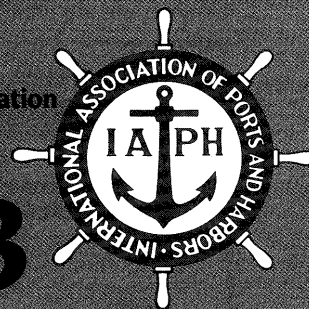


# Ports & Harbors

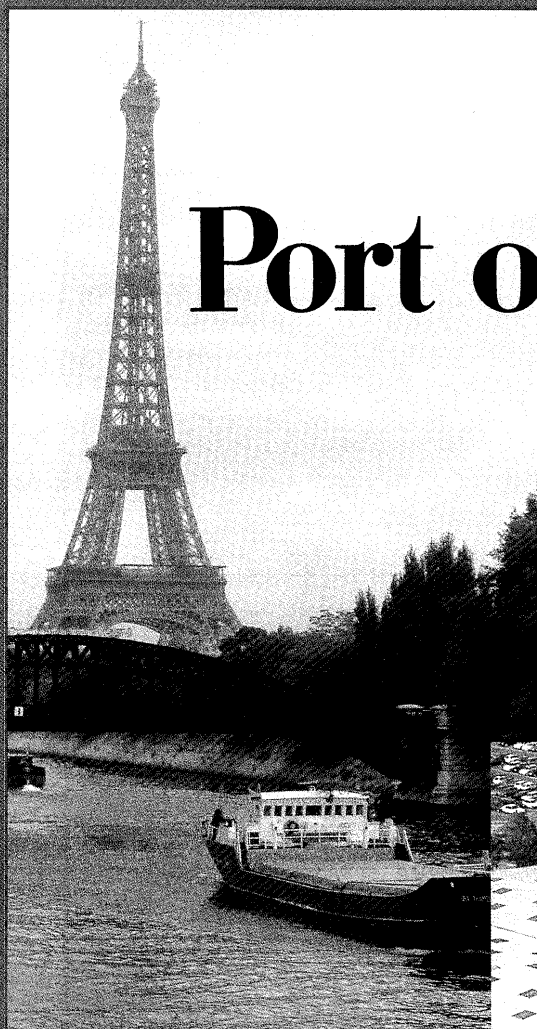
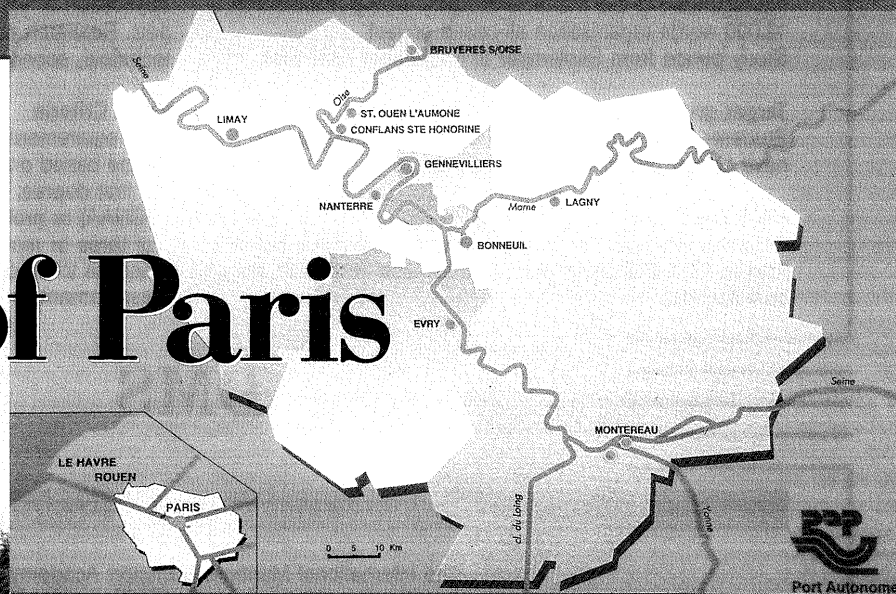


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Ports and Harbors

April  
1992 Vol. 37 No. 3



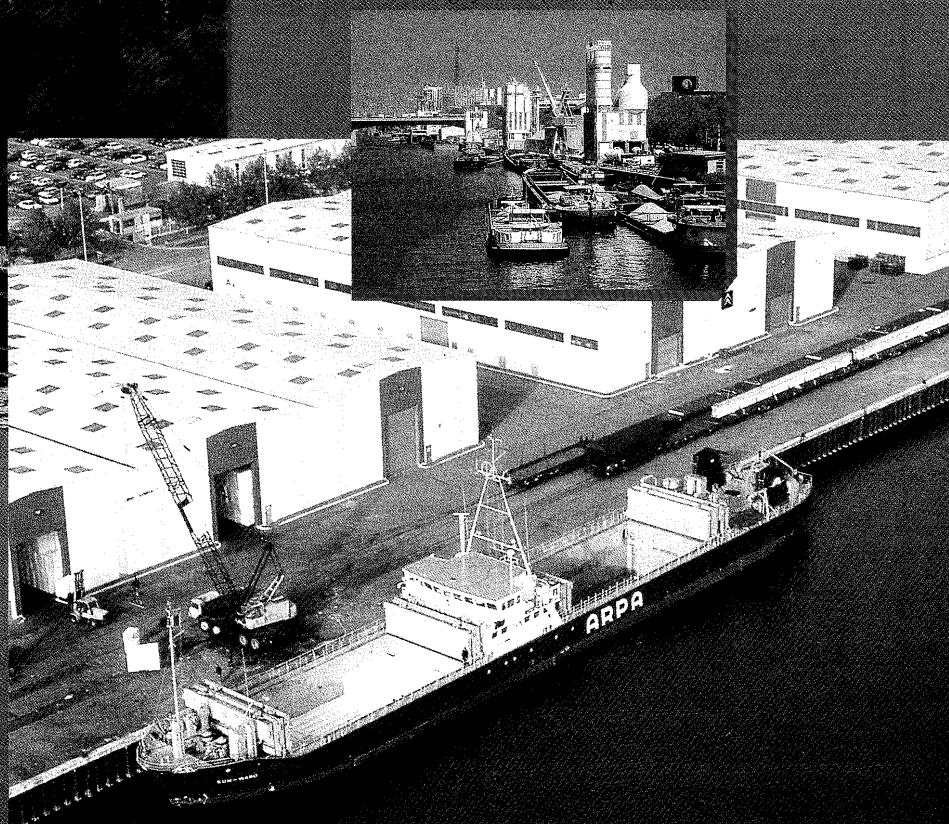
## Port of Paris



(Photo by Angelini)

The Ile-de-France region, besides being well served by rail and road, has, with the Seine and the Oise, waterways that were developed to the European dimensions. These arteries are linked to other basins by a canal system offering economic connections with the major industrial regions of Northwest Europe.

River-barge facilities (Photo by A. Moler)



A 2000-ton sea-river coaster at work in Limay (Norwegian paper pulp) (Photo by N. Bardin)

# PORT AND SHIPPING MANAGEMENT

INTERNATIONAL MARITIME TRANSPORT ACADEMY

## MBA

IAPH

*2nd Intake Commencing in September 1992*

The International Marine Transport Academy (IMTA) in conjunction with the Netherlands International Institute for Management (RVB), Maastricht is commencing the second intake of the MBA-degree course.

### Port and Shipping and Transport Management

#### Profile

Deepening of specialized knowledge and insight into the management of the maritime industry. Doing research on a 12.000 words organisation all-based project.  
Study period from September to September next year.

#### Target group

Students, who have completed the DMS-course or who have similar qualifications.

#### Objective

Enabling managers in port, shipping and transport industries to fulfil their tasks with success, also in difficult circumstances.

#### Subject

The principles of management in industrialization; application of these principles in ports, shipping and transport. Research methods: development in technological, technical, economic, political and social issues.

#### Entry Criteria

The requirements for successful selection for the program will be based on the following:

- a first degree, preferably an honours degree, DMS (CNA) or professional qualifications working experience of three or more years in a managerial position.
- access to an organisation to undertake work based assignments.

## DMS

*11th Intake Commencing in September 1992*

The International Maritime Transport Academy (IMTA) is commencing the 11th intake of the DMS course (Post Graduate).

### Port and Shipping and Transport Management

#### Entry Qualifications

The course is highly intensive and essentially post-graduate/port-experience in nature. Its focus is such that students are expected to have experience in the shipping or marine related industries. A degree of a CNA recognized University or Completed Higher Vocational Education or H.BEC/H.TEC. Diploma. The minimum age of entry is 23. In exceptional cases students of 27 years of age or over without the approved qualifications may be admitted, provided that he/she has at least four years experience in a post of professional or administrative responsibility.

#### Profile

Post-graduate course from September to May combining theory and practice.

#### Target Group

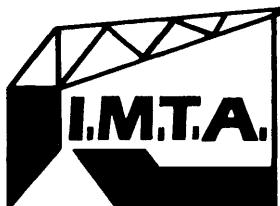
Port and Shipping personnel of higher and middle management levels and sea staff preparing for a job ashore.

#### Objective

To teach students the latest knowledge, skills and technique in international transport.

#### Subjects

Data handling and computers: decision taking and corporate planning: general principles of management (MBA): casestudies in the field or port and shipping.



Closing data: 15 June 1992

Course fees: DMS: NFL: 13.500,-  
(limited fellowship available)  
MBA: NFL: 25.500,-

For more information and details:  
International Maritime Transport Academy  
P.O. Box 137  
1780 AC Den Helder  
The Netherlands  
Tel: (0) 2230-25070  
Fax: (0) 2230-16520



Ports & Harbors  
April, 1992  
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# Ports Harbors

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ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC



IMO

## SEMINAR ON ENVIRONMENTALLY SOUND PORT DEVELOPMENT 31 August - 5 September 1992, Yokohama



The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) invites those who are interested in environmental issues concerning port development to participate in the seminar on Environmentally Sound Port Development, 31 August - 5 September 1992 at Yokohama. The Seminar will be organized in cooperation with the International Maritime Organization (IMO) and hosted by City of Yokohama under the auspices of the International Association of Ports and Harbors (IAPH) and Ministry of Transport of Japan.

The topics of the seminar are:

- Environmental Impact Assessment of port development
- Control of pollution/contamination in port area
- City/Port environment problems
- Deposition/Disposal of wastes in port area
- Environmental consideration for design and construction of port facilities
- Regulations for the protection of the port environment
- Experiences in tackling port environment problems

Research/review papers on these topics are invited for presentation at the seminar and those interested are requested to send a summary of their papers (approximately a half page of A4) to ESCAP by 15 May 1992. The writers of papers selected for presentation at the meeting may receive subsidies for their participation.

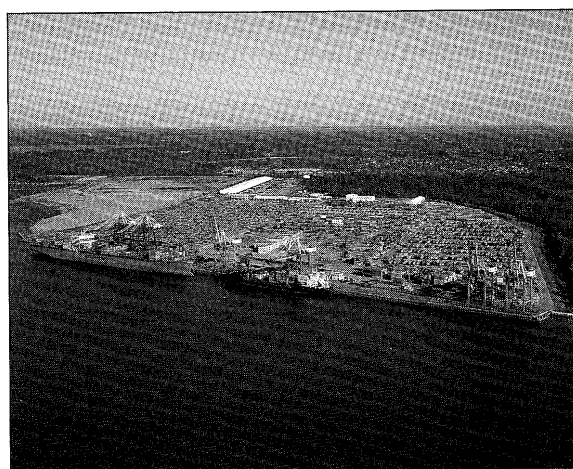
**Further details can be provided on request from David L. Turner, Chief,  
Transport and Communications Division, ESCAP.**

**Tel: 66-2-282-9161, Fax: 66-2-280-6042/282-9602, Telex: 82144 SUCOP TH.**

If you are interested in the seminar and wish to be kept informed of developments, please send contact details, viz. (a) names, (b) organization, (c) position held, (d) address, (e) whether participant as delegate or to present a paper, (f) if latter, title of paper and a summary of the paper should be included.

## PORT OF CHARLESTON

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19-9, 1-chome, Toranomon  
Minato-ku, Tokyo 105, Japan  
Telephone: 03-3591-1604/5  
FAX: 03-3591-0757 • Telex: 78133478 SCFEO J33478

### **Port of Charleston**

P.O. Box 817  
Charleston, SC 29402 USA  
(803) 723-8651  
TLX: 810-881-1860  
FAX: (803) 577-8710

# IAPH ANNOUNCEMENTS AND NEWS

## Mid-term IAPH Meetings in Charleston

By mid-February, the host port secretariat in Charleston and the IAPH Head Office in Tokyo had agreed to hold the mid-term meetings of Exco and the other Committees in accordance with the following schedule:

Our host requests those who have not yet confirmed of their attendance or non-attendance to expedite their communication to Charleston, with a copy of such correspondence to the Head Office in Tokyo so as to enable the secretariats of both locations to make the necessary arrangements for the participants.

Please contact: Ms. Anne M. Moise, Director of Public Relations, South Carolina State Ports Authority, P.O. Box 817, Charleston, South Carolina 29402, U.S.A. Fax: 803-577-8616 Tel. 803-577-8121



Ms. Anne M. Moise

### Provisional Programs for Mid-term IAPH Meetings May 4 — 7, 1992 Charleston, South Carolina, U.S.A.

All meetings will take place in the Hawthorn Suites Hotel, where the meeting headquarters will be located.

The daily programs will be as follows:

#### Sunday, May 3

Port tour for early arrivals, bus departs 1 p.m. from front of Hawthorn Suites Hotel. Return to the Hotel by 5 p.m. (Casual attire)

#### Monday, May 4

7 a.m. — 9 a.m. complimentary buffet breakfast in Hawthorn Room  
9 a.m. — 12 noon COPSSEC meetings  
12 noon — 2 p.m. reception in Ginko Room, lunch in Hawthorn Room and Courtyard, compliments of Port of Charleston

2 p.m. — 5 p.m.

5 p.m. — 6 p.m.

— Evening Free —

#### Tuesday, May 5

7 a.m. — 9 a.m.

9 a.m. — 12 noon

12 noon — 2 p.m.

2 p.m. — 5 p.m.

5 p.m. — 6 p.m.

— Evening Free —

#### Wednesday, May 6

7 a.m. — 9 a.m.

9 a.m. — 12 noon

12 noon — 2 p.m.

2 p.m. —

2 p.m. — 5 p.m.

5:30 p.m. — 8 p.m.

5:30 p.m.

— Remainder of Evening free —

#### Thursday, May 7

7 a.m. — 9 a.m.

8:45 a.m. — 3:15 p.m. spouses/guests plantation tour — A

COPSSEC meetings

complimentary reception for Hawthorn Suite guests in Hawthorn Room

complimentary buffet breakfast in Hawthorn Room

COPSSEC meetings and CLPPI meeting

reception in Ginko Room and lunch in Hawthorn Room and Courtyard, compliments of Port of Charleston COPSSEC meetings and CIPD meeting

complimentary reception for Hawthorn Suites guests in Hawthorn Room

complimentary buffet breakfast in Hawthorn Room

Finance Committee Membership Committee and Cargo Handling Operations Committee meetings

reception in Ginko Room and lunch in Hawthorn Room and Courtyard, compliments of Port of Charleston IAPH Officers meet with Mayor Joseph P. Riley, Jr.

Constitution & By-Laws Committee meeting and Strategic Planning Committee meeting

IAPH President's reception at Historic Exchange Building (business attire)

Horse-drawn carriages will start from in front of the Hotel carrying groups on a tour of the historic district on the way to the IAPH reception. Carriages depart at intervals until 6 p.m.

The return from the reception will be by trolley from the Exchange Building at intervals between 7:30 and 8 p.m.

bus will arrive at the Hotel front door at 8:45 a.m. for a 45-minute ride to two historic plantations. Refreshments and lunch will be served. (Casual clothes and comfortable walking shoes.)

**9 a.m. — 12 noon** EXCO meeting  
**12 noon — 2 p.m.** reception in Ginko Room and lunch in Hawthorn Room and Courtyard, compliments of Port of Charleston

**2 p.m. — 5 p.m.** EXCO meeting  
**5 p.m. — 6 p.m.** complimentary reception for Hawthorn Suite guests in Hawthorn Room

— Evening free —

### **Friday, May 8**

**7 a.m. — 9 a.m.** complimentary buffet breakfast in Hawthorn Room

**9 a.m. — 12 noon** EXCO meeting  
**12 noon — 2 p.m.** reception in Ginko Room and lunch in Hawthorn Room and Courtyard, compliments of Port of Charleston

**2 p.m. — 5 p.m.** EXCO meeting  
**5 p.m. — 6 p.m.** complimentary reception for Hawthorn Suite guests in Hawthorn Room

— Evening Plans to be finalized  
 — IAPH Mid-term meetings conclude

## **Bursary Recipients Announced**

Mr. Goon Kok Loon, Deputy Executive Director, Port of Singapore Authority, who is currently serving as Chairman of the IAPH Committee on International Port Development, has recently announced that he has approved the following individuals as recipients of the 1992 bursary award of IAPH:

1. **Mr. A. Kane**, Chief, Development Division, **Port of Dakar, Senegal**
2. **Mr. D. R. Kahindi**, Port Statistical Officer, **Tanzania Harbours Authority, Tanzania**

(The both individuals are to attend the 28th International Seminar on Port Management to be organized by the IHE, Delft, the Netherland for the period May 7-June 18, 1992.)

Following the announcement calling for applications in October 1991, by the deadline set at January 15, 1992 altogether 13 applications had been received at the Head Office in Tokyo. For the final decision by the CIPD Chairman, the Tokyo secretariat submitted an evaluation report listing all the applications with reference to their qualifications in view of the bursary conditions required.

Chairman Goon, after his careful scrutiny of the applications, has noted that out of the 13 applications, there are the above two applicants who have satisfied all the conditions, while there are six applicants (from Mauritania, Nigeria, Liberia and Cameroon) who have not fully met the conditions and thus need to clarify certain points in accordance with the conditions so that their application can

be considered when the further advice required is received. The other five applications have lacked the basic qualifications and have thus been turned down by the CIPD Chairman.

Chairman Goon comments that, in view of the limited financial resources, we will not award more than seven bursaries for 1992. It was also stated by the Chairman that we will not consider any more requests for 1992 bursary awards as the closing date has passed.

## **Ports of Constantza, Saigon Join IAPH**

As reported in the Membership Notes column of the previous edition of this journal, Constantza Port Administration, Romania, has officially enrolled as a new Regular Member (3 units). We take pleasure in introducing an article specially prepared by Mr. Pistolea Vasile, General Manager of the newly joined Romanian Port, later in this issue on the subject: The Port of Constantza — Achievements and Expectations.

