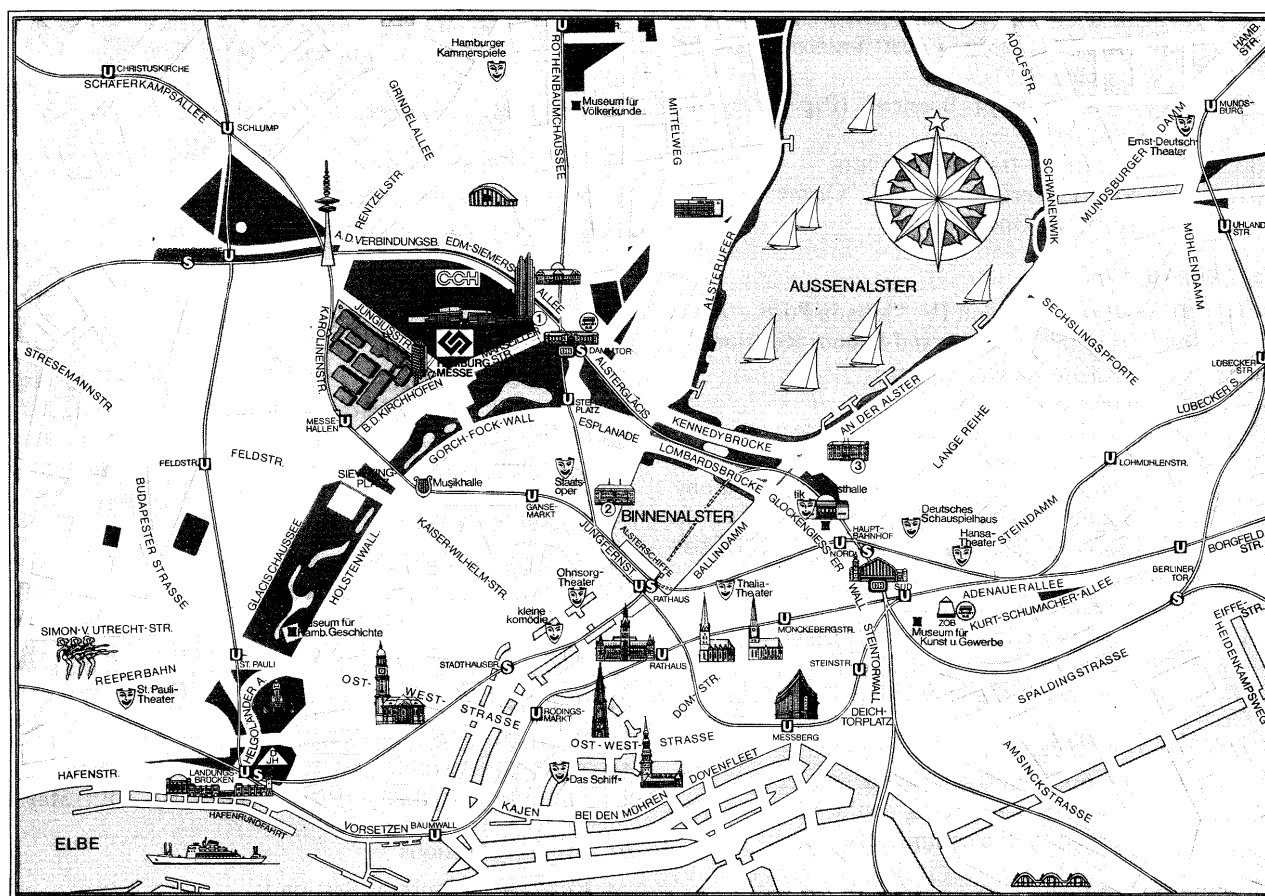
Saturday, May 4, 1985

- | | |
|-------------|--|
| 08:00/18:00 | Registration & Information |
| 09:00/12:00 | Budget/Finance Committees
COPSEC Sub-committees |
| 14:00/17:00 | Constitution & By-Laws Committee
COPSEC Sub-committees
Cargo Handling Operations Committee
Trade Facilitation Committee |
| 16:00/17:00 | Nominating Committee |
| 17:00/18:00 | Ad Hoc Committee |

Sunday, May 5, 1985

- | | |
|-------------|--|
| 08:00/18:00 | Registration & Information |
| 09:00/12:00 | Membership Committee
CLPPI
IPD
Public Affairs Committee
COPSEC |
| 11:00/12:00 | Resolutions and Bills Committee
Credentials Committee |
| 11:00/12:00 | Ad Hoc Committee (subject to confirmation) |
| 15:00/18:00 | Joint Pre-Conference Meeting of the Board of Directors and the Executive Committee |

MAP OF HAMBURG



- ① Hotel CP Plaza ② Hotel Vier Jahreszeiten ③ Hotel Atlantic

*19:00/21:00 IAPH Reception (at the Museum of Hamburgian History)

Monday, May 6, 1985

- 08:00/18:30 Registration & Information
- 08:00/08:30 Resolutions and Bills Committee
- *08:45/10:00 Official Opening Ceremony
- 10:00/12:00 1st Plenary Session
- *12:00/14:00 Lunch & Speaker (Host: The City of Hamburg)
- 14:30/17:30 Working Session I: The Requirements of Ports in Developing Countries
- 14:30/17:30 Port Information Tour
- *18:30/19:30 Reception at the City Hall (Host: The City Council of Hamburg)
- *20:00/24:00 Buffet Dinner (Official Opening of PORTEX '85 Int'l Port Exhibition)

Tuesday, May 7, 1985

- 08:00/09:00 Honorary Membership Committee
- 09:00/12:00 Working Session II: "The Role of Communication in Ports"
 - Aims and Objectives of the Use of EDP for Cargo Handling and Transport Processes in an Advanced Technology Port
 - Aims and Objectives of the Use of EDP in a Port Less Technologically Equipped
 - The Information Chain as a Supplement to the Transport Chain
- 09:30/12:00 Visit to the Ship Handling and Simulating Facility—SUSAN

- 09:30/12:00 Port Information Tour
- 11:30/12:00 Press Conference
- *12:00/14:00 Lunch & Speaker (Host: Federal State Niedersachsen)
- *14:30/19:00 Visit to PORTEX '85, Int'l Port Exhibition
- *14:30/17:30 Port Information Tour
- 16:30/17:30 Legal Counselors
- *19:00/21:00 PORTEX Exhibitor Reception

Wednesday, May 8, 1985

- 09:00/12:00 Visit to PORTEX '85 — Int'l Port Exhibition
- 09:30/17:00 Visit to the Ship Handling and Simulating Facility — SUSAN
- 09:30/12:00 Port Information Tour
- *12:00/13:30 Lunch & Speaker (Host: Federal State Schleswig-Holstein)
- 14:00/17:00 Working Session III: "Free Ports, Preconditions, Systems, Importance"
- 14:00/17:00 Port Information Tour
- *20:00/24:00 "Night in the Docks" (Hosts: HHLA — Hamburg, Gottwald GmbH — Dusseldorf, Peiner Maschinen und Schraubenwerke-Peine, Salzgitter Kocks, GmbH — Bremen, Still GmbH — Hamburg, Varta Batterie AG — Hannover)

Thursday, May 9, 1985

- *08:00 Train leaves for Tour to Bremen/Bremerhaven

*09:30	Arrival at Bremerhaven — Technical Visit to the Ports of Bremen/Bremerhaven
*12:00/13:30	Lunch & Speaker (Host: Bremer Lagerhaus-Gesellschaft (BLG))
*14:00	"The Ports of Bremen" (Paper Presentation)
*15:30	Return by train to Hamburg
*19:30	Special Performance of "Carmen" at the Hamburg Opera House

Friday, May 10, 1985

09:00/12:00	Working Session IV: "Men in Ports — Aims, Training, Working and Labour Relations"
09:30/12:00	Port Information Tour
11:30/12:00	Press Conference
12:00/12:30	Resolutions and Bills Committee
12:00/14:00	Lunch & Speaker
14:30/16:00	2nd Plenary Session and Closing Ceremony
16:30/18:00	Joint Post-Conference Meeting of the Board of Directors and the Executive Committee
18:00/18:30	Executive Committee
*18:30/19:30	Cocktail Reception (Host: Hamburg Chamber of Commerce)
*19:30/24:00	"Farewell Dinner & Dance"

Saturday, May 11, 1985

No function is scheduled.
Room arrangements could be made if so desired by the committees.

2: Business Program

1) Board of Directors

15:00/18:00	Joint Pre-Conf. Meeting of the Board and Exco	Sun, May 5
16:30/18:00	Joint Post-Conf. Meeting of the Board and Exco	Fri, May 10

2) Executive Committee

15:00/18:00	Joint Pre-Conf. Meeting of the Board and Exco	Sun, May 5
16:30/18:00	Joint Post-Conf. Meeting of the Board and Exco	Fri, May 10
18:00/18:30	Exco	Fri, May 10

3) Ad Hoc Committee

17:00/18:00	Ad Hoc Committee	Sat, May 4
11:00/12:00	Ad Hoc Committee	Sun, May 5

4) Conference Committees

09:00/12:00	Budget/Finance Committees	Sat, May 4
16:00/17:00	Nominating Committee	Sat, May 4
11:00/12:00	Resolutions & Bills Comm.	Sun, May 5
11:00/12:00	Credentials Committee	Sun, May 5
08:00/08:30	Resolutions & Bills Comm.	Mon, May 6
08:00/09:00	Honorary Membership Comm.	Tue, May 7
12:00/12:30	Resolutions & Bills Comm.	Fri, May 10

* : Ladies are invited

5) Internal Committees

09:00/12:00	Budget/Finance Committees	Sat, May 4
14:00/17:00	Constitution & By-Laws Comm.	Sat, May 4
09:00/12:00	Membership Committee	Sun, May 5

6) Technical Committee

09:00/12:00	COPSEC Sub-committees	Sat, May 4
14:00/17:00	Cargo Handling Operations Comm.	Sat, May 4
14:00/17:00	COPSEC	Sat, May 4
14:00/17:00	Trade Facilitation Comm.	Sat, May 4
09:00/12:00	CLPPI	Sun, May 5
09:00/12:00	IPD	Sun, May 5
09:00/12:00	Public Affairs Committee	Sun, May 5
09:00/12:00	COPSEC	Sun, May 5
14:00/17:00	COPSEC (Reserve)	Sun, May 5

7) Legal Counselors

11:00/12:00	Resolutions & Bills Comm.	Sun, May 5
08:00/08:30	Resolutions & Bills Comm.	Mon, May 6
16:30/17:30	Legal Counselors	Tue, May 7
12:00/12:30	Resolutions & Bills Comm.	Fri, May 10

8) Plenary Sessions

08:45/10:00	Official Opening Ceremony	Mon, May 6
10:00/12:00	1st Plenary Session	Mon, May 6
14:30/16:00	2nd Plenary & Closing	Fri, May 10

9) Working Sessions

14:30/17:30	Working Session I: The Requirements of Ports in Developing Countries	Mon, May 6
09:00/12:00	Working Session II: "The Role of Communication in Ports" — Aims and Objectives of the Use of EDP for Cargo Handling and Transport Processes in an Advanced Technology Port — Aims and Objectives of the Use of EDP in a Port Less Technologically Equipped — The Information Chain as a Supplement to the Transport Chain	Tue, May 7
14:00/17:00	Working Session III: "Free Ports, Preconditions, Systems, Importance"	Wed, May 8
09:00/12:00	Working Session IV: "Men in Ports — Aims, Training, Working and Labour Relations"	Fri, May 10

10) Technical Visit

09:00/12:00	Visit to PORTEX '85 — Int'l Port Exhibition	Wed, May 8
	Full-day Visit to Bremen/Bremerhaven	Thu, May 9

11) Press Conference

11:30/12:00	Press Conference	Tue, May 7
11:30/12:00	Press Conference	Fri, May 10

Committee names in full:

COPSEC	Committee on Port Safety, Environment and Construction
CLPPI	Committee on Legal Protection of Port Interests
IPD	Committee on International Port Development

3: Ladies Program

Sunday, May 5, 1985

19:00/21:00 IAPH Reception (at the Museum of Hamburgian History)

Monday, May 6, 1985

08:45/10:00 Official Opening Ceremony
12:00/14:00 Lunch & Speaker (Host: The City of Hamburg)
14:30/17:30 City of Hamburg Sightseeing Tour with coffee break
18:30/19:30 Reception in the City Hall (Host: The City Council of Hamburg)
20:00/24:00 Buffet Dinner (Official Opening of PORTEX 85 Int'l Port Exhibition)

Tuesday, May 7, 1985

08:30/17:30 Excursion to the Federal State Schleswig-Holstein
12:00/14:00 Lunch & Speaker (Host: Federal State Niedersachsen)
14:30/19:00 Visit to PORTEX '85 Int'l Port Exhibition
19:00/21:00 PORTEX-Exhibitor Reception in the Fair Ground

Wednesday, May 8, 1985

09:00/11:00 Special Harbour Cruise Sightseeing
12:00/13:30 Lunch & Speaker (Host: Federal State Schleswig-Holstein)
14:00 Visit to the Hanseatic City of Lübeck
15:00 Harbour Cruise in Lübeck — Tour on the Trave River to Travemünde — Visit to the Skandinavienkai
18:00 Arrival to Hamburg
20:00/24:00 "Night in the Docks" (Hosts: HHLA, Gottwald GmbH, Peiner Maschinen u. Schraubenwerke, Salzgitter Kocks, GmbH, Still GmbH, Varta Batterie AG)

Thursday, May 9, 1985

08:00 Train leaves for Tour to Bremen/Bremerhaven
09:30 Arrival at Bremerhaven — Technical Visit to the Ports of Bremen/Bremerhaven
12:00/13:30 Lunch & Speaker (Host: Bremer Lagerhaus-Gesellschaft (BLG))
14:00 "The Ports of Bremen" (Paper Presentation)
15:30 Return by train to Hamburg
19:30 Special Performance of "Carmen" at the Hamburg Opera House

Friday, May 10, 1985

09:00/12:00 Open Air Museum "Kiekeberg"
12:00/14:00 Lunch and Speaker
14:30/16:30 Boat Trip on Lake Alster and Canals
18:30/19:30 Cocktail Reception (Host: Hamburg Chamber of Commerce)
19:30/24:00 "Farewell Dinner & Dance"

* * *

Attendance to the Conference in Person or by Proxy — Submission of forms of credentials and proxy requested

1: The Secretary-General, in his recent letter to the regular members, asked them to submit a form of credentials advising the name of the delegate of each member organization attending the 14th Conference in person, or that of proxies specifying the names of individuals attending the Conference on behalf of organizations from which no delegates will be able to attend.

2: Also, the members of the Board of Directors were asked to file to the Secretary-General notice of their availability to attend the regular meeting scheduled to be held on Sunday, May 5, as well as the names of such member who will attend the post-conference meeting to be convened on Friday, May 10, immediately following the closing session of the 14th Conference. Moreover, any Directors unable to attend the Board meetings in person were asked to submit a form of proxy.

Board to select venue for the 16th IAPH Conference 1989

The site selection for the 16th biennial conference of IAPH to be held in 1989 in the American region will be made by the Board of Directors at its meeting scheduled for Friday, May 10, 1985, at the close of the 14th Conference in Hamburg, although the official decision is to be made at the closing session of the 15th conference in May, 1987 in Seoul, Korea.

In accordance with past practice, the Secretary General circulated a letter dated February 15, 1985 to all Regular Members in the American region, sounding them out about their interest in hosting the 16th conference in 1989.

The conference venue is to be selected on the basis of presentations from the candidates.

Potential Hosts for the next EXCO meeting sounded out

Traditionally, the mid-term meeting of the Executive Committee of IAPH has been held in the region where the next biennial conference of the Association is to be held, about one year before it. For instance, the last meeting of EXCO was held in Glasgow in May, 1984 to discuss the guidelines of the Hamburg conference.

As EXCO is to decide the site for the next meeting at its post-conference meeting in Hamburg, the Secretary General circulated a letter dated February 18, 1985 to all Regular Members in the Asian region, sounding them out concerning their interest in hosting the 1986 EXCO meeting.

The Secretary General indicated that the number of participants involved would be about 50, including the chairmen of the committees, the liaison officers and the Head Office secretariat members as well as accompanying persons, not counting those from the host's side.

The venue is to be selected from among the proposals arriving from the candidates in the region at the EXCO meeting in Hamburg scheduled for May 10, 1985, immediately following the post-conference joint meeting of the Board and Executive Committee.

Members invited to serve on IAPH committees

At every conference, the members of the internal and technical committees are appointed by the President from among the applications made, based on the recommendations of the Committee Chairmen and the Executive Committee members.

At the moment the Association has 3 internal and 6 technical committees, which are all served enthusiastically by volunteer Association members.

With the Hamburg Conference drawing closer, members interested in serving on any of the technical or internal committees for the new-2 term beginning at the close of the 14th Conference are invited to make written applications to the Secretary General specifying the committee or committees (not more than two) they wish to serve on, by April 20, 1985. Applications will be presented to the President for his consideration before appointments are made official.

While the wide-ranging activities undertaken by the respective committees constitute the backbone of our Association, it has never been an easy task for them to really function as a team, because the members are generally dispersed all over the world. Nevertheless, thanks to the sterling leadership of the chairmen, our committees have produced a number of valuable reports on the work they have carried out in their assigned fields. Thus it is the expectation of all committees that those appointed to participate in them for the new term should give of their best.

The area of work covered by the technical committees are subject to revision at each conference. Currently, however, they are as follows:

- a: Committee on Cargo Handling Operations
The examination and continuous review of matters relating to the planning, development and operation of cargo handling facilities and systems. These include general cargo, containerization, Ro/Ro, barging, equipment and manpower training.
- b: Committee on Port Safety, Environment and Construction
The consideration of matters relating to the construction, maintenance and safe marine operation of ports and harbors and to the protection of the port environment, including vessel traffic services, the control of dangerous substances, pollution control and crisis management.
- c: Committee on Trade Facilitation
The handling of procedures and documentation relating to the facilitation of trade through ports and harbors, including the communication and processing of data on a local, national or international basis, as may be required.
- d: Committee on International Port Development
The proposing, developing and administering of schemes for the provision of training, education, and technical assistance to developing ports and the stimulation of cooperation between developing and developed ports.
- e: Committee on Legal Protection of Port Interests
The examination and review of provisions of international law affecting port interests. IAPH works closely with many representatives of inter-governmental and other international maritime organizations.
- f: The encouraging of the development of all ports and

harbors which in turn means the development of the whole port community. The identification of community attitudes to port development, operations and industrial growth in port areas. The determining of area of public concern as well as the assessment of the economic impact of the port on the daily lives of the community and the development of a public relations strategy to deal with problems that may arise.

Membership Change in the Ad Hoc Committee for Special Projects

Following the announcement made through the Jan./Feb. issue of this journal of the members appointed by the President to serve on the Ad Hoc Committee for screening the "Special Project Expenses", Mr. Paul Bastard, Chairman of the Membership Committee, has been newly appointed to replace with Mr. J.K. Stuart, U.K. This replacement has been made at the recommendation of Mr. Stuart, who considered that his place should preferably be filled by someone who speaks the French language. As a result, the final list of the members is as follows:

- J. den Toom, First Vice-President (Port of Amsterdam)
- Paul Bastard, Chairman of the Membership Committee (France)
- W. Don Welch, EXCO Member (South Carolina State Ports Authority)
- J.H. McJunkin, EXCO Member (Port of Long Beach)
- Wong Hung-Khim, EXCO Member (Port of Singapore)
- A.G. Field, Chairman of the Finance Committee (Townsville Harbour)

In this connection, the chairmen of the technical committees have been asked by the Secretary General to come up with proposals, together with supporting data and financial estimates, concerning any special projects they might wish to undertake which would require the allocation of financial assistance. The Ad Hoc Committee's meeting is scheduled for Saturday, May 4, 1985 in Hamburg, to evaluate and screen such proposals as may be submitted from the technical committees, so that the recommendations of the Ad Hoc Committee will be properly reflected in the budget for 1985/86.

Bursary Recipients announced

Mr. J.K. Stuart, Chairman of the IAPH Committee on International Port Development, announced that he had approved a bursary for the following applicants:

1. **Mr. Jose Paul**, Traffic Manager, Cochin Port Trust, India, for doctoral research studies in port management in the Department of Maritime Studies, UWIST (University of Wales, Institute of Science & Technology), Cardiff, UK, for the year 1984-85.

Mr. Paul is the recipient of the 4th Prize in the IAPH Award Scheme 1983/84 and he recently wrote to the Secretary General that he felt extremely honored to be awarded such recognition by IAPH. "These two achievements", he further went on, "have given me greater confidence, fortified my resolution and activated my research study with greater commitment and dedication." The thesis of his research is entitled "The role of Government in Ownership, Operation, Management and Development of major ports in developing countries with special reference to India."

2. **Mr. Kurt Allahar**, Operations Manager, PLIPDECO (Point Lisas Industrial Port Development Corporation Ltd.), Trinidad and Tobago, to attend "Port Administration and Operation Programme" organized by the Port Authority of New York and New Jersey at the World Trade Center for the period March 25 – April 12, 1985.
3. **Mr. Washington D. Ogada**, Marine Engineer, Kenya Ports Authority, to attend the Second Class Certificate of Competency course in Marine Engineering at Liverpool Polytechnic for the period April 22 – October 1985.

Membership Notes

New Members

Regular Member

Seaway Port Authority of Duluth

P.O. Box 6877, Duluth, Minnesota 55806, U.S.A.
 Office Phone: 205-690-6113
 Telex: TWX 910 561-0052
 Cable: SPAD
 (Mr. Davis Helberg, Executive Director)

Associate Member

Mr. J.F. Stewart (Class E)
 2 Parklands Drive, Karori, Wellington 5, New Zealand
 Phone Number: 769-378

Temporary Members

Madras Port Trust

Madras-600001, India
 Office Phone: 29151/5 or 29201/9
 Telex: 041-331
 Cable: PORTRUST, Madras
 (Shri Ashoke Joshi, Chairman)

Junta del Puerto

Paseo de Pereda, No. 33, 39071 Santander, Spain
 Office Phone: 942 21 64 66
 Telex: 35936
 (Mr. Miguel Angel Pesquera, President)

Port of Palm Beach

P.O. Box 9935, Riviera Beach, Florida 33404, U.S.A.
 Office Phone: (305) 842-4201
 (Mr. Benson B. Murphy, Executive Director)

Changes

Korea Port Stevedores Association (Korea)

Address: Suhkwang Bldg., 118, Bomoon-dong
 Seongbuk-ku, Seoul
 Office Phone: 744/1563, 744/2113


Port of Helsinki Authority (Finland)

Chairman: Mr. Urpo Vihervaara

The Southland Harbour Board (New Zealand)

Chairman: Mr. L.T. Shirley
 Dy. Chairman: Mr. R.W. Powley

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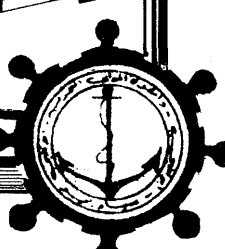
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Open forum:

Current Events of Particular Interest and Importance to the UK Port Industry

By A.J. Smith
Secretary of the British Ports Association
IAPH Liaison Officer with IMO

(Excerpts from the speech delivered in Tokyo on January 24, 1985)

Introduction

Since May, 1951, when the greatly revered and widely respected maritime personalities Gaku Matsumoto, Chujiro Haraguchi and Toru Akiyama coined the phrase "World Peace through World Trade; World Trade through World Ports", port and harbour authorities the world-over have fully understood its implications for themselves and the economies they serve.

They are aware that they must be highly professional in all aspects of their management of ports. They know they must ensure that the commercial services offered by their ports accord with the needs of the maritime trading community and are made available at costs which reflect the efficiency of their management. They know also that the process of meeting these commitments must be carried out in such a way as to secure the safety of shipping using their ports and the environment in which they are located.

Privatisation

You will know that the situation I have described is part of the normal credo of present-day port management, not least in my own country. The Boards of ports and harbours are now usually composed of a majority, in some cases exclusively, of persons who have knowledge or experience relevant to the management of ports. In the context of my own country, that movement or change is given emphasis and impetus by our Government's willingness to consider a policy of privatisation.

The concept of privatisation in UK terms, if generally applied, will be presumed to meet the requirements of an international and domestic maritime trading situation in which the ports must compete for, and win, some of the approximately 440 million tonnes of freight passing through UK ports annually, and an incalculable amount of freight traffic which presently passes by UK ports heading for a Continental European port as a first port of call.

The term privatisation denotes the introduction of private capital into an undertaking. It is not a new concept. Privately-owned ports have been a part of the port scene in the UK, most successfully, for quite a long time. The interest lies in the possibility of privatising a nationalised entity or perhaps a designated Trust Port.

Under the Transport Act, 1981, for example, the port organization formerly known as the British Transport

Docks Board was reconstituted under the name "Associated British Ports". That new body continues to be a statutory corporation and does not, itself, have share capital. It is however, controlled, to some extent, under the Transport Act 1981 by a company formed under the Companies Act, 1948, in much the same way as a holding company controls a subsidiary. In particular, the holding company appoints the directors of Associated British Ports but is not entitled to give them directions about the way in which Associated British Ports exercises its statutory powers and duties as a harbour authority.

The first year's operational results of Associated British Ports were most encouraging and are bound to give a boost to the protagonists of privatisation.

Harbour authorities in the UK already have a large measure of independence. They operate mainly under local statutory powers for the reason, perhaps, that ports differ from each other both in their history and physical characteristics. The Secretary of State for Transport is the Minister responsible for ports (apart from some small fishing ports in England and Wales known as "fishery harbours" and some small ports in Scotland known as "marine works") but he has little control over their activities. At the present time the Minister is able to approve major schemes of development. He also has jurisdiction to determine objections to harbour dues and he is the confirming authority for harbour by-laws. He also has powers to make loans to harbour authorities. He wants, however, to reduce his area of responsibility even further, but recognizes that legislation would be required to do so. Therefore, as the advertisements say, "Watch this space". You can expect even more interesting structural changes to come from the UK in the not too distant future.

Pilotage

UK ports, though engaged in commercial activity, are not simply commercial bodies. They have statutory responsibilities. As statutory bodies they must carry out the functions laid down by Parliament. These often include the buoying and lighting of their harbours, the removal of wrecks, and the regulation of shipping so far as the movement and berthing of vessels is concerned and the routes which they must take. They are responsible for the safety of navigation in the waters of their jurisdiction and, necessarily, their various duties, in that regard, are carried out through the ports' ancillary services. These port ancillary services must surely include a pilotage service, yet, in the great majority of British ports at the present time, pilotage is not under the control of port authorities.

For the last four years, the maritime industry in the UK has been giving serious thought to pilotage reorganization. Acknowledgment that all efforts had failed was signalled by the UK Government in December, when it issued a

Consultative Document outlining their own radical plan to transfer responsibility for the UK's pilotage services to individual harbour authorities.

The Government's plan envisaged:

- the transfer of pilotage services to individual or groups of harbour authorities;
- that compensation of redundant pilots would be funded by shipowners through a special Government levy on harbour authorities;
- that whether or not a compulsory pilotage regime should be applicable locally would be a matter for determination by local harbour authorities;
- the issue of certificates to any Master or Chief Officer meeting fair examination standards;
- that there need be no appeals procedure against pilotage or certification charges;
- that Trinity House would cease to be a pilotage authority but could, at the discretion of a harbour authority, act as the agent for that authority;
- the ultimate abolition of the Pilotage Commission.

All interested organizations are required to comment on Government's proposals by mid-February. Present indications are that there is a significant degree of support for the proposals generally. Certainly, that is the position of the UK ports industry, which believes that reorganization on the lines proposed by Government will lead to more efficient management of the pilotage service and that, in turn, will benefit both shipping and industry generally.

Dock Work

Harbour authorities, generally, may if they wish, become directly involved in cargo handling operations. At some ports the harbour authority, or its subsidiary companies, are the main, or sole, employers of dock labour. Most of the major ports are included in the National Dock Labour Scheme. This scheme provides, inter alia, for registers to be kept at the ports concerned of port employers and dock workers. No-one other than a registered dock worker can be employed to do "dock work" as defined by the Scheme and a registered dock worker cannot be removed from the register except on specified grounds and in accordance with a procedure prescribed by the Scheme. The Scheme establishes a National Dock Labour Board and Local Dock Boards whose functions include the allocation of registered workers to port employers. At ports within the Dock Labour Scheme, port employers also have to obtain a license to employ dock workers, the licensing authority being either the harbour authority for the port or the harbour authority for a neighbouring major port.

The Scheme has little to commend it in present-day circumstances. Its abolition, however, would not be easy to accomplish. No doubt our Government will exercise a fine political judgement on the matter in due time.

Health and Safety at Ports

International consideration of health and safety at ports has taken place mainly within the International Labour Organization. The results of work carried out invariably receive very little publicity. The impact of that work, however, can, in some cases, have most important implications for the ports of the world.

The I.L.O. Convention on the subject, for example, No. 152, is available for ratification by member Governments. The UK Government is giving serious consideration to the

matter at the present time. What is particularly gratifying, however, is that Government is acting in concert with the ports to develop the applicable legislation. The revision of our Docks Regulation, 1934, will affect all of our ports, large and small alike. It was therefore obvious and necessary that implementation of the legislation should be cost-benefit related. The current position we have reached is agreement on a draft text for issue, shortly, as a Consultative Document prior to the enactment of final legislation.

Dangerous Substances in Harbour Areas

Since 1951, and having regard to the aspirations deeply felt by Mr. Matsumoto, Mr. Haraguchi and Mr. Akiyama, the founders of IAPH have created a forum in which the world's ports have talked to each other with a sense of shared commitment.

An excellent example of that combined effort was the issue of Recommendations dealing with the control of dangerous substances in harbour areas. So effective were IAPH's efforts in that regard, that the concerted voice of the world's ports was able to convince IMO that it was entirely right and proper for that body to give IAPH's Recommendations its endorsement. That was done and it is now a matter for each Government to decide on their implementation.

You should know that the UK Government is in the process of implementing these recommendations, as regulations, after full and frank discussions with our ports.

When the regulations appear — as we expect them to do very shortly — their enforcement will be a matter for joint action by ports and our Government's Health and Safety Executive. Steps are being taken to ensure that all our UK ports are thoroughly familiar with those recommendations and the action which will be required of them.

Dangerous Vessels

It is sometimes the case that action taken by a port or ports for specific purposes can, after examination by the Committees of IAPH, beneficially be adopted by the generality of IAPH members. Whether that possibility arises in the circumstances about which I shall now speak remains to be seen. It is at least interesting, however, to speculate about it.

Members of the British Ports Association have felt for a long time that there was a need to clear up any misunderstandings which may exist concerning a British port's power to regulate the entry of vessels. Accordingly, therefore, last December, the BPA promoted a Bill in Parliament which will have the effect of enabling harbours to prevent highly dangerous vessels from entering port, or require them to be removed from the port.

It is possible, under the provisions of the Bill, for the Minister to over-rule the harbour master's decision. In such an event, it will be very clear on whose shoulders lies the responsibility for any consequential adverse happening such as might apply, for example, if the vessel were to sink in the port's approach channel.

Having referred to the BPA's action in Parliament, it is very interesting to me to note that the Legal Committee of IMO is currently considering a proposed Salvage Convention. I find no reference in the draft of the Convention to the position of ports, yet it must be surely the case that a so-called successful salvage operation is presumed to have

(Continued on page 16)

Principles and Practices for the Ocean Disposal of Dredged Material

— The London Dumping Convention re-examined —

By Herbert R. Haar, Jr.
Assistant Executive Port Director
Board of Commissioners of the
Port of New Orleans

(This is a reproduction of Mr. Haar's paper presented at the Tenth U.S./Japan Experts Meeting on Management of Contaminated Bottom Sediments, held in Kyoto, Japan on October 30 — November 2, 1984.)

Abstract

Members of the International Association of Ports and Harbors (IAPH) and the American Association of Port Authorities (AAPA) have, since 1979, been actively engaged with various activities involving the London Dumping Convention. Their continued success in developing international principles and practices for the ocean disposal of contaminated and non-contaminated dredged material will insure that national and international port views are taken into consideration, and that such views influence policy decisions being made. Many problems have arisen over the years in regard to the London Dumping Convention Treaty requirements and U.S. implementing laws of this treaty for ports not only in the United States but in other areas of the world as well. In response to these problems, it has been necessary for IAPH and AAPA to engage the services of scientific and legal professionals to assist in examining and proposing viable solutions capable of bridging differences between ports' interests worldwide and those of the U.N. treaty organization. The results of this

(Continued from page 15)

occurred when the salvaged vessel is brought into a port. I suggest to you that that precise moment is the time of greatest danger to our ports and harbours.

I know that IAPH is aware of that fact.

Port State Control

It has been evident for some time that the appearance of sub-standard vessels on the oceans and in the port approaches and ports of the world, signals an ever-present danger whether it be to life, to the environment or to port installations.

It was therefore very interesting, and very welcome news, to European ports to note the signing in 1982 of a Memorandum of Understanding on Port State Control, by the Ministers of 14 European Nations.

We believe ship inspection is vital to eradicate the menace of substandard shipping, and the follow-up action taken by Governments must obviously be beneficial to us all.

The memorandum is now in its third year of operation, and it is perhaps of some interest to you to know the present position.

mission — addressing past activities and current issues — are presented in the following sections of this paper which expands on my November 1982 presentation at the Eight U.S./Japan Experts Meeting entitled "Rescuing the Ports — An Update."

Introduction

Ports throughout the world play a major role in a nation's economy. To remain open to waterborne traffic and commerce, most ports must conduct periodic construction and maintenance dredging activities. Such work requires suitable means of dredged material disposal. The ports of many nations, and, particularly, ports in the United States have experienced difficulty, delays, and increased costs in conducting necessary dredging. Underlying these difficulties are the need to dispose of dredged material into ocean waters and worldwide concern over the impact of ocean dumping on the environment. Disposal practices of many world ports are determined from the requirements established in the London Dumping Convention ("LDC").

In the United States, the environmental movement of the early and mid-seventies began exacting its toll on the ports of the country in the late seventies. This toll is in the form of time delays in obtaining dredging and dredged material disposal permits, denial of permits, delayed capital investment improvements, increased investment and operation and maintenance costs, and lost revenues. To counter these impacts and to seek state-of-the-art practices in dredging and dredged material disposal activities, both the American Association of Port Authorities and the International Association of Ports and Harbors established ad hoc dredging committees. Since late 1979 these two organizations separately and jointly have pursued similar goals to obtain political recognition and acquire influence to alter United States legislation and international convention as established in the LDC.

Decisions governing ports and port operations engaged in international trade must be made in the overall public interest and welfare. These decisions must not be excessively hampered by environmental considerations alone. Achieving organizational goals will require continued effort, organizational funding, and exploitation of opportunities to tell the story.

LDC background history

The London Dumping Convention was enacted in December of 1972 as a result of the growing realization by the nations of the world that the ocean did not have an endless capacity to assimilate man's waste and still regenerate natural resources. It closely paralleled legislation adopted several months earlier (October, 1972) in the United States to establish a program for the control of ocean dumping in domestic waters and territorial seas. The LDC was opened for signature on December 29, 1972, with 27 states signing that day. The LDC entered into force on August 30, 1975,

when it was ratified by the required number of 15 states. To date, 53 countries have ratified or acceded to the Convention.

The LDC relies heavily upon implementation by member states according to their national authorities. It is implemented in the United States through the Marine Protection Research and Sanctuaries Act of 1972 ("MPRSA") which required only minor amendments to assure consistency with the LDC. The key provisions of the LDC relate to the prohibitions and permit requirements set forth in Article IV, and its accompanying Annexes I, II, and III. Article IV (1) (a) prohibits the disposal of certain "blacklisted" substances set forth in Annex I (e.g., mercury, cadmium, organohalogens, petroleum products, and high level radioactive wastes) unless, in most cases, the substances are present as only "trace contaminants" (Annex I, para. 9) or are "rapidly rendered harmless" upon disposal (Annex II, para. 8). Article IV (1) (b) provides that for the "grey list" of substances described in Annex II, "special care" in disposal is required. Annex II substances can only be disposed under a "special permit." Under Article IV (1) (c), all other substances are to be disposed under a general permit. The factors specified in Annex III are to be considered in the issuance of both general and special permits.

The LDC does not specify particular standards and criteria that must be applied in determining the "trace contaminants" and "rapidly rendered harmless" questions under Annex I. That is left, by and large, to the decisions of national authorities. "Interim Guidelines" have been adopted to serve as "guidance" for the interpretation and implementation of paragraphs 8 and 9 of Annex I, but they establish no fixed standards. In the early years of the Convention, the Contracting Parties appear to have construed the "trace contaminant" provision of paragraph 9 as providing a *categorical exclusion* of dredged material from Annex I. The original draft guidelines for the implementation of paragraphs 8 and 9 adopted at the Second Consultative Meeting in 1977 contained an exclusion for sewage sludge and dredged spoil. They were endorsed in principle by Contracting Parties for further consideration as a priority item. At the Third Consultative Meeting in 1978, Contracting Parties adopted final Interim Guidelines. However, a substantial change was made. Test procedures for determining "trace contaminants" were extended to dredged material. This departed from the original understanding of the dredged material exclusion endorsed in principle by Contracting Parties the previous year.

This action at the Third Consultative Meeting created a serious dilemma for many ports. As a result of growing industrialization and increases in waterborne trade and commerce, many ports find that their harbor sediments may contain substances listed in Annex I in varying degrees. This may present special problems for those ports which rely upon ocean disposal of dredged material for continued operation. The critical determinations are those relating to the "trace contaminants" and "rapidly rendered harmless" questions. If an especially stringent standard is applied, it may trigger the Annex I prohibitions and prevent ocean disposal of the dredged material — even at the expense of continued port operations.

Concerns of this very nature began to arise shortly after adoption of the Interim Guidelines at the Third Consultative Meeting. In 1979, environmental groups in the United States insisted that Annex I barred the ocean disposal of

dredged material at the Port of New York-New Jersey and at the Port of Lake Charles, Louisiana, because the dredged material allegedly contained Annex I substances that exceeded "trace contaminant" levels. It was against this background that IAPH and AAPA formed their respective Ad Hoc Dredging Task Forces whose efforts over these past five years have been directed toward achieving a more realistic and practical treatment of dredged material under the London Dumping Convention.

Organizing for survival

The American Association of Port Authorities:

In response to such ever-increasing problems of delays and escalating costs and to continued efforts of those proposing more stringent, if not always applicable, testing procedures, The American Association of Port Authorities (AAPA) established an Ad Hoc Committee on Dredging in June, 1979. (The Committee is now known as the Special Dredging Committee.) Its establishment was recognition that the then existing AAPA Committee structures and ensuing resolutions were ineffective in moderating the trend toward increasing environmental restrictions on dredging activities. Early-on, goals were established. These goals included the identification and documentation of those laws, rules, regulations, agencies, procedures, and agreements which are creating dredging problems. Targeted for study were concerns over mitigation, compensation, endangered species, bioassay test criteria, local costs, permit delays, and interagency agreement. Additionally, the Committee was charged with developing recommended revisions to existing regulations and procedures that would provide needed relief as well as the necessary documentation to support those revisions. Finally, the new Committee was instructed to develop a strategy to be used to achieve adoption and implementation of these revisions and to compile data on key legislators, committees, boards, and administrators to whom these revisions must be officially transmitted.

The International Association of Ports and Harbors:

In early 1980, a similar committee to coordinate on the international scene was established by the International Association of Ports and Harbors (IAPH).

At the IAPH Executive Committee Meeting in Brisbane, Australia, in April, 1980, there was considerable discussion of the problems that the United States ports had been encountering in their attempts in recent years to dredge their facilities. The Committee recognized that those difficulties stemmed in a large measure from the United States being party to the LDC. Further, the Committee agreed that it would be to the benefit of the IAPH membership to develop a better understanding of port dredging practices and the relationship of those practices to the terms of the London Dumping Convention.

The missions of the International Ad Hoc Dredging Committee are:

1. To review, report, advise, and submit recommendation on major matters relating to seaport and inland port dredging and dredging equipment;
2. To meet with and coordinate with the London Dumping Convention and the International Maritime Organization (IMO), the latter being the organization designated to serve as the Secretariat to the LDC;

3. To develop a program on disposal of dredged material problem areas for inland ports;
4. To publish an inventory of dredging equipment owned by dredging companies worldwide, including a special section on new innovative equipment;
5. To collect and publish information on state-of-the-art techniques; and
6. To publish an information brochure on sources of information and assistance on dredging techniques and types of equipment best suited for given situations.

Moving towards the intended goals

These two committees, the Ad Hoc Dredging Committee of the IAPH and the Special Dredging Committee of the AAPA, have pushed forward in their effort to resolve regulatory problems confronting the industry and to seek, as well, solutions that are environmentally and economically sound. The following is a brief chronology of IAPH/AAPA efforts in seeking to achieve a more realistic and meaningful treatment of dredged material under the LDC.

1. In the fall of 1979 — shortly after the Annex I prohibitions were asserted for the first time to halt essential port operations in the United States — AAPA sought and obtained representation on the EPA-chaired U.S. Ocean Dumping Advisory Committee, which is responsible for formulating U.S. positions under the LDC. It was the hope of AAPA to be able to influence U.S. positions to assure that they would have proper regard for port concerns. AAPA also requested a place on the U.S. delegation to the Fourth Consultative Meeting of the LDC later that year, but was *refused* — even though a representative of a major environmental group adverse to ocean dumping of dredged material was included on the delegation.
2. In 1980 IAPH made use, for the first time, of its “observer” status under the LDC to attend the Fifth Consultative Meeting of Contracting Parties. In its initial attendance at the meeting, IAPH emphasized the drastic effect upon port operations that could occur if Annex I were applied to halt needed dredged material disposal. IAPH also suggested the possibility of using certain “special care” techniques (such as clean material capping) for the ocean disposal of highly polluted dredged material. The IAPH submission was well received, and IAPH was asked to make a more detailed presentation at the next meeting of the Scientific Group.
3. In May of 1981, IAPH attended the Scientific Group meeting in Halifax, Nova Scotia, and presented a detailed paper on the use of “special care” measures. This focused scientific attention upon these techniques and has resulted in their growing study and use since that time.
4. In October of 1981, IAPH attended the Sixth Consultative Meeting in London. IAPH reported upon additional experience with special care techniques and also suggested that the “emergency” provisions of the LDC should apply when a port had no alternative means of disposing of polluted dredged material other than dumping at sea. Although this construction of the “emergency” provisions was not approved, Contracting Parties *did* express the view that such situations might appropriately be handled through the use of “special care” measures.
5. In September, 1982, IAPH attended the meeting of the Scientific Group in Paris, France. The Paris meeting was one of extreme significance. In addition to the IAPH submission on “special care,” great interest was expressed in developing additional “criteria” for classifying substances to Annexes I & II, with emphasis upon the use of numerical standards. This renewed consideration of the basis for “classification” presented a major opportunity for IAPH to make a *new case* for a *separate treatment* of dredged material. IAPH seized this opportunity and offered to prepare a scientific paper addressing the special features of dredged material in the context of classification criteria.
6. In February of 1983, IAPH attended the Seventh Consultative Meeting in London. In addition to presenting port positions on the use of “special care” techniques and on the preparation of the proposed paper for the development of “classification criteria,” deep concern was expressed over a proposal by two small Pacific islands, Kiribati and Nauru, to ban *all* disposal of radioactive material in the oceans in terms so sweeping that it could be construed to apply to naturally occurring radioactive isotopes which are present in *all* harbor sediments. Other nations concurred in the IAPH concerns, and no binding action on the radioactivity issue was taken at the Seventh Consultative meeting.
7. At the Seventh Meeting of the Scientific Group in October, 1983, in London, IAPH submitted two technical papers relating to dredged material. The first was entitled “A Special Report on Application of Classification Criteria to Dredged Material with Emphasis Upon Petroleum Hydrocarbons and with Additional Consideration of Lead in Dredged Material.” In it, IAPH described the unique characteristics of marine sediments that serve to tightly “bind” and “hold” Annex I substances so that they are essentially “unavailable” to the marine biota when disposed at sea. IAPH demonstrated that these recognized mitigative features allowed the disposal of dredged material containing Annex I substances without significant risk to the marine environment. In the second paper-entitled “An Updating of Special Care Measures for Disposal of Polluted Dredged Material in the Marine Environment” — IAPH focused upon the use of a particular “special care” measure, “clean material capping.” IAPH reported upon its effectiveness in reducing the disposal of contaminated dredged material to a low risk status. The Scientific Group agreed that an interim evaluation had shown that “capping” is technically and scientifically feasible and is a useful mitigative measure that shows promise as a long term management strategy for the ocean disposal of contaminated dredged material.
8. In December of 1983, IAPH attended a meeting of the Ad Hoc Group of Legal Experts that was convened to consider legal issues relating to proposals for the sub-seabed disposal of high level radioactive wastes. At this highly emotional meeting, the Nordic countries introduced a resolution to ban all seabed disposal of high level radioactive wastes *and all other wastes listed in Annex I as well*. Because of analogies that had been drawn between “capping” and “seabed disposal,” this presented a direct threat to the continu-

ed use of capping as a means of disposing contaminated dredged material at sea. IAPH expressed its strong opposition to the Nordic resolution and the need to exclude dredged material from its terms.