Another new member enrolled recently is the Port of Saigon, Vietnam. In fact, the Port of Saigon was one of the 14 charter members when the Board of Directors was established in 1955 at the initial Conference of IAPH held in November 1955. However, Vietnamese membership discontinued after the conclusion of the Vietnam War.

After an interval of nearly 20 years, the IAPH Head Office succeeded in reviving the dialogue with the top officials of the Port of Saigon at the initiative of Secretary General Kusaka, who took the time to visit Saigon last year while visiting the country as a member of a Japanese Government mission. Several months later, the IAPH Secretariat was pleased to receive the official application and the first year's membership fee from the Port of Saigon, whose active participation in the activities of IAPH will be most welcomed by all our members. For the benefit of our members and readers of the journal, we introduce an article on the Port of Saigon on the basis of the publication we received from the Port later in this issue.

## **COPSSEC Moves Towards Deep Restructung — Set to Create Sub-Committee On Sea Trade**

To cope with the tremendous changes that world transportation faces today, the COPSSEC Chairman and members have felt the need to restructure the technical committees, bearing in mind the requirement that IAPH keep pursuing its objectives as stipulated in Article II of the Constitution.

For this very reason and owing to the obvious need for information concerning in maritime transportation, it appeared necessary to enlarge the scope of activities undertaken by COPSSEC beyond ships' designs — and the valuable

surveys on trends in ships' characteristics completed by the Ship Sub-Committee — to gather the necessary information that port managers need in order to plan the development of their ports.

As outlined by Mr. Jean Smagghe, Chairman of COPSSEC, a restructuring program in two phases has been set up:

In the first phase, COPSSEC members, through consultation with the President and Vice-Presidents, have been working on creating a new sub-committee on sea trade, which will specialize in analyzing the maritime trends in terms of world cargo exchanges. The Sea Trade Sub-Committee will co-operate with the five existing Sub-Committees mainly with the Ships and the Marine Safety Sub-Committees — which are in charge of studying trends in ships' characteristics and equipment.

The new sub-Committee, which will be chaired by Mrs. Lilian Liburdi, Director, Marine Department, Port Authority of New York and New Jersey, will hold its first meeting in Charleston on the morning of Tuesday, May 5, 1992.

The agenda proposed by Mrs. Liburdi for the meeting will include:

1. The objectives of the Sub-Committee
2. Discussion on three task groups:
  - cargo definitions standardization
  - standardized port activity forecasts
  - port capacity survey
3. Assignment of task group members
  - capacity survey task group
  - definition and forecasting task group
4. Definition of next steps and schedule

As regards the actual size of the Committee — more than 70 members — the second phase will lead to splitting COPSSEC into two different Technical Committees:

The first one will be composed of the three existing Sub-Committees (Port Safety, Dredging Task Force and Port Planning), and this will focus on port environment and construction and issues that our ports have to face every day.

The other one will be composed of the three Sub-Committees dealing with maritime issues (Sea Trade, Ships and Marine Safety), and could be named Committee on Sea Transportation.

Mr. Smagghe is in a position to make the recommendation first to the Executive Committee in Charleston in May this year, and after the endorsement of the Exco the proposal will be submitted to the Board of Director for its approval so as to allow the official start of the newly structured committees after the Sydney Conference in April 1993.

Mr. Smagghe believes that this discussion has to be enlarged to allow the other Technical Committees' organizations to study the necessary restructuring which has to be completed if we wish to keep up with the evolution of maritime transport mainly in terms of intermodal concepts and information exchanges.



Mrs. Lilian Liburdi

## IMO/IAPH Joint Survey on Disposal Of Dredged Material

IAPH Secretary General Kusaka has recently circulated a questionnaire among all IAPH members seeking their cooperation in providing data on the disposal of dredged material at sea.

In June 1989, IAPH in co-operation with the IMO conducted a survey on the same subject and compiled its results into a 109-page report which the IAPH Head Office submitted to the IMO and distributed to all the IAPH members in November 1989.

Mr. Manfred K. Nauke, Chief, Office for the London Dumping Convention, Marine Environment Division, the IMO, in his recent letter to Mr. Kusaka, IAPH Secretary General, said that the results of the dredged material survey have been much appreciated by the Consultative Meeting of Contracting Parties to the London Dumping Convention (LDC) and its subsidiary bodies, in particular the Scientific Group on Dumping. The same IMO officer further commented, "The information has indeed been very useful as complementary material to the official annual reports on dumping activities which we receive from the responsible administrations of the sixty-seven (67) Contracting Parties to the Convention. The contribution made by IAPH provides a very good example of co-operation between an international regulatory body and the industries concerned".

In this connection, IAPH through Mr. Herbert Haar, Jr., the then Chairman of the Dredging Task Force, made it clear at the fourteenth meeting of the LDC Scientific Group in spring 1991 that IAPH would be ready to carry out follow-up actions with regard to the survey.

The 14th Consultative Meeting of Contracting Parties to the London Dumping Convention (25-29 November 1991) requested its Secretariat to formally contact IAPH to update the 1989 survey. Mr. Dwayne G. Lee (Port of Los Angeles), who is currently serving as Chairman of the IAPH Dredging Task Force as representative from IAPH, together with staff members of the IMO's Office for the LDC, prepared a survey form. This was sent out to all IAPH members on February 24, 1992 from the Tokyo Head Office. The closing date for returning the completed form by the respective members to the Tokyo Head Office has been set at April 15, 1992.

Secretary General Kusaka says, "I sincerely hope that this year's survey will be able to live up to what was achieved by the 1989 survey, which succeeded in collecting information from 82 organizations.

The survey form were as follows.

1. Name of Organization:  
Address:  
Staff contact person:  
Telex:  
Fax:
2. If, under sections 3 and 4 below, volume-to-weight conversions ( $m^3$  to t) are made, please use the factor 1.3, except if, owing to the characteristics of the material, a different factor should be used. If so, please state that factor: \_\_\_\_\_

3. Purpose-wise breakdown: Amounts of dredged material (please indicate whether in m<sup>3</sup> or tonnes — delete as appropriate) in 1987, derived from:
  - 3.1 Maintenance dredging: ..... m<sup>3</sup> or t
  - 3.2 New construction or expansion: ..... m<sup>3</sup> or t
  - 3.3 Removal of contaminated soil from the sea bed: ..... m<sup>3</sup> or t  
Total: ..... m<sup>3</sup> or t
4. Location-wise breakdown: Amounts of dredged material (cubic metres or tonnes) which were disposed of in 1987:
  - 4.1 On land ..... m<sup>3</sup> or t (excluding for beneficial uses(\*); see also 4.4)
  - 4.2 In fresh water lakes and rivers ..... m<sup>3</sup> or t
  - 4.3 At sea:
    - 4.3.1 In inner coastal waters (\*\*) ..... m<sup>3</sup> or t
    - 4.3.2 Seaward of the baseline (\*\*\*) ..... m<sup>3</sup> or t
    - Total: ..... m<sup>3</sup> or t
  - 4.4 Of this total:
    - 4.4.1 Disposal for beneficial uses (\*) ..... m<sup>3</sup> or t
    - 4.4.2 Disposal, using special care, ..... m<sup>3</sup> or t because of contamination
- (\*) e.g. for beach nourishment, habitat development for wildlife and reclaimed lands for commercial or industrial use, aquaculture, agriculture, etc.
- (\*\*) i.e. including disposal in estuaries, lagoons, etc.
- (\*\*\*) baseline is defined as the landward limiting boundary of the territorial sea
5. If information is available on the disposal of dredged material per calendar year during the period 1988-1990, please supply such information:
  - 5.1 Please specify units used (tick appropriate box): \_\_\_\_\_  
m<sup>3</sup> \_\_\_\_\_ tonnes \_\_\_\_\_  
(see also section 2 above)
  - 5.2 Purpose-wise annual figures for disposition of dredged material
    - 5.2.1 Maintenance dredging:
    - 5.2.2 New construction or expansion:
    - 5.2.3 Removal of contaminated soil:  
Total:
  - 5.3 Location-wise annual figures for disposition of dredged material:
    - 5.3.1 on land:
    - 5.3.2 In fresh water lakes & rivers:
    - 5.3.3 At sea, in:
      - inner coastal waters:
      - seaward of baseline:
    - Total:
  - 5.4 Of this total:
    - disposal for beneficial uses
    - disposal, using special care, because of contamination
6. Please provide, if possible, detailed information that might usefully reflect the situation concerning licensing procedures and land/sea disposal of dredged material, such as:
  - 6.1 Name and address of the national licensing authority:  
Name of authority:  
Address:  
Telex:  
Fax:
  - 6.2 Authorization/permitting problems encountered with maritime/environmental administrations, such as:

- 6.2.1 Any particular case in which an extra-ordinary time was needed in securing final agreement with the maritime/environmental administrations?
- 6.2.2 Any special procedures needed for the mitigation of negative impact:
- 6.3 Major sources of contamination of the dredged material:
- 6.4 Major environmental, health or resource-use conflicts associated with the disposal of dredged material:

7. Other information:

## IAPH Poster for Antidrug Campaign

Through several back issues of this journal, it has been reported by IAPH officers such as Mr. A. J. Smith, our European representative, that as a follow up to previous initiatives the Heads of Government of the Group of Seven (G7) countries, at their economic summit held in London in July 1991, invited the Customs Cooperation Council (CCC) to promote the strengthening of cooperation between customs and international traders and carriers in order to improve the capacity of law enforcement agencies to target illicit drug movements without hindering the legitimate circulation of people and goods.

IAPH has been endeavoring to be part of this movement and has sought to find ways in which our organization can contribute to the CCC's initiative. The major action taken by IAPH to this effect was the Memorandum of Understanding exchanged between the two organizations in August 1987.

The next step IAPH was able to take in support of the fight against the illegal trafficking of drugs was the production of a tricolor (blue, red and white) poster in which the IAPH appeal was printed as follows.

**A GLOBAL WAR AGAINST DRUGS**  
**DECLARE WAR ON**  
**THE ILLEGAL TRAFFICKING OF DRUGS**  
**THROUGH THE WORLD'S SEAPORTS**  
  
**OUR WEAPONS INCLUDE:**  
**VIGILANCE**  
**ENHANCEMENT OF SECURITY**  
**COORDINATION, COOPERATION &**  
**COMMUNICATION**  
**WITH THE FIGHTING MEMBERS OF THE**  
**PORTS COMMUNITY AND AWARENESS OF**  
**RESPONSIBILITY TO THE WORLD COMMUNITY**  
  
IAPH (The International Association of Ports and Harbors)  
supports the initiative of  
CCC (The Customs Co-operation Council)  
for their fight against the illegal trafficking of drugs

The poster has been distributed together with the March issue of "Ports and Harbors" to all IAPH members and other relevant organizations from the Tokyo Head Office, which requests all the recipients to display it at a suitable location within their offices. Additional copies of the poster will be available upon contacting the IAPH Head Office in Tokyo.

## The IPD Fund: Contribution Report

### Contributions to the Special Fund For the Term of 1990 to 1991 (As of Mar. 10, 1992)

Contributors	Amount
<b>Paid:</b>	<b>(US\$)</b>
Associated British Ports, U.K.	3,000
Nagoya Port Authority, Japan	2,748
UPACCIM, France*	1,989
Port of Copenhagen Authority, Denmark	1,000
South Carolina State Ports Authority, U.S.A.	1,000
Vancouver Port Corporation, Canada	1,000
Puerto Autonomo de Valencia, Spain	1,000
Port Authority of New York & New Jersey, U.S.A.	1,000
Clyde Port Authority, U.K.	1,000
Hiroshima Prefecture, Japan	630
Niigata Prefecture, Japan	610
Osaka Prefecture, Japan	585
Kobe Port Development Corp., Japan	584
Osaka Port Terminal Development Corp., Japan	584
Nagoya Container Berth Co. Ltd., Japan	554
Penta-Ocean Construction Co., Ltd., Japan	502
Marine Department, Hong Kong	500
Port Authority of Jebel Ali, U.A.E.	500
Port of Montreal, Canada	500
Port Rashid Authority, U.A.E.	500
Stockton Port District, U.S.A.	500
Port of Tauranga, New Zealand	500
Port Autonome de Dakar, Senegal	480
The Japanese Shipowners' Association, Japan	438
Japan Port & Harbor Association, Japan	400
Public Port Corporation II, Indonesia	300
Toyama Prefecture, Japan	291
Japan Cargo Handling Mechanization Assoc., Japan	280
Fraser River Harbour Commission, Canada	250
Port of Melbourne Authority, Australia	250
Port of Palm Beach, U.S.A.	250
Port of Quebec, Canada	250
Saeki Kensetsu Kogoy Co. Ltd., Japan	250
Ghana Ports & Harbours Authority, Ghana	250
Pacific Consultants International, Japan	238
Bintul Port Authority, Malaysia	200
Gambia Ports Authority, the Gambia	200
Nanaimo Harbour Commission, Canada	200
Port of Redwood City, U.S.A.	200
Mauritius Marine Authority, Mauritius	200
City of Muroran, Japan	155
Public Port Corporation I, Indonesia	150
Port Authority of the Cayman Islands, West Indies	100
Port Authority of Thailand, Thailand	100
<b>Total</b>	<b>US\$26, 218</b>
<b>Pledged:</b>	
Empresa Nacional de Puertos S.A., Peru	100
<b>Total</b>	<b>US\$100</b>
<b>Grand Total</b>	<b>US\$26,318</b>

\* Union of Autonomous Ports & Industrial & Maritime Chamber of Commerce (the Association of French ports) on behalf of the Ports of Le Havre, Bordeaux, Dunkerque, Marseille, Nantes-St. Nazaire, Paris and Rouen

## Visitors to Head Office

On February 5, **Mr. Hans Peters**, Principal, Trade and Maritime Industries, Transport Development Division, **The World Bank**, visited the Head Office where he was received by R. Kondoh, Dy Secretary General. Mr. Peters, with **Mr. Peter Ludwig**, Chief, Infrastructure Division, Technical Department Asia Region, and **Mr. Toshiro Tsutsumi**, Port Engineer, also from the Bank's Technical Department Asia Region, was attending a seminar on the betterment of maritime safety in the Asian region, organized by the International Transport Consultants Association and Maritime International Cooperation Center and attended by representatives of Indonesia, Bangladesh and the Philippines.

On February 6, **Mr. L. Duane Gratham**, Director, Marketing & Sales, **Mr. Jack M. Smith**, General Manager, Sales, **Mr. George W. Young**, Regional Manager, New York and **Mr. Ryuzo Nakada**, Director, Japan, of **South Carolina State Ports Authority** visited the Head Office where they were met by Mr. R. Kondoh, Deputy Secretary General. The Charleston port mission was visiting Japan during a trade development mission in the region.

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Mailing Addressee: Mr. Tran Van On  
Director General  
Telex: 811772 SGPORT VT  
Tel: 297898  
Fax: 84-8-224168

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Vice President — Research & Special Projects  
Telex: 2386 PORTOPS  
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# OPEN FORUM

## Port Policy on Brazil: A Critique

By C.M. Pimentel

**Note:** The following paper has been contributed from the author as a subscriber to the 'Ports and Harbors', who is Brazilian by nationality and currently working on his Master of Science degree in Maritime Studies at the University of Wales, College of Cardiff, U.K. He holds Bachelor's degrees in Mechanical Engineering and in Law from the Federal University of Espirito Santo State, Brazil and Master in Law degree from the University of Southampton, U.K.

The views expressed in this paper are those of the author and do not reflect those of the International Association of Ports and Harbors.

### Abstract

The purpose of this paper is to show briefly the present political and economic situation of the Brazilian ports. Where appropriate, up-to-date information about the Brazilian shipping and the economy as a whole is also supplied.

### Contents

1. Summary
2. Introduction
3. Brief Description of Brazilian International Maritime Trade

4. A Brief Overview of the Brazilian Economic Situation
5. The New Policy to Change Shipping in Brazil
6. A Brief Description of the Brazilian Port System
7. The Main Facts About Brazil's Port System
8. The New Policy to Change Brazil's Ports
9. Conclusions
10. Bibliography

### 1. Summary

The aim of this paper is to provide a brief description of the reality of Brazilian ports. Where appropriate, a critique will be offered and suggestions will be provided in accordance with the model adopted by developed ports in European countries.

### 2. Introduction

In this paper, I would first like to describe briefly the state of the shipping industry in Brazil, giving some figures on its performance and actual problems. The same approach will be used to deal with the port situation, with an account of the main problems affecting the port industry's development. A report on the main suggestions



Mr. Pimentel

### OBITUARY

## Mr. Hugh John Legg Founder Honorary Member

The IAPH Head Office was recently informed of the passing away of Mr. Hugh John Legg, Founder Honorary Member of IAPH, through the office of Associated British Ports. According to the news, originally from Mr. Legg's daughter, Mr. Legg died suddenly at home on 22 January and, at his request the cremation took place after a quiet family service.

Mr. Legg, while he was the first secretary of the British Embassy in Japan, rendered great assistance to the late Mr. Gaku Matsumoto, the initiator of the Association, prior to its official establishment. At the First International Ports and Harbors Conference held in Kobe in November 1952, at which the idea of forming an association of world ports was first broached, Mr. Legg who was attending the Kobe Conference as an observer, displayed his skills as a diplomat in influencing the assembly to decide upon the creation of the Association.

In the light of his most significant services to IAPH,

the Association at its 5th Conference held in 1967 in Tokyo elected him as a Founder Honorary Member.

Mr. Hiroshi Kusaka, IAPH Secretary General, through Mr. Alex Smith of the IAPH London Office, sent a message of condolence to Miss A.M. Legg at 5 Park Drive, Verwood, Wimborne, Dorset, U.K.

According to the information received from the Foreign & Commonwealth Office in London via the British Embassy in Tokyo, Mr. Legg was born on February 10, 1900, and his diplomatic career included services as 1st Secretary (Commercial) in Tokyo, Consul in Kansas City and Consul-General in Zurich before his retirement in 1959. He was made an M.B.E. in June 1959.

### Correction

On page 9 of the January-February combined issue of this journal, in our reference to the participants of the African/Europe regional meeting held in Glasgow in November 1991, the name of the General Manager of the Dublin Port and Docks Board was erroneously printed as Mr. Noel Chanley while it should have been **Mr. Noel Shanley**. We apologize to Mr. Shanley for the mistake.  
— Head Office

coming from the major users of the Brazilian port industry will be provided here, together with my own suggestions and comments.

### 3. Brief Description of Brazilian International Maritime Trade

According to information supplied by Lloyd's Maritime Information Service Ltd (LMIS) in London, Brazil is among the twenty biggest shipping countries in the world. Yet, according to that source, Brazil has 309 ships, with a total tonnage of around 10,303,520 DWT.

Recently, an important British shipping newspaper called "Lloyd's List" published some brief statistical data entitled "Brazil's Maritime Commerce in Perspective (see fig 1). This data shows basically the tonnage of each main type of cargo together with the amount of freight generated and to be generated by each of those cargoes.

**Fig. 1**

Brazil's Maritime Commerce in Perspective (1986-2000)									
CARGOES (in million)		1986		1990		1995		2000	
		exp.	imp.	exp.	imp.	exp.	imp.	exp.	imp.
Dry bulk	tonnes	107	22	137	26	170	40	204	60
	freight US\$	786	215	1133	203	1520	491	1926	758
Liquid bulk	tonnes	7	33	12	37	21	47	37	60
	freight US\$	150	621	265	765	565	1167	1177	1752
General Cargo	tonnes	19	5	29	6	40	11	55	19
	freight US\$	1376	445	2280	660	3682	1358	5755	2730
Total	tonnes	123	60	178	69	231	98	296	139
	freight US\$	2312	1281	3681	1727	5767	3016	8858	5240

based on statistics from the Brazilian Development Bank (ENDES)

However it may be said here that the freight coming from this trade was and will be earned in great part by foreign shipping companies because, of course, Brazil's fleet is inadequate to meet its real needs. Thus, the country needs to spend foreign currency on affreightment and freight in general to make up such a deficiency.

The present government, like past governments, is trying to promote expansion of the Brazilian fleet. But due to the excessive number of decrees and laws interfering in this area and also due to the deep economic crisis that is affecting the Brazilian economy, Brazil's merchant fleet cannot keep up with the increasing need for maritime transport facilities to supply the demand for the movement of goods.

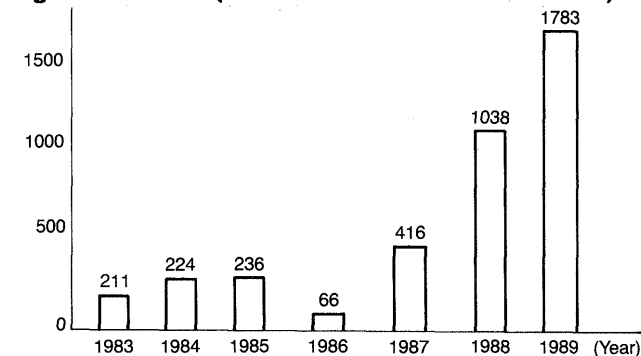
Some other problems could also be mentioned here. For example, the Brazilian fleet suffers from the problem of obsolete tonnage, which undermines its competitive position.

### 4. A Brief Overview Of the Brazilian Economic Situation

Inflation under earlier governments had risen continually (see fig. 2), interrupted only by successive price freezes. The austerity programme introduced by the new government led immediately to a sharp reduction in inflation, but also triggered a severe recession. The recent stabilisation package, called "Plano Novo Brasil", includes an 18-month freeze on all financial investments denominated in local currency in excess of very low exemption limits (at the present moment this money has now been unblocked and released in 12 payments), the re-introduction of the cruzeiro currency, a

floating of the exchange rate against the US dollar, a non-recurring tax on financial investments, measures to combat tax evasion in the informal sector and a wide range of options designed to reduce public spending.

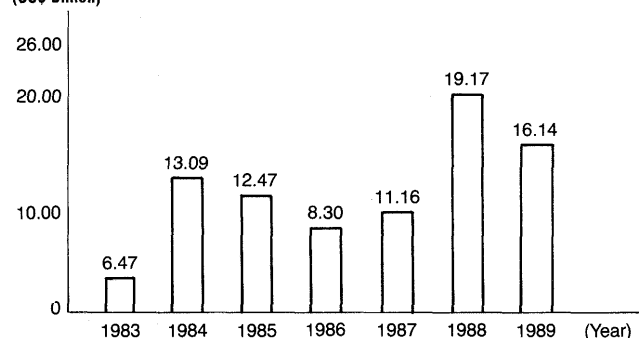
**Fig. 2 INFLATION (% CHANGE IN CONSUMER PRICES)**



Source: BNDES (Banco Nacional de Desenvolvimento Economico e Social)

Despite all the problems mentioned above, the Brazilian economy is among the twenty largest economies in the world. (see fig. 3 below).

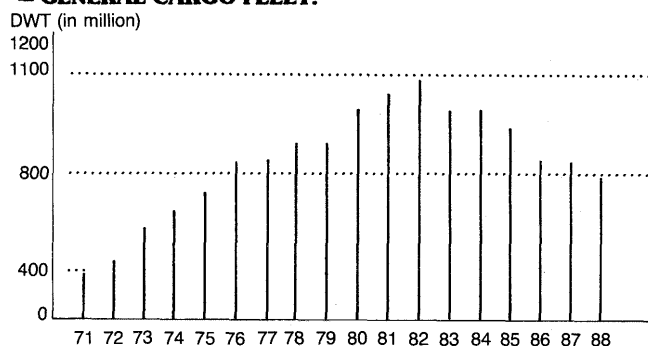
**Fig. 3 TRADE (exports + imports) (US\$ Billion)**



Source: BNDES (Banco Nacional de Desenvolvimento Economico e Social)

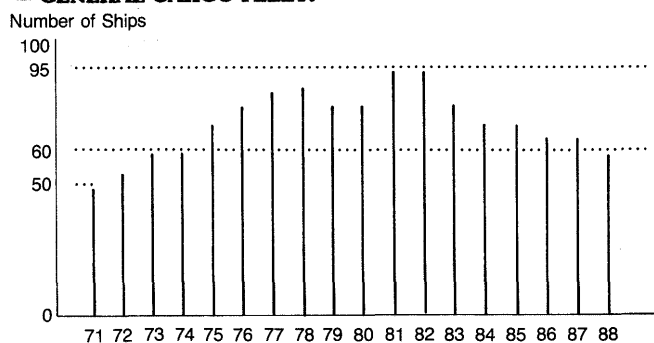
From the total amount of goods handled in Brazil's export and import operations, nearly 90% is carried by maritime transport. To give a brief illustration of the situation, let us take, for example, the general cargo situation. According to the latest data available (see figs. 4, 5 and 6), only 15% of Brazil's total general cargo trade was carried by the Brazilian fleet, producing something near US\$21.2 million in freight revenues. As for the other 85% of cargoes, the Brazilian exporters had to pay foreign fleets to make up for the deficiency in Brazilian marine transport capacity.

**Fig. 4 BRAZIL - INTERNATIONAL MARITIME TRANSPORT - GENERAL CARGO FLEET.**



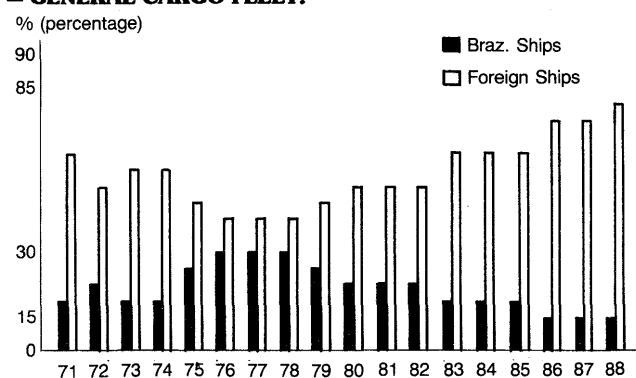
Source: "Marinha Mercante em todo Mundo", "O Estado de Sao" newspaper, published on Dec. 18th, 1990.

**Fig. 5 BRAZIL – INTERNATIONAL MARITIME TRANSPORT – GENERAL CARGO FLEET.**



Source: "Marinha Mercante em todo Mundo", "O Estado de Sao" newspaper, published on Dec. 18th, 1990.

**Fig. 6 BRAZIL – INTERNATIONAL MARITIME TRANSPORT – GENERAL CARGO FLEET.**



Source: "Marinha Mercante em Todo o Mundo", published by "O Estado de Sao Paulo" newspaper, on Dec. 18th, 1990.

Finally, it could be said that, after a satisfactory enlargement of the fleet which took part in the second half of the 1970s, Brazil's general cargo fleet is now decreasing very fast in the tonnage and in the number of ships, according to the statistics shown above. Some urgent action must be taken to arrest this tendency. Otherwise, the participation of the Brazilian fleet in this sector of transport will be nil.

## 5. The New Policy to Change Shipping in Brazil

Since the present government took office, several changes have occurred in Brazil. In the shipping field, where a lot of disagreement could be seen, the government issued "portaria" no. 07/91 on Jan. 14th, 1991, which was immediately approved by the Brazilian Congress and comprises legislation providing for shipping deregulation. These rules are the centrepiece of the 1988 Brazilian Constitution and actual government plans to increase market competition.

The main target of these rules is, first of all, to reduce prices and improve the overall quality of services provided by both Brazilian shipping companies and trading companies. To further these objectives, the regulation (portaria) abolished the government's power to impose restrictions on Brazilian flagged seagoing vessels.

This has a number of important consequences for international trade and shipping as a whole. Briefly, this regulation, among other factors, provides that Brazilian vessels may now freely carry any general cargo and liquid or solid bulk cargo, except for oil (for which the state-owned Petrobras still has a monopoly). The regulation also provides that Brazilian vessels may be utilized on any routes chosen by the shipping companies.

It is significant that under prior regulations shipping companies were authorised to operate specific routes only, and to transport specific types of cargo. This can be seen as an example of unwarranted interference by the government in the shipping companies freedom, obviously causing severe obstruction and complication to the managements of the Brazilian shipping companies.

Now that such restrictions with regard to the type of cargo carried as well as the shipping routes have been abolished, the Brazilian shipping companies are allowed to compete with foreign carriers on an equal footing. At least this is the view of the government and foreign observers, although opinion among the Brazilian shipowners is divided. Some shipowners believe that the obsolete fleet operating under the Brazilian flag imposes high costs, while foreign fleets can operate at low cost. Therefore, this will be the first challenge for the Brazilian shipowners to face. Most of them believe that only the big groups will survive and that the medium-sized and smaller companies will encounter serious problems and perhaps even disappear.

Finally, it can be said that the main thrust of this new regulation should result in an improvement in the efficiency and competitiveness of traditional Brazilian shipping companies, which will in turn reduce the costs to traders.

## 6. A Brief Description of the Brazilian Port System

The Brazilian port system today has nearly 350 berths spread along the Brazilian coast and inland navigated waters. The administration of these organized ports is now partly in the hands of state-owned companies and partly conducted by the private sector (private terminals).

The administration of Brazil's public ports is in fact quite confused. Nobody knows exactly which public sector is in charge of the public ports. After the winding up of the state port holding company called "Portobras", which occurred a few days after the present government took office, the Government created a new department to take over the functions developed by the port holding company, and promised to establish as soon as possible a new way to run the state ports. However, after nearly a year and a half, nothing has been done and the already chaotic policy employed in the administration of Brazil's ports has become more chaotic still.

Although this present problem can be considered a political issue, there are several other problems to be solved in a wide range of fields dealing with port operations.

The administration of the Brazilian ports can be divided into two basic sectors: state ports and private terminals. There are 39 state ports, which were under the control of Portobras and are now under the control of the DNTA (Departamento Nacional de Transporte Aquaviarios – National Department of Aquatic Transport), which is linked to the mega-ministry called the Ministry of Infrastructure (Ministerio da Infra-Estrutura). The other ports or terminals are operated under concession from the Federal Government by private companies or combinations (Note 1) of public and private organizations.

Note 1: With such organizations, part of their capital and shares is controlled by the Federal Government (usually 51%), and the other part (49%) is in the hands of third parties. Their shares are freely traded in the stock market. However, the control and management

of such companies are still in the hands of the Federal Government.

A distinction must be made here between state ports and private terminals.

The main characteristic of the state ports is to load and unload cargoes for everybody who needs to use the port services, normally involving general cargoes for export or import. On the other hand, the private ports are allowed only to load and discharge cargoes belonging to the company which has the relevant concession. They are not allowed to handle cargoes for third parties.

## **7. The Main Facts About Brazil's Port System**

Actually, the Brazilian port system employs around 45,000 workers spread over 39 state ports. This system handles about 350 million tons of general cargo a year, according to the most recent statistics available recorded in 1989. The Port of Santos, in Sao Paulo state, has around 9,700 workers by itself and is considered the largest port in Latin America. Such a workforce is considered very large, which has given the port the reputation of being one of the most expensive ports around the world due to the high level of its tariffs.

From the shipowners' and exporters' point of view, the high cost is due to several problems arising out of the operation of obsolete equipment and the power and inflexibility of the port unions. These are the greatest obstacles to the development of a vigorous and profitable merchant marine and, consequently, to the improvement of Brazil's international trade performance and also to the improvement of actual port operations.

According to the exporters' point of view, port inefficiency reduces the international competitiveness of their products to such an extent that in some cases the trade is no longer viable.

While outdated port equipment and bureaucracy within the port system are part of the problem, its root, from the shipowners' point of view, is the labour system within the ports that has continued almost unchanged for decades and that is riddled with monopolistic and restrictive practices.

Such an archaic port labour system punishes both exporters and importers. It affects both revenue generation and internal consumer prices and, as a result, can exert strong inflationary pressure.

In Brazil's ports, state-employed dock workers are not allowed to move cargo on or off vessels. That task falls to highly-paid stevedores who are hired by the unions and who, the port users claim, often sub-contract their work out to others at a fraction of the price.

The result of this policy is that Brazil's ports are among the costliest, and least efficient in the world. This situation is also partly attributable to use of outdated equipment, which consequently means that the vessels spend an excessive amount of time in Brazilian ports. It could be said that, quite aside from the ongoing damage to the operating efficiency of domestic shipping companies, in the owners' view high port costs have caused the effective demise of cabotage trade in general cargo.

On the other hand, the dock unions see things differently, and with some reason. The union leaders attribute port inefficiency to a chronic lack of investment in infrastructure and port equipment and to long-standing government inattention to the ports' problems.

Let us consider an example of the costs charged by

Brazilian ports in comparison to some ports in northern Europe and the USA. A 20 ft. container loaded with general cargo is handled in Brazil's ports at about US\$350 to US\$400. The same container is loaded in Rotterdam at a cost running between US\$100 to US\$150; nearly the same is charged at Antwerp. Another example would be soya flacks, which are loaded in Brazil at a cost of around US\$12 per ton. On the other hand, the same cargo is loaded in Ghent or Rotterdam at a cost of about US\$6 per ton.

Not only are high operational costs the main problem in Brazil, but the shippers also need to spend a lot of money paying demurrage due to the congestion that this inefficient system of port operation tends to create. Another problem which is always causing delays in port operations is the extremely bureaucratic and slow operation of the customs office and public health and immigration authorities. These activities belong to three different ministries, Economy, Health and Justice respectively, and they work to different schedules, which is consequently always creating delays.

Briefly, these are the main problems afflicting Brazil's ports. However, the present government has sent to the Brazilian Congress a bill trying to change the legal situation of the ports by deregulating the industry in the same way that it did the shipping sector.

## **8. The New Policy to Change Brazil's Ports**

As described in the section above, regulation no.7/91 issued on January 14th, 1991 by the Brazilian government was considered by specialist observers to be a measure to change Brazil's shipping industry and international trade as a whole, as far as the wet side of port operations was concerned. Moreover, deregulation of the dry side of port operations was also expected and indeed the government issued "portaria" no.08/91 to this effect.

In short, the new regulation no.8/91 proposes that all services connected with ports should be freely contracted between the various parties involved. This proposal means the end of the unions stevedores and workers' monopolies. Consequently the size of teams needed for each task should be agreed on the basis of free negotiation, as should rates of pay.

As regards this first-mentioned change, strong opposition from the unions is expected. In fact, such opposition is now affecting the final approval of this regulation by the Brazilian Congress, due to the strong, organised lobby working against it. Several strikes have taken place in protest against the coming rule, indeed causing more damage to the already chaotic Brazilian port system.

The other points envisaged by the coming regulation are the possibility of the private terminals handling cargoes for third parties, which is not allowed presently. In addition, each port will be able to prepare its own tariff system, while it is anticipated that ports will be able to negotiate individually the level of surcharge on import freight charges which should be imposed.

This kind of measure aims to introduce the idea of competition among the Brazilian ports, which has never been openly applied.

As regards the administration aspects of those ports, several proposals have been made, which are that ports might be run by state governments (not the federal government) in the areas where they are located; by the municipalities; and by private companies or by workers' cooperatives. Yet about port administration there are a lot of conflicting opinions. Some aspects would remain as before,

whereby under the Brazilian Constitution the operation of state ports is considered a public service, like in the great majority of maritime nations worldwide, and this sort of administration may not be in the hands of entities which are parties involved in port-related business concerns. It is assumed that the Government Authority would be immune from commercial interests.

There are some other questions to be solved. For example, who should administer the investment programmes which are too large and costly to be undertaken by the Docks Authorities themselves? Who will administer the existing surcharge collected for use in the ports' re-equipment program? According to BNDES (Banco Nacional de Desenvolvimento Economico e Social), this amount is now around US\$200m a year. However, according to a previous study carried out by PORTOBRAS (extinct State holding Co.), nearly US\$700m should be spent each year on modernising Brazil's ports.

Finally, it is necessary to establish who will be responsible for the cost of dredging operations, necessary to keep port operations safe. Some years ago, the Brazilian government had a special state company, called Companhia Brasileira de Dragagem (CBD — Brazilian Dredging Co.), which was responsible for maintaining dredging operations in Brazilian ports. This company had at that time a reasonable amount of dredging equipment and, due to some irregularities in its financial operations, was wound up by the last government. Its equipment was incorporated into the assets of Rio de Janeiro Docks Co., with an agreement to let such equipment to other state ports, to conduct dredging operations when required. However, the terms of the agreement were not totally clear and the other State Port Administrations used to contract with private dredging companies to carry out the necessary dredging maintenance, thereby of course increasing the debts of such ports.

## 9. Conclusions

The ports in Brazil have, in brief, suffered from a sequence of mistakes, in great part due to excessive interference by the federal government. The coming deregulation could be considered a good way of eliminating such mistakes. However, in my opinion the same new legislation could go further in improving the opportunity to keep the government out of the management of Brazil's ports. At the same time, the creation of the Brazilian Port Authority could be considered welcome. This idea may be implemented, giving the local state government or municipality responsibility over the port's destiny.