9. At the Eighth Consultative Meeting in February, 1984, IAPH presented a major new recommendation. Based upon the conclusions reached in its classification criteria paper, IAPH expressed the view that dredged material containing Annex I substances should *not* be subject to the strict prohibitions of Annex I but should be regulated under the "special permit" provisions of Annex II. IAPH examined the dramatic advances in scientific knowledge of dredged material since the original drafting of the Convention in 1972 and emphasized the unique properties of marine sediments that mitigate the effects of Annex I substances. The meeting took note of the IAPH presentation and agreed that the IAPH recommendations should be considered by an intersessional working group that was established to continue the development of criteria for the classification, addition, and deletion of substances to the Annexes.

The Eighth meeting also took note of the findings of the Scientific Group that an interim evaluation of "capping" had demonstrated that it is a feasible and effective technique and members endorsed the continuing use of "capping" on a research basis. IAPH also expressed its support for the view expressed by the French delegation that many of the Annex III guidelines (which include factors to be considered in granting general and special permits) can not be applied to dredged material, which properly require separate guidelines. IAPH expressed its support for this proposal and offered, subject to receiving authorization and funding from its sources, to assist in such work. Finally, IAPH renewed its objection to the Nordic resolution (which was re-introduced) that proposed an absolute ban on seabed disposal of high level radioactive wastes and all "other wastes" listed in Annex I. IAPH achieved a major success in having the language relating to "other wastes" deleted from the resolution. Dredged material was thereby excluded from the intense debate regarding the sub-seabed disposal of high level radioactive wastes.

A call for evaluation — The issues under scrutiny

We are determined and are currently continuing our productive and timely efforts to achieve our goals. In the dozen or so years that have passed since the drafting of the Convention, Contracting Parties have continued to express an interest in reviewing and evaluating the bases for the several criteria originally devised for allocating substances to Annexes I and II. Thus, with new member nations involved in plenary deliberations, Contracting Parties wish now to be assured that the extant criteria are technically sound and compatible with current knowledge. Hence, they have called for a penetrating review of the existing criteria. They wish to receive also from the Scientific Group recommendations as to appropriate additions to the criteria if and when new knowledge or concepts justify such additions. Responsibility for conducting the formal study of these issues has been assigned to a select working group that will report its findings to the Scientific Group for definitive discussion at its meeting in February, 1985.

As requested at the Eighth Consultative Meeting and in preparation for the July, 1985 Scientific Group meeting,

the Ad Hoc Expert Group on the concepts and purpose underlying the annexes to the LDC met in London in July, 1984. Thirteen international scientists were in attendance, including Dr. Willis E. Pequegnat, world renown oceanographer assisting IMO as a technical consultant. The purpose of that meeting was to review current papers addressing the issues of classification, addition, and deletion of substances to the Convention's Annexes and provide the basis by which to establish the direction and objectives of the proposed paper requested by the contracting parties.

This new document, "Some Suggested New Annex Allocation Criteria of LDC Related to the Toxicant Binding Properties of Dredged Material" has been prepared by Dr. Pequegnat, and is currently undergoing review prior to its official release at that March, 1985 IMO Scientific Group Meeting. The paper attempts to respond substantively to both requests of the Contracting Parties, i.e., to evaluate present criteria and delineate additional criteria or, at the very least, suggest how those already under consideration should be employed. Four very different but interrelated issues are dealt with, to wit:

1. Evaluation of the present list of substances in the Annexes (does not deal with radioactive materials or with persistent plastics).
2. Evaluation of the present three allocation criteria.
3. Justification for adding particular new allocation criteria to the present list.
4. Establishing the relationship of the provisions of the Annex III guidelines to the above three considerations.

Although the four issues stated above constitute implicit objectives of this study, it is appropriate to be explicit as to the topics which received most emphasis. There is a strong conviction that it is not scientifically sound to expect that criteria for allocation of substances to the Annexes can be made to apply in an equal manner to a given toxicant when it is disposed into the ocean in different forms or carriers. This point is recognized in Annex III and should be given careful consideration when one is required to hand down a regulatory decision from the provisions of Annex I. When chemical form is linked with the concept of bioavailability, we achieve a rational solution to the nagging problem of how to make full use of the ocean's capabilities and still protect its living resources and prevent hazards to human health. To achieve this goal, Dr. Pequegnat examined:

1. The concept of toxicant bioavailability and demonstrated how its magnitude is dependent in part upon the geochemical properties of the carrier or milieu in which it is measured. Here the emphasis is upon certain types of marine sediments.
2. In considerable detail some of the geochemical properties of the above marine sediments that account for their ability under certain conditions to provide the *first line of defense* against the harmful effects that Annex I toxicants would otherwise have upon marine life.
3. Explained in reasonably understandable terms the functional (physiological) mechanisms that permit marine life to erect a *second line of defense* by detoxifying or otherwise reducing the hazards of absorbed organic and inorganic toxicants.
4. Why the concept of biopersistence may be more realistic than environmental persistence as it relates to toxicity and the food chain.

5. How these geochemical properties of the carrier can modify the regulatory application of the terms toxicity and bioaccumulation, recognizing that pharmacological toxicity may be absolute but ecological toxicity is relative.

Summary of study's findings

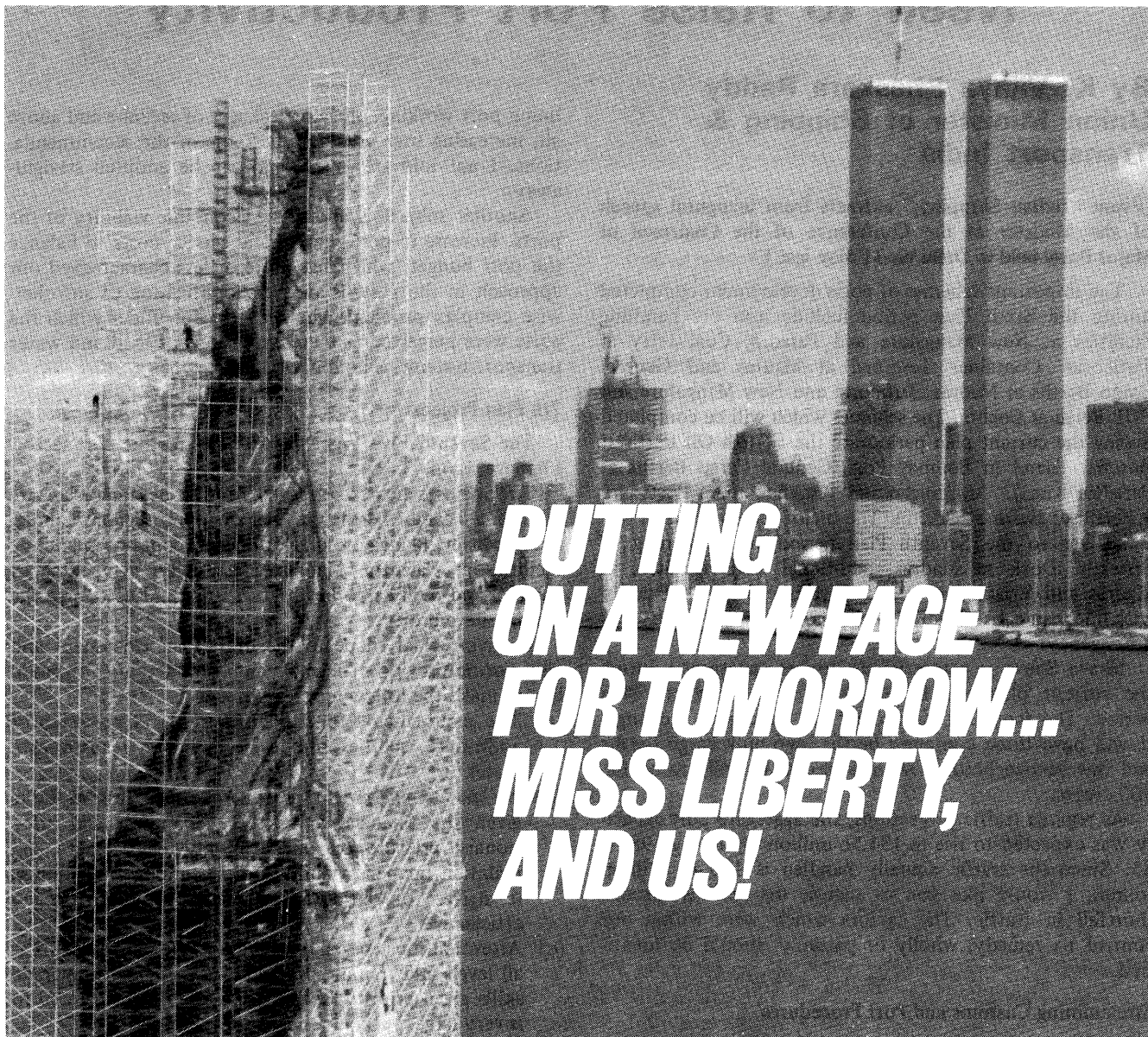
"Some Suggested New Annex Allocation Criteria of LDC Related to the Toxicant Binding Properties of Dredged Materials" is an ambitious study with landmark implications. The major conclusion drawn from Dr. Pequegnat's study indicates that in many instances the disposal of toxic dredged waste into the ocean should be the preferred alternative over any reasonable type of upland disposal. This conclusion is in conflict with related international policy proposals currently being considered and discussed by the LDC. Specific findings of that study which support this conclusion are as follows:

1. It is not scientifically or pragmatically sound to expect that a criterion for allocation of substances to the Annexes should routinely apply in and equal manner to a given toxicant when it is disposed into the ocean as a component of different wastes. Unfortunately, the point is valid that the Convention fails to make a definitive separation between substances and wastes, either in Article IV or the Annexes. Yet this is a critical issue to some governmental and industrial groups.
2. A waste per the Convention must be defined as the toxicant or toxicants of concern (e.g. an organochlorine) and the "carrier" (sewage sludge, dredged waste, etc.) in which it is disposed. Thus, carrier plus substances listed in the Annexes comprise "the waste." As we shall see, then, it is the waste, the ecological entity, that must be tested for potential impacts.
3. Thus, the nature of the carrier plus the chemical species involved generally determine whether or not a toxicant will be available to the biota. Therefore, bioavailability and physicochemical form of the carrier are perhaps the two most important considerations in dealing with disposal criteria. In general the carrier determines availability. So if a toxicant is not bioavailable, the other criteria should not apply.
4. Marine sediments, especially of estuarine origin, characteristically contain clay minerals, such as montmorillonite and vermiculite, humic acids, and sulfides, all of which are effective at reducing the availability of toxic metals or synthetic organic compounds to the biota.
5. When because of the composition of the carrier a substance does not have bioavailability, there can be no absorption into the organisms' tissues. This physicochemical suite of carrier properties comprises the "first line of defense" against environmental impacts.
6. Given that a toxicant is not bioavailable to marine plants or metazoan animals, it follows that attempts to apply the extant three criteria (toxicity, bioaccumulation, and persistence) are misguided and confusing. Realistically the waste has satisfied the intent of paragraphs 8 and 9 of Annex I.
7. Even when trace amounts (or more) of a toxicant in a waste are bioavailable and have actually been absorbed they will evoke the *second line of defense*, which is physiological. This defense mechanism protects the metabolic enzyme centers (ENZ). These enzymes control all of the cellular functions.
8. When toxic metals are absorbed, they are tied up by sulfur-bearing, low molecular weight proteins called metallothioneins, which are synthesized by liver and kidney cells. So long as the Metallothionein Pool (MT) is not overloaded, the ENZ pool is protected. Evidence thus far researched indicates that only a small percentage of the metallothionein proteins are tied up in natural populations of marine animals, even in polluted regions.
9. In similar manner, organic toxicants are bound in one or both of two places. If they are soluble in liquids (e.g.) PCBs) some are stored in fat tissues, production of which appears to be stimulated by the uptake of these organics as well as by some metals like cadmium. Synthetics are also sequestered by the glutathione pool. Both of these mechanisms are also part of the second line of defense. In addition, it must be pointed out that organisms can break down (metabolize) some toxicants. Frequently, however, in the case of synthetic organics, the metabolites may be more toxic than the parent compound (e.g. DDE from DDT).
10. It is for the above reasons that investigators have rarely observed serious impacts upon the marine biota, especially the benthic component, even in polluted sediments containing Annex I toxicants. The few exceptions are acute cases where the loading of toxicant into the environment was not only massive but also occurred in a short interval of time.
11. Clay minerals micelles like those of montmorillonite and vermiculite have huge external and internal surface areas (800 or more square meters per one gram dry weight of material) available for binding toxication of metals. Other binding agents are sulfide and hydrous oxides, and particularly humus.
12. Humus micelles are also efficient binders of various toxicants, particularly the synthetic organic compounds.
13. Dredged materials that carry significant loads of toxicants will more frequently than not possess substantial percentages of clay minerals, humic acids, and other sequestering agents. Moreover, this binding capability of the material is measureable.
14. It is proposed that when a dredged material, as carrier, contains toxic substances, that is, when the "waste" has in it Annex I toxicants, effectively bound by the above agents as evidenced by predetermined percentages of clay minerals, humics, etc., it should be considered a "naturally acceptable waste" that is eligible for ocean disposal under the permit and care procedure of Annex II.
15. It is even possible that wastes containing Annex I substances and deemed unacceptable as they are for safe ocean disposal can be upgraded for such disposal by the addition of calculated amounts of effective sequestering agents, depending upon the particular toxicants involved.

In conclusion

These IAPH/AAPA efforts have been undertaken against a history of port "uninvolvement" in ocean dumping matters. They have come at a time when pressure for stricter environmental controls has *not* abated, but remains

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PUTTING ON A NEW FACE FOR TOMORROW... MISS LIBERTY, AND US!

There she stands, has stood, year after year...An enduring symbol of what we hold dear, the very embodiment of our national pride. But lovely as she is, Miss Liberty bears the marks and scars of relentless time. She has earned what she is getting ...a refurbishing for better tomorrows.

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In addition, The Port continues to offer

national and international companies the full service packages they expect—import and export facilities, warehousing and distribution. And we will continue to maintain our supremacy as America's Intermodal Capital with new ideas, new transportation services and new approaches to better serve your needs.

Putting a new face on for tomorrow. Miss Liberty. And The Port of New York-New Jersey.

THE PORT AUTHORITY OF NY & NJ

Port Department
One World Trade Center, 64W
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Need to Raise Port Productivity

By K. Vijaya Bhaskara Reddy
Union Minister of Shipping & Transport India

(From "Indian Shipping," extracts from inaugural speech of the Minister at the Conference of the Chairmen of Major Ports held in Delhi on 31 May last.)

The important schemes of ports development completed during the Sixth Plan period include iron ore handling facilities at New Mangalore and Paradip, Coal Jetty at Tuticorin. Container Terminal at Madras and General Cargo Berths at Madras, Tuticorin and New Mangalore and POL Berth at Cochin. The schemes which will be completed during the current plan period are the Fourth Oil Berth at Butchar Island in Bombay Port, General Cargo Berths at Paradip, Kandla, Mormugao and Visakhapatnam Ports and a Fertiliser Berth at Cochin. The major schemes which will spill over to the Seventh Plan period are deepening of Bharathi Dock at Madras, additional POL facilities at Madras and Visakhapatnam. A Fertiliser Berth at Paradip with mechanical unloading facilities will be put up by the user agency.

Nhava Sheva — a prestigious project sanctioned during the current plan will be executed in the Seventh Plan period. The scope of the Project has undergone a change. It will have three container berths, two bulk cargo berths and one service berth. The revised cost is likely to be Rs. 500 crores.

As regards traffic projections, the aggregate port capacity was expected to rise to 131.56 million tonnes by 1984–85. Since the traffic actually handled is 100.45 million tonnes, I would like you to analyse the reasons for this shortfall in traffic. The factors which were within our control to remedy, wholly or partially, should be identified.

Streamlining Customs and Port Procedures

I would like to refer in passing to some important issues. First is the recommendations of the Directing Group which was set up by Government a year ago with very wide terms of reference. The Group has made a comprehensive study of Customs and Port procedures and come up with proposals and suggestions which will go a long way in stream-

lining port working, plugging leakages of revenue and above all, increasing user satisfaction. Some of the recommendations, I am told are simple and can be adopted straight-away.

Another subject is about the economic viability of the ports. Increase in port charges and service costs to balance the port budget, which has more or less characterised our approach in the past, is an oversimplification of an otherwise complex problem. The old concept under which the ports were perceived as mere extensions of land and water transport systems, is no longer valid.

7th Plan Projects

The Seventh Five Year Plan exercise for the port sector, I believe, is on.

The major schemes proposed for the Seventh Plan are additional cargo berths at Haldia, Mormugao, Kandla, Paradip, New Mangalore and Tuticorin; container handling facilities at Calcutta, Madras and Cochin, deepening of channel and bulk cargo berth at Paradip and of course the Nhava Sheva project.

In giving final shape to the draft Plan Document and also for improving efficiency and productivity, I would like to make the following suggestions:

- (a) The requirements for modernisation and provision of additional facilities should be based on realistic estimates of traffic.
- (b) No port management anywhere, much less in India given the financial and other constraints and inflationary pressure on our economy, can achieve and maintain financial viability unless, among other things, it strives for optimisation, higher productivity and efficiency.
- (c) Attention must be paid to the development of skills at all levels and training programmes designed to upgrade skills given priority, as the population to be catered to is very large.
- (d) Investment in capital works or equipment must be assured of a quick return. By careful planning and close monitoring of projects, time and cost over-runs can be avoided.
- (e) Since capacity created will always be ahead of demand, as in other transport industries, Ports may consider

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on the increase. These problems are still not yet finally settled. New issues are constantly emerging. One need only look at the Agenda of next year's Scientific Group meeting in London, and at the Agenda of the 9th Consultative Meeting next year to appreciate how much consideration is being given to matters that affect port interests. These include continued evaluation of "special care" measures mentioned (along with the attendant legal question that have been raised as to their routine use), further inquiry into "trace contaminant" levels, further development of new classification criteria, consideration of the transfer of new substances (such as lead) to Annex 1, and the question of radioactive waste disposal. Decisions will hopefully be made upon these issues within the next year. On the

domestic front, efforts are continuing to include greater environmental restrictions upon dredged material in the MPRSA; and the EPA is still planning to publish a proposed revision to its ocean dumping criteria — the first revision since the environmental changes adopted in 1977.

In the midst of this legal and regulatory activity, what is significant is that *this time* ports are *not* absent. They are *not* uninvolved. Port views are being expressed. The port voice is being heard. The challenge is here. It can not be avoided.

We have been most appreciative of Dr. Sato's support from IAPH Headquarters in Tokyo and know that we can also count on the Japanese government's and ports' support on these vital issues when they are debated at IMO in London.

Port Industry's Vitality Absolute

By W. Gregory Halpin
Port Administrator
Maryland Port Administration

(Reprinted from Port of Baltimore Magazine)

TRADE GOES around the world.

Trade makes the world go around.

Trade means exports. Trade means imports.

The other common denominator in exports and imports is that they both contain the letters PORTS.

To make the point in its simplest form: Trade is essential and ports are essential to trade.

The world cannot live without ports.

The question is why does the world, and particularly our part of the world, ignore them.

One of the largest and by far the least publicized public works projects in postwar America was the rebuilding and expanding of the port system. Public seaports in the United States invested more than \$5 billion in new and modernized facilities from 1946 thru 1980. They will match that investment within the next ten years.

If all of the facilities now in place had to be replaced, at least \$80 billion would have to be spent.

Not only is this investment in itself an impressive record of accomplishment but consider what the growth of ports has meant to the communities in which they are located.

My own port of Baltimore is a striking example. The port was in existence before the city was incorporated. The growth of Baltimore as a metropolitan center was due to its growth as a transportation center. Inland transportation, including the first railroad in the United States, flourished in the Baltimore area because of links to a world

port handling international trade.

Port cities are flourishing cities. The emergence of the Southeast United States as a booming industrial and population center was quickly matched by substantial expansions in South Atlantic ports such as Charleston, Savannah and Jacksonville which now claim world port status.

Nowhere is the role of ports as an economic stimulant more evident than on the west coast. Oakland's push into world port status in the postwar period is a story unto itself. Seattle, which at one time could be classified as a navy and fishing port, is a major global interchange for Pacific trade. Los Angeles/Long Beach can already claim load center and even super port status.

Every index charts the upward course of port development. The association of which I have the privilege of serving as Chairman, American Association of Port Authorities (AAPA), has more than doubled in size, scope and membership in the last two decades. What is even more impressive and significant about the massive port development and expansion program is the fact that it is done in a high risk environment in which there has never been and probably never will be any real guarantees.

The port industry is uniquely competitive. While all major ports receive substantial public funds for development and promotion, these resources are locally or regionally derived and, thus, the seeds of competition are born.

The city, country or state sees the port as an economic development resource and is, thus, willing to make a public contribution. It wants that contribution returned in the form of jobs and revenues. As it does in other industrial development fields, it competes with other public

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setting up a cell for monitoring demand fluctuations, identifying existing or likely potential for particular traffic categories, examining the impact of changes in shipping technologies etc.