The essential point is that the Port Authority does not operate the port. In other words, it does not run the port itself but, on the other hand, is liable for the port infrastructure. The principle applied here is the same as that applied by most Port Authorities worldwide, where the main tasks of these bodies comprise taking care of the port's assets, while the operative areas are run by the private sector. Another policy to be implemented by the P.A. should be to avoid the formation of new cartels or monopolies, which are harmful to port interests as a whole.

Finally, through the re-definition of Brazilian port policy, together with clarification of, how the appropriate financial resources which are to be allocated, together with avoidance of demagogic practices, Brazil's ports have all the natural ingredients to give the country the appropriate support to increase its international trade, thus contributing to the generation and increase of the nation's wealth.

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# Waterfront Reform: Port of Geelong Achievement

*(Reproduced from "PORTSIDE", News from the Port of Geelong Authority)*

**In a joint statement on 11th December 1986, the then Federal Minister for Transport, the Honourable Peter Morris, and the Federal Minister for Employment and Industrial Relations, the Honourable Ralph Willis, announced a "Strategy to improve the efficiency, productivity, reliability and industrial relations record of Australia's waterfront". Under the guidance of the Inter State Commission, four bodies were to be given the task of addressing problems in every area of waterfront related activity: the Stevedoring Industry Review Committee to look particularly at management and work practices and employment issues; the Industry Committee to look particularly at commercial practices, documentation and communications; the Australian Transport Advisory Council to look particularly at port rail matters; and the Importer and Exporter panel to look particularly at issues affecting users.**

**On 30th March 1989, the Inter State Commission brought down its final report. The report contained the Commission's conclusions and recommendations and its proposal for an Integrated Industry Plan.**

**This paper looks at the Commission's recommendations with regard to port authorities and summarises the Port of Geelong Authority's achievements in relation to those recommendations.**

**Peter Morgan, Chairman/Chief Executive Officer**

## **State and Port Authority responsibilities**

### **Commission Recommendations**

State and territory governments should review the current allocation of responsibilities for port functions with a view to considering whether it is appropriate to restructure in accordance with the allocation proposed by the Commission.

### **PGA action**

The allocation of responsibilities between the State and the PGA already generally fall within the recommendations of the Commission. Both the Government and Opposition have stated intentions to corporatise the Port. This will no doubt result in a further clarification of the role of the Port Authority.

## **Corporate Structure of Port Authorities**

### **Commission Recommendations**

Port Authorities should be statutory authorities rather than private corporations. The structure of port authorities should be changed so as to give them a high degree of autonomy. The relevant state minister should maintain strategic oversight through scrutiny of corporate plans and monitoring performance against targets. The relevant minister should maintain control over major investment, guidelines for port pricing and the approval of corporate plans and rates of return.

### **PGA action**

The PGA is clearly moving towards a corporatised structure. A corporate plan has been prepared and in recent times reviewed. Some 18 performance indicators have been developed and targets set. Current cost accounting has been implemented so that rates of return can be determined. More importantly, the PGA has recently formed an Internal Interim Corporatisation Unit with an objective of developing a corporatisation business plan. The view of the PGA management is that a corporatised port authority will result in a higher degree of autonomy, with the removal of day to day bureaucratic control, leaving the Authority to manage more efficiently.

The Commission's report also stated "that Port Authorities, in assisting shippers, be more active in husbanding their resources and contracting out any work that can be better performed by the private sector and in some cases, more active in selling off surplus assets and divesting themselves of activities not directly related to port activities".

A number of these matters will be discussed later in the paper, however, the Port Authority has sold off a number of areas of unproductive land and its underutilised container crane. In addition, in order to concentrate on main stream commercial port activity, the Authority has divested to local government, responsibility for recreational piers along the foreshore and has sold its share in the Bay City Marina.

## **Port Authority Charters**

### **Commission Recommendations**

State Governments should review port authorities' legislation in order to provide clear port charters. Port authorities should be required to produce and publish corporate plans annually.

### **PGA action**

In mid 1990, the Port Authority re-evaluated its strategic directions and as a result, produced a new Strategic Plan.

12 months later in mid 1991, the Plan was reviewed and adjusted. It is intended that this review process will take place every 12 months.

Prior to implementation, the Plan was discussed with Port employees and stakeholders to ensure that substantial support existed for the plans.

A summary of the Plan has been published.

## **Port Authority Boards**

### **Commission Recommendations**

The Commission acknowledges that the composition of port authority boards is a matter for the States, but it considers that Board members should be chosen for their individual expertise, rather than in a representative capacity, so long as care is taken to ensure that boards' contain an appropriate spread of expertise. Boards' should be as small as is consistent with the attainment of this spread of expertise.

### **PGA action**

At the September 1991 Board meeting, it was agreed that the Board should be restructured as follows:

- a) Board numbers should be no less than 5 or more than 7.
- b) Board members should be appointed by the Minister on the basis of commercial expertise and industry specific skills and knowledge. The following broad range of capabilities should be represented on the Board:-
  - ☐ port administration
  - ☐ port operations
  - ☐ human resources management
  - ☐ industrial relations skills
  - ☐ business management
  - ☐ finance
  - ☐ export
  - ☐ communications
  - ☐ community involvement
- c) The Function of Chairman and Chief Executive Officer should be separated.
- d) Directors should be appointed for 4 years with staggered expiry dates to ensure continuity.

The Board requested that the Chairman convey to the Minister the above and request that the matter be progressed by the Minister through consultation with appropriate bodies.

## **Port Authority Advisory Bodies**

### **Commission Recommendations**

Each port authority should have a standing advisory body comprising representatives of the main groups with an interest in the operations of the port. This body's frequency of meeting and agenda should be such that there is genuine consultation on important issues relating to port operations. In addition to a Standing Advisory Body, adhoc groups should be established as necessary to examine particular issues.

### **PGA Action**

In early 1990, the PGA set up two consultative groups:-

- a) The Shippers Consultative Group consisting of a representative from each of the Ports' largest volume importers or exporters.
- b) The Stakeholders Consultative Group. This group

consists of representative of Stevedores, Waterside Workers Federation, the Seamen's Union of Australia, V-Line, Australia National Maritime Association, the employees of the Port Authority, the Shire of Corio, the shippers, shipping agents and a road transport representative.

All major port related issues are discussed with these groups and comments are sought. Both groups currently meet every two months. To date there has been no specific issue that has necessitated the establishment of an adhoc advisory body. Since the PGA is a relatively small port, it is likely that the two established advisory bodies would be able to tackle most issues.

### **Port Authority Performance Measures**

#### **Commission Recommendations**

The Association of Australian Port and Marine Authorities should propose to the Australian Transport Advisory Counsel (ATAC), guidelines for the evaluation of port assets. State Government should establish economic rates of return on port authority assets and review them on an annual basis. Port authority annual reports should provide sufficient detail on costs and revenues, rates of return and indicators of technical performance to give a clear indication of performance.

#### **PGA Action**

The PGA has developed some 18 performance indicators and targets. They are being provided to ATAC on a six monthly basis.

In addition, the Port Authority will be reporting current cost accounting from the 30th June 1992. This will enable an accurate calculation of a rate of return on the written down current cost value of assets in service as is required by the Victorian State Government.

A number of Port performance indicators are already published as part of a document entitled "Strategic Overview 1992-1997" which has been released to the public. Development of these indicators is continuing.

### **Port Authority Leasing And Licensing Practices**

#### **Commission Recommendations**

Port Authorities should grant leases and licences for the shortest term consistent with the stable operation of the particular facility and with allowing the operator to obtain a reasonable return on establishment costs.

Leases should generally be non-transferrable Port authorities should keep under review the merits of providing facilities that would permit the entry of other operators.

Where a monopoly exists, the port authority should scrutinise accounts to make sure the prices charged are justified by the costs incurred. It should also specify standards of service if appropriate.

#### **PGA Action**

The PGA has reduced the current operating licence of the single tug operator to a 3 year contract from 10 years.

In addition, a number of concessions were drawn from the operator to improve the standard of service provided and reduce charges.

The only other area where this recommendation is applicable, is land leases which the Port Authority relates to volume of imports or exports.

### **Port Authority Pricing Practices**

#### **Commission Recommendations**

The Association of Australian and Port Marine Authorities should further develop standard guidelines for pricing in Australia. Port authorities should take immediate action to reduce reliance on wharfage charges and possibly to eliminate them altogether. Prices should be set so as to provide an economic rate of return on the market value of the assets used.

#### **PGA Action**

The PGA is in the process of implementing a new pricing structure which will, by the 1st July 1992, eliminate wharfage charges and provide a charge on berths and channels that is related to the costs of the berths and channels. Currently the Authority does not achieve a satisfactory rate of return on its assets. It is, however, in the process of reducing costs and eliminating uneconomic assets with a view to improving the return. The pricing structure is subject to continuous review.

### **Port Authority Workforces**

#### **Commission Recommendations**

Port authorities should implement the Waterfront Industry Plan components that are relevant to their operations. In particular, state governments should consider the implications of the Commission's Waterfront Industry Plan for port authorities staffing levels and the need for special retirement and redundancy programs to facilitate restructuring port authority workforces in line with the Commission's plan.

#### **PGA Action**

The following activities have taken place in relation to this recommendation:

- a) The functions of rigging and wharf cleaning have been transferred from the PGA to the Stevedoring industry. Personnel were transferred to the SEAL pool. The resulting work efficiencies and elimination of duplicated positions, will result in Port user savings of up to \$500,000 per annum.
- b) Through award restructuring, the PGA, in consultation with unions, has been rationalising award responsency. Two awards covering the three Victorian port authorities have been ratified and a third is close to being finalised. The ports awards will replace all other awards at the PGA.
- c) The Port Authority and unions have recently agreed to a number of improved work practices within the Port, aimed at not only ensuring standards of efficiency in line with the private sector, but also achieving international "benchmark" standards. An important factor in agreed work practices, is greater multi-skilling.
- d) The PGA and unions have agreed to a reduction in the number of Port Authority employees in the operations area, with a view to an improvement in the bottom line result. A contracting out agreement is to be negotiated, which will provide for the use of contractors in areas where this is more efficient.
- e) There has been a substantial investment in training (approximately 5% of labour costs). This is pro-

*(Continued on Page 15)*

# International Maritime Information

# WORLD PORT NEWS

## Ports Canada Int'l Business Conference

**June 15-18, 1992,  
Halifax, Nova Scotia, Canada**

Ports Canada, in conjunction with the Canadian Chapter of the International Cargo Handling Coordination Association (ICHCA-Canada), will be holding its 7th International Business Conference and Exhibition at the Sheraton Hotel in Halifax, Nova Scotia, June 16-18, 1992. The theme of this two-day conference will be "Transportation in an Era of International Competitiveness".

In addition, the Ports Canada Annual Computer Conference is scheduled to coincide with this year's Business Conference. Consequently, it will begin on June 15th. Both events have gained recognition as important opportunities to keep abreast of industry developments in a competitive environment.

The Business Conference will address key issues including increased trade and investment opportunities, the globalization of industries, the progress of new economic partnerships, dramatic developments in Europe, the enormous growth being experienced in the Far East, technological evolution and environmental considerations. Attention will focus on how the industry will benefit from these developments through appropriate policies, strategies and new approaches.

The Computer Conference will address the information management and technology issues raised by the trend toward automation in transportation

and ports. Delegates registered for the Business Conference may attend the Computer Conference at no additional cost. The conference programs are expected to attract some 400 delegates.

Participants in these events will include business executives from North America, Central and South America, Europe and the Asia-Pacific, senior representatives of ports, transportation companies, other cargo handling groups, government departments and other agencies and firms committed to staying ahead of emerging opportunities.

This promises to be an excellent opportunity to explore new developments and trends in the industry, make new contacts and enjoy Atlantic Canada hospitality.

## Pan Pacific Conference At Oakland May 20-23

**Wednesday, May 20, 1992**

12 noon - p.m.: Registration

6 p.m. - 8 p.m.: Opening Reception

**Thursday, May 21, 1992**

9 a.m.: Call to Order & Welcome:

Carole Ward Allen, President, Oakland Board of Port Commissioners

Hon. Elihu M. Harris, Mayor of the City of Oakland

Charles R. Roberts, Executive Director, Port of Oakland

9:30 a.m.: Introduction of Distinguished Guests and Heads of Delegations

9:45 a.m.: Keynote Speech: Hon. Pete Wilson, Governor of the State of

California (invited)

10:30 a.m.: Remarks: Erik Stromberg, president, American Association of Port Authorities (accepted)

11:45 a.m.: Recess

12 noon: Reception sponsored by Japanese shipping line

12:30 p.m.: Luncheon

1:30 p.m.: Remarks: Hiroshi (Harry) Takahashi, Senior Managing Director, N.Y.K. Line (invited)

2:15-4:30 p.m.: Panel Discussion: "Balancing the Economy and the Environment"

Moderator: James Strock, Secretary, California Environmental Protection Agency (accepted)

Participants:

Ezunial Burts, Executive Director, Port of Los Angeles (invited)

Jimmy Herman, International Longshoremen's & Warehousemen's Union (accepted)

Ellen Johnnek, Executive Directors, Bay Planning Coalition (invited)

James McGrath, Environmental Manager, Port of Oakland (accepted)

Allen Pendleton, Executive Director, Bay Conservation and Development Commission (invited)

Patrick Reid, Chairman, Vancouver Port Corporation (invited)

6 p.m.: Oakland World Trade Association World Trade Week Reception, Parc Oakland Hotel: Dinner, 7 p.m.

8:45 p.m.: Dinner Address: George Hayashi, President & CEO, American President Lines (accepted)

**Friday, May 22, 1992**

8:30 - 9 a.m.: Breakfast (sponsor to

## Waterfront Reform:—

*(Continued from Page 14)*

viding skill enhancement and career opportunities aimed at improving productivity.

### Port of Geelong Stevedoring Arrangements

The PGA, in conjunction with the WWF and AEWL, has taken an active role in reforming the Stevedoring arrangements within the Port:

- a) In December 1991, the Waterside worker workforce in Geelong was reduced from 126 to 81, a reduction of 36%.

Reduced manning by stevedores on vessels and the use of local supplementary labour for peaks (rather than expensive interport transfers of the past) is expected to reduce Stevedoring costs by at least 30%.

- b) The PGA's Chairman is also the Chairman of the Geelong SEAL Pool.
- c) Federated Stevedores Geelong (FSG), a partnership between PGA and the WWF (Geelong Branch) operates as a successful business in competition with the nationally based Stevedores. The existence of FSG ensures continuing healthy interport Stevedoring competition, which clearly benefits the importers and exporters.

be announced)  
 9:30 a.m.: Remarks: Carol Boyd Hallet, Commissioner, U.S. Customs Service (accepted)  
 10:00 a.m.: Panel Discussion: "The Future of Pan Pacific Trade"  
 Participants:  
 John P. Clancey, President, Sea-Land Service, Inc. (invited)  
 Ronald B. Gottshall, Managing Director, Transpacific Westbound Rate Agreement (accepted)  
 S.Y.Park, President, Hyundai Merchant Marine, Ltd. (invited) Albert A. Pierce, Jr., Managing Director, Asia North America Eastbound Rate Agreement (accepted)  
 J. Saras, Chairman & CEO, Tri-Valley Growers (invited) Senior executive, Mitsui O.S.K. Lines  
 11:45 a.m.: Recess  
 12 noon: Reception sponsored by Port of Yokohama  
 12:30 p.m.: Luncheon  
 1:30 p.m.: Remarks: Conrad Everhard, Chairman, Cho Yang (USA) Inc. and Member, President's Advisory Commission on Conferences and Ocean Shipping (accepted)  
 2:15 - 4:30 p.m.: Panel Discussion: "Balancing the Economy and the Environment"  
 Pacific Rim sister Ports, co-sponsored by Port of Yokohama and Port of Oakland  
 Moderator: Toshiaki Ikezawa, President, Yokohama Port Terminal Corporation  
 Participants:  
 Robert Cooper, Chief Executive, Port of Auckland, New Zealand  
 Fukusaburo Murata, Director General, Port of Yokohama  
 Senior manager, Port of Dalian, China  
 Senior manager, Port of Hakata, Japan  
 Senior manager, Port of Shanghai, China  
 7 p.m. - 10 p.m.: Closing Reception and Banquet

#### **Saturday, May 23, 1991**

9 a.m.: Breakfast  
 10 a.m. - 11 a.m.: Panel Discussion: "Key Sister Port Issues"  
 Participants:  
 Heads of Delegations  
 11 a.m.: Adjournment  
 For further information, please contact:  
 Pan Pacific Conference

Port of Oakland, 530 Water Street, Oakland, CA 94607  
 (510)272-1188 Fax(510)839-1766

### **Record Gathering for Seatrade Convention**

A record gathering of cruise lines, travel agents, tourist boards, port authorities and suppliers to the cruise industry is expected in Singapore from 13-16 October 1992, for the second Seatrade Asia Pacific Cruise Convention 1992. The event will take place at The Westin Stamford & Westin Plaza and includes conference and workshop sessions, as well as a cruise-related exhibition. Attendance is expected to exceed last year's figure of around 500 executives from 26 countries.

The expanded conference programme will examine the pace and direction of cruise industry expansion in the ASEAN region and throughout the Far East. Programme sessions include marketing, regional cruise investment, itinerary planning, operations, as well as a focus on Japan as a cruise market.

This year's conference offers a new "educational" programme for travel agents, aimed at broadening agents' knowledge of the cruise product, while demonstrating the latest selling techniques. Another new feature will focus on adapting the region's ports to the needs of cruise passengers.

Conference discounts are available for early and group bookings, as well as to travel agents and exhibitors.

Participants (both exhibitors and conference delegates) will have the chance to visit the recently-completed Singapore Cruise Centre and inspect cruise vessels in port during the Convention. Full details of the programme will be announced shortly.

The Seatrade Asia Pacific Cruise Convention 1992 is sponsored by the Singapore Tourist Promotion Board, in association with the Port of Singapore Authority and organised by Seatrade.

Further information on this Seatrade event can be obtained from:

Debra Wood  
 The Seatrade Organisation, Seatrade House, 42-48 North Station House Colchester CO1 1RB, United Kingdom.