Government has set up a Major Ports Reforms Committee with very comprehensive terms of reference for restructuring the Port Administrations with a view to improving the Ports' performance, productivity and efficiency. I hope you will give this Committee all the co-operation and assistance in this important task and share with it your frank appraisal of the problems and difficulties coming in the way of optimising efficiency.

Need for Raising Labour Productivity

Before concluding, I would like to emphasise again the need for raising productivity and optimising the use of available resources. Labour wages and incentives account for between 60 to 70% of the operating expenditure of ports. It is well known that the datums and manning scales fixed more than three decades ago for conventional system of handling cargoes, have not changed even though large scale mechanisation has taken place. The result is that port charges and service costs are relatively high in Indian ports. Take containers for example. It is difficult to justify a container handling cost of 350 US \$ in an Indian port, whereas in the neighbouring ports in the region, this cost

is between 53 to 100 US \$. Schemes for alternative employment to labour force rendered surplus in the wake of containerisation or by adoption of any other production technology in other port-based industries, should be drawn up. I have no doubt that the labour unions will support you in this area, if the rationale behind it is properly explained to them.

Need for Competitive Handling Costs Stressed

During the deliberations at the Conference it was decided to simplify Port Procedures and Documentation and rationalise container tariffs to make it competitive with tariff charged by Sri Lanka and other neighbouring Ports. The need was also felt for floating an Indian Container Leasing Company to take advantage of growing containerisation of cargo. Presently Indian Shipping Companies are getting containers on lease from the International Container Leasing Companies. The need for floating an Indian Container Leasing Company is all the more underlined in view of the fact that Indian Ports are handling more than two lakh containers in a year and the traffic is increasing steadily.

It was also realised that container handling charges at Indian Ports were comparatively higher than the charges at Ports in the neighbouring countries. It was agreed that the container handling charges should be kept at a competitive level to attract more container traffic.

industries within and without its boundaries. The competitive aspect of ports has been used by port customers to try to gain advantage of the public port bodies.

This has been particularly evident since the advent of containerization. On all coasts, the steamship lines have threatened to move from one port to another unless certain concessions were given. Steamship lines are well aware of that fundamental fact of maritime life, namely: ships can move, but ports cannot.

This competition creates one of the major risk factors port managers face in planning and building new facilities. They are also faced with new marketing and transportation strategies that have dramatically altered the traditional routes of international trade in and out of the United States.

East Coast ports have found themselves deprived of substantial volumes of cargo generating in the Far East that normally arrived at their ports by vessel and now arrive in their cities and their region by rail via land bridge. Our own figures indicate that this deflection of the traditional itinerary has cost the East Coast a minimum of 30 percent of the existing Pacific, United States, East Coast trade.

Diversion of cargo through the Canadian gateway system on the East Coast has also reached into United States Atlantic Coast port hinterlands and diverted cargo flows.

The effects of the new global services on ports cannot yet be determined. It is, however, a safe assumption that if such services are successful and expand the load center concept itself will expand and some ports will suffer fewer vessel direct calls.

At the AAPA Convention in Quebec, shock waves vibrated through the plenary session on new marketing methods. This was caused by statements of steamship line executives that 42 and 45 foot depths would be commonplace for future container ships. In one instance, a steamship line executive said that his company could utilize 45 feet with vessels now in service. As a point of more than academic interest, there are not many container berths in place today that can handle more than 42 feet of water.

But the forward march continues.

At a recent seatriade seminar in New York, Jim McJunkin, Executive Director of the Port of Long Beach, discussed his plans for the development of 2600 acres of new terminals. The State of Maryland announced recently its commitment to almost \$400 million of port expenditures over the next six years. It should be noted that these are examples and not exceptions.

What the ports have done is not merely to build facilities. Based on 1980 figures, they have generated 1 million jobs. They are responsible for \$23 billion in personnel income. They have developed \$5 billion in state and local taxes.

And, as we like to point out to those running our government in Washington, they caused the Treasury Department to collect \$10 billion in federal taxes and customs revenues.

Let me say that in another way. In one year in 1980, the federal government collected twice as much in federal taxes and customs revenues at American seaports as American seaports spent in building and modernizing their facilities 1946 thru 1980. Even the Office of Management and Budget should concede that this is a healthy return on investment and an even happier fiscal result for the federal

government since they didn't spend any money on the facilities in the first place.

And, so, as the letters PORT are included in exports and imports, they are also included in the world "important."

Yet, if ports are so essential, if trade is so important, if so much economic benefit flows from the ports, why have we not been able to convince the national public sector to continue its investment in ports? Why has this industry had to struggle over almost a full decade to initiate critically needed new deep water projects?

The answer is clear. We live and work in a political system which responds to and rewards those elements of our society which demonstrate the most political power, presumably based on the greatest public good.

Ports are good for the public. If they are not cities, counties and states should not be investing in them.

What ports have lacked is the ability to translate their essentiality and their public benefits into political action and affirmative political response. The AAPA has intensified its political efforts in Washington. Unfortunately, these efforts were somewhat diffused by the division within the port industry over the structure of cost sharing dredging legislation.

While those divisions continue to exist, there is far more unity in the industry today on the need to start projects and keep them moving. It is obvious that we have convinced few outside of our own ranks of how important our industry really is.

A strong national effort must be undertaken.

AAPA is committed to that effort.

It is a cause that is for the good of every port community, for the good of the nation and for the good of the world.

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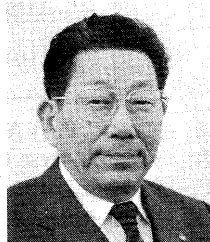
The many greeting cards received from its members all over the world impressed visitors to the Tokyo Head Office during the recent Christmas and New Year period.



Humanizing the Port of Nagoya

— Redevelopment of Area No. 2 —

By Yoshiro Haraguchi
Executive Vice President
Nagoya Port Authority



Preface

Nineteen eighty-four was a watershed year for the Port of Nagoya. The Nagoya Port Building—a new landmark and now the port's symbol—was opened on Garden Pier just as improvements at the nearby Portside Park were completed.

In other words, the Port of Nagoya has become a friendlier place for Nagoya citizens, providing a cozier and more familiar spot in which to relax.

We would like to explain the redevelopment of Area No. 2, which includes Garden Pier, describing it as it appears today, and outlining plans for the future.

I. Background to Area No. 2 Pier Redevelopment

Handling more than 100 million freight tons of cargo a year, the 78 year-old Port of Nagoya is one of the three largest commercial ports in Japan, following Yokohama and Kobe. It is also one of the world's largest ports in terms of trade. As its scale was expanded and its facilities were modernized, however, its relations with the local community became less close, creating a growing demand for a place in the port where people could relax.

This is why the port redeveloped Area No. 2, its gateway from the center of the city, as a part of its efforts to rectify this shortcoming. Area No. 2 is located at the center of the port and consists of the port's three oldest piers: East, Center, and West, all of which were completed in 1936. For many years this area has served as Nagoya Port's front door and has played a central role in domestic and foreign trade.

However, as the port's facilities gradually became obsolete and as a series of new piers was completed in response to innovations in transportation and the modernization of cargo handling methods, traffic was routed to other piers, reducing dramatically the importance of Area No. 2 as the heart of the port. Due to its proximity to central Nagoya, the area also became the center of port tourism, where excursion boats and hydrofoils took on and offloaded their passengers. But these facilities, too, became outmoded and lost their charm compared with those in Kobe and Yokohama. The number of school-children on field trips, for example, has consistently declined since 1963, when a peak figure of about 410,000 visitors was recorded.

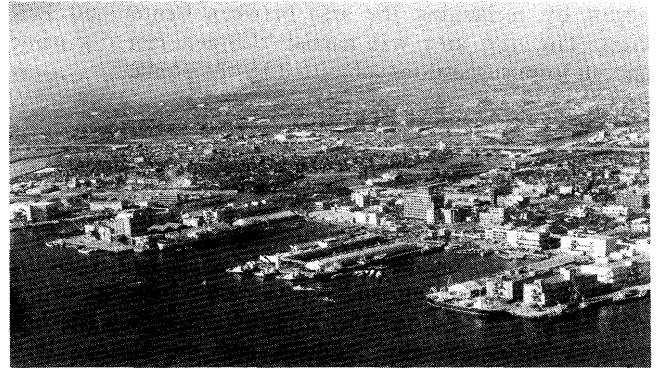


Photo 1: Area No. 2 prior to the redevelopment (1967)



Photo 2: Area No. 2 as it is today (1984)

This led to plans to redevelop Area No. 2 and restore its lost vitality, in conjunction with pier modernization, and to turn it into the centerpiece for a "Friendly Port".

II. The Redevelopment Plan: Concepts and Approaches

A "Council for Building a Friendly Port" was created with the cooperation of citizens in various sectors to advise port administrators who were formulating basic policy on the redevelopment plan for Area No. 2. The council held frequent meetings to examine, from various angles, how to build a port with which people could identify. Many valuable suggestions were obtained from these meetings.

Using these suggestions, the Port Authority drafted a Plan for the Redevelopment and Improvement of Area No. 2 in 1978, which can be summarized as follows:

- 1) The area should symbolize the port in terms of friendliness and charm, and offer an enjoyable and highly accessible place to visit at any time.
- 2) An exhibition center should be built to promote

public understanding and awareness of ports and the sea.

- 3) Facilities — information booths, waiting rooms, restaurants, cafes, etc. — should be built to attract more visitors.
- 4) An observation facility should be built to enable visitors to gain a panoramic view of the large harbor, thus lending a vivid first-hand impression to its activities.
- 5) A green park area, separate from port operations, should be created where port visitors can relax.
- 6) A large parking area should be built for visitors.

On the basis of these principles, redevelopment was begun by reclaiming the area between Center and East Piers. The new area was named "Garden Pier," a name chosen from suggestions submitted by the public.

III. Redevelopment Features

1. Connections between urban development and port redevelopment

Profiting from the opportunity presented by the redevelopment of Nagoya Port, the City of Nagoya began the improvement, greening, and general redevelopment of the area adjacent to Garden Pier in 1984, respecting the suggestions of community residents and the Nagoya Port Authority.

2. Garden Pier Portside Park

The 52,000 square meter Garden Pier Port-side park is open to local residents, tourists, and visitors in general. It now consists of a "Meeting Place Plaza" for sports, outdoor concerts and a multitude of other events; a pool with a fountain shaped like a layout of Nagoya; an arboretum for 87 varieties of trees that are indigenous to Nagoya's sister ports of Los Angeles and Fremantle as well as other major world ports, and flowers.

3. Nagoya Port Building and Nagoya Maritime Museum

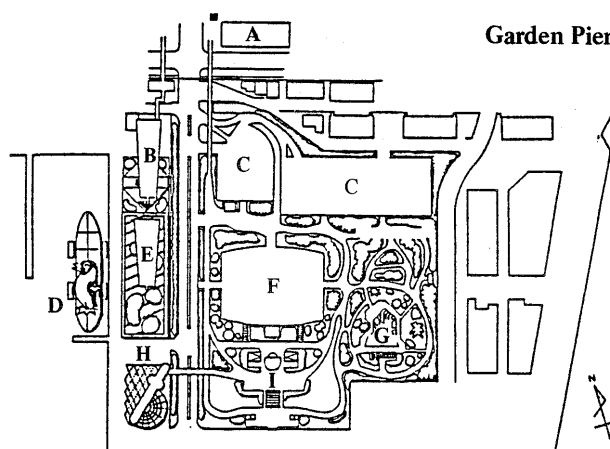
The aim of the Nagoya Port Building is to increase public awareness and understanding of the port, the sea, seafarers and port workers. Standing seven stories high and topped with an observation deck, the building provides services of every kind for tourists, passengers, crew, and other port visitors.

The Nagoya Port Building's design was chosen in an open competition intended to symbolize the internationalism of the port in a unique and beautiful way.

Among its main attractions, the building houses Nagoya Maritime Museum and the 53-meter-high, 200-person-capacity observation deck, multipurpose rooms and an auditorium for exhibitions, lectures and film shows, a sister-port corner, restaurants, a group waiting room, and a shop.

Exhibits at Nagoya Maritime Museum, the repository for seafaring lore and nautical tradition, are the result of cooperation among historians and other specialists, local museum officials and educators as well as community representatives.

To give visitors the feeling that they have seen, heard, and touched the ties between people and ports, and harbors and the sea, panoramas, landscape models, documents, and the latest audiovisual equipment have been employed to render the scientific study of nautical history more enjoyable.



- A: Nagoya Port Authority
- B: Visitors' Rest Facilities
- C: Parking Lot
- D: Berth reserved for retired ice-breaker "Fuji"
- E: Area for Green Park Expansion
- F: Meeting Place Plaza
- G: Fountain
- H: Nagoya Port Building
- I: Observation Platform

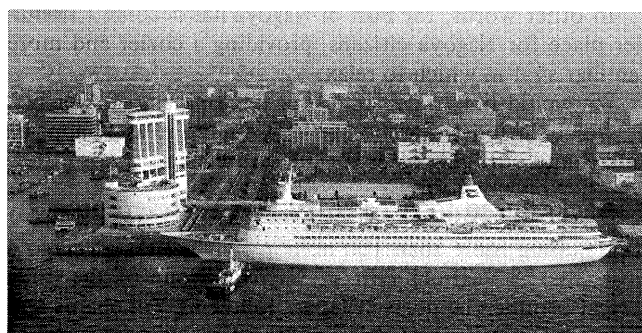


Photo 3: The luxury liner "Royal Viking Star" berthing at the Garden Pier



Photo 4: An artist's impression of Visitors' Rest Facilities

IV. Conclusions

The attempt to bring the port and its people closer together by opening the new Nagoya Port Building last

(Continued on next page bottom)

Port of Helsinki

(Extracts from "Annual Report 1983, Port of Helsinki Authority")

Finnish economic developments

The Finnish economy's development in 1983 was balanced. Overall production experienced growth in the region of three per cent. International comparison shows that Finland's economy fared relatively well, though the fact that Finnish costs and prices rose more quickly than in rival countries weakened the competitiveness of her industry.

A good 80 per cent of Finland's foreign trade is transported by sea. The quantity of goods transported by sea in 1983 was 48.8 million tons; import shipments were 30.9 million tons, export shipments were 17.9 million tons.

Goods traffic

All in all, the development of the Port of Helsinki's goods traffic was markedly steady. Overseas goods traffic rose to a total of 5.4 million tons in 1983; the aggregate Helsinki goods traffic figure was 6.7 million tons. Looking at matters from the point of view of structural evolution, the most positive aspect was the appreciable growth of export shipments and the greater additional mutual balance between general cargo imports and exports which it brought about.

Helsinki — The leading general goods harbour

The quantity of general goods which passed through the Port of Helsinki in 1983 rose to nearly 3.5 million tons, evenly distributed between imports and exports.

Imports of general goods were slightly lower than in 1982. Looking at matters from the perspective of Finland as a whole general goods imports increased by a couple of percentage points.

Export shipments began to increase vigorously in the

late summer; 1983's export figures were some 13 per cent higher than the previous year's. Exports also grew by about 2 per cent in terms of Finland as a whole.

Helsinki is a major container port

Three quarters of the goods which pass through the Port of Helsinki — including both imports and exports — are transported in containers.

Helsinki is Finland's leading container port. The Capital accounts for a good 80 per cent of the country's container imports and more than 70 per cent of her container exports. All in all, three quarters of Helsinki's general goods volume was container-transported.

**** Key facts ****

	1983	1982	Change %
FINANCES			
Total revenue	FIM 152.6 million	FIM 151.1 million	+ 1.0
Total expenditure	FIM 150.5 million	FIM 144.9 million	+ 3.9
Gross margin	FIM 58.5 million	FIM 58.2 million	+ 0.5
Result	surplus	surplus	
	FIM 2.1 million	FIM 6.2 million	
Financing surplus	FIM 31.5 million	FIM 31.5 million	± 0
Interest on fixed assets	6.3%	7%	- 0.7
Investments	FIM 26.5 million	FIM 26.7 million	- 0.8
Value of fixed assets	FIM 678.5 million	FIM 575.2 million	+ 18.0
TRAFFIC			
Cargo traffic, million tons	6.68	6.60	+ 1
Imports	3.69	3.80	- 3
— bulk cargo	1.83	1.96	- 6
— general cargo	1.84	1.84	0
Exports	1.75	1.55	+13
— bulk cargo	0.06	0.04	+10
— general cargo	1.70	1.51	+15
Coastal traffic	1.23	1.25	- 1
Containers, TEU	113,913	108,856	+ 5
Passenger traffic, passengers	1,980,332	1,938,708	+ 2
Vessel traffic, vessels 1,000 nrt	14,933	14,239	+ 5

(Continued from page 26)

July has far exceeded expectations, judging from the increasing number of visitors. The building is now a hub of activity, broadcasting the port's internationalism to countless people.

By the end of this August, the retired icebreaker "Fuji," which served in Antarctic explorations but has now been released from government service, will be berthed alongside the Nagoya Port Building and opened to the public as an Antarctica museum and annex to the Nagoya Maritime Museum. The space in front of the berth will be converted into an expanded park area with rest facilities to accommodate 400 people.

The appearance of Area No. 2 will be completely changed with the addition of greenery. The change will be part of the comprehensive innovation program Nagoya City is carrying out in surrounding areas.

Since the people of the local community are full of enthusiasm for urban improvement, hopes are high that the port will occupy a position benefiting from Nagoya's international approach as the gateway to the Chubu Region.

Many people have contributed to the progressive improvement of the Garden Pier and its periphery with the

aim of making the port more attractive. At the same time, however, it is important to use these new facilities and their human resources. They must also be publicized in order to enhance the charm of this unique port city's lifestyle.

Aware of the importance of this factor, the Port of Nagoya is striving to entice domestic and international passenger ships to call, since they add an exotic touch. Many vessels have responded to Nagoya's invitation since the opening of the Garden Pier in 1983, including world-cruising luxury liners such as the "Europa" (West Germany; 33,819 GT) and the "Royal Viking Star" (Norway; 28,000 GT). These port calls have been welcomed by throngs of Nagoyans.

Along with the growing internationalization of commerce, a trend has emerged to hold "on-board" sales conferences so as to combine business with pleasure on cruises. This, too, has added to the lure of Garden Pier as a forum for international trade.

Looking toward the 21st Century, it is likely that Nagoya, with its population of two million, will undergo significant internationalization in the foreseeable future. Its port is expected to specialize in foreign trade and to perform a primary urban role as an international information center for the city.

Auckland Harbour

(Extracts from "Year Book 1983", Auckland Harbour Board)

Chairman's foreword

As operator of New Zealand's premier port, the Board's prime function is the provision of practical, efficient port facilities and services at reasonable cost to those involved in the exporting and importing of cargo. This not only means providing for the needs of today's port users, but also planning for the requirements of the future.

In exercising this forward planning responsibility the Board set in train during the year a major construction project in the second stage of the redevelopment of the Kings/Bledisloe area.

The year also saw the virtual completion of site preparation and foundations for the Board's new office building at the base of Princess wharf, a project which will lead to substantial upgrading of the public areas in the Downtown Quayside area of the port.

As the maritime planning authority for the Waitemata and Manukau Harbours, the Board effectively met its responsibilities under the Town and Country Planning Act in considering during the year applications for various development proposals for the two harbours.

The year under review saw worthwhile progress towards meeting the future needs of the Auckland region's recreational boating fraternity, an increasingly important part of the Board's activities.

M.A. Shanahan
Chairman

Trends (excerpts)

By **R.T. Lorimer**
General Manager

The 5.90 million manifest tonnes of cargo handled through the Ports of Auckland and Onehunga during the year to 30 September 1983, represented a 4.4% throughput reduction on the previous year, when the country experienced a temporary economic upsurge. The 1982-83 total was, however, the third highest annual throughput on record.

Imports

The 10% fall in Port of Auckland imports was close to forecast levels and was spread across all vessel types except roll-on, roll-off ships. These, too, would have shown a decrease but for a 26,000 tonne boost from the new ro-ro trade in Japanese motor vehicle packs introduced in February.

The downturn in New Zealand's economic activity and consequent reduced demand for consumer goods was reflected in a decline in containerised and conventional ship imports.

Exports

The 1982-83 year saw the ninth successive annual rise in the Port of Auckland's export volumes, but this year's increase came as more of a surprise than most.

At the beginning of the year the Australian building

industry was in severe recession, thereby limiting prospects for New Zealand exports of refrigerators, timber, wood products, roof tiles and other manufactured goods. The outlook for steel exports was bleak and the precarious Japanese market for onions did not look promising.

But there was a dramatic change in the second half of the year, with a 16% gain in Port of Auckland exports in the June quarter and a 23% gain in the September quarter.

In the six months to September, 1983, exports in conventional ships were up 88% on the first half of the year, while ro-ro exports were up 43% and bulk exports, including one-off water and petroleum shipments, rose almost 150%. The major commodities contributing to export growth were kiwifruit, wool and metal products.

The recent gradual recovery in some of the world economies has improved the market for most metals and this contributed to the sharp recovery in Auckland's steel exports in the second half of the year, turning a 9,600 tonne first half shortfall on 1981-82 into a 7,300 tonne increase over the full year.

Broad Commodity Base

The trends in the Board's trade during 1982-83 illustrate the advantages to a port of having a broad base of commodities and shipping services during an economic downturn. This is of particular importance in catering for general cargo ships, including container and roll-on, roll-off ships. Much of their cargoes are of higher value goods, the items most likely to fluctuate in volume in tune with rises and falls in the balance of payments, money supply and consumer demand.

The range of shipping companies now using the Auckland Container Terminal means that if the United Kingdom and Europe are treated separately, no one trade route provides more than a fifth of the terminal's imports, and only one region (Japan with 28%) accounts for more than a sixth of the containerized export tonnage. Both imports and exports through the terminal now include substantial contributions from six different regions. Further moves towards containerization will add to this diversification in the use of the port's most capital-intensive operation, helping to spread the risks of economic fluctuations and also offering economies of scale on the large investment held by the people of the Auckland region in this facility.

Similar economies can be achieved in other areas of the port, provided investments in wharves, cargo handling plant and back-up facilities can be matched with the ever-changing mix of commodities and ship types encountered by a modern port.

New Zealand's economic situation affects the Port of Auckland in ways other than its trade volumes. These have been particularly evident during the 1982-83 year throughout which the Government freeze on wages, prices and rents has been in operation. The financial result for the year reflects this, with the port operating surplus of \$3.092 million showing a reduction of \$1.486 million on the 1981-82 figure.

Cost Reduction

In an unusual move to reduce industry costs, the Board

(Continued on next page bottom)

Port of London

(Extracts from 'Report and Accounts 1983, Port of London Authority')

Chairman's statement (extract)

1983 was story of four quarters.

The first showed what is possible. Turnover was up against budget; profit was above budget. We were on course to an overall operating profit of about £10 million.

The second was a disaster. There was an eight week strike by dockers, followed by a three week strike by tally clerks. The situation was documented in the last Annual Report. It had a devastating effect upon trading and finances. Inevitably it also severely diminished the PLA's capacity to improve its employment package—not really the results sought by those who were on strike. Money can't be paid that has not been earned.

The third quarter was the fight back. Costs were cut, manpower numbers at all levels were reduced and, most particularly, customers were being won back to Tilbury.

The fourth saw an encouraging pattern of recovery. Revenue was improving—and, in many instances, was better than anticipated immediately after the strike.

Overall, however, 1983 was a disappointment. In my Statement in the 1982 Report I said "Now in 1983 we face a hard and unrelenting struggle to survive, yet alone prosper". We have survived. We did not prosper.

The loss for 1983 was £1.4 million as against a profit of £0.076 million for 1982.

It showed what could be achieved in normality; its fulfilment was severely impeded.

However, the early months of 1984 have seen the continuation of the improvements displayed in the last quarter of 1983. That is an encouragement.

There are some anxieties. We are still over-manned. It is vital that we reduce our numbers of employees still further. It is, to say the least, difficult to achieve commercial and financial viability if one has to pay over £5 million in a full year to surplus manpower that does not take voluntary severance. There cannot be many organizations that carry such a burden. Over-manning erodes employees' earnings and consequently impacts upon our pay negotiations. We are sensitive too about the possible consequences of the Public Inquiry into Port Rates. Also the port industry is still heavily over-resourced in facilities, and could be even more so in the future. That bodes ill for the industry as a whole.

There is also good news. Productivity levels have improved further. Our service levels are good. Further stretches of the M25 have been opened, and Tilbury is now linked direct to the A1 and M1 by motorway or dual-carriageway. That is important to the door-to-door needs of the transport industry. New activities are developing. Scrap-metal exports have expanded significantly. A new Ro-Ro service has commenced. The Chinese have been developing their European Container Services and are using Tilbury. The Tilbury Passenger Terminal is being modernized. The Bulk

(Continued from page 28)

resolved in July to lower its charges for handling containers on and off ships at Fergusson Container Terminal by 5.15 per cent in recognition of the downturns being experienced by shipping lines.

The reduction was effected on 1 September with an industry understanding that the Board could reinstate the full charge should this become necessary during the imposition of the price freeze or thereafter.

Prospects

The coming year offers prospects for a moderate lift in trade, especially in imports of consumer goods, with restocking taking place in most items. There should also be a revival in local construction activity, although the 1982–83 imports for major projects will not be matched.

Exports of pastoral products may be down a little with lower supplies of beef and wool available and markets for dairy products weakening. Overall, however, exports should continue to rise with improved markets for manufactured products an important factor in the port's growth prospects.

These commodity trends could, however, show a dramatic turn-around if the port does not keep its costs down and provide a reliable and efficient service. Any indication that our overheads are becoming excessive or of a decline in the reliability of our services must be quickly corrected if the Port of Auckland is to continue to prosper and maintain its present employment opportunities.

Statistics summary 1982-83

Financial

Port Operations

Revenue	\$000	\$000
Cargo charges and cargo handling	16,460	15,974
Wharf services and towage	9,491	8,581
Container services	40,918	39,208
Sundry revenue	3,156	2,979
	<u>70,026</u>	<u>66,742</u>

Expenses

Wages and salaries and levies	47,495	44,632
Maintenance, Operating and Contracted Services	10,283	8,929
Depreciation	3,530	2,906
Interest	5,625	5,695
	<u>66,934</u>	<u>62,164</u>

Port working account surplus	3,091	4,578
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Property

Net income	2,717	2,636
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Financing

Loans raised	1,579	11,788
Loans repaid	4,053	9,420
Sinking Fund investments	2,424	2,183
Exchange fluctuation risk reserve investment	3,807	3,579

How we stand

Total assets	200,265	197,175
Total liabilities	43,534	49,611

This leaves the current public equity in the Board's operation at	<u>156,730</u>	<u>147,563</u>
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Grain Terminal has been adapted to handle more exports and this traffic has already increased by 50% as a result.

The need for the Port at Tilbury is apparent and growing. Above all, however, we must ensure the reliability of service. That is the highest priority.

The spotlight mostly falls upon the dock and cargo handling activities of the Authority. The marine aspects, including the demanding statutory responsibilities, are also a vital feature of the Authority's activities. They are conducted smoothly and with high efficiency. They involve the tidal river up to Teddington Lock, and provide wide ranging services to the many users of the River Thames. In 1983 that service was maintained at all times.

V.G. Paige
Chairman

Group profit and loss account

for the year ended 31st December 1983

	1983 £000	1982 £000
Turnover		
Dues: — on ships	7,194	8,677
on goods — port rates	13,351	12,805
on passengers	256	212
	<u>20,801</u>	<u>21,694</u>
Cargo handling	35,680	46,387
Cranes and plant	254	477
Warehousing and storage	1,368	1,536
Utilities and services provided	7,625	9,185
Rent	2,289	2,288
Revenue from associated activities	5,116	1,886
Other revenue	1,169	599
	<u>74,302</u>	<u>84,052</u>
Operating expenditure		
Operating and maintenance	18,167	21,692
Dredging	1,211	1,731
Cargo handling	31,799	38,412
National Voluntary Severance Scheme levy	2,208	2,036
Other expenses	5,216	1,614
Depreciation	3,072	3,155
	<u>61,673</u>	<u>68,640</u>
Gross profit	12,629	15,412
Administrative expenses	(10,211)	(10,386)
Investment income	881	1,201
Profit before interest payable	3,299	6,227
Interest payable	(4,762)	(11,395)
Loss before taxation	(1,463)	(5,168)
Taxation credit/(charge)	3	(15)
Loss after taxation	(1,460)	(5,183)
Loss attributable to minority interest	(17)	(35)
Loss before extraordinary items	(1,443)	(5,148)
Extraordinary items	—	5,224
(Loss)/profit for the year	<u>(1,443)</u>	<u>76</u>

Balance sheet

as at 31st December 1983

	PLA Group	
	1983 £000	1982 £000
Fixed Assets		
Tangible assets	63,935	69,123
Investments	8,004	7,328
	<u>71,939</u>	<u>76,451</u>
Current Assets		
Trading stock — land and buildings	13,560	14,861
Stocks	1,268	1,459
Debtors	16,761	20,167
Investments	2,772	65
Cash at bank and in hand	632	228
	<u>34,993</u>	<u>36,780</u>
Current Liabilities		
Creditors: amounts falling due within one year	20,932	23,964
Net Current Assets	<u>14,061</u>	<u>12,816</u>
Total Assets less Current Liabilities	<u>86,000</u>	<u>89,267</u>
Creditors: amounts falling due after more than one year		
Loans	93,126	99,460
Other amounts	3,053	2,096
Provisions for Liabilities and Charges		
Other provisions	16,672	16,945
Accruals and Deferred Income		
Port Modernisation and Investment grants	3,592	3,808
Reserves		
Revaluation reserve	9,556	9,058
Other reserves	7,704	7,328
Profit and loss account	(47,817)	(49,559)
Minority Interest	114	131
	<u>86,000</u>	<u>89,267</u>

Port of London Authority

The PLA is a public trust constituted under the Port of London Act 1968 and a Harbour Revision Order of 1975.

The PLA has no equity capital. Finance for capital works has traditionally been obtained from normal commercial sources and from the Government by way of Harbours Act loans. However, since July 1978, the Government has provided repayable grants, mainly to meet the costs of further manpower reductions in the Port of London, and supported the raising of private sector loans.

The PLA is responsible for the conservancy of 95 miles of the tidal River Thames and owns much of the river bed and foreshore to the high-water mark. It provides navigational services for ships using the Port, including the maintenance of shipping channels and moorings. It is also responsible for licensing employers of registered dock workers and for licensing watermen and lightermen, as well as having powers in respect of licensing river works and structures, and craft registration.

The PLA owns and operates, at Tilbury Docks, facilities for the handling of containers, roll on/roll off traffic, bulk grain, passengers, forest products and general cargo.

International maritime information: World port news:

UNCTAD to conduct national seminar for port management instructors at Shanghai Maritime Institute

The fifth in a series of seminars for port management instructors will be conducted by the United Nations Conference on Trade and Development (UNCTAD) from 1 to 27 April 1985 at the Shanghai Maritime Institute in co-operation with the Ministry of Communications of the People's Republic of China. This series of seminars marks the culmination of a project financed by the Swedish International Development Authority (SIDA) to develop validated training materials for a course on "The Management of General Cargo Operations" and to train local instructors to deliver this course in their own countries.

The course is designed to be run in maritime and port training centres for traffic officers and quay and shed superintendents. Its objective is to train such staff to plan and organize the discharging and loading of vessels and to control the transfer and storage of cargo within the port, making the most efficient use of available resources.

The course comprises a series of eighteen audio-visual programmes together with a comprehensive workbook and has been designed so that it can be delivered by local training instructors. Discussions and practical work related to local conditions supplement the pre-prepared materials. Full instructions on how to conduct the course are given in a tutor's handbook.

The objective of this series of seminars is to train instructors to be able to conduct, independently, the Management of General Cargo Operations course. The seminar will be directed by Dr. Brian Thomas, Senior Lecturer in Maritime Studies at the University of Wales Institute of Science and Technology, who was also responsible for the preparation of the training materials. The UNCTAD team will be assisted by staff from the Shanghai Maritime Institute which have translated all the course materials from English into Chinese.

Participants in this instructors' seminar will be drawn from high level maritime institutes and port training colleges throughout China.

UNCTAD studying on the port financing for developing countries

(UNCTAD documents: TD/B/C.4/280)

PORT FINANCING

A. Introduction

1. The United Nations Conference on Trade and Development, in its resolution 144 (VI), requested the Secretary-General of UNCTAD to prepare a study on port financing for developing countries. The resolution requested

the secretariat to determine the availability of financial resources, the modalities of foreign investments, and the availability and conditions of international financing. The relevant paragraphs of the resolution are as follows:

"1. *Requests* the Secretary-General of UNCTAD to review and update the report by the UNCTAD secretariat entitled "Ship and port financing for developing countries" (TD/B/C.4/190) in order to determine the availability of financial resources and organizational arrangements for the developing countries in their efforts to increase their participation in the world seaborne transport of international trade, . . ."

"8. *Requests* the Secretary-General of UNCTAD . . . to examine the modalities of foreign investments in ports, . . ."

"9. *Calls upon* the Secretary-General of UNCTAD to: (a) Undertake an in-depth study on the development of bulk terminals, their physical characteristics, management, operation and availability and conditions of international financing and to invite donor countries and financial institutions to send to the UNCTAD secretariat, upon request, relevant information for issuing every two years addenda to the SHIPASSIST Directory, the coverage of which shall be extended to the availability and conditions of international financing for port development".

2. The purpose of this outline is to give the Committee on Shipping an indication of the funding required for port development, funding sources and the scope of the study.

B. Funding requirements and sources

3. Some broad estimates of the funds required for the development of ports in developing countries may be derived from recent studies. Tables 1 and 2 give an indication of the likely increase in maritime traffic between 1970–2000. For general cargo, the major increase will be containerizable traffic. Table 3 gives an estimate of the order of magnitude of the regional investment required between now and the end of this century. This investment totals \$US26,624 million in developing countries out of a world total of about \$US87,000 million for the period 1970 to 2000.¹
4. A study prepared by National Westminster Bank (UK) has identified more than 100 port development schemes which are underway or being considered actively. The projects for which the cost is estimated are worth more than \$US13,200 million, of which \$US11,660 million is for projects in developing countries.²
5. The planned amount for port projects to be financed by the World Bank Group in 1984 is \$US805 million, which, if achieved, will be the largest amount in a single year for the Bank Group.³
6. Investments in port facilities are necessitated by both

growth in trade and technical change. The UNCTAD secretariat has calculated that Leontief's projection for 1980 is about 13 per cent greater than the actual maritime trade figures for developing countries. Although the trade figures for developing countries for 1980, 1981 and 1982 shown a decline in seaborne trade, the switch to containerization is continuing at a steady pace. Thus considerable funds will be required and often from foreign sources.

7. An analysis of the various sources and amounts of funds for all sectors in developing countries is shown in Table 4. The major source of funding in 1980 was from bilateral aid (28 per cent) followed by private lending (21 per cent). Direct investment by private companies in developing countries totaled more than \$US14 million in 1981.⁴ Research will indicate whether this is also representative for funding of port development projects.

C. Scope

8. To seek information to prepare the study, the UNCTAD secretariat sent out a series of questionnaires, which are reproduced in the annexes. The questionnaire to States members of UNCTAD (annex I) seeks to quantify the funds required for port development over the next five years. Also information has been requested on the proportion of funds coming from foreign sources and the conditions of foreign loans for the last five years.
9. The questionnaire in annex II was sent to international development banks and seeks information on the conditions of international financing. Finally the questionnaire in annex III, which was sent to major container terminals in developing countries, asks for a breakdown of the sources of finance for the development of the terminal.
10. An analysis will be made of the replies to these questionnaires for the twelfth session of the Committee on Shipping. This will allow the secretariat to quantify the volume of funding required for port development and to indicate the expected financial sources and conditions of financing.

¹ "The future of world ports", Professor Wassily Leontief in *Proceedings of the eleventh conference of International Association of Ports and Harbors*; Le Havre; May 1979.

² "Airports, ports, harbours, railways"; summary of planned projects prepared by National Westminster Bank Group (undated, circa 1983).

³ Ports and Harbors; September 1982

⁴ Investing in the Third World; Westlake, Melvyn; South; June 1983

Table 1: Estimated increase in seaborne traffic from 1970 to 2000 (Millions of metric tons)

Region	Liquid bulk	Dry bulk		General cargo
		Minerals	Other	
Middle East	3008	176	37	378
Latin America	496	338	53	180
Asia	504	246	171	169
Africa	113	204	44	129

Source: "The future of world ports" Professor Wassily Leontief (*loc. cit.*)

Table 2: Estimated increase in international general cargo from 1970 to 2000: Imports plus exports (Millions of metric tons)

Region	Contain-erizable	Not contain-erizable	Total increase
Middle East	318	60	378
Latin America	146	34	180
Asia	143	26	169
Africa	107	22	129

Source: *Ibid.*

Table 3: Projected regional investment in additional port facilities by type of port to handle increase in seaborne traffic from 1970 to 2000 (Millions of US dollars)

Region	Liquid bulk	Dry bulk		General cargo	Total port investment
		Minerals	Other		
Middle East	7460	162	444	7399	15465
Latin America	238	565	636	2330	3769
Asia	242	411	2052	2128	4833
Africa	39	341	528	1649	2557

Source: *Ibid.*

Table 4: Net receipts of funding to developing countries (Billions of US dollars)

Type	1976	1977	1978	1979	1980
Bilateral	15	14	18	22	25
Multilateral	4	6	4	6	7
Direct investment	9	9	14	13	10
Private lending	14	19	25	21	19
Export credits	10	11	11	12	17
Other	6	4	6	8	11
Total	58	63	78	82	89

Source: OECD statistics.

ANNEX I: Questionnaire to all States members of UNCTAD on port financing

Funds allocated to port development*
(cumulative total for the past 5 years)

1978-1982	Non-bulk facilities	Bulk facilities	Total
Reserves			
Loans — foreign — national			
Grants — foreign — national			

Foreign loans

1978-1982	Cumulative amount approved*	Average rate of interest	Average repayment period (years)	Average grace period (years)
Multilateral				
Bilateral				

Funds planned for port development*
(estimated total for the next 5 years)

1983-1987	Non-bulk facilities	Bulk facilities	Total
Reserves			
Loans — foreign — national			
Grants — foreign — national			

* Please indicate currency. If not in US dollars, please indicate, if possible, the applicable average exchange rate vis-à-vis the US dollar.

ANNEX II: Questionnaire to international development banks

Authorized capital as of 1 January 1983:

Total amount of loans outstanding as of 1 January 1983:

Total amount of port development loans outstanding as of 1 January 1983:

Port development loans

	Number of loans approved	Amount of loans approved	Average rate of interest	Average repayment period	Average grace period
1980					
1981					
1982					
1983 (est)					
1984 (est)					

Conditions for eligibility for a loan:

Other conditions for a loan (submission of plans, financial accounts):

ANNEX III: Section on terminal financing from Container Terminal Questionnaire to major terminals in developing countries

Terminal Financing 1/

	reserves	loans		grants	
		nat.	inter.	nat.	inter.
Infrastructure					
Superstructure					
Equipment					

1/ Here we are interested in the sources of financing rather than the amounts. Thus for infrastructure (land, quay works, dredging, reclamation), superstructure (paving, services, roads, lighting, buildings), and equipment (quay cranes, straddle carriers, etc.) we would like information on the percentage of the terminal development that has been financed from the Authorities own reserves, through loans, both national and international and if relevant through grants, both national and international. Thus the percentages for each row will add up to 100%. If this information is not available to the terminal operating company, could you please pass to the national port authority for completion.

21st INTERNATIONAL SEMINAR ON PORT MANAGEMENT in the Netherlands, Delft/Rotterdam/Amsterdam, 13 May – 20 June, 1985

It is a study programme organized by the INTERNATIONAL INSTITUTE FOR HYDRAULIC AND ENVIRONMENTAL ENGINEERING (IHE) in Delft in close cooperation with the Port Authorities of Rotterdam and Amsterdam. IHE was set up by NUFFIC and the Technical University of Delft in 1957.

THEMES OF THE SEMINAR

- Transportation
 - Logistics and quantification of the transport-process.
 - Integration of the transport chain from producer to consumer.
 - Functions of road, rail, pipe line, inland water, air and sea transport.
 - Merchant shipping.
 - Economy of sea transport.
 - The interest of the shipowner and of the shipper.
- Patterns of Port Organization
 - Functions of a port authority.
 - Relation to other government bodies and to industry.
 - Political context.
 - Internal structures.
- Port Finance
 - Financial autonomy.
 - Ownership of facilities.
 - Sources of revenue and of loan capital.
 - Pricing of port services.
 - Port accounting.
- Reception of the Ships
 - The tasks of the harbour-master.
 - Traffic management.
 - Pilotage and navigation aids.
- Various Port Operations
 - Marketing and public relations.
 - Conservancy of the fairway and dredging.
 - Port security, access to the port area.
 - Control of cargo losses.
 - Fire prevention and fighting.
 - Prevention of pollution.
 - Legal liabilities of various parties engaged in port operations.
- Dock Labour
 - Manpower planning.
 - Forecasting of requirements and of availability of workers.
 - Training and career planning.
 - Occupational health and safety.
 - Systems of payment and relations with organized labour.
- The Systems Approach to Port Management
- Cargoes
 - Classical general cargo.
 - Mass break-bulk cargo.
 - Bulk cargo and liquids.
 - Requirements and equipment for handling.

- Cargo unitization, warehousing and storage.
- Handling of dangerous goods.

9. Terminal Operation

- Planning, management and operation of terminals.
- Productivity indicators and their measurement.
- Improving productivity.
- Exercise in resource management.

The Seminar comprises lectures and discussions alternated by excursions to the ports of Amsterdam and Rotterdam, which are located at short distances of the Institute, in order to study the ports organizations and operations. Next to that fieldtrips will be made to ports in Belgium, United Kingdom and the Federal Republic of Germany for comparison of the organization of various harbours.

The Seminar is open to government officials and other qualified candidates with a long-term practical experience with regard to problems of port management. Candidates should have, preferably, an university degree, although in special cases experience can replace an university background.

The language of the Seminar is English.

The participation fee will be Dutch Guilders 2,900.— which includes the tuition fee, travel cost for all fieldtrips and lodging during the fieldtrip abroad. Other expenses, such as hotel accommodation during the Seminar as well as luncheon and dinner expenses, have to be borne by the participant.

The International Institute for Hydraulic and Environmental Engineering

Address: Oude Delft 95, P.O. Box 3015, 2601 DA Delft, Netherlands, tel. 015-783401

Director: Prof. ir. L.J. Mostertman

Publications

"Report on the 1983 Survey of Manpower in the Ports Industry"

by British Ports Association & National Association of Port Employers

This is a Report of a survey of the ports industry's labour force which was carried out jointly by the National Association of Port Employers and the British Ports Association in 1983 and which is to be the first in a series of annual manpower surveys of the industry.

The two associations, which represent the interests of the UK port authorities and employers of dock workers, have commenced this series of surveys with a view to providing information which is currently available from no other source, but is fundamental to an understanding of the industry. While the Report presents a profile of the industry's manpower as in March 1983, more importantly it provides a basis from which it will be possible to discern employment trends and developments through future surveys. These can be expected to reflect changes in the industry's functions and operations, and also changes in its economic and organizational structure.

This first survey reveals a labour force of some 50,000 employees engaged in the industry — defined broadly as consisting of managing and maintaining ports and harbours and cargo handling. 62% of those employees were manual workers, and approximately 15,200 of those were RDWs

and hence employed in ports which operate commercially under the statutory Dock Labour Scheme. Future surveys can be expected to indicate a significant reduction in the work force as the industry continues to respond to changes in the technology of cargo handling. The National Dock Labour Board's provisional estimate of the number of RDWs at the end of January 1985 was 12,279, a reduction of some 3,000 men or 19% of the register since the March 1983 survey was carried out.

The survey covered 145 UK ports, over half of which each employ less than 25 port employees. The industry's work force is concentrated in 14 ports, each of which employs over 1,000 people in the industry. Collectively these ports employ 70% of the total ports labour force. However, labour reductions have been most marked in the largest ports and future surveys can be expected to show this trend continuing with particular effect in ports on the west coast.