Tel: + 44 206 45121

Fax: + 44 206 45190  
 Telex: 98517 DISOP G

### **IMO Program of Meetings for 1992**

13 - 17 Jan.	Sub-committee on Life-saving, Search and Rescue (LSR) — 23rd session
27 - 31 Jan.	Sub-committee on the Carriage of Dangerous Goods (CDG) — 43rd session
3 - 7 Feb.	Sub-committee on Stability and Load Lines and on Fishing Vessels Safety (SLF) — 36th session
24 - 28 Feb.	Sub-committee on Standards of Training and Watchkeeping (STW) — 23rd session
2 - 6 March	Marine Environment Protection Committee — 32nd session
16 - 20 March	Legal Committee — 66th session
23 - 27 March	Sub-committee on Ship Design and Equipment (DE) — 35th session
6 - 10 Apr.	Maritime Safety Committee — 60th session
27 Apr. - 1 May	Facilitation Committee — 21st session
18 - 22 May	Sub-committee on Fire Protection (FP) — 37th session
15 - 19 June	Council—68th session
18 June	Technical Co-operation Committee — 36th session
7 - 11 Sep.	Sub-committee on Bulk Chemicals (BCH) — 22nd session
14 - 18 Sept.	Sub-committee on Safety of Navigation (NAV) — 38th session
28 Sept. - 2 Oct.	Legal Committee — 67th session
5 - 9 Oct.	International Oil Pollution Compensation Fund — Assembly — 15th session
19 - 23 Oct.	Sub-committee on the Carriage of Dangerous Goods (CDG) — 44th session*
26 - 30 Oct.	Marine Environment

2 - 6 Nov.	Protection Committee — 33rd session* Inter-governmental Panel of Experts on Radioactive Waste disposal at Sea (IG-PRAD) — 5th session
9 - 13 Nov.	Fifteenth Consultative Meeting of Contracting Parties to the London Dumping Convention
16 - 20 Nov.	Council — 69th session*
19 Nov.	Technical Co-operation Committee — 37th session*
23 - 27 Nov.	Diplomatic Conference on Protocols to the 1969 CLC and the 1971 fund convention*
7 - 11 Dec.	Maritime Safety Committee — 61st session*
★ ★ ★	
Advisory meeting as approved by the Council and the Assembly*	
22 - 24 Jan.	Advisory meeting on Technical Co-operation
★ ★ ★	
Intercessional meetings as approved by the Council**	
3 - 7 Feb.	CDG Editorial and Technical Group
19 - 20 March	Joint ICAO/IMO meeting on Helidecks
25 - 29 May	SLF Working Group on the Protocol to the Torremolinos Convention
26 Oct. - 6 Nov.	CDG Editorial and Technical Group
★ ★ ★	
Other intercessional meetings convened within the framework of the London Dumping Convention**	
10 - 14 Feb.	Group of experts on the Annexes to the Convention
11 - 15 May	Scientific Group on Dumping
* Tentative	
** Meetings held without interpretation and with documentation in original language only	

## Packing and Container Standards

By Robert Colbert  
U.S. Customs Service

U.S. Customs has mounted a systematic and focused effort to interdict narcotics smuggled in cargo containers. It has developed and implemented a comprehensive strategy to ensure successful targeting and inspection of high risk container shipments. And integral part of this strategy is the use of enforcement examinations.

Enforcement examinations require an intensive look at both the structure and contents of a container. Many times this necessitates the removal of all cargo or a complete devanning. How a container is packed will affect the amount of time required for devanning which directly translates into added costs and delays for the importers. It also affects the efficiency with which Customs can perform examinations with limited staff.

Many shippers try to maximize their use of space in containers by completely filling them with cargo. This makes devanning a labor intensive, time consuming task, and does not facilitate the examination process. Examinations for narcotics, fraud, or any other reason can be expedited if the container is packed in such a manner that the cargo can be easily examined or removed. One simple approach that benefits all concerned parties is to palletize cargo.

Palletized cargo can be quickly removed from a container by use of a fork lift. The time spent devanning is reduced to minutes instead of hours and is less manpower intensive. Pallets do take up space that can be used for cargo, but if the manufacturer or importer is dealing with a commodity that is regularly examined or from a narcotics source or transit country, the benefits may outweigh the disadvantages.

To further facilitate the examination process, Customs has recently purchased a number of pallet sized x-ray systems for use at Centralized Examination Station (CES) facilities. This x-ray system provides for a fast, unobtrusive screening of cargo, and allows Customs officers to examine a full pallet of cargo without having the pallet broken down for examination purposes.

Another area of concern to both

Customs and the trade community is the container structure itself. Enclosed beams are a problem for the container industry because they corrode from within. They are also a problem for Customs because they can be used by smugglers to secrete contraband. Eliminating or minimizing enclosed beams and spaces will deter smuggling within the structure of containers. Customs needs the cooperation of everyone involved in the container industry to address this problem.

Due to corrosion problems, the container industry has moved towards open-profile structural members. This move benefits Customs because it eliminates enclosed spaces that can conceal contraband. In an effort to gain wider support, Customs is working to change the language of international conventions that govern container design such as the TIR Convention (Geneva) and Customs Container Convention (CCC, Brussels) to reflect the use of open-profile designs that inhibit smuggling.

This interaction between Customs and the trade is a vital part of the Customs container strategy. Customs will continue to actively seek out and enlist the support of importers, trade associations and carriers who share the commitment to drug interdiction. This mutual cooperation will not only inhibit the smuggling of narcotics in containers but also facilitate the release of commercial merchandise.

(AAPA Advisory)

## ISF Calls for Gov't Action Against Pirates

The International Shipping Federation (ISF) repeated the shipping industry's serious concern about the growing number of attacks by pirates and armed robbers on merchant ships in Southeast Asian waters. The attacks, which appear to have grown in frequency, have become more sophisticated in recent months and the degree of violence used is increasing.

The problem has become particularly acute in the international waters between Singapore, Malaysia and Sumatra (Indonesia), and near the Indonesian Kep Anambus islands, northeast of Singapore.

The Director of ISF, Mr. Chris Horrocks, explained the industry's position.

"ISF is receiving reports of attacks almost daily, and ships' crews are becoming increasingly incensed at the total lack of protection provided by the coastal states. ISF wrote to the Secretary General of the International Maritime organization before Christmas to request him to approach the coastal states in Southeast Asia with a view to convening a meeting of local law enforcement agencies in order to introduce effective action against these attacks. We are therefore heartened to read the recent press announcements of co-operation between Indonesia, Malaysia and Singapore and the formation of joint-patrols to protect merchant ships transiting the Malacca and Singapore Straits.

"But the patrols need to be effective, for the implications of these attacks are frightening. The physical dangers to crew members, tied up and with a knife at the throat, are bad enough, but imagine the consequences if a large laden oil tanker steaming through the Malacca Straits, with its high traffic density and draught limitations, were to run aground or collide because — as has happened on more than one occasion — the master and watchkeeper have been gagged and bound and the vessel is totally uncontrolled.

"Let us hope that we do not have to wait for loss of life or a major environmental catastrophe before fine words turn into effective action against these robbers. The coastal states must not allow themselves to hide behind legal niceties about jurisdiction outside local territorial waters.

"Ships' crews deserve better protection that they are getting at present in this dangerous area."

ISF also announced that it is about to publish a revised edition of its guide to practical measures to discourage armed attacks. The booklet, which builds on professional advice and on the experience of ships' masters, maintains the industry's consistent recommendation against the carriage of firearms by crew members.

### **Few Able to Meet OPA 90 Requirements**

A survey among over 40 of the world's largest shipping and oil companies who trade in U.S. waters has revealed that only one of them, a major oil company, would be able to meet the

self-insurance requirements proposed by the U.S. Coast Guard, and then only under certain limited circumstances. No other company was in a position to meet the proposed requirements.

In a letter to the U.S. Coast Guard the International Chamber of Shipping (ICS) has stated that the shipping industry has to assume that an owner faces unlimited liability under the U.S. Oil Pollution Act of 1990 (OPA 90) in the event of a major spill. In these circumstances there is a real possibility that his normal P&I insurance cover will not be adequate, certainly in the case of a large spill, and that his whole financial future is in jeopardy.

ICS has called for action by Congress in a letter to the U.S. Coast Guard, responding to the Notice of Proposed Rule Making (NPRM) on Financial Responsibility and Water Pollution, published in September 1991. The proposed rules provide the methods by which carriers (both tankers and other classes of vessels) can obtain the certificates of financial responsibility required under OPA 90 as a condition of entry to U.S. waters.

Speaking in London, the Secretary General of ICS, Mr. Chris Horrocks said:

"The discussion generated by the NPRM had highlighted some of the major problems OPA 90 has caused. The industry has to point out clearly to the U.S. authorities that although the certificate is important as the 'passport' to entry into the U.S., holding a certificate is of little comfort to an owner unless he can find adequate insurance to meet the enormous potential liabilities in the event of an oil spill in U.S. waters."

He added that serious consideration of the NPRM's proposed rules had made it clear that very few owners indeed would be able to satisfy any of the proposed methods of establishing evidence of financial responsibility.

Mr. Horrocks said: "As matters stand, owners will not be able to use their P&I insurance as evidence of financial responsibility. The Coast Guard's rules would require the R&I Clubs to act as guarantors and subject themselves to direct action for claims, which they have consistently declined to do. It is for the U.S. authorities to decide whether a solution to this problem can be found without amending the Act. But an any solution

would have only limited value unless the much more fundamental problem of uninsurable liabilities under OPA 90 is also addressed."

Mr. Horrocks went on to state that industry discussions are in hand aimed at devising a means of providing additional cover beyond what is currently available. Any mechanism for providing such cover would have to be mandatory by law for those who participate in U.S. trades and firmly enshrined in U.S. legislation.

"We know the difficulties—and the dangers—of reopening the OPA debate in the United States", Mr. Horrocks added, "but the consequences of uninsurable liabilities are so grave that Congress must agree to review this issue sooner or later."

## **New Publications**

### **Container International Yearbook 1992**

Container liner shipping has represented one of the poorest investment options in recent years. Indeed, analysis by consultants Booz-Allen & Hamilton has shown that the return on assets in 1991 for U.S. ocean carriers was well below 2%. Average pre-tax return on assets for the period 1985-89 was only 1.47%, compared with 4.6% in 1979-82. However, there are signs that 1992 could witness a turnaround in the fortunes of the world's container carriers.

In her introduction to *Containerisation International Yearbook 1992*, editorial director Jane Boyes suggests that the recovery will not be dramatic "but should be just enough to lower anxiety levels in the boardrooms from Hong Kong to Oakland, London to Taipei, and Tokyo to Hamburg".

Three principal reasons are cited for this optimism. Firstly, a modest increase in output and trade, which should be sufficient to lift activity above 1991 levels in the transpacific, and sustain further growth in Far East/Europe routes.

A second indicator of better times ahead is the modest decline in containership capacity on order. At the end of October 1991, newbuilds totalled 350,000 TEUs for delivery by 1995, compared with 394,000 TEUs at the same time in 1990. Not only is there

now less speculative building, but there appears to be an effort by existing operators to achieve economies of scale — 42% of newbuild capacity consists of vessels of 3,000 TEUs or more. According to the Yearbook's Register of Container Carrying Vessels there was 3,373,000 TEUs of capacity in service at the beginning of November 1991, compared with 3,168,000 TEUs a year earlier.

Finally, she concludes that the industry itself is healthier than it was a year ago, following corporate rationalisation and mergers, but emphasises that fundamental to the industry's financial well-being is a rise in freight rates — 1991 rate levels were as much as 40% lower in real terms than in 1985.

The latest statistics collected by *Containerisation International Yearbook* for the World Container Port Traffic League show that although port throughputs totalled 84.2 million TEUs in 1990, the year-on-year growth rate was a modest 6.5%. This compares with 8% growth in 1989 over 1988 and confirms the slowdown in world trade during 1991. The Ports and Terminals section, one of the many annually updated reference chapters which make up the major part of the Yearbook, includes a port-by-port breakdown of these container traffic figures, and predicted figures for 1991.

1991 was also a challenging one for container manufacturers, with the start-up of many new generation factories, and more are scheduled to start manufacturing in volume during 1992. In an overview of the current state of the box-building industry Andrew Foxcroft, editor of sister publication *Cargoware International* magazine, suggests that the recent headlong rush of factory development indicates another regional shift "with certain lower cost countries, new to container building, gaining at the expense of more established nations. In previous years, such a situation quickly degenerated into unsupportable overcapacity."

The results of the latest worldwide survey of ship-to-shore container gantry cranes are summarised in another introductory feature in the 1992 Yearbook by *Cargoware International* magazine's deputy editor Hugh O'Mahony. With the total number of cranes standing at 1,363 at the beginning of 1991, and with a further 142 known to be on order, the 1,500-mark

is set to be broken.

Other sections covered in the 1992 edition include the All-water carriers (detailing ports of call, vessels, boxes owned and leased), the Register of Container-Carrying Vessels, container-ship managers and shipbrokers, and intermodal rail operators. The Equipment Guide, with its many quick-reference tables, shows container and chassis manufacturers and components suppliers, box handling and stowing equipment fabricators, as well as a guide to computer software packages for the intermodal industry. Container leasing and repair companies are covered in other substantial sections.

*Containerisation International Yearbook 1992* is published by National Magazine Co Ltd, 72 Broadwick Street, London W1V 2BP.

Tel: (071) 439-5000. Fax: (071) 439-5602. Telex: 263879 NATMAG G.

Price: U.K. £125, Europe £150 (by airmail), all other places £180 (by airmail) or £150 (by surface mail).

#### **The London Dumping Convention — 1991 Edition**

##### **The First Decades and Beyond**

Sales No. IMO-532E, price £28.00 (English)

In either English, French, Russian, Spanish, Arabic or Chinese.

English posted January 1992, French available later, Spanish available later, Russian available later, Arabic available later, Chinese available later.

#### **Code of Safe Practice for Solid Bulk Cargoes (1991 Edition)**

Sales No. IMO-260E, price £15.00 (English)

In either English, French or Spanish.

English posted January 1992, French available later, Spanish available later.

#### **International Code for the Safe Carriage of Grain in Bulk (International Grain Code) 1991 Edition**

Sales No. IMO-240E, price £7.00 (English)

In either English, French or Spanish.

English posted January 1992, French available later, Spanish available later.

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

#### **International Cement Trade & Shipping: The Outlook to 2000**

A major new study\* from Ocean Shipping Consultants forecasts strong mid- and long-term growth for the international cement trade, this after poor growth in the short-term.

For world seaborne trade levels, the 160-page Report forecasts annual volumes remaining at around the 1991 level of 50mt throughout the period to the mid-1990s, with underlying growth pressures in several markets likely to push the level up to over 60mta by 2000 and to just over 70mta by 2005.

Under the alternative forward Low/High scenarios incorporated in the Report, the projected annual volumes are very different although the overall pattern is similar. Thus, in the Low Case, the trade total is expected to decline over the next 3 years to around 38mt in 1995, before slow positive development takes the annual figure to around 44mt by 2000 and almost 47mt by 2005. These levels are well below the 53mt shipped in 1990.

In the High case, the forward period is set to experience large-scale and wide-spread growth. Total trade is set to increase to almost 77mt by 1995, 102mt in 2000, and 116mt in 2005. This end-period level is thus more than double the recent trade 'highs'.

This overall outlook is a composite of very different prospects for individual regions and markets — the Report examines the potential for cement consumption and production development for all markets, detailing the implications for imports and exports. Thus, whilst year-on-year growth is expected for the import aggregate of the Middle East — this based on the necessary re-building work in the region, increasing consumption in other States, and the likelihood of increasing oil revenues — the outlook for the seaborne import total for West Europe is one of decline, this largely linked to the expected development of domestic consumption in many of the principal individual import markets.

For the U.S. market, after the significant import decline in 1991 by around 35%, the basic expected feature of the forward study period is of import growth — in line with the consumption outlook. Previous import levels, however, are unlikely to be approached until the mid-1990s, with a forecast 1995 level

of some 12.6mt, this against the 12.1mt peak of 1987. Further demand growth will fund import levels rising to just over 16mta by the end of the decade and to just over 21mta by 2005.

In Asia, the import level for Japan, which has declined significantly of late due to limited availability of supplies (mainly from South Korea), is expected to decline further over the short-term, this again linked to limited supply availability and to reduced Japanese domestic demand.

In the case of South Korea, where imports have increased from nothing to around 4mt in 1991, the introduction of new productive capacity is set to fund the negation of the import total over the next 3/4 years, with imports of less than 1mta anticipated by 1994. For another of the traditional high volume exporters — now importers — in the region, Taiwan, imports are expected to increase further in 1992 to 2.0mt, although this level is expected to represent the peak, with the annual level declining to around 0.5mta by the latter 1990s.

For the recent rapidly expanding market of Thailand, further demand growth is expected, although the pace and scale of this growth is unlikely to match that of recent years. Given the scale of domestic production capacity development, the implications are of continuing relatively high levels of annual imports, although the 1991 volume of over 5mta is unlikely to be repeated. Thus the annual volume is expected to approximate 2.8mta by 1995, with an end-period level of 1.8mta.

For the S/E Asia region as a whole therefore, seaborne imports are forecast to decline from the 21mta level of 1990 and 1991 to 15.7mt in 1993 and to 14.5mt in 1995 (thereby approximating the 1989 level). Further decline is anticipated for the second half of the 1990s, taking the regional aggregate to below 12mta.

For shipping employment in the cement trade, after declining from 151bn to 140bn TM in 1991, the shipping demand aggregate is forecast to weaken further over the short-term, then remaining relatively stable until towards the mid-1990s when significant expansion is expected. By 1995 therefore the shipping demand aggregate is projected at 160bn TM, with the level reaching 200bn TM in 2000 and over

225bn TM in 2005.

The extent of recent years' decline in cement shipping demand, however, is highlighted by the fact that despite an expected 42% increase in the period to 2000, the forecast level is still almost 5% below the level recorded in 1984.

For the Low Case, the expectation is for continued decline over the period to the middle of the 1990s, with subsequent recovery merely taking the annual level to around that of 1990. In the High Case, expansion is expected to be continuous and significant throughout the forward period, with the annual level rising to over 230bn TM in 1995, and over 380bn TM in 2005.

The implications of an expected increase in general bulk carrier freight rates in the near-term, are likely to be higher shipping costs for cement and limited growth potential for the longer-haul trades. Furthermore, given the recent years' developments with regard to the increase in intra-area trading, the Report's analysis of forward fleet developments — for both the specialist cement carrier and the general bulk carrier sectors — suggests low probability for any significant change in this trend.

#### Summary: Projected Cement Trade & Shipping Demand to 2005

	Seaborne Trade (m.t)	Shipping Demand (by TM)
<b>Base Case</b>		
1990	53.0	151.0
1991	49.5	140.5
1995	54.2	159.6
2000	62.4	200.2
2005	70.9	226.3
INDEX (1991 = 100)		
2005	143.0	161.0
2005 Low	94.0	109.0
2005 High	235.0	272.0

Source: Ocean Shipping Consultants Ltd.