"Containerisation International Yearbook 1985"

The 740 pages of **Containerisation International Yearbook 1985** include the invaluable reference sections of previous editions, but all have been thoroughly updated and monitor developments within the industry. Container ports in over 130 countries are included in the 'Ports and terminals' section, which shows addresses, facilities, users, equipment and statistics. The 'Services' sections cover all modes of container transport, while the illustrated 'Equipment guide' details manufacturers of containers, container components, handling and stowing equipment etc. Computer software applicable to container-related uses continues to be included as a separate section, following its successful introduction in the previous edition.

Information on the leasing, repair and 2nd-hand container sectors is followed by CI's unique 'Register of container carrying vessels', detailing over 3,500 vessels in service, as well as name-changes and newbuildings on order. Included for the first time are listings of 'Non-operating owners/managers', and 'Shipbrokers' involved in container ship chartering.

Rounding off this 'bible' of the container industry is a comprehensive succession of appendices providing information on the BIC code, container certification, bibliography, organizations and shippers' councils.

Containerisation International Yearbook 1985 is available from the National Magazine Co., Ltd., 72 Broadwick Street, London W1V 2BP. Prices, including delivery: £72 (UK destinations), £77 (surface mail worldwide), £85 (airmail to Europe), £101 (airmail outside Europe).

"World Ports and Harbours News" by BHRA

"World Ports and Harbours News is a monthly newsletter providing regular and reliable information on the construction, maintenance and management of ports and harbours.

World Ports and Harbours News effectively reports the news which concerns the port official, engineer and technical executive. Unlike other publications World Ports and Harbours is a newsletter, not a magazine, with the sole purpose to report news items relevant to the industry."

Annual rates: £60.00 (UK and EEC)
£68.00 (Elsewhere)

Additional copies will be sent to the same address for £10.00 extra per copy.

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BHRA, The Fluid Engineering Centre
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Analysis of cases dealt with by IMB in 1984

The ICC International Maritime Bureau (IMB) investigated a total of 109 cases. This figure excludes normal day to day enquiries on behalf of members.

	No. of Cases	Amounts involved in U.S.\$
Documentary Frauds	15	105.0 million
Charter Party Frauds/disputes	13	25.0 million
Scuttling	2	2.5 million
Deviation	15	12.0 million
Insurance Frauds	23	110.0 million
Voyage/Container monitoring	6	—
Negotiations	2	1.5 million
Others	33	6.0 million
Total		<u>262.0 million</u>

The IMB estimates that it is only aware of 2% of the frauds/losses that occur in world trade.

Boom times returned to Port of Halifax in 1984 — 14.3 million tons of cargo handled

The Port's two container terminals handled a record 262,065 TEUs in 1984, eclipsing the previous mark of 233,510 TEUs set in 1979 and 1983's total of 183,043 TEUs, a 43.2% increase. 1984's TEU total should easily place the Port of Halifax back into the top 50 ranking of world container ports.

The reason for this increase is the addition of two new container lines, the introduction of third generation container ships, and the general improvement in the Canadian economy. The strength of the Canadian dollar contributed to a 53% increase in containerized imports while containerized exports increased 13.8% over 1983.

Labour intensive break-bulk experienced a banner year, increasing 33.5% to 352,000 tonnes.

Last year, port officials conservatively estimated that container cargo would increase a maximum of 15% and total cargo would increase by about 5 — 7%. For 1985, more good things should be in store for the Port of Halifax with the further development of round-the-world shipping services and as Canadian exporters expand into new markets.

Duke Point terminal ready soon to handle containers: Nanaimo Harbour

Port of Nanaimo's move into container transportation is fast becoming a reality. Preparations for container handling

at Nanaimo Harbour Commission's Duke Point terminal are nearing completion.

The new barge ramp has been installed. A new container lift has just arrived from a factory in Eastern Canada. "Within the next two or three weeks we'll be hanging out the 'Open for Business' sign," says Bob Chase, Public Relations and Marketing Manager for Nanaimo Harbour Commission.

The all-steel, moveable barge ramp, built and installed by Hafer Machine Co. of Victoria, is almost ready for use.

The new container lift, rated at 40 tons, is known as a top pick lift.

"The lifting mechanism can be extended to take 40-ft. containers as well as the 20 footers," Mr. Chase points out. Longshoremen specially trained for the job will operate the machine, which is the first of its kind on Vancouver Island.

"In addition to coastwise traffic of container transportation by barge, the top pick lift will be used for moving containers to and from shipside, as deepsea vessels carrying containerized cargo require it," said Mr. Chase.

He also said the lift would be used for container loading and unloading of Ro-Ro's as well as crane lift from the wharf.

(Nanaimo Harbour News)

Float plane terminal to be built: Nanaimo Harbour

Nanaimo Harbour Commission will start construction soon of a float plane docking facility to serve the Hub City.

Nanaimo Harbour Commission Chairman, Don Rawlins, has announced that contracts will be called shortly for the building of a float plane dock and a ticket office-restaurant-pub-terminal, on the Nanaimo waterfront.

Chairman Rawlins said that the project would give Nanaimo a much needed travel facility for serving Vancouver Island. Cost of construction is estimated to be about \$736,000. Four airlines have already indicated an interest in locating operations at the new terminal.

The project comprises construction of a two-storey wood frame terminal building, supported on a concrete platform carried by treated-timber piles, accessed by ramps from shore, together with floats, hardware and anchors for approximately twelve float-mounted commercial aircraft.

The terminal building will be of a unique turn-of-the-century design making it an attractive and interesting part of the waterfront. Port Manager Lloyd Bingham says, "It becomes an integral part of our harbour waterfront development plan. No other float plane terminal in B.C. is like this one, and we believe it will bring a substantial increase in both tourist and business travel to Nanaimo."

Entire capital cost is out of Harbour Commission funds. Target date for completion is the end of March.

Former Mayor Frank Ney called it "an imaginative and charismatic plan. The Harbour Commission is to be congratulated on their initiative."

"We have a total cost recovery plan in operating by lease arrangements," Harbour Commissioner Ted Stroyan commented.

(Nanaimo Harbour News)

Port of Saint John cargo figures show increase over 1983 tonnage

Cargo figures for the Port of Saint John, N.B. for 1984 showed an increase in volume over 1983, according to

Gordon C. Mouland, General Manager for the port.

Substantial increases in bulk cargo led the figures for the year, with petroleum shipments up 139 percent for the year, from 264,000 metric tonnes in 1983 to 631,000 tonnes in 1984. Potash shipments, which were begun in 1984, totalled 98,000 tonnes.

Total tonnage for the port was up 3 percent from 8,347,000 tonnes in 1983 to 8,597,000 tonnes in 1984. Total general cargo for Saint John was up 9.3 percent to 1,039,000 tonnes. Container traffic through Brunterm Ltd.'s Rodney Container Terminal was up 10.4 percent, to 897,000 tonnes, according to Mr. Mouland.

Average tonnage per vessel at Saint John port was up from 5,093 tonnes in 1983 to 5,330 tonnes in 1984. A total of 1,613 vessels called at the port in 1984.

First step to revitalizing waterfront: Prince Rupert, Ports Canada

CN Rail and the Prince Rupert Port Corporation have taken the first step towards the revitalization of Prince Rupert's waterfront.

The plan, which should be completed early in the year, is intended to provide a strategy to guide and increase opportunities for the development of a mix of land and marine uses along the waterfront, and for improving recreational opportunities and public access.

Ken Krauter, Port general manager, says that Prince Rupert's waterfront has evolved over the years on an ad hoc basis. "The result has been an array of development with little or no co-ordination or consolidation of land uses. Opportunities for public amenities have for the most part been neglected. This development plan, although long overdue, is an exciting start to changing the situation".

He notes there is currently a broad public interest in the waterfront and that the major land holders are willing to take a co-operative approach to initiating positive change.

(Currents)

PACECO completes 25th year as world's leading container crane manufacturer

On January 7, 1985, PACECO, Inc., a subsidiary of the Fruehauf Corporation, completed its twenty-fifth year as the world's leading manufacturer of container handling cranes.

It was on this date, in 1959, that a specially designed PACECO container crane proved that a ship could be loaded and unloaded in as little as eighteen hours. Prior to this date ships carrying the same amount of cargo required as much as three weeks to complete the same operation. Although many factors contributed to this accomplishment, the successful operation of the PACECO designed crane represented a quantum leap forward for the shipping industry, which, in turn, led to an improved standard of living worldwide.

The significance of this event was formally recognized in 1983 when the American Society of Mechanical Engineers (ASME) dedicated the crane as an International Historic Mechanical Engineering Landmark.

Today's Portainer* crane continues to see regular duty from its current owner, Encinal Terminals, which is located in Alameda, California. The crane was originally built for, and in collaboration with, the Matson Navigation Company.

During the twenty-five years since the introduction of PACECO's first container crane the world has witnessed a virtual containerization explosion. This explosion has been spurred on by intense competition in the international marketplace and, oddly enough, by hard times, as periods of recession tend to magnify the need for more efficient and productive systems.

Currently there are nearly 1,000 ship-to-shore container handling cranes operating around the world. Of these, more than one-third bear the PACECO logo. It is also estimated that approximately half of the container stacking cranes operating in the world today also bear the PACECO logo.

Upon entering its second quarter century of service to the container handling industry, the sixty-year old company (est. 1923) plans to introduce a variety of new products, as well as a new generation of container handling cranes. Some of the new products include a container crane service platform (already in service), a lighter, stronger lifting spreader, and a containerized solid waste handling system. Currently there are six new generation Portainer* cranes being designed and manufactured at PACECO's computer integrated manufacturing facility in Gulfport, Mississippi. The cranes are being designed specifically to handle the new jumbo container ships which are now coming on line. The first of the new cranes is scheduled to go into service late this year.

*Registered Trade Name

Mayor's Point Terminal opens: Georgia Ports Authority



With the visit of the M/V Star Evviva, Mayor's Point Terminal has officially joined the lineup of terminals in the Port of Brunswick, Georgia. The first phase of Georgia Ports Authority's newest facility consists of 500 feet of renovated dock and 126,000 square feet of high-cube transit shed.

Work continues toward an April completion of the total project. In its final configuration, it will comprise three berths totalling 1,500 feet, 235,000 square feet of transit space and five acres of open storage. The \$16 million complex is located on the site of the former city dock.

A history of cargo handling — then and now: Port of Long Beach

Photo 1



Photo 2



Just 20 years ago, at the peak of the breakbulk cargo handling era, the Port of Long Beach was justly proud of the cargo handling facilities seen in this 1965 aerial view of Pier A, above in photo 1. The transit shed at Berth A-5, completed in 1947, was razed recently as part of the conversion of much of Pier A into a new facility for Long Beach Container Terminal. Next door, the 1152-foot long building at Berths A-6 and 7 was hailed as the world's largest clear span transit shed when it was completed in 1948, but it too is just a memory today, falling to the wrecker's ball last month. Next to be razed will be the 820-foot long transit shed at Berths 9 and 10, which was built in 1952. After that, Warehouse No. 1, the world's first prestressed concrete warehouse, completed in 1953, and neighboring Warehouse No. 5, finished in 1956, will also fall. The resulting open area will then be joined by a 24 acre landfill currently under way in the water fronting Pier A, thus creating a new 88 acre container terminal to be served initially by four gantry cranes. Photo 2 shows area today with site partially cleared and dredge busily creating land within rock dike.

Port of Los Angeles to introduce Financial Management Information System

The Los Angeles Board of Harbor Commissioners has approved an agreement with Management Science America, Inc. (MSA) to provide the Port with packaged financial application software for its Financial Management Information System (FMIS).

"With the acquisition of these new MSA systems," said Rami Furman, Chief Financial Officer, "another piece of the Port's long-range data processing plan has fallen into place. The Port of Los Angeles will realize benefits in many areas from these new systems."

Rick Hencken, Project Manager, added, "The goal of the Port's Financial Management Information System (FMIS) project is to provide more timely, relevant financial data for decision-making by implementing state-of-the-art integrated on-line database financial systems."

The increasing scope and complexity of port operations created a need for the Port to replace its current systems.

The FMIS is to be implemented in phases over a three-year period, resulting in an industry model for getting more accurate data regarding complex port operations at a lower cost.

Indian ports official visits Long Beach Harbor



K.V. Harinath, Executive Director of the Indian Ports Association with headquarters in New Delhi visited the Port of Long Beach recently as part of his study program tour of major American harbors. The Indian official selected Long Beach to learn about port management, development, operations and computerization. He is seen as he was presented with a friendship flag set by Port Executive Director James H. McJunkin, right. Public Affairs Director David W. Granger is at left.

\$53.9 million bonds issued for the new Intermodal Container Transfer Facility: Port of Los Angeles

The Joint Powers Authority of the ports of Los Angeles and Long Beach on December 20, 1984 issued bonds amounting to \$53,915,000 to be used to fund construction of the new Intermodal Container Transfer Facility on a site located four miles north of the two ports.

The facility brings railheads presently over 25 miles from the harbor 20 miles closer, shortening present truck hauls of cargo containers at a considerable savings to shippers.

The bonds have a 30-year maturity with an initial interest rate of 9.5% for seven years.

Construction of the ICTF began in November last and the facility should be operational in the Spring of 1986.

Trade activity impacts region: Maryland Port Administration

The Baltimore-Washington Common Market (BWCM), one of the leading trade and commerce networks in the Mid-Atlantic region, has experienced tremendous growth within the last ten years. This growth, attributable in part to the vitality of the port of Baltimore, has spawned unprecedented foreign investment in the region, according to an *International Market Fact-sheet* published recently by the Washington/Baltimore Regional Association.

The BWCM is attractive to international trade activities because of its excellent transportation services and its sophisticated financial institutions. It is also America's fourth largest regional market and it has the highest per capita income in the nation.

Many foreign and U.S. firms, the factsheet reports, find the BWCM to be an ideal location because of its close proximity to export-import activity in and around the port of Baltimore. The region is also a major research area as well as headquarters for many federal government agencies. This private sector — public sector cohesiveness allows for involvement in foreign trade policy, the factsheet says.

The port of Baltimore has been the region's "dominant U.S. Port" because of its extensive and diversified foreign intercoastal and coast-wide trade, according to the factsheet. Baltimore, which handles nearly 30 million tons of cargo valued at \$14 billion dollars annually, ranks fourth in foreign water-borne exports among ten United States ports surveyed by the factsheet. It is also the second busiest container port on the East and Gulf Coast. Baltimore accommodates 3,500 cargo ships from 50 countries annually. Over 100 shipping lines that serve over 300 world ports do business in Baltimore, the factsheet reports.

Baltimore's transportation system to and from its waterfront includes 9 interstate highways, 5 major and 3 short-line railroads. The entire BWCM has over 22,200 miles of public roads that provide excellent routes to and from all regions in the United States, the factsheet notes.

(Port of Baltimore)

Port of Baltimore milestone: 3 million containers

Baltimore, already the second leading container port on the U. S. East and Gulf Coasts, marked another milestone in handling containerized cargo in January, 1985 when the port's 3 millionth container was shipped across its docks.

The accomplishment justifies Baltimore's decision to enter containerized shipping in 1963 at a time when most ports were not eager to take the plunge away from conventional general cargo. It also speaks well for the \$200 million worth of capital improvements and construction at the Dundalk Marine Terminal since the early 1960's which made the 550-acre facility one of the busiest container terminals in the world today.

Dundalk Marine Terminal is the center for container activity in the port, accounting for over three-fourths of Baltimore's portwide totals annually. North and South Locust Point, Clinton Street and other facilities in port handle containerized cargo in lesser quantities.

Dundalk handled Baltimore's 1 millionth container in 1977. It handled the port's 2 millionth container in 1981. Its handling of the 3 millionth container comes at a 10 percent faster pace than its prior time sequence of million-container-increments. Appropriately, Dundalk's handling of the 3 millionth container comes after the terminal set an all-time record in 1984 for containerized freight when it handled 4,184,387 tons of the cargo.

The shipment of the 3 millionth container comes after Baltimore's portwide container volume also reached an all-time record in 1984. Total container cargo (foreign and domestic) handled in the port of Baltimore in 1984 increased 19 percent, going from 4,736,000 tons in 1983 to 5,638,000 tons.

The port's containerized cargo represented a 76.8 percent portion of all general cargo in 1984. Much of the container cargo in 1984 originated in, or was destined for, midwestern United States, the port of Baltimore's primary shipping market.

Seaport cargo tops one million tons in 1984: MASSPORT

More than one million tons of general cargo were handled at the public cargo terminals of the Port of Boston in 1984, a 17-percent increase over 1983. General cargo handled in 1984 totalled 1,022,272 tons, the first time since 1972 that tonnage exceeded one million tons.

"By all indications, 1984 was a banner year for the marine facilities in the Port of Boston," said Massport Executive Director David W. Davis. "The seaport performed beyond all expectations, even though we experienced a two week strike early in the year."

The cargo terminals handled more than 136,776 TEU's in 1984, a 26 percent increase over 1983. Boston's strong activity in 1984 was capped off in the final three months of the year when total general cargo tonnage exceeded the same period of 1983 by 41 percent, and the total number of containers topped 1983 levels by 57 percent.

"The Port's exceptional performance could not have been predicted at this time last year," Davis said. "At that time, the seaport was weakened by an unstable labor situation, and the Port's major carrier, Trans Freight Lines (TFL), had abandoned our facilities. Fortunately, a rapid succession of events turned that situation around, and we can now look forward to a strong seaport that will continue to serve the shipping needs of New England business."

Davis pointed out that a new and affordable labor contract signed last February paved the way for the seaport's strong year. In April, the new container berth opened for business at Conley Terminal in South Boston, expanding the Port's container handling capacity by 20 percent. 1984 also saw new and improved shipping service in the Port of Boston: BCR-Lines, a new German shipping company began service on the North Atlantic and the Japanese Five Lines and Evergreen Lines upgraded service from the Far East. Other carriers, such as Yang Ming and OOCL, shifted their New England service to all water service.

Labor and management have shared in the benefits of the port's improved productivity and increased activity. International Longshoremen's Association (ILA) hours

worked in the fourth quarter increased 24 percent over the previous year.

The U.S. trade imbalance continues to be reflected in the Port of Boston's year-end tonnage figures. While the Port's container tonnage grew by 25 percent inbound, reflecting the strong U.S. dollar, export container tonnage remained stable. "The strength of the dollar has disturbing consequences for the region," Davis said. "It creates a major barrier for New England companies ready to expand into export markets.

Massport's Maritime Director, Anne D. Aylward, cautioned that the port's excellent 1984 record should not lull the port community into a sense of false security. "1985 will bring major changes in our industry," she says, "and Boston will have to rise to meet the challenges and prove the importance and competitive position of the regional port. Waterfront labor will have to strive for higher productivity to give shipowners the economic incentives to call in the Port."

Tenn-Tom Waterway to complement Port of New Orleans

The Tennessee-Tombigbee Waterway System, familiarly known as the Tenn-Tom, scheduled to be open along its entire 234-mile route by next June, is not a serious competitive threat to the Port of New Orleans. In fact, there is every likelihood that the opening of the waterway could lead to increased business for New Orleans.

These are the views of Edward S. Reed, executive port director-general manager Port of New Orleans, and Herbert R. Haar, Jr., assistant executive port director, Port of New Orleans, who recently toured the completed northern portion of the project. They pointed out that the Port has supported the project since its inception.

Reed stated that the waterway will serve as the catalyst for new production that will make some new areas of the U.S. competitive in the world market. There is also a mutual need for southern waterway interests to support regional waterway projects, such as the current proposal before Congress to deepen navigation channels to 55 feet at both New Orleans and Mobile.

The Tenn-Tom starts at the Tennessee River at the point where the northeast corner of Mississippi and the northwest corner of Alabama join the state of Tennessee. It moves southward along the eastern border of Mississippi and then swings to the southwest to join the Warrior-Tombigbee River system near Demopolis, Alabama, terminating at the Port of Mobile.

The project will have a minimum depth of nine feet, with a 12-foot deep section 27 miles long at its highest point. The width will generally be 300 feet. There are a total of 10 locks along its course, each 110 feet long by 600 feet wide. The system can accommodate tows of up to eight barges.

The project was largely justified on the basis of savings on transportation costs for the movement of coal, with the Tenn-Tom serving an area that contains some 110 billion tons of coal reserves. Other major commodities to be moved are metallic ores, chemicals, and farm products. The Port of Mobile, which now moves upwards of 40 million tons of cargo a year, hopes to move 70 million

tons annually when the waterway is in full operation.

Reed pointed out that general cargo ships usually make two calls in a coastal range. "The Tenn-Tom now makes Mobile a more viable port, and if a ship calls at Mobile, we think it will call at New Orleans," he said. As an example, a ship may unload steel or other bulk products at Mobile and then proceed to New Orleans to load grain.

Haar noted that much of the new waterway traffic will be new tonnage generated by new industrial development along the waterway, which has already attracted more than \$4 billion in private investment. Some of this tonnage should find its way to New Orleans, he said.

One reason why the Tenn-Tom is not expected to be a major competitor for the Mississippi River system is that 20-40 barge tows can move down the Mississippi from St. Louis to New Orleans without encountering any locks. This is compared with the eight-barge maximum and ten locks on the Tenn-Tom.

Nevertheless, the Tennessee-Tombigbee has spurred the economic development of the waterway's corridor as well as throughout the Gulf Coast. Harr stated that the Port of New Orleans will benefit from the Gulf's growing reputation as reliable and inexpensive supplier of coal to the international marketplace. (*Port Record*)

Port Promotion Program charts the future: Port of NY & NJ

"Setting the Course for the Year 2000" was the theme of year's Port Promotion Program which was attended by over 300 government, civic and maritime industry executives in observance of National Port Week. The event was sponsored by the New York-New Jersey Port Promotion Association, The Port Authority of New York-New Jersey, and the City of New York. At Jersey City's newly-restored historic Central Railroad Ferry Station in Liberty State Park, Edward Panarello, President of the Port Promotion Association, hosted the auspicious occasion and introduced honored guests and speakers who addressed the many challenges facing the bi-state port in the future.

Susan Frank, Commissioner of the New York City Department of Ports and Terminals, spoke on behalf of Mayor Koch with the greeting, "This is an excellent time to let everyone know the Port of New York and New Jersey is number one!"

Vice Admiral Robert Price, Senior Vice President of the J. J. Henry Company, provided a zealous address regarding the port's ever present need to increase efficiency, reduce red-tape and paperwork, and achieve a sharp focus on pertinent goals in this age of stiff competition. Commenting on the many challenges involved with strict pollution controls and environmental balance, he urged dynamic action and decisiveness as still essential to maintain the port's diverse facilities to move traffic in and out quickly, easily and economically.