\*International Cement Trade & Shipping: The Outlook to 2000

Available from:

Study Sales Department, Ocean Shipping Consultants Ltd

Ocean House, 60 Guildford Street, Chertsey, Surrey KT16 BE, England  
Tel: 0932 560332 (international +932 560332)

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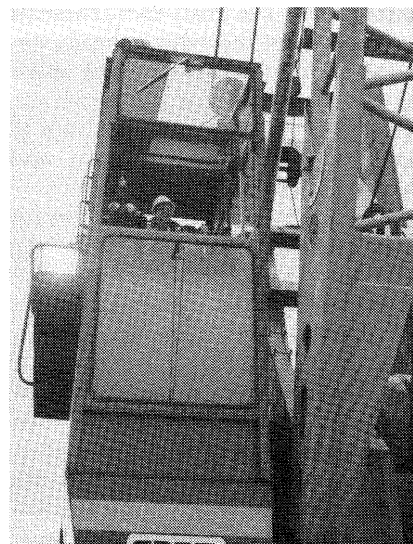
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Price £420 or \$760.

## The Americas

### Construction of Steveston Bend Training Wall

At a unique ceremony on the Fraser River recently, the Federal Minister of Transport, The Hon. Jean Corbeil operated Fraser River Pile & Dredge Ltd.'s clamshell dredge to officially start construction of the \$16 million Steveston Bend Training Wall. When completed, it will allow the Fraser River Harbour Commission to maintain a 10.7-metre (35 ft.) depth on the main channel for the entire Fraser Port. It will also eliminate the need to remove 350,000 cubic metres of river bottom in the area yearly.



### Pioneer Plaza Construction Begins

The Nanaimo Harbour Commission has unveiled plans for construction of a waterfront plaza on the land and foreshore located between the Seaplane Terminal and the Commercial Inlet Basin in downtown Nanaimo.

The facility will provide a public plaza area and viewing platform overlooking Nanaimo's historic waterfront; a limited amount of commercial area, and two levels of underground parking.

The existing Harbourside Walkway will be re-established to maintain a pedestrian route along the waters edge.

The project has been designed to enhance the waterfront views from Front Street and will no doubt become a favourite summer time meeting place and event holding location in the downtown.

The Commission is providing the capital funding for the project and the City of Nanaimo has agreed to provide land, and to operate and maintain the plaza area and general public parking area once it is constructed. The lower parking area will be operated and maintained by the Commission.

Work on the site has already started with completion slated for Spring of 1993. Total value of project is estimated to be \$5.5 million. (*Harbour News*)

## 1991 Record Year for Port of Québec

Overall activity rose to 18,536,000 tons of cargo, up from 17,320,000 tons in 1990 and surpassing the previous high of 18.3 million tons attained in 1987. Port of Québec President and Chief Executive Officer Ross Gaudreault called the results "encouraging in a difficult economic context and an indication of the efforts deployed by the entire maritime community to attract new business."

After hitting rock bottom in 1989, grain shipments have returned to more normal levels, jumping from 4,183,000 tons in 1990 to 7,363,000 tons last year. A good harvest in western Canada coupled with improved sales on international markets served by the eastern export route were key contributing factors in the upturn. However, Mr. Gaudreault also pointed out that "intermodal capability and deep draft at the Bunge of Canada terminal have helped make Québec the principal grain port on the St. Lawrence."

In December of last year, the Port Corporation and Bunge announced a joint \$13.4 million investment to build a new grain cleaning facility. When work is completed on the project in the fall of 1992, the Port of Québec will be in a position to receive grain carried by unit train directly from the Prairies, providing the Canadian wheat Board with a more economically viable export option during the winter shutdown of navigation on the Great Lakes.

Including the grain cleaning project, Bunge and the Port Corporation have invested \$50 million to upgrade handling equipment at the export terminal over the past fifteen years.

Increased shipments of forest products, granite and dairy products helped make 1991 an excellent year for general cargo, with a more than 40% gain to 465,000 tons, up from 324,000 tons in 1990. Project cargo was also strong, with shipments such as Eurotunnel rail cars for Bombardier, potshells for the Luralco aluminum smelter and electric cables for Hydro Québec.

Traffic in the mineral concentrates sector was hard hit by the recession, with a sharp decline to 1,191,000 tons in 1991 compared to 2,252,000 tons in 1990. However, the year was marked by the opening of a new bulk terminal at Beauport which in the words of Mr. Gaudreault "puts us in an excellent position to increase our market share when the economy turns around." The \$15 million project involved construction of a 1,000 meter long conveyor loop to facilitate the movement of cargo from dockside to storage area and permit direct ship to ship transfers.

A record 51,000 cruise passengers called at the Port of Québec in 1991, up from 35,000 in 1990. Several vessels sailed for the first time on the St. Lawrence, including the prestigious *Rotterdam*, *Sea Princess* and *Crystal Harmony*. "Industry trends point to continued growth in cruise shipping, with subsequent spin-off for the Atlantic and St. Lawrence cruise route in the 1990's," added Mr. Gaudreault.

"Results for 1991 clearly demonstrate the importance of our deep water advantage, enabling the Port of Québec to handle ships such as the 145,000 dwt *Prosperous*," concluded the port CEO. That vessel established a record last year at the Bunge grain loading terminal.

Other highlights at the Port of Québec in 1991 include:

The construction of a new \$3.5 million fertilizer terminal at Anse au Foulon by Coopérative Fédérée de Québec. Five silos each with a capacity of 5,000 tons were built to store urea, potash and phosphate. The company also built a mixing plant to blend these raw materials to meet specific client requirements.

In addition to the grain cleaning project, Bunge and the Port of Québec

invested a total of \$3 million to cover the elevator's damaged or worn silos with highly resistant sheet metal siding. The investment has vastly improved the visual aspect of the grain elevator, while providing long-term protection for one of the ports' key asset.

Intertank IMTT added three storage tanks totalling 78,000 cubic meters to its Beauport liquid bulk terminal, increasing total capacity to 202,000 cubic meters.

## Corpus Christi Tonnage Surpasses 70 Million

Port of Corpus Christi Authority tonnage has topped 70 million tons for the second year in a row, as more than 70.4 million tons moved over public and private port facilities during 1991. According to port officials, this figure represents a decrease of only 1 percent over the record-setting 71.4 million tons that was shipped through the port in 1990.

Petroleum continued as the port's top commodity, constituting 79 percent of the total tonnage. More than 56 million tons of petroleum moved through the port's Inner Harbor and Ingleside divisions. Dry bulk shipments, totaling over 7.7 million tons, accounted for almost 11 percent of the total. Chemical shipments again ranked third, registering almost 5.6 million tons. Grain exports, general cargo and liquid bulk shipments rounded out the total tonnage.

According to Port Executive Director Harry G. Plomarity, the port is very fortunate to have maintained a stable level of cargo activity, in view of the national economic situation. "We are hopeful that when the economy starts to improve, port activity will follow suit and tonnage again rise to record levels," says Mr. Plomarity.

"In the meantime, we are moving ahead with an extensive capital expansion program to insure that we remain competitive as well as provide our customers with the facilities necessary to handle their cargo."

To this end, the Port of Corpus Christi's long-awaited general purpose cargo dock is scheduled to open for business in July of this year. The \$17.1 million dock will enable the port to more efficiently handle containers, heavy lift project cargo and military cargo. The dock will feature 45 feet

of water alongside the dock face, 1,500 pounds per square foot load bearing capability, shipside railroad tracks, convenient access for trucks and will be immediately adjacent to the port's intermodal terminal. It will be equipped with a mobile crane which has a lifting capacity of 275 tons that can be used for both containers and heavy project cargoes.

In order to continue to serve the local petrochemical refining industry, port officials are moving ahead on Safeharbor, the proposed inshore deepwater oil terminal. If the project continues on schedule, it is expected to move into the design and permitting stage, or Phase III, sometime this year. This phase will deal with regulatory approval, permitting, contract development, detailed design, bidding and bond sales.

Late last year, port commissioners adopted Sandwell's final master plan for the Bulk Terminal Expansion Management Plan. Port staff is presently studying a schedule for development and considering various alternatives presented in the Plan. They are also investigating funding for the development, which will include a third bulk dock, a new unloader, rail trackage, storage sites and a conveying system.

If approved, both the Safeharbor project and the Bulk Terminal expansion are expected to take several years to complete.

## **Container Volume Up at GPA Port of Savannah**

Container volume increased 12.2 percent to 474,229 TEUs at Georgia Ports Authority's (GPA) Savannah terminals in 1991.

The 3,652,658 tons of containerized cargo handled at the Port of Savannah during 1991 equated to a 10.9 percent increase over the previous calendar year.

"This continuing, dynamic growth of container traffic at Savannah is indicative of Georgia's expanding role in international trade," said GPA Executive Director George J. Nichols.

The increase in container traffic at Georgia's largest port was attributed to the growth of shipping lines already calling Savannah, plus the addition of eight new lines and five service expansions. Nearly 50 ocean carriers serve

northern Europe, the Mediterranean, the Middle East, Asia, Central and South America, Africa and Australia from GPA's Garden City and Ocean terminals.

Breakbulk cargo tonnage decreased by four-tenths of a percent to 1,696,104 tons reflecting adjustments following the Desert Storm military loadouts in summer 1990 and the return of equipment in spring 1991. GPA had posted a 15.1 percent breakbulk increase during FY1990-91 (July 1-June 30) when it handled 1,763,000 tons. In calendar 1989, the last year unaffected by military tonnage fluctuation, GPA handled 1,474,349 tons of breakbulk cargo at Savannah.

Southeast agricultural exports were down causing a 15.8-percent decrease in bulk cargo tonnage.

GPA operates terminals at the deepwater ports of Brunswick and Savannah as well as barge terminal at Bainbridge and Columbus.

## **Keeping Pace With Industry — GPA Systems**

With computers and advanced software systems changing the face of the shipping industry on a daily basis, entities such as port authorities must keep pace with changing technology or be left behind.

In an ultra-competitive atmosphere, the port with the most useful data systems prospers. Ports are in a unique position to provide information management for various user groups, and find they must continually refine systems offerings to ocean carriers, agents, brokers, forwarders and transportation companies. Now, Electronic Data Interchange (EDI) is beginning to appear on the menus of many port systems.

The presence of EDI capability often can be a decisive factor in port selection for some companies. EDI, or two-way communication in industry-standard formats, via computer, has become standard practice for many larger companies with sophisticated systems; for others, EDI is just coming into reach.

### **A New Generation**

According to Mr. Dave Crickette, the Georgia Ports authority's information services administrator, management information systems have been in use for decades, along with some

forms of EDI. "The teaming of the two as we know it today truly represents a new generation of information services we can offer our customers," said Mr. Crickette.

GPA has been designated a U.S. Customs Automated Manifest System (AMS) service center, with on-line computer interfaces to the Food & Drug Administration and Department of Agriculture. The GAP provides an on-line tariff system, allowing customers to access information by tariff number commodity and industry standard harmonized codes. Automated shipping tallies for breakbulk cargo and a complete container control system also are now available, with a security system which precludes any unauthorized access to information.

### **All Systems Go**

The first automated cargo system developed by the GPA for its customers was GPACS, or the GPA Container System. By improving operational efficiency by reducing paperwork, the objective was to minimize the time from vessel discharge to cargo shipment form port property.

The GPACS system, capable of controlling aspects of cargo movement, includes vessel scheduling; load/discharge lists to assist stevedoring operations; field orders such as premounts, demounts, relocations and transfers; stuffing/stripping orders; inventory control by steamship line for empty and loaded containers and import and export boxes; chassis availability and date-and-time-stamped cargo tracking from vessel arrival to port departure. Information security for all functions was included as an integral part of GPACS and continues to be a top priority in new systems development.

### **Design by Shipping Community**

In 1983, an automation committee of transportation industry users was formed to assist the GPA Information Services in developing a new cargo clearance system. Representatives from the U.S. Customs Service, U.S. Department of Agriculture, Customs brokers, freight forwarders, ocean carriers, line agents and motor carriers were included on the committee. The objective was to eliminate delays by moving cargo electronically through government agencies. Weekly meetings were held to assist in the system function

and design, and the resulting system was operational in just six months.

Innovative ideas were implemented by U.S. Customs through the user-developed systems, some of which have become key features in its national Automated Commercial System (ACS).

Using the already-successful GPAC System as a foundation, this cargo-clearance system allows clearance through government agencies (U.S. Customs, U.S. Department of Agriculture, Food & Drug Administration) up to five days in advance of vessel arrival. The electronic government clearances have reduced time delays on inspections and releases from several days to, in most cases, two hours or less.

In conjunction with GPACS, it is an exception-driven system which notifies users when action is required to keep their cargo moving. All field activity from vessel arrival through truck or rail departure, including government releases and inspections, are logged and available to customers on-line or in EDI transmissions. Brokers can display a complete summary of cargo activity by their entry number to resolve any problems or as a permanent record for their files.

The system today is much more than a clearance system, serving as an umbrella for all the GPA's information systems.

The automation committee has been the driving force in GPA's system automation from the very beginning, and is very active today, meeting regularly to refine the various programs and give valuable input on future systems.

#### **The Shape of EDI**

The GPA has been EDI-capable since 1988, when management recognized the strategic importance of Electronic Data Interchange to customers as a value-added service. Currently, the GPA transmits terminal information to ocean carriers, with the EDI format allowing direct system updates. EDI transmission of terminal activity allows carriers to lower operational costs by eliminating duplicate data entry and time delays associated with the manual paper processing of this activity.

In the near future, a standard EDI format for bookings will be available, offered in conjunction with the GPA's new automated gate system. Other formats scheduled for future on-line

use include freight releases, vessel scheduling and stow plans. EDIFACT, the international EDI standard, also will be made available to customers.

Now being implemented at GPA is a system that will send waybills for the ports authority's Savannah State Docks Railroad and Colonel's Island Railroad, in EDI formats. Advance consists and car location messages will be received, with other formats for car accounting and shipment information planned for future use.

#### **Looking to the Future**

Responding to requests from users, the GPA now is developing systems for enhanced container terminal functions. An automated gate system will allow truckers to move through container interchange gates considerably faster than the present manual system. To implement this system, the gate structures at Garden City Terminal are being rebuilt and supplied with computer terminals. Enhanced container rail systems are in development.

An export breakbulk system is being programmed which will significantly automate cargo handling, warehousing and billing processes.

New technologies for terminal functions and cargo processing will be employed to provide the services our customers require. These systems are being developed using new relational data base technologies which will allow the GPA to provide customers with continuous system and EDI availability.

With the Savannah shipping community serving as designers for all of these innovative programs, a high degree of user input and fine tuning is possible. From the first container system implemented in the early 1980s to the present EDI applications, all the systems are designed to interact and provide a new level of cargo handling efficiency.

Assistance from the maritime and transportation community has proven invaluable to the systems' successes. Priorities are set according to the stated needs of customers and integrated into the GPA's strategic plan, resulting in board acceptance and high system utilization by the most discerning critics of all, the users. By offering a centralized, community-developed data base of information and EDI capability, the Georgia Ports Authority continues to

lead in port data management system development. (*Georgia Anchorage*)

## **Check to Army Corps For New Cut Closure**

The Georgia Ports Authority (GPA) presented a check for \$629,000 to the U.S. Army Corps of Engineers to supplement funding for the closure of New Cut and restore the upper reaches of the Savannah Harbor.

Located between the Back and Front Rivers in the Savannah Harbor, the New Cut channel will be closed to reduce salinity and help restore the striped bass population in the fresh water system at the nearby Savannah River National Wildlife Refuge.

Closing New Cut is the second step of an improvement program which also included cessation of tidal gate operation in the Back River in 1991.

"GPA is committed to the preservation of wildlife, fish and marine life and the promotion of international trade," stated GPA Executive Director George Nichols. "We will continue to work closely with environmental groups and agencies to help ensure a balance between nature and the maritime industry," said Mr. Nichols.

## **1991 Busy Year For Port of Houston**

It was a year of surprises: a short war in the Persian Gulf, the dismantling of the Soviet Union and the release of American hostages in the Middle East. Amid the volatile economic and political situations that 1991 brought, the Port of Houston posted one of its busiest years ever.

The U.S. Army Corps of Engineers hasn't released its 1991 tonnage statistics, but the Port of Houston authority expects tonnage at the Port of Houston — including private and public facilities — to exceed 126 million tons for the year.

"Tonnage grew in some of the port's major commodity groups, so overall we had quite a good year," says Mr. Tom Kornegay, acting executive director for the Port of Houston authority. "That's a notable accomplishment, considering the current economic mood."

Preliminary numbers indicate port-wide increases in several areas. Bulk grain movements throughout the port

grew by an estimated 56 percent. General cargo rose by about 5 percent. Some observers may be surprised to learn that petroleum products—a staple commodity for the port — jumped 3 percent despite the Persian Gulf War.

#### **PHA Facilities**

Port Authority facilities also fared well. Tonnage at PHA facilities totaled 17 million tons in 1991, up 3 percent from 1990. Container volume at the public facilities was up 6 percent for the year, totaling 533,000 TEUs. Fentress Bracewell Barbours Cut Container Terminal reported a 0.6 percent increase, for a year-end total exceeding 3.9 million tons.

Military cargo became a familiar sight at Barbours Cut Terminal. When Iraq invaded Kuwait in 1990, the U.S. Military Sealift Command used Barbours Cut Terminal to load military equipment and vehicles bound for Operations Desert Shield and Desert Storm. Once the Persian Gulf War came to a close, much of the military cargo returned to the United States via Barbours Cut Terminal.

Military Sealift officials said they were very pleased with the Barbours Cut facility.

"Military equipment isn't the kind of cargo you see everyday at the Port of Houston, so it's a good example of how flexible our facilities are and how we can handle almost any cargo," Mr. Kornegay says. "Timing was important, too. The U.S. military needed these shipments to move quickly and smoothly. Our facilities and personnel could accommodate those needs."

Between August 1990 and December 1991, Barbours Cut Terminal handled nearly 460,000 tons of military cargo, including almost 38,000 vehicles. The military shipments accounted for 100 vessel calls.

#### **New PHA Offices**

The year 1991 marked the start and completion of a number of capital improvement projects at PHA facilities. In an effort to centralize the Port Authority's operations, the PHA executive offices got a new address. In July, PHA personnel moved from the old executive office building downtown to the executive office building at the Turning Basin Terminal.