Doctor of Economics Ruth Acker of Schuyler Investment Company provided her statistical predictions for the demand for essential commodities such as oil products. She perceives the demand for oil will remain strong, even with an increased use of alternate power sources. The Port of New York and New Jersey, she stressed, must remain sensitive to fuel and energy costs because of their impact

on the overall economy of the region. In terms of energy she stated, "It is not too soon to start planning for the year 2000."

Franklin J. Glunn, Manager of Technical Operations of the Engineering Department of Sea-Land Service, discussed the potential error of beleaguered management tending to view things only in the short term. He noted that this often causes needed long term planning to be delayed until it, too, becomes short term. By the year 2000 the bi-state port will experience an increased demand for more and larger berths to handle longer, wider, and higher containers that automatically necessitate larger ships and cranes. The increased use of automation and computers to keep track of much larger and more complex inventories will be essential. "The age of the stubby pencil and pad is over," he stated.

Vice President of the Waterman Steamship Company, George Hearn, stressed that cargo moves have and always will gravitate towards the cheapest rates. Stressing the efficiencies of intermodalism he stated, "This can only be done by everybody putting their heads together." He also emphasized the crucial need for dredging to accommodate larger ships to avoid the expense and delay involved with loading and unloading barges as an intermediate and costly step. Mr. Hearn emphasized that the reason one can so easily find almost anything desired in our port district today is because of the important role of efficient transportation.

Richard Weeks, President of Weeks Stevedoring, commented on the current trend to gentrify the waterfront by building residential units which has driven up property values tremendously. This portends a great problem for marine facilities seeking to expand to meet the growing demand for larger berths to provide essential services. (*VIA Port of New York-New Jersey*)

VTS comes to the New York-New Jersey Port

To improve vessel safety and traffic efficiency at the bi-state port, the United States Coast Guard has implemented a Vessel Traffic Service (VTS). The system will utilize a radio-telephone VHF-FM communications network to gather basic information. A supplemental radar and low-light television system will be used to confirm the gathered information.

Participation in the system is on a voluntary basis with vessels reporting their entry into the port area approximately 15 minutes before they arrive. Each vessel is requested to provide her name, route and destination. Conversely, the ship's watch officer will receive information on waterway conditions, traffic and other important details. Vessels are also requested to advise the VTS center of any change in their reported routes and when they are departing the monitored area.

The VTS Center cautions that the offered information is restricted to participating vessels and, therefore, the accuracy of its reports depends largely upon the level of cooperation it receives from responsible users.

The agency, which is formally known as the New York Vessel Traffic Service, is under the command of Captain Richard Heym of the Coast Guard. It is staffed continuously by a total of thirty-three Coastguardsmen, twenty-nine of which are watchstandards. (*VIA Port of New York-New Jersey*)

Voices from MEGATRENDS: Port of Oakland

More than 200 representatives of the international shipping and business community as well as senior government officials, academics and members of the press attended the International Transportation Conference VII, sponsored by the Port of Oakland, at the Hyatt Regency Oakland on last October 23 and 24.

The conference had as its theme "Megatrends in International commerce" — factors which H. Wayne Goodroe, President of the Oakland Board of Port Commissioners, defined in his welcoming speech to the delegates as "the key developments in global economics, government policy, regulatory reform and shipping technology that we must come to grips with now to plan effectively for the long term."

Six general sessions and major addresses by three guest speakers provided a forum for lively dialogue on a range of issues related to world trade and transport. The view of the future that emerged was sometimes encouraging, sometimes somber, but consistently illuminating and provocative. Herewith are excerpts from the two days' proceedings, the voice from "Megatrends."

The principal economic clouds on the global horizon involve finance. Two major problems lie ahead: restructuring outstanding developing country debts, and finding ways to keep adequate funds flowing to developing nations. The critical time period will be 18 to 36 months ahead. The potential impact of the gradual drying up of official and commercial lender funds could become acute with substantial adverse effects on trade as well as social and political stability, at least in some debt-ridden countries. Only by keeping in mind the potential international crisis will we be able to make solid progress. Americans must never minimize the important contribution which foreigners are making to our economy.

Walter E. Hoadley
Senior Research Fellow
Hoover Institution,
Stanford University

The even greater numbers of participants in worldwide international trade and transportation are faced with substantial costs and investments in developing global transportation systems and managing international trade. As a result, we need even more information on world trade patterns. In fact, the need for information to analyze and forecast trade on a global scale increases exponentially — for instance, when you need information on 100 individual countries and all possible 100 x 100 pairs simultaneously. This means we will need new analytical capabilities. And these new tools must be able to address questions that are both global and integrated.

Michael L. Sclar
Vice President
Temple, Barker & Sloane, Inc.

The 'me too's' can't survive in a deregulated environment. A successful company doesn't cope with change, it uses it to its benefit.

Donald Shum
Vice President
Intermodal Union
Pacific System

The Federal Maritime Commission will increase its efforts to combat any 40/40/20 cargo reservation plans or other types of foreign interference in market forces. We're interested in free trade for all, not just a free ride for some.

Robert Setrakian
Commissioner
Federal Maritime
Commission

The main theme of the speakers at this conference — overcapacity and its devastating effects — is clear. The subsidiary themes discussed do not detract from this point. They reinforce it. National flag cargo preference schemes should not be permitted to expand. That may constitute a governmental solution of the crisis for a few protected carriers, but not for the rest. Some carriers are going to go under. But they should be carriers who deserve on the economic merits to do so, not those that a less developed country or any other country supporting a national flag fleet chooses to exclude. I think that carriers, shippers and ports have an interest in common in working for measures that will assist the ocean carriers to get beyond the overcapacity bulge of this decade. This means severe restrictions on competitive forces through private agreements monitored by the Federal Maritime Commission. The alternative is grim indeed.

R. Frederic Fisher
Partner
Lillick, McHose & Charles

We need to remind ourselves that while the chorus of doom has been crying for reregulation during the past year, the portion of the transportation industry benefitting from deregulation has been growing, and working and prospering. Despite the reregulation rhetoric, shippers and carriers are using the new freedoms that are available. The old regulatory system that forced shippers to think first about regulatory barriers and then settle for only the limited transportation options that the regulatory system would accommodate — and to look constantly to regulators to solve their problems — is disappearing.

Heather J. Gradison
Commissioner
Interstate Commerce
Commission

(Port Progress)

Terminal 2 modernization update: Port of Portland

Since the Port District voters approved passage of a \$40 million bond measure to reconstruct the north end of Terminal 2, work has focused on engineering design and financing:

- The general obligation bonds were sold this past summer at a net interest cost of 9.04 percent.
- Five contracts have been awarded for various phases of engineering work. This includes contracts for wharf design, surveying, geotechnical work (soil sampling) and yard/utilities engineering.

Actual demolition and reconstruction at the terminal is scheduled to begin later this spring.

When completed, the new portion of Terminal 2 will provide shippers with two new modern ship berths, a new

warehouse, a crane and 18 acres of paved backup storage. *(PORTSIDE)*

San Francisco voters overwhelmingly approve bonds for port improvement

San Francisco voters approved by a 3-to-1 margin the \$42.5 million Port bond measure on the last November ballot.

Sale of the Revenue Bonds, Series C, is currently underway. Sealed proposals from underwriters for the purchase of the bonds were opened by the Port Commission on 5 December last.

Proceeds from the bond sale will finance the major development program at the San Francisco Container Terminal—North (Pier 80) covering the demolition of several sheds and the purchase of two new cranes, repairs and improvements to the San Francisco Container Terminal—South (piers 94 and 96) including the construction of an Intermodal Container Transfer Yard, the Port's portion of the cost of the Fisherman's Wharf Breakwater, and repair of Jefferson Street Seawall at Fisherman's Wharf. *(Wharf-side)*

Calendar 1984 was a record-smashing year for the Port of Charleston: South Carolina State Ports

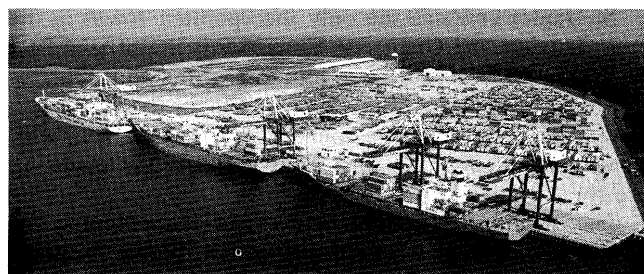
Container cargo, which tallied 2,827,978 tons, led all individual cargo classifications and was 14 percent ahead of Calendar 1983's 2,471,843 tons. Bulk and leased cargoes totalled 1,025,308 tons, as compared with the 1983 figure of 818,072 tons; and breakbulk cargoes, at 966,459 tons, were down only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

Container TEUs (twenty-foot-equivalent units) in 1984 totalled 420,149, another Port of Charleston record.

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

Wando Terminal:—

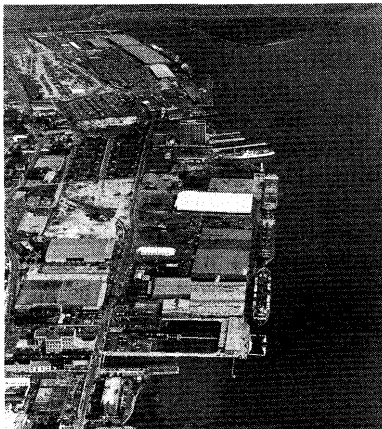
Four cranes work three ships at the Port of Charleston's all-container Wando Terminal, which is undergoing expansion of its paved open container storage area by another 40 acres. The barely two-year-old terminal is handling nearly 135,000 TEUs (twenty-foot-equivalent units) per year, and a berth extension and a second 200,000-square-foot container freight station are planned there.



Union Pier & Columbus Street Terminals:—

Looking north, toward the Cooper River bridges in Charleston, six vessels are worked, three each at Union Pier

(foreground) and Columbus Street terminals. This activity typifies workday scenes during 1984, the port's second consecutive record-breaking year in volume of cargo handled across its docks. Both of these terminals handle a variety of breakbulk cargoes and, frequently, LASH barges and Ro-Ro- vessels. Columbus Street Terminal also handles container cargo and heavy-lifts of up to 400 tons. The two terminals, with a total of 6,345 linear feet of berthing space, have worked up to nine vessels at one time.



South Louisiana Port files FTZ application

The South Louisiana Port Commission (SLPC) has filed an application with the U.S. Foreign Trade Zone Board in Washington to establish and operate a U.S. foreign trade zone (FTZ) within its 53.5 mile jurisdiction along the Mississippi River between New Orleans and Baton Rouge.

Port jurisdiction includes the parishes of St. Charles, St. John the Baptist and St. James.

The FTZ will consist of three major components: a modern Intermodal Container Transfer Facility (ICTF), an Industry Park and a major Chemical Processing Park.

The port will operate FTZ facilities, providing centralized computer control for export and import inventory control. The same system will accommodate new procedures of U.S. Customs for the handling and clearance of ocean bills of lading as well as providing instant information on all containerized cargo passing through the ICTF.

The application was prepared by International Management Services, consultants to the port commission, which developed a Regional Economic Development Plan in connection with the application. The plan has been adopted by each of the three parishes in the SLPC jurisdiction.

St. James contains the only incorporated towns in the area, Lusher and Gramercy. Gramercy is the official Port of Entry and, according to a footnote in the annual statistics of the U.S. Army Corps of Engineers for the year 1982, it was the largest volume tonnage port in the U.S., with more than 95,000,000 tons. The tonnage was made up mostly of crude oil and grain.

The significance of the figures and the potential for future development were stressed by Earl White, Assistant Port Director for Development.

"What's important," White said, "is that almost one-fifth of the international commerce of the country passes through the Lower Mississippi River Region while 80 per cent of the country is economically more accessible to

our area than to any other port serving Latin America, Europe, the Mediterranean, Africa and the Middle East."

A U.S. foreign trade zone is a specifically designated area that is considered to be located outside U.S. Customs territory. Products can enter the zone for finished processing or for entry into the U.S. market. Duties are not paid on the products until they enter the U.S.

According to International Management Services consultant Don Seaton, zone privileges can be extended to existing plants. He speculates that 1,500,000 barrels of daily Louisiana refining capacity could be diverted to Caribbean and Latin American countries who currently refine that amount in inefficient, small refineries. Such waste costs these developing countries untold foreign exchange and increases their debt.

The Regional Economic Development Plan and the FTZ application have received the support of private interests and key governmental figures as well. (PORT VIEW)

Port of Antwerp handled 8.8 million tons of containerized traffic in 1983

Definite data from the General Management of the port indicate that 8,791,000 tons of freight in containers were handled at Antwerp in 1983. This represented a new peak in the port's container traffic since it meant a 21.8% increase as against 1982 which was the previous record year.

The number of boxes handled approximated the 800,000 mark, which — converted into TEU — resulted in a record 1,025,517 TEU. Consequently Antwerp became the 2nd container port in Europe and took the 7th place in the world list of containerports (9th place in 1982).

With 5.5 million tons loadings of containerized cargo scored remarkably higher than unloadings (3.3 million tons). This confirmed the place which Antwerp occupies in Europe as the main port for shipments of general cargo.

A breakdown by area of destination or origin reveals that the North American continent remains Antwerp's major partner with regard to container traffic. In 1983 the freight volume in containers amounted to 3.47 million tons on this route, representing an increase of 24.7% as against 1982.

For the first time container traffic with the Far East ranked 2nd with 1.60 million tons, before Europe with 1.43 million tons.

Container traffic to and from the Arabian Gulf, amounting to 643,000 tons, recorded the relatively highest increase in 1983 (+ 43.2%) while traffic to West African destinations totaled 372,000 tons (+ 33.8%).

Finally the volume of other transoceanic container traffic increased by 25.3% to a total of 1,257,000 tons.

"Hinterland Traffic" law-initiative resolved upon: Port of Bremen & Bremerhaven

The four North German coastal states of Bremen, Hamburg, Lower-Saxony and Schleswig-Holstein have now resolved to introduce into the Federal Upper House a law-initiative conjointly, with the aim of compensating for the German seaports the detrimental traffic-policy competition, as compared to their foreign competitors — those, above all,

on the Rhine and the Schelde. For the German seaports are, namely, losing — as before — considerable quantities of high-valued German export goods to, above all, Rotterdam and Antwerp.

Liberal EC border-passing trade tariff conditions exist for their hinterland traffic, whilst the traffic to and from the German seaports are subject to inflexible national tariff requirements, which thus often prove more expensive.

The chief demand of the coastal states, therefore, has long been traffic-political equalization for hinterland traffic, under the motto 'Blue borders equal green borders'. The aspiration is a traffic-corridor solution for the German seaports, which will not impair the otherwise well-trying regular market framework. (*Bremen International*)

Hamburg's "Portex '85" arouses tremendous interest abroad

Several months before the start of the International Port Exhibition, "Portex '85," more than 200 exhibitors from 22 countries have already announced their participation. "Portex '85" takes place from May 7–10, running parallel with the IAPH World Port Conference in Hamburg.

Thus, "Portex '85" has already overtaken the first event of this kind, the 1981 International Port Exhibition, in the total floor space booked.

Gates in the Eastern Scheldt storm surge barrier



The picture shows a crane fitting a 42 meter long steel gate between two piers. Other gates have already been placed, together with the hydraulic cylinders on top of the piers.

The storm surge barrier in the three channels of the Eastern Scheldt with a total length of about 3,000 metres, will be completed by the end of 1986. (*Information department, Ministry of Transport and Public Works*)

The storm surge barrier in the Eastern Scheldt in the Southwest of the Netherlands is beginning visibly to take shape. The lifting vessel Ostrea has now positioned all of the 65 piers in the three tidal channels, a task which took thirteen months. All of the piers have been positioned to a high degree of accuracy, well within the margin of error allowed for in the plans. The 130 foundation mattresses (two beneath each pier) filled with layers of gravel and

sand had already been rolled into position on the bed of the Eastern Scheldt by a vessel specially constructed for the purpose. The positioning of the road bridge box girders, concrete segments linking the piers, which will carry the roadway, is also proceeding according to plan. Thirty-five of the 68 girders have already been positioned by a floating derrick.

Progress is also being made on construction of the compartmentation dams in the eastern part of the Eastern Scheldt where a major lock complex has been built for pushtows. The storm surge barrier in the Eastern Scheldt will be ready for use by the end of 1986.

Material that is no longer required, including the vessels used in the construction and the factory producing the mattresses, has been offered for sale on the international market.

Six-barge units with bow rudders can take river bends safely: Port of Rotterdam

Bow rudders will enable six-barge pushtows to negotiate river bends so tightly that they need even less space than four-barge units not using bow rudders. This is the upshot of the third and final stage of a study of six-barge pushtow shipping. This final stage was concerned especially with the speed of six-barge units, their impact on overall river traffic and the space they need to negotiate bends when coming empty downriver.

The study had been carried out following a promise by the minister of transport and waterways to a select committee of the second chamber of the Dutch parliament. In the first stage measurements had been taken on fully-laden six-barge pushtows moving upriver in broad (three abreast) and narrow (two abreast) formations, while in the second stage it had been studied what effects a moving six-barge pushtow had on small inland vessels. The third stage was concerned especially with the behaviour of empty six-barge units sailing downriver in broad formation.

The (empty) six-barge combinations were found to take the same time for the downriver run as the four-barge units needed. This was different from the (laden) upriver runs from Rotterdam to Duisburg, which took the six-barge units nearly four hours longer than the four-barge ones.

Due to their similar speeds the effects of the six- and four-barge combinations on river traffic as a whole were the same.

Measurements taken in sharp bends, including one near Nijmegen, showed that pushtows equipped with bow rudders needed much less space than those without. A six-barge convoy equipped with a double set of bow rudders needed 70 metres in the Nijmegen bend when it did not use its bow rudders and only 55 metres when it did. That was five metres less than the four-barge combination needed when it did not use its single set of bow rudders.

Now that all three stages of the study are completed, the State Waterways Department can prepare a final report. The minister of transport and public works will forward the report, accompanied with policy proposals, to parliament which it is hoped will decide to allow six-barge pushtows on the Dutch stretch of the river Rhine.

W.v.H.

(*Rotterdam Europoort Delta*)

“More European ports should assist developing countries by transferring know-how”: Port of Rotterdam

Six Rotterdam and six Kenyan experts jointly produced port training course in Mombasa

Within the small international group of technologists and economists specialized in carrying out all kinds of aid projects for ports in the developing countries, an impressive figure has become the talk of the day: 50,000. This is the estimated number of people who will have to be trained for the middle regions of hundreds of small and large port organizations — either from scratch or with advanced training.

Strangely enough the training problem is quite often more pinching for the middle cadre than for the top management, because nowadays there are sufficient possibilities for the latter category. This is hardly surprising since many developing nations have been training leaders of their own nationality for years on end. If this was not possible at home, the most suitable men could often be trained abroad.

“Building up good middle cadress is in fact a much larger problem, which calls for more assistance.” Rotterdam, Antwerp, Bremen, Marseilles and other ports throughout the world have special offices to assist colleagues in the developing nations in many respects. It would be most applaudable, if more of these offices were set up.

“Material aid is important and indispensable, but in essence the developing countries are likely to benefit most from the transfer of knowhow,” Mr. Bert Kruk said here recently after a visit to Kenya.

Mr. Kruk was in the African country together with three colleagues of the Port of Rotterdam and two experts of the Rotterdam-based Multi-Terminal transshipment company to give a 12-day “Management and Operation Training Course.”

Encouraged by the International Association of Ports and Harbors (IAPH), Rotterdam and Mombasa signed a document in 1981 pledging to assist one another as twin cities. This assistance primarily concerns exchanges of technical experience in the fields of port planning, port operations and port management; moreover, the twin cities agreed to help one another in the complicated field of technical education in the broadest sense.

Due to the activities of the IAPH various other ports have similar ties.

Well equipped

Mombasa is by far the most important port on the African coast. It does not operate only for Kenya but also for the surrounding countries: Uganda, Sudan, Zaïre, Ruanda and Burundi (in the west), Somalia (in the north) and Tanzania (in the south). Since the road network in south Kenya is fairly good and because there is a railway from Mombasa to the capital of Nairobi (450 kms) and the

westerly towns of Nakuru, Eldoret and Kisumu (a port on Lake Victoria), the town has backward connections facilitating huge large-distance transports.

Kenya is unquestionably one of the higher developed East African countries, as is noticeable from the port of Mombasa; its technical equipment is quite good: it has 16 berths for ocean-going ships, with a total length of over three kilometres and a depth of ten metres, two landing stages for oil tankers and two special berths for ships loading an important export product: cement.

Three berths have modern container facilities: in 1982 they processed about 58,000 TEU's, almost 14,000 more than in the preceding year. This figure is expected to increase to 150,000 TEU's in 1990.

In addition to cement in bulk and in bales, Mombasa also exports coffee, tea, moistfree sodium, tinned fruit, fruit juices, sisal, meat and meat products, etc.

The imports include large quantities of crude oil necessary for Kenya's energy requirements; the country is not rich in minerals and the importance of mining is limited. Therefore the imports of iron, steel and fertilisers are also essential. If the country is not plagued by exceptional periods of drought, as was the case in the past few months, it just manages to feed itself. Nevertheless fairly large quantities of wheat, rice and palmoil are landed in Mombasa and destined for the entire East African region.

Just as in Rotterdam crude oil is by far the most important incoming commodity: it totalled over 2.6 million tonnes in 1982. Mombasa also recorded a loss in this sector compared with the preceding year: in 1981 the overseas supplies amounted to 3.4 million tonnes.

Systematic approach

If there are any staffing problems, these always appear to begin at the higher levels. The nineteen trainees with whom the Rotterdam group worked at Bandari College included people with rather important leading or supervisory posts who had never followed a broadly oriented and general port training course.

This is not say that the Kenyans are not aware of this problem: Bandari College is a port trade school which, though still very young (1979), won early recognition for its systematic approach of all kinds of problems concerning training and labour discipline. The dozens of courses held in 1982 were attended by 838 people.

By far the larger part of the students worked at the Kenya Ports Authority (398) or the Kenya Cargo Handling Services (383). The KPA, an organization set up by parliament, is in charge of the management of the port of Mombasa; it falls to the provide of the Transport Ministry.