The new facility houses all PHA personnel except those in the Port

Authority's grain elevator and other outlying terminals.

#### **Barbours Cut Terminal**

Several projects were begun or completed at Barbours Cut Terminal, where container volume is expected to grow steadily in the next decade. Paving began on Barbours Cut Berth 5 in 1991, and construction of the wharf structure was near completion at year's end. The new berth will add 1,000 feet of quay to the terminal; the project is expected to be completed during the first quarter of this year.

Expansion of the Barbours Cut Turning Basin to a diameter of 1,600 feet was complete, and four new yard cranes were purchased for the terminal.

#### **Other Improvements**

At the Turning Basin Terminal, projects under way included redesign of the sewer system, repaving of Wharves 16 and 17, rehabilitation of railroad tracks and construction of a new docking and visitor's pavilion for the PHA inspection vessel *M/V SAM HOUSTON*.

At the Bulk Materials Handling Plant, construction began on a new waste water collection and containment system, and a contract was awarded for the construction of a new raw water pumping station. At Jacintoport Terminal, the Port Authority's newest facility, work was under way to extend the wharf by 330 feet and to have the area behind the wharf paved.

The Port Authority implemented its Operations Support System in 1991. The software system, developed by PHA personnel, collects information and generates reports on vessels, cargo and the use of PHA facilities and resources.

The PHA Operations Division, customer billing department and security department use the Operations Support System for a variety of purposes. The program allows these departments to provide comprehensive information more quickly and accurately to PHA staff and port users.

#### **Ship Channel Project**

Still on the drawing board is a proposal to widen and deepen the Houston Ship Channel. The channel improvement project is currently being reviewed by federal entities. If the project receives federal approval, the channel would

initially be enlarged to 530 feet wide and 45 feet deep.

Studies to determine the environmental impact of the channel improvements continued in 1991. An interagency team — the Beneficial Uses Work Group — held public hearings and met with Galveston Bay users throughout the summer to discuss possible uses for dredged materials from the project.

#### **Modest Growth**

Many will remember 1991 as a roller coaster year, one full of political twists and economic turns. For the Port of Houston it was a year of modest growth. Kornegay attributes the port's success to more than just luck.

"We can't completely insulate the port from the effects of global changes or market trends," Mr. Kornegay says. "Such challenges are inevitable, but years of careful planning have helped us face them. What's important is preparing for the long term and not allowing short-term problems to divert us from our course."

#### **Maryland Port Admin. Reports Operating Profit**

The Maryland Port Administration, after reporting operating deficits for the past three years, is pleased to report an operating profit for the first six months of the current fiscal year. For the first two quarters of FY 1992, the port earned revenues of \$18.8 million versus operating expenses of \$18.4 million. Net income of \$368,000 places the MPA in the black, with current expectations for this positive trend to continue through the rest of FY 1992 which ends June 30.

After being appointed MPA Executive Director by Transportation Secretary and Port Commission Chairman O. James Lighthizer last June, Mr. Adrian Teel committed to having his administration operate in the black in FY 1993.

However, aggressive cost-containment measures instituted over the past seven months significantly accelerated those expectations, resulting in expenses which at \$18.4 million are \$3.6 million under the budgeted amount of \$22 million.

"This is a very encouraging trend," said Secretary Lighthizer. "The fiscal picture is especially important given

the state of the economy. We need to demonstrate that we are a lean, efficient, cost-effective operation, fully committed to complete support of our customers' needs. Our management and staff have recommitted themselves to effective cost management.

The favorable budget variance is the result of cost controls implemented by MPA management, including down-sizing of the MPA workforce by 15 percent, elimination of non-mission expenses and close scrutiny of all expense budgets.

"We believe that we have turned the corner financially," Mr. Teel said. "Our 1993 budget projections have been submitted by the Governor to the Legislature. The budget reflects an operating profit of \$779,000."

In another positive indicator, the MPA finished 1991 with a general cargo tonnage increase at year-end for the first time in three years—a development which Mr. Teel attributes to an improved labor/management climate, the port's state-of-the-art terminal facilities, and aggressive marketing of the port's ability to handle specialized cargoes.

"We are extremely pleased and encouraged by both of these developments," Mr. Teel said. "Although the total increase certainly was not overwhelming, the fact that we were able to show any upturn in this recessionary economy, particularly after two consecutive years of decreases, is significant."

"I attribute this increase to the overall stability that existed at the port during the past year," he continued. Mr. Teel cited the advantages derived from operating in the first year of a four-year contractual agreement between labor and the Steamship Trade Association. The contract allows new customer-pleasing efficiencies such as unlimited midnight starts, flexible lunch hours, and consistent work under all weather conditions.

Figures released show that total general cargo moving through all MPA terminals rose 0.4 percent, from 5,127,451 short tons in 1990 to 5,150,291 short tons last year. This increase follows declines in total tonnage of 6 and 11 percent in 1989 and 1990.

A dramatic 15 percent jump in exports—from 2,342,170 short tons in 1990 to 2,695,475 short tons in 1991

—was largely responsible for the overall 1991 increase.

"I also believe that the commitment of the various factions within the port community—labor, the private sector, truckers, the Steamship Trade Association, pilots, and the railroad industry—to one common goal led to this year of turnaround," Mr. Teel said.

Of all the commodities handled at MPA terminals in 1991, steel increased the most sharply, from 154,837 tons in 1990 to 237,519 last year—a jump of 53.4 percent. The commitment to the steel market was evident in the expansion of North Locust Point Terminal as a steel-handling facility with a dedicated container crane. Other bulk cargo—such as farm and construction equipment—was up 6.8 percent across all terminals, while automobile tonnage increased 3.6 percent. Baltimore is the second largest ocean port nationally in overall numbers of import and export automobiles.

The most significant increase in general cargo tonnage was recorded at Seagirt Marine Terminal, where 1991 totals exceeded 1.1 million tons in its first full year of operation.

At North Locust Point, general cargo tonnage increased 22 percent, from 200,502 short tons in 1990 to 244,670 in 1991. Steel was particularly strong, jumping 56.7 percent.

Autos and other break bulk cargo at the Toyota Terminal increased slightly, from 88,358 short tons in 1990 to 88,436 short tons last year. Imports were up significantly, from 79,169 short tons two years ago to 84,194 in 1991.

Overall, cargo movement in and out of MPA terminals in 1991 reflected the national economy, with a 15.1 percent increase in export of American goods outweighing an 11.9 percent decrease in imports.

The efficiencies of Seagirt's Intermodal container Transfer Facility were also evident as 1991 railroad activity increased four percent over 1990. Total volume in 1991 rose to 85,525 trailer and container lifts.

"This is a substantial increase," said Mr. Teel. "Our numbers for railroad movements in December were up dramatically and that reflects the success of the hub concept as a draw for business regionally and beyond."

In addition, during 1991 as a whole, international cargo carried through the facility increased seven percent.

Mr. Teel said he expected the numbers to continue to climb with the dedication of a new CSX Intermodal service to Cincinnati and the Ohio Valley, one of Baltimore's traditional areas of strength, and significant expansion of service to the southeastern markets.

That service was initiated in January, so was not reflected in the numbers. At the same time, the relocation of CSX Intermodal's Alexandria, Va. cargoes to Baltimore, a move which took place in early 1992, will add more growth.

The productivity of the Baltimore labor force was cited by railroad officials as one of the best in the United States, contributing in a major way to the success of the Intermodal Container Transfer Facility.

"It's a fact of life that imports will be down slightly until the national economy turns around," Mr. Teel said. "But we are pleased that our marketing efforts in the export area paid off handsomely in 1991, allowing us to finish ahead of our 1990 figures."

"I am optimistic, as we move into 1992, that the efforts of the entire port community will continue to serve us well from a competitive standpoint," he said. (*Port of New Orleans Record*)

## Customs Pushing Agents To Go Electronic

The movement of cargo into the United States keeps the U.S. Customs Service awash in a sea of paper. Since a typical shipment can require 300 documents or more, most information is directly input into a computer linked to the U.S. Customs Service. But one large sector of users—steamship agents—still rely on old-fashioned paper reports to communicate with Customs.

To reduce Customs' paperwork load, a proposal has been made to amend customs' regulations that would require carriers to computerize manifest documentation. Most large carriers already have computerized communications, so the amendment is really designed to push agents into going "electronic," explains Mr. Jerrol Larriue, management information systems director for the Port of New Orleans.

Customs began laying the groundwork for automating the transportation industry in 1983. Now, nine years later, those who use electronic communi-

cations enjoy the advantage of receiving clearance for 80 percent of ship cargoes from Customs 72 hours in advance of arrival in New Orleans.

The amendment is designed to provide incentive for off-line or unlinked agents and carriers to send ship manifest forms via computer to Customs' automated Computer System, specifically the Automated Manifest System. Locally, agents could either be on-line with Customs, or connected through the Port of New Orleans' CRESCENT (Computerized Reporting and Expediting of Shipments to Control Essential New Orleans Trade) System in order to electronically transmit manifests to Customs.

If the proposed policy change is approved, agents or carriers will have up to six months after its adoption to comply. To enforce the amendment, if manifest documents are not filed electronically, pre-clearance of cargo before a ship's arrival will not be allowed.

Mr. Larrieu believes the proposal "stands an excellent chance" of being adopted, and maritime industry executives are realizing that they will be forced to play or perish. The switch to automation will require a change of habits and most likely a choice of a large or small investment. A personal computer system link to Customs, with its own hardware and software, could cost companies up to \$20,000, says Larrieu.

The alternative, the Port of New Orleans' CRESCENT System, offers free service to agents, who invest in only a phone hook-up. The link-up to the CRESCENT System also comes with on-site training and user support.

That deal may sound too good to be true, but using CRESCENT benefits the Port as well as the agents. When manifests are input into the CRESCENT System they are automatically fed into the Port's berth application system and billing system, allowing it to clear cargo by computer and saving Port employees numerous phone calls and faxes.

*(Port of New Orleans Record)*

## **Harbor Police Academy Graduates 28 Officers**

In one of the largest graduating classes since its inception, the Port of

New Orleans Harbor Police Academy graduated 28 police officers, seven of which will serve the Port of New Orleans as harbor police.

The Harbor Police Academy, founded in 1978, is one of four police officer standard training academies in the New Orleans area to offer certified training for all basic police officers for the state of Louisiana. In addition, the Academy offers specialized training courses in Customs, Immigration and Coast Guard functions, geared towards the day-to-day duties of harbor policeman.

The mission of the Harbor Police is twofold: the protection of human life and the safe passage of cargo.

## **Rail Link in Operation At NJ Auto Terminal**

A new and important rail link in the Port's intermodal network has been completed and is now in operation at the Port Authority Auto Marine Terminal in New Jersey, Executive Director Stanley Brezenoff of The Port Authority of New York and New Jersey announced.

The new \$1.5 million rail link connects the bistate agency's automobile handling and processing facility, situated on the Jersey city-Bayonne border, with all locations served by Conrail in North America, including eastern Canada.

"This new intermodal facility is an important distribution link for the automotive industry, not only for the importing of foreign-made vehicles but for the exporting of American manufactured automobiles," said Mr. Brezenoff.

"Fast and economical interchange of cargo between sea, rail and road transportation modes is an essential part of the Expressport program here in our Port," he added.

The Auto Marine Terminal added to the extensive array of auto-handling facilities in the Port when it opened in 1989 adjacent to Global Marine Terminal on Upper New York Bay. The facility has 900 feet of berthing space and 145 acres for receiving cars and preparing them for distribution to dealers in this country or overseas.

"Cost savings, reduced handling and quicker access to and from North American market points will result

from this new intermodal network rail link," said Ms. Lillian Liburdi, the agency's Port Department Director.

"This strategically located intermodal facility is another example of the New York-New Jersey Port's competitive advantage, with its exceptional national and international distribution capabilities. It reinforces our position as the premium cargo load center on the Atlantic seaboard," she added.

## **North Carolina Ports: Dredging Underway**

Annual maintenance dredging is underway to ensure that authorized project depth is available for cargo vessel navigation at both N.C. deep-water ports of Wilmington and Morehead City.

Dredging of portions of the 40-foot project at Wilmington Harbor began in December, and work on portions of the 38-foot project is scheduled for completion by the end of March.

A separate project to dredge the ocean bar of Wilmington Harbor began with completion also scheduled by the end of March.

The N.C. Ports has determined the need to deepen both the 40-foot and 38-foot projects at Wilmington Harbor. To that end, the U.S. Army Corps of Engineers has completed the reconnaissance study which indicates a federal interest in the project and a favorable benefits-cost ratio. The terms, conditions and cost of the feasibility study phase for this project are being negotiated by the U.S. Army Corps of Engineers and the non-federal sponsor, the State of North Carolina under the auspices of the Division of Water Resources, N.C. Department of Environment, Health and Natural Resources.

At Morehead City, annual maintenance dredging began to achieve authorized project depth of 40 feet MLW. Completion within 90 days is expected.

Awaiting U.S. congressional authorization and funding is a new project at Morehead City to deepen the federal channel from 40 to 45 feet MLW. The estimated project cost of \$12 million would be shared by the State of N.C. with the non-federal share estimated to be \$4.2 million.

## Portland: Cargo Growth, Land Need Forecast

Cargo handled over Port of Portland docks is expected to double over the next 20 years, according to findings of a new Marine Terminals Master Plan approved by the Port of Portland Commission at its December meeting.

The plan estimates cargo will increase from its current 8.6 million tons to within a range of 13 to 21 million tons depending upon various market influ-

ences.

The new master plan updates a plan created in 1981. In the intervening ten years, Port cargo volumes have increased from 6 million to 8.6 million metric tons per year, consistent with the forecasts made in the 1981 master plan.

Cargo growth has been spurred by rehabilitation of the Port's combination breakbulk/container facilities at Terminal 2 and addition of a new bulk facility at Terminal 4, both improvements which were recommended by the



Equipment for an air intake filter system is loaded onboard the M/V Enlivener at the Port of Wilmington, N.C.

## Showcase of North Carolina Port Capability

The presence of a custom export packer and the proximity of the port to the supplier combined to provide the Port of Wilmington, North Carolina the opportunity so showcase its ability to handle dimensional cargo moves.

Equipment for an air intake filter system was manufactured by Pneumafil Corporation in Charlotte, N.C. for ABB Power Generation, Inc., out of North Brunswick, New Jersey. According to ABB's Senior Export/Import Coordinator, Alan Pressman, the pieces were made for Korea Electric Power Company, and ABB specified shipment over Wilmington.

At the Wilmington Terminal, S & R Packing and Crating boxed up 16 crates, each 20 feet long, 9 feet wide and 14 feet tall. In addition, according to Mr. Steve Thompson, president of S & R Packing and Crating, they as-

sembled 8 skids of structural steel and 4 smaller crates.

On January 17, 1992, the M/V Enlivener called Wilmington to pick up the cargo. A total of 450,000 pounds was loaded aboard the vessel which was under charter from Mammoet Shipping, specialists in dimensional and heavy lift cargoes.

"Wilmington was an easy port of call," said Mr. Pressman, "with one day in and one day out." "Having the export packer located within the dock area was also very beneficial, Mr. Pressman continued.

"This movement was a clear demonstration of Wilmington's ability to handle dimensional and oversized, as well as heavy project cargoes, in a professional manner," said Mr. Fred Bayers, Manager of Breakbulk Sales, North Carolina State Ports Authority.

1981 plan.

The new plan provides a long-range outlook for the cargo, facility, and infrastructure needs of the Port to allow it to maintain and enhance the region's economic base. The new plan looks to the year 2010 and beyond.

The high-end growth range, which shows the Port more than doubling its cargo volumes in the next 20 years, will come about, according to the plan, if the Port continues to expand its market area east of the Rocky Mountains — much as it has done with the nationwide distribution of automobiles.

As part of this growth, the Port projects more bulk minerals from Montana; Wyoming; and Alberta and Saskatchewan, Canada, as well as growth of intermodal containers and import/export automobiles.

To meet these growth requirements, the 20-year master plan forecasts an investment need of up to \$185 million in capital improvements—depending upon future cargo demands and the business climate.

A combination of Port revenues, private, state, and federal funds would be used to finance needed facilities.

The master plan reveals land available for waterfront development is diminishing at a rate that will leave no land for expansion beyond the year 2010. The need to acquire new lands for Port development is given high priority in the plan.

The \$185 million capital improvement estimate does not include purchase of new land nor does it include the cost of deepening the Columbia River navigation channel.

Channel deepening, to handle the new generation of container and grain carriers to keep the lower Columbia River region competitive, is being sought by the Oregon ports of Astoria, St. Helens, and Portland; and the Washington ports of Longview, Kalama, Vancouver, and Woodland.

Master plan capacity studies showed the Port has sufficient physical capacity to handle the majority of the anticipated cargo growth for many years. Exceptions to this were found at Terminal 4 where the mineral bulk facility is reaching capacity and where facilities for general cargo need major upgrades.

Mr. Sebastian Degens, senior planner/marine, managed the Marine Terminals Master Plan and was assisted by a community Technical Advisory

Committee of labor, transportation, and marine industry leaders.

Summary of 1991 Marine Terminals Master Plan:

- Marine cargo handled over Port docks will more than double by the year 2010.

- The Port's existing marine cargo capacity can accommodate several year's growth with limited investment.

- The growth of mineral bulks and bulk opportunities will require new facility development in the next five years at Terminal 5.

- Terminal 4 will require upgrading (\$58 million) to reverse facility deterioration, which can be phased to keep pace with cargo growth.

- Total capital improvement program is \$185 million over 20 years, only \$22 million needed to handle existing cargo in 1991 dollars.

- The Port will need to develop new waterfront land resources, through land acquisition and harbor redevelopment, to meet the long-term maritime economic needs of the region. (*Portside*)

## Record Cargo Year For Port of Portland

As the year ends, the Port of Portland is on the brink of completing its highest cargo tonnage year (all cargo except grain which is reported separately), breaking the record of 5,051,132 tons set in 1989, according to Mr. Bob Hrdlicka, acting marine director.

Economic impact of marine activities of the Port generate an estimated \$1.1 billion annually in economic benefit for the region.

Because of the great volume of grain handled through the Port of Portland, grain has historically been recorded separately from container, automobile, breakbulk, and mineral bulk cargoes.

The Port also has experienced a record year for mineral bulk tonnage (soda ash and bentonite clay), an excellent breakbulk cargo year (forest products, steel, aluminum, and machinery), and a year in which container cargoes across Port of Portland docks are expected to reflect a 7 percent increase.