The Ports Authority looks after the construction and maintenance of the infrastructure: berths, pilots, storage sites and cranes, as well as after such maritime services as pilotage and tugboat assistance.

The real port activities, the operations on the quays and the harbour sites, have been left to Kenya Cargo Handling Services, which — for this reason employs a great many workers, with the exception of the crane-drivers, who belong to the KPA. Since this sometimes gives rise to friction, efforts are being made to tighten the relations between the two organizations — a construction which differs sharply from the course of affairs in western ports, but which is also found in many other developing countries. Realising that arrears have to be made up, plans are being made to combine all port issues (policy, infrastructure, operations) in one hand because this is expected to produce advantages as regards fast and dynamic adaptations.

On the grounds of the situation in Mombasa one might be inclined to say that this view will work in countries with sufficient funds to make investments in their ports. Kenya, for instance, has made fairly large investments in the container facilities of its most important port, due to which there are now ready for steep growth. Mombasa's container terminal is managed jointly by Kenyans and Englishmen; representatives of the port Felixstowe have a major share in advising them.

The port of Mombasa offers an interesting picture as regards material aid; the proportions which international assistance has assumed here in the course of years are immediately noticeable. At the container terminal, for instance, Dutch and Canadian tractors and trailers are driving off and on; British tugboats and Dutch pilot vessels are operating in the port, the cranes on the quays have come from France, and elsewhere German-made tools are being used. The Dutch technological university at Delft helped to design Mombasa's Bandari College.

Kenya has succeeded excellently in making the best of this international assistance. Despite ethnical controversies the country is still fairly stable in a political-social sense. Due to its British colonial past many people still speak English in addition to the official Kiswahili language. This makes Kenya more easily accessible than many other developing nations.

Other way round

The activities of six Rotterdam experts at Mombasa's Bandari College will most likely lead to new development in the field of port-to-port assistance. The annual budget of the Port of Rotterdam includes a special item for a limited number of "Port of Rotterdam Scholarships" to enable port officials and operators in developing countries to study industries or techniques. In the past few decades the Advisory Port Office of the Port of Rotterdam has assisted dozens of trainees during their stay in Europoort, which often lasted several weeks.

The amounts involved in these scholarships are largely affected by the travelling expenses to be made by the candidates; these are of course much larger for a participant from the Far East than for a student from North Africa. Generally, amounts varying from 8,000 to 10,000 guilders have so far been paid per scholarship.

When Mombasa became a twin city in 1981, Rotterdam decided to make three scholarships available every year for Kenyans wishing to make particular port studies. This was done again in 1982. But after mutual consultations it was suggested in Rotterdam that the funds available might

produce better results if the arrangement were reversed: a group of Rotterdam experts who went to Kenya would be able to let a far larger number of students benefit from the exchange programme.

This plan was approved at once in Mombasa; it was decided to jointly set up a comprehensive and broadly oriented course covering a series of topical developments in port management, international port business and shipping. It was also realised that of this was done in 1984, the cost could be covered with the joint scholarships for 1983 and 1984.

Thus one year was passed over. This year (1984) six Rotterdam officials left for Kenya to provide a course for 19 participants jointly with six Mombasa tutors. Moreover, this enabled the officials to have a series of most useful contacts with KPA and KCHS officials.

Interesting results

"It was a most enlightening experience and we hope that it was equally interesting for the Kenyans," Mr. Bert Kruk said after the party had returned to Rotterdam. "This trip has again stressed the usefulness of these activities." Personally I was most surprised to see how excellently such a port as Mombasa managed to function despite the often difficult circumstances in which it has to operate. Some figures almost equal those of European ports.

"I was also impressed by the fact that they generally know quite well where the shoe pinches." At the end of the course we gave the participants a list of questions relating mainly to situations in Mombasa. Then we asked them: What do you notice in this point? How would you tackle this problem and why would you do it in this way?

Once we had gathered all the answers, we got a clear picture. This showed that they have a good insight into particular organizational and disciplinary issues. It had indeed become clear that the way in which KPA and KCHS have been organized also has disadvantages in the shape of practical problems; similarly they were on the whole also able to explain why the productivity of the crews on the quays and harbour sites sometimes was open to criticism."

In many developing countries the container is still a source of much controversy, and this is hardly surprising. Many parts of the world are faced with a labour surplus, and the unemployment figures are often high. Nevertheless a new technique is being imported to take over a large part of the old manual work in the port. The result: a loss of traditional labour.

Kenya has also struggled with this problem, but in the end it did what it had to do: provide modern container facilities. The small opinion poll at the end of the course produced the following result: failing to join the container revolution will result in more expensive import products. This will be at the cost of the national economy and, therefore, of everybody. (*Rotterdam Europoort Delta*)

ABP announce £1.4 million scheme for Lowestoft Fish Docks

Associated British Ports have approved a scheme to complete the redevelopment of the Fish Docks at Lowestoft, at an estimated cost of £1.4 million.

The go-ahead for the scheme is dependent upon ABP obtaining a Fisheries Act grant of 60% of the capital cost from the Government, and acceptable charging arrangements being formally agreed with the local fishing industry, who have been closely involved with ABP in planning the scheme.

Commenting on the proposals, ABP's Deputy Chairman and Joint Managing Director Mr. Donald Stringer, said: "There are indications that the level of catches has now been stabilised. A redevelopment scheme to cater for this volume of activity has been agreed with the Lowestoft fishing industry, and providing the appropriate grant is forthcoming ABP will put the work in hand without delay."

ABP announce £5m scheme for Hull ferry terminal

Associated British Ports have recently given the go-ahead for a £5m scheme to rebuild the ferry terminal at the Port of Hull.

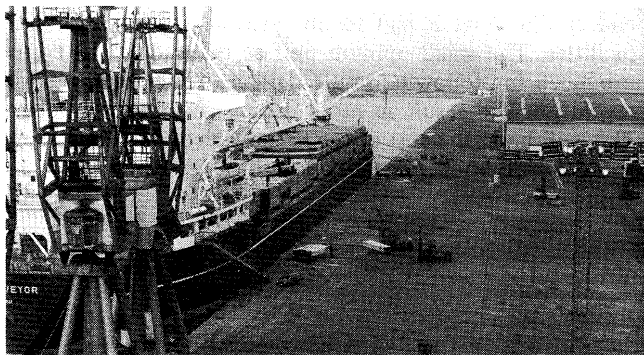
The important boost for the Humberside port came as P & O announced the placing of an order with Govan Shipbuilders Ltd for the construction of a new 31,000 tonne cruise ferry to operate on the North Sea Ferries service between Hull and Rotterdam.

The scheme will involve enlarging the present terminal to provide new reception and disembarkation facilities for vehicles and passengers, and a new office building.

North Sea Ferries have expanded their operations at Hull rapidly in recent years, and ABP have now signed a 15 years agreement with NSF whose ships will be the main users of the new terminal, which is being designed to meet their requirements.

"This is the most important development at Hull in recent years" said ABP's Chairman, Mr. Keith Stuart, "and forms a major part of our programme of investment in the port. I believe this scheme will do much to secure the Port of Hull's future prosperity."

Impressive timber discharge for Tilbury:Port of London



42 Berth (Tilbury) Ltd, operators of the common user forest product terminal in the Port of London Authority's Tilbury Docks, has started the year with an impressive discharge performance. Over 6,000 tonnes of West Coast Canadian timber and plywood were discharged from the Forest Product Carriers (International) vessel, FPC conveyor, in twenty five hours by three gangs. The average discharge rate from the 38,862 dwt purpose-built carrier was 111.25 tonnes per gang hour.

The Managing Director of 42 Berth (Tilbury) Ltd, a wholly owned subsidiary of PLA, Mr. Bernard Lovell said the performance was very creditable and he praised the efforts and skill of PLA's stevedores and dockers. He went on to say that as a result of the new motorway links to Tilbury Docks several leading importers had been pressing for increased sailings into Tilbury. The direct communications from Tilbury to all the major industrial areas of the UK would enable them to improve efficiency and deliveries to their customers.

Korea-Argentine Harbor Development Agreement concluded

The Korea-Argentine Harbor Development Agreement was reached between Cheung Yeun-sei, administrator of Korea Maritime and Port Administration (KMPA) and the honorable Juan Manuel Figuerrero, Argentine Ambassador to Korea, at the situation room of KMPA on January 30, 1985.

The agreement has been motivated by a proposal of the KMPA administrator Cheung Yeun-sei, who headed the Korean maritime cooperation delegation to Argentina in May 1983. On that occasion, administrator Cheung proposed to his counterpart the conclusion of a sistership between Pusan and Buenos Aires the largest port in South America. This proposal, however, had not become fruitful owing to the internal situations in Argentina until that particular time.

The Korea-Argentine Harbor Development Agreement, the first of the international agreement with a Latin American harbor authority, will enhance international cooperative systems between the two nations, promoting the sea-transport for the import-export between Korea and South America in the years to come. (*Korean Maritime News*)

Pusan Port handles 29 million tons of cargoes last year

Pusan Port last year handled 29 million tons of the import-export cargoes, which is an increase of 12.7 percent over the previous year.

Pusan District Maritime and Port Authority disclosed on January 16 that the Pusan Port handled 15.982 million tons of export cargoes, an increase of 14.7 percent over the previous year, and 13.838 million tons of import cargoes, an increase of 10.5 percent over the previous year.

(*Korean Maritime News*)

Port Hedland Port in profile

The Port Hedland Port Authority is a corporate body established by the Port Hedland Port Authority Act of 1970, proclaimed on the 15th June, 1971.

The Authority consists of a Chairman and four Members, appointed by His Excellency the Governor; two of the members appointed by the Governor being nominees of Mount Newman Joint Venturers, and Goldsworthy Mining Limited respectively. Each member holds office for a period of three years, and is eligible for re-appointment from term to term.

Under the terms of the Act, the Authority has the exclusive control of the Port and is charged with the maintenance and preservation of all property vested in it. The Authority maintains navigational channels and aids, wharves, cargo sheds, roads and all ancillary facilities necessary for the effective operation of the Port.

Port and developmental works such as dredging of channels, provision of wharves, etc., may be undertaken by the Authority subject to the prior approval of the Hon. Minister for Transport.

The Authority operates the Port's pilotage and communication services, and provides plant, labour and supervision for both shore cargo handling operations and mooring and unmooring of vessels.

Moneys for capital works undertaken by the Authority are provided from the following sources:

- Private Borrowing,
- Retained Funds,
- State General Loan Funds.

History and Development

The coast of Western Australia was visited by various exploring parties prior to the settlement of the colony in 1829. Dutch ships trading between the Netherlands and the Dutch East Indies sometimes were driven off their course and touched the Western Australian coast. The earliest recorded visit to these shores was that of Dirk Hartog in 1616. In 1628, the Dutch ship "Vyanen", commanded by Gerrit Frederikssoon De Witt, ran aground on the North West coast, this incident being described in an official letter. Commander J. Lort Stockes of H.M.S. "Beagle", when on a coastal exploring and surveying expedition, in which the eminent naturalist, Darwin, participated, visited Depuch Island in June 1840 and gives a detailed description of the area. In 1861, F.T. Gregory visited the Pilbara for the purpose of reporting on the district. He explored the back country near the headwaters of the Ashburton, Fortescue, De Grey, and Oakover Rivers, which were discovered and named by him.

In 1863, C.C. Hunt and J.B. Ridley landed at the De Grey River and further explored the country touched on by F.T. Gregory. One of the first comments appertaining to Port Hedland is in Ridley's journal, dated 25th June, 1863, and reads: —

"At 2.30 dropped anchor in the mangrove inlet discovered by the "Mystery's" party during the last trip to the De Grey, and which Mr. Hunt now named Port Hedland after the Master of the "Mystery",

Captain Peter Hedland. He having been the first to discover the entrance which lies between a small rocky point approaching from a sandy beach on the Westerly side and a more sandy point on the Eastern side at the head of a shallow bay or indent."

As the original pastoral properties in the Eastern Pilbara lay along the De Grey River, a convenient port suitable for the importation of stock, stores, and producer requirements, together with the export of pastoral produce, was of high priority.

Condon Creek at Shellborough first filled this requirement. However, over time, siltation rendered this port less viable, and thus a move to the geographically inconvenient but more suitable port of Port Hedland, occurred.

The first Port Hedland jetty was commenced in 1896 and completed in 1899. The old beacons were replaced in 1899 by larger and more well defined ones. The first town light beacon was erected in 1904. With the subsequent growth of trade in the town, largely occasioned by the development of Marble Bar following the discovery of gold in that area, pressure was brought to bear for a new jetty, which was completed in 1908.

The transportation of stores and producer items to the Marble Bar goldfields, and the removal of gold therefrom, was a hazardous and problematical exercise, depending as it did on camel, donkey and bullock wagon transportation.

To overcome this, a railroad was embarked upon to join the two centres, which was completed in 1911. In this year, the two Port Hedland jetties were joined to provide a more efficient facility.

The port was also used by pearling luggers, especially after the 1880s, when the lugger trade at nearby Cossack declined.

It appears that between the period pre-first world war to the thirties, the port was mainly used for exports of pearl shell, wool, livestock, gold, tin and small amounts of other minerals such as copper, with an import trade of stores and producer items for the various pastoral/extractive industries which were in vogue.

After the Second World War, the port continued to serve the pastoral industry in the area, and received a boost with the mining of manganese.

It was not until the development of the iron ore deposits in the sixties that any major change took place.

1965 was the year when Port Hedland's massive development programme moved from paper to the site. Port throughput in that year was approximately 100,000 tonnes, and natural draft limited ship size to a maximum of 5,000 Dead Weight Tonnes.

Goldworthy Mining Limited dredged an approach channel and turning basin for use by vessels of up to 60,000 Dead Weight Tonnes.

In association with this development the Government of the day chose to transfer the administration of the Port from the Harbour and Light Department to that of a Port Authority.

Consequently, the Port Hedland Port Authority assumed exclusive control of the Port from June 15th, 1971, a Port which is now capable of handling ships of up to 200,000 D.W.T. and in 1974/75 saw a throughput of 40.7 million tonnes of cargo, more than 40 times greater than that of 1965.

(Information Book)

Penang Port computerising the container terminal

Penang Port Commission (PPC) will have a fully computerized container control system by October, 1985. The move is in line with its objective of providing port users an efficient container handling service.

The \$1.7 million contract for the design, supply, installation and implementation of the computerized container system has been awarded to Mitsui and Company Ltd. (Tokyo). The contract with Mitsui covers: —

- The supply of a tailor-made computer application software package.
- The supply of a duplex PDP 11/44 computer hardware.
- The installation and commissioning of the hardware and software.
- Training of PPC personnel.
- On-site technical support for three months after acceptance of system.
- Off-site technical support for an additional three months after on-site technical support.

Container handling statistics at the Port of Penang indicate a high level of growth in container traffic in recent years — a total of 86,000 TEU's were recorded in 1983 which was an increase of 33.5% over 1982. Total containerized cargo tonnage went up from 1.02 million tonnes in 1982 to 1.39 million tonnes in 1983, a growth of 35%. In view of this, PPC has taken steps to computerize the present manual operations of planning, controlling and monitoring which would otherwise become increasingly difficult, problematic and costly when throughputs of over 100,000 TEU's per annum are handled.

Scope

The computerized container control system at the port would mean among other things: —

- (a) Better yard planning i.e. more efficient stacking and movement of containers.
- (b) Faster receiving/delivering, discharging/loading and tracking of containers.
- (c) More efficient utilization of manpower, equipment, yard and berth.
- (d) Reduction in documentation.
- (e) Timely, and accurate information on container, cargo, ship and location.
- (f) Faster and more accurate billing.
- (g) Real-time monitoring and controlling of operations
- (h) Management information and statistics for short-term and long-term planning.

The system will have provisions for further growth and development of additional systems such as ship's planning.

Long-term plans

The Port Commission plans to enhance the container control system in stages over the next few years and achieve a fully computerized container control and information system which will cater for operational, tactical and strategic management.

The system will be extended or transferred to the North Butterworth Container Terminal when it is operational in mid-1988.

(*Berita*)

Another record year for Port of Bluff

In his last report as Chairman of the Southland Harbour Board, Mr. J.N. Armstrong revealed yet another record with 1.68 million tonnes of cargo handled for the year to 30 September 1984 being a 14.5% increase on the previous year which in itself was a 17% increase on the year before.

Mr. Armstrong pointed out that in addition to being the largest overseas trading port in the South Island of New Zealand, Bluff was now also the third largest in the whole country.

There were significant gains in aluminium production materials and in overseas grain exports and smaller increases in most other trades, Mr. Armstrong said. Also of particular significance was the increase in the number of containers handled, he said.

The major success story was probably the great increase in the grain trade, up 100% on the previous year, the Chairman said. This was represented by a 56% increase for wheat and a 216% increase for barley. Not only was the volume up but the size, method and destination also changed. Whereas in previous years the Board had been accustomed to handling most of its grain in small shipments destined for Auckland, this year all the grain was shifted in large shipments (some over 20,000 tonnes) by bulk carrier to overseas markets.

Imports also were well up this year with 134,000 tonnes more than the previous year. This increase was attributable chiefly to production materials for the port's aluminium smelter, Mr. Armstrong explained, that trade alone representing 62% of the total imports for the Port.

(*The Bluff Port Sider*)

Statistical report vessels movements & cargo imported to Qatari Ports

The total number of vessels called at Doha and Ummsaid Ports for discharging and loading during IV Quarter of 1984 were 136 as against 135 vessels called during the same period of 1983. The number of vessels called for discharging & loading during this period amounted to 99 and 37 vessels respectively whereas during same period of 1983 number of vessels called for discharging & loading were 100 and 35 respectively.

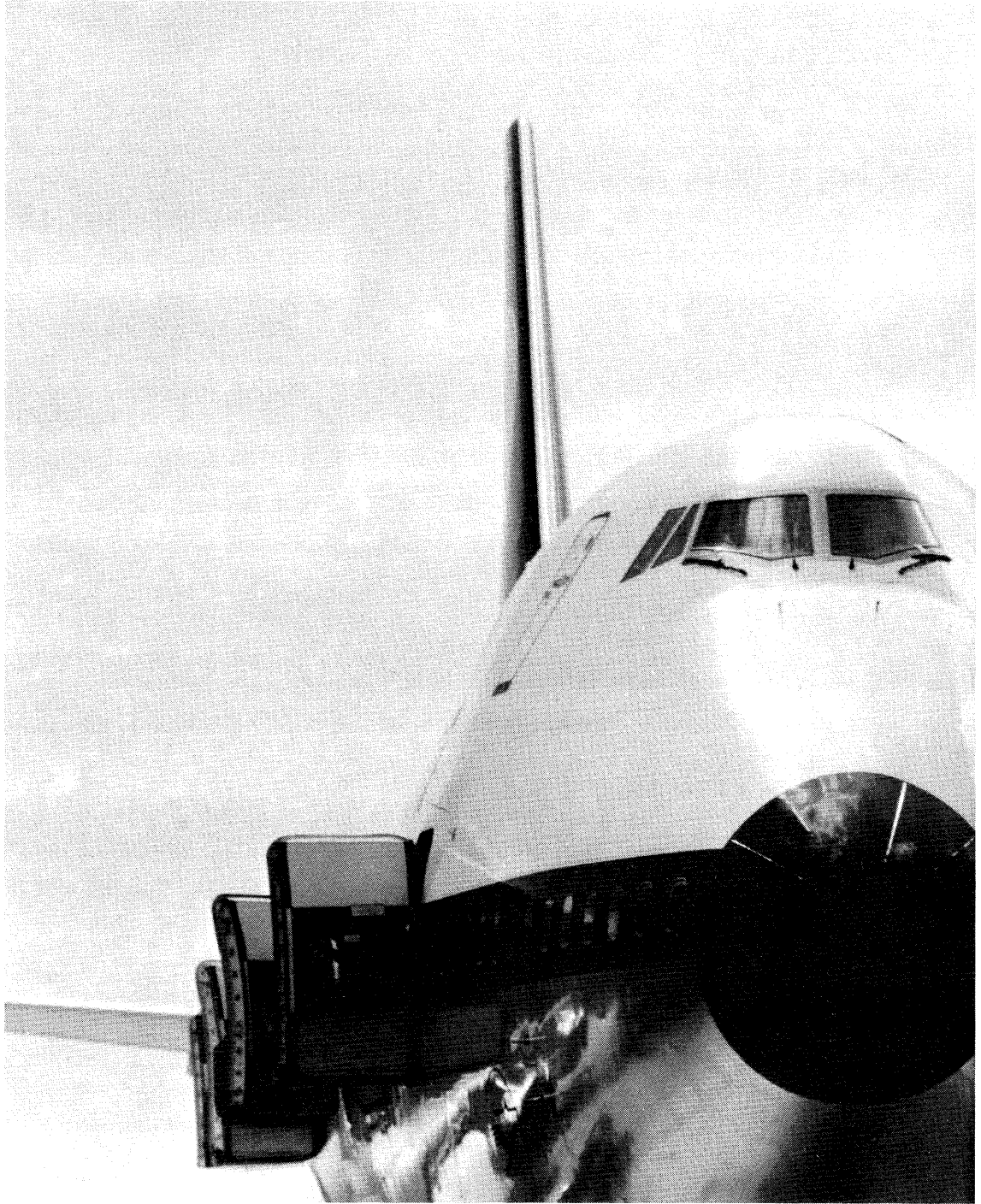
The import through the two Qatari Ports has comparatively increased during IV Quarter 1984, by about 16% from 329,396 tons to 383,651 tons.

The commodity-wise analysis of import reveals that cargoes like pipes, chemicals, construction materials, automobiles, iron ore, animal feed, food stuff & reefer cargo were to the increase.

A slight decrease in container traffic by sea is noted during the period under review. 903 TEUs were imported during IV Quarter 1984 against 1,007 TEUs imported during the same period of 1983, i.e.; 10% less. Comparison of containerized cargo carried by conventional vessels & feeders reveals that conventional vessels were affected. 300 TEUs were carried by conventional vessels during this period against 463 TEUs during the same period of 1983, i.e.; 35% less. But an increase of 11% is noted in feeder traffic from 544 TEUs to 603 TEUs.

(*Qatar National Navigation & Transport Co., Ltd.*)

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