A new and growing activity on the Columbia River during 1991 was the movement of refrigerated container barges between the upriver Ports of Pasco, Washington, and Umatilla, Oregon, and the Port of Portland's

Terminal 6. Also at Terminal 6, double-stack train volumes through the Port's expanded on-dock intermodal container rail yard set new records through 1991.

Only grain and import automobiles were down, both reflecting market conditions. However, growth of export automobiles through Portland and intermodal movements to East Coast destinations helped offset the impact of reduced imports.

During the year, the Port of Portland gateway posted major gains in attracting new container and breakbulk steamship services to Portland.

The Port gained from the wave of transpacific container carrier rationalizations and joint service agreements.

"Larger ships and more frequent schedules will provide Portland shippers with an estimated 14 percent increase in capacity during 1992," according to Mr. Hrdlicka.

Portland shippers also will have more carrier options including Mitsui O.S.K. Lines, now in joint service with "K" Line, Hyundai Merchant Marine (HMMC), and Neptune Orient Lines (NOL), a new Singapore-based carrier, in joint service with NYK Line and HMMC. These joint services call weekly at Terminal 6.

In addition, Evergreen Line calls at Terminal 6 every week and the NYK Far East Express (serving Taiwan and Hong Kong) has announced it will be increasing its calls to the Portland gateway from once every other week to weekly or near weekly service.

Another new container carrier, PM&O (Philippines, Micronesia and Orient), began service to Terminal 2 on a 21-day frequency.

These changes were occurring while the Port was enjoying a good container year — which Mr. Hrdlicka estimates will show a 7 percent increase ahead of the Port's 1990 container total.

In breakbulk, the Port enjoyed record aluminum and pulp export shipments and strong machinery exports including 95 mammoth Caterpillar tractors shipped to Russia.

New breakbulk carriers attracted to the Port included: Saga Forest Carriers, Northern Europe and the United Kingdom, monthly service; and Sause Bros. Ocean Towing, Hawaiian Islands, 29 voyages (increasing Portland's total voyages to Hawaiian ports to 46 a year).

Major marine facility improvements

at Terminal 6 included completion of the expanded 34-acre on-dock intermodal container rail yard and American Honda Motor Co.'s new import/export auto processing facility.

At Terminal 4, a 100,000-square-foot warehouse to accommodate export lumber and import steel was opened. Also at Terminal 4, a 9-acre improvement to Toyota's auto terminal brought Toyota's total area leased from the Port to 98.3 acres.

During the year, the Port of Portland Commission accepted a new Marine Terminals Master Plan which predicts cargoes across Port docks will double over the next 20 years. The plan also reveals total capital improvements may require an investment of \$185 million — depending on market demands and opportunities.

## Container Traffic Boosts Tacoma Trade Activity

In a year dampened by recession, container traffic allowed the Port of Tacoma to reach a new benchmark in waterborne trade during 1991.

Year-end figures show Tacoma handled the equivalent of 1,020,708 TEUs in 1991, an 8.8 percent increase over the 937,691 TEUs handled the previous year. It was the first time in Tacoma's history that annual container traffic surpassed 1 million TEUs.

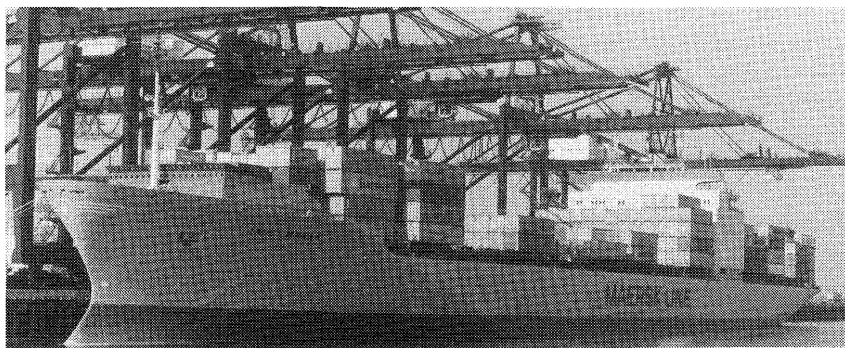
Tonnage for total container cargo rose 8.2 percent for the year, from 6.6 million tons in 1990 to 7.2 million tons in 1991.

"The past year offered more evidence that container shipping will continue to see growth in the Northwest," said Mr. Ned Shera, president of the Port Commission. "Our goal now is to accommodate existing customer growth while gearing up to attract new business."

The number of cargo containers traveling between Tacoma and Alaska also saw about a 4 percent increase in 1991. Tacoma is the largest domestic trade link to Alaska, handling about 80 percent of domestic cargo shipped there. Both Sea-Land Service and To-tem Ocean Trailer Express provide Tacoma's service to Alaska.

## New Shipping Lines

Other major developments in 1991 included completion of a new 33-acre



*Maersk ships calling at the Sea-Land Terminal became a familiar sight in Tacoma with the onset of vessel-sharing agreements.*



*The Port of Tacoma expanded one of its two on-dock intermodal rail yards in preparation for the arrival of evergreen Line.*

container terminal for Evergreen International (U.S.A.) Corporation. Evergreen began calling Tacoma in July 1991, becoming the fourth major container shipping line to establish its regional gateway in Tacoma since 1985.

The Port invested about \$11 million to accommodate the arrival of Evergreen, which already has become one of Tacoma's largest container lines.

"Evergreen's move to Tacoma has proved a great benefit to both the shipping line and the Port," said Mr. John Terpstra, executive director of the Port. "The Port has set new records for container volumes, and Evergreen is finding cargo moves more efficiently to inland destinations."

Other carriers that started calling at Tacoma during 1991 included Walenius Lines North America, South Pacific Interline and International Marine Transport. In addition, Sea-Land launched its Pacific Express (PEX) Service, a new Taiwan/Tacoma express route.

The year also saw the onset of vessel-sharing agreements in Tacoma. Sea-Land and Maersk Line launched a vessel-sharing pact. In addition, Mi-

tsui O.S.K. Lines came to Tacoma, with an agreement to share on "K" Line ships.

The Port also handled a dozen ships and some 26,000 tons of cargo related to Operation Desert Storm in the Persian Gulf.

Despite the past year's growth in container traffic, overall tonnage at the Port of Tacoma dropped from 15.9 million tons in 1990 to about 14 million tons in 1991. Leading factors were decreases in bulk shipments of grain and the discontinuation of black ore shipments. Because of environmental constraints, the Port of Tacoma has phased out its handling of ores other than alumina, which is used to make aluminum. Alumina tonnage rose about 5.4 percent last year compared to 1990.

#### **Groundwork for Growth**

In efforts to plan for future growth, the Port completed its 20-year development study, the 2010 Plan, during 1991. The plan calls for six new container terminals and a variety of other facilities to handle autos, breakbulk cargo, logs and other cargo. The Port also developed a five-year capital im-

provement plan to accomplish the first phase of development in the 2010 Plan.

Other milestones during 1991 also were aimed at future growth:

- The Port of Tacoma joined the State of Washington and the Port of Seattle in jointly funding a European trade office in Paris. The office is aimed at establishing new trade and tourism ties between Washington State and Europe.

- Environmental investigation reports were completed to allow some 216 acres of Port property (six sites) to be transferred to the Puyallup Tribe. The land transfer, which is due to be complete by 1993, is part of a landmark legal settlement ending years of land title disputes.

- The Port completed extensive environmental work under an EPA order to define necessary cleanup of the Sitcum Waterway. The Port has taken the lead in the cleanup effort and has developed a preferred option which would place sediments from the Sitcum Waterway into a fill project in the Milwaukee Waterway. The project also would create 16 acres of fisheries habitat.

- The Port purchased a railroad interchange yard from Union Pacific Railroad after leasing the underlying land for six years. The acquisition will allow the Port to realize long-term savings as it uses the interchange yard in conjunction with two existing on-dock intermodal rail yards.

- The Port of Tacoma and the Port of Seattle worked together to successfully launch the LINX system, an electronic data interchange (EDI) program. The computerized system is designed to reduce paperwork and streamline the exchange of information between ports, shipping lines and other parties.

## **Africa/Europe**

### **Antwerp: Cargo Traffic Over 100 Million Tons**

Even without reaching the 1990 record of 102 million tonnes of overall cargo traffic, the port of Antwerp may congratulate itself for having maintained the same high level. Indeed, the first calculations indicate that the port managed to pass the 100 million tonne

limit again in 1991.

Rationally optimistic, the port sector considers 1991 to be a year of consolidation, predominantly marked by growths in general cargo (fruit +17%, bagged fertilizers +18%, forest products, cars) and container traffic which increased by 17% when compared to 1990. In real figures, this represents to a total of 18.4 million tonnes. This allows Antwerp to maintain its place among the world top container ports.

The fact that Antwerp did not reach the 1990 record figure is mainly due to a slight decrease in the dry bulk traffic, particularly coal, ores, cereals and cattle fodder.

The average size of the vessels calling at Antwerp has increased again in 1991. The gross tonnage amounted to 148.6 m G.R.T. (+5%), a logical consequence of the Port Authority's policy to improve the maritime access to the port.

## Overall Le Havre Trade 58 Million Tons in 1991

1991/1990 evolution

Overall trade	58 million tonnes	+ 5.7%
Liquid Bulks	38.5 Mt	+ 7.2%
Dry Bulks	6.6 Mt	+ 2.6%
General Cargo	12.15 Mt	+ 3.5%
of which containers	8.75 Mt	+ 4.9%
Supplies	0.75 Mt	+ 1.0%
Passengers	975,000	-3.0%

The overall trade in the Port of Le Havre rose by 20% that is 10 Mt in five years. In 1991, all the elements of the traffic are on the increase:

- Among liquid bulks, the growth of crude oil movements (+ 4%), and especially, the high growth (+ 1.4 Mt that is + 70%) of outward refined products which proves the good health of our refining platform, can be noted;

- In addition to the coal inward remaining nearly at the same level, the very interesting start of the reception of cattle feed products is to be noted, 200,000 tonnes of which were received in the specialized facilities of the multibulks centre;

- Finally, despite a very low result in December, the general cargo traffic which generates business and employment is increasing: with 915,000 TEU containers, the mark of 900,000 boxes

is passed for the first time, that is, a 6.6% growth compared to 1990. Alone, this container trade is higher than all general cargo traffic in 1986 (8 Mt). It accounts for 55% of the container trade in French ports.

## Rouen Port Mission Welcomed in Poland

Mr. Jan Kuligowski, secretary of state at the Polish ministry of transport and maritime economy welcomed the delegation to Warsaw where a conference was held to introduce the Rouen/Gdansk regular line to 140 potential Polish users. Mr. Saillard, French trade commissioner, reviewed French/Polish trade. Mr. Alain Gauthier, Port Authority managing director explained the Port's infrastructure to the audience and Mr. André Le Huédé, C.G.M.'s home-trade lines manager outlined the operation of the Rouen/Gdansk regular line service. The French ambassador to Poland, Mr. Alain Bry, was present.

The Port delegation left Warsaw for the Polish coast where it visited Gdansk, Gdynia and Szczecin. It met with local authorities at each of these three ports.

The delegation's four-day visit to Poland was fruitful indeed; it made progress towards the goals which Rouen has set in terms of its relations with Poland. These goals are:

- to expand and diversify trade, particularly in Rouen's specialized sectors; agri-food, forest products.

- to broaden the scope of the Rouen/Gdansk regular line launched by the C.G.M., with a Polish Ocean Lines ship, as soon as the volume of cargo is sufficiently high.

- to develop links with the two big Polish shippers: Polish Ocean Lines (regular lines) and Polski Zegluga Morski (tramping).

- to develop technical assistance and engineering agreements between Rouen and Polish ports, particularly with the port of Gdansk, with which the delegation signed an agreement.

(Rouen Port)

## Port of Constantza Achievements and Expectations

Constantza, the most important port on the Black Sea, having average geographic coordinates of 44°09' northern latitude and 28°39' eastern latitude, is located about 182 nautical miles from the Bosphorus and about 85 nautical miles from the mouth of the Sulina Branch, through which the Danube flows into the sea, while about 22 miles southward is the Port of Mangalia and about 10 miles northward lies the Port of Midia.

The development of the Port of Constantza was carried out in stages:

- The first state dated from 1888, when construction of the port began, consisting of the building of breakwaters of an area of about 199 ha. and quays with a water depth of 8.20 m.

- The second stage took place between 1958 and 1965, when new berthing quays were built inside the port with a depth of berth of 9 and 10 m, the warehouses and roads were modernized, finishing the construction of what we called "the old port". The shipyard was also modernized, being

equipped with floating docks.

- The third stage, comprising the extensions of the old port, began in 1962 and lasted for a period of about 20 years. A new area of about 523 ha was developed to the south, thereby creating a new port, properly equipped, with specialized sectors for the traffic of oil, ore and grain, a container terminal and facilities for handling rolled metals, general goods for platforms and warehouses. Part of the traffic is handled in the Ro-Ro and LASH system. At the port berths oil tankers of up to 80,000 DWT and ore carriers of up to 65,000 DWT can be accommodated. The daily traffic capacity is 100,000 tons, with about 60 vessels being berthed simultaneously inside the port. During this period two dry docks were also built for building and repairing vessels of up to 250,000 DWT and 150,000 DWT respectively.

- The fourth stage is taking place as a result of the need to ensure new port capacity for handling the continuously increasing traffic of goods, transported by vessels which cannot enter the existing port.

Thus, in 1976 construction began of a new port, called Constantza — South, situated immediately southwards. The aim of this lengthy devel-

opment programme was to make it possible to receive vessels of up to 250,000 DWT.

The port will occupy about 10 km of coastline, with an extension to the open sea of about 5.5 km, having an inside area of 3,200 ha and also encompassing the end of the Danube - Black Sea Canal, which is linked with the Danube at Cernavoda. In this way the port will also be reached by the river vessels transporting goods on the canal to/from the ports of the River Danube.

This port complex is the biggest on the Black Sea and can be considered one of the most important in Europe.

The main characteristics of the port are as follows:

Characteristic	Units of measure	Existing port	Constantza-South		Total	
			Existing port	In the end	Existing port	In the end
Total area	ha	722	2,500		3,222	
— land	"	404		1,300		1,704
— water	"	318		1,200		1,518
Length of breakwaters	km	6.77	10.55		17.77	
Length of quays	km	13.4	10	50	23.4	63.4
No. of berths		78		200		278
Depth of basins	m	7.2— 14.5	7— 19	7— 22.5	7— 19	7— 22.5
Traffic capacity	thousand tons	60	15	180		240
Vessels capacity	DWT	80	150	250	150	250

The Port of Constantza benefits from the existence of the infrastructures for sea, river, rail, road and air transport, being thus connected with numerous supply sources and different outlets.

The port road system is connected to the national and European network of roads and highways, the Danube being crossed by the two newly built bridges Giurgeni — Vadu Oii and Cernavoda — Fetesti. Also, the port's railway system is connected to the national network, the links being improved through the inauguration of the two joint railway/road bridges at Cernavoda and Fetesti. The international airport "Mihail Kogalniceanu" is lo-

cated at about 25 km from Constantza.

The port being in the vicinity of Constantza, to which access is direct, one can enjoy the facilities offered by this town, which has over 350,000 inhabitants, as well as by the adjacent coast of the Black Sea.

The transport system facilitates direct connections with the Central and Western European countries. The completion in 1992 of the Rhine — Maine — Danube Canal will create a real navigable "passageway" between the Black Sea and the North Sea, contributing thus furthermore to the development of trade relations, to the carriage of goods and to port activities. The Port of Constantza, situated at one

Canal compared with about 6,000 km by sea).

All vessels of sizes permitting them to pass through the Suez Canal may enter and operate in the Port of Constantza, i.e. vessels having a max. draft of 17.07 m. Thus an entire geographical zone will be able to take advantage of a shorter waterway to reach Europe.

The extension of the new port will be done in stages in order of priority, the first facilities for liquid petroleum products, ore, coke, coal, phosphates, rolled goods and the Ro-Ro terminal having already been put into operation.

The port has 87 berths specializing in operations with:

— general cargoes	25
— frozen foods	2
— grain	6
— equipment, machines	7
— rolled goods	2
— ore, coal	12
— cement	7
— containers	1
— fertilizers, phosphates	10
— Ro-Ro	2
— ferry-boats	1
— liquid oil products	7

The actual operating capacity of the port is 75 million tons/year, comprising:

	million tons
— ore, coal, coke	21.0
— phosphates, fertilizers	4.4
— grains	3.8
— bulk cement	0.9
— general cargoes	13.1
— containers	0.8
— Ro-Ro	1.1
— liquid oil products	30.0

Port operations are conducted by 12 trading companies. It is feasible to operate about 3,500 vessels yearly, with an average of 62 million tons of cargo handled.

For that, the port is equipped with 154 dock-side cranes with lifting capacity of 3, 5, 16 and 50 tons, 10 unloaders of 20- and 50-ton capacity, 2 container cranes of 40-ton capacity, 6 installations for loading bagged and bulk cargoes, 2 pneumatic floating installations and 2 on the quay for grain, 1 pneumatic floating installation for cement in bulk, 35 loading-unloading installations for oil products, 94 mobile cranes of 11.5- to 250-ton capacity and 18 floating cranes of 16- to 100-ton capacity. There are also about 39,000 sq.m. of storage surface, 172,200 sq.m.

of the extremities of this waterway, can look forward to a promising future.

The River Danube, with which the port is connected through the Danube — Black Sea Canal, flows through 7 countries and 3 capitals and is navigable for a distance of 2,414 km (between Kelheim and Sulina), of which 1,075 km flows through Romanian territory. At Kelheim the connection with the West European waterways will be realised through the Rhine — Maine — Danube Canal.

Through this Canal, the distance between Rotterdam and Constantza will be reduced by the approximately one-half (to about 3,000 km by the

of platforms, a complex railway network of 190 km and about 100 km of roads. About 12,000 employees are engaged in port activities.

The Port of Constantza offers essential services and facilities for many kinds of economic activities like:

- shipyards for repairing the vessels, endowed with two dry docks (breadth 48 m, length 360 m, depth 10 m), two floating docks of 8,000 and 15,000 tons respectively, manning quays and lifting gears of up to 480 tons;

- shipyards for repairing river vessels endowed with an inclined plane and work platforms;

- sea and river towage with tugs of 600 — 4,800 HP (18 pos);

- pilotage (3 pilot vessels);

- supplies for the vessels.

In addition, the Port of Constantza is always endeavouring to modernize its equipment, communication system, infrastructure, etc.

In order to attract foreign partners the Port will have a free zone with a surface area of 270 ha and a total of 7,000 m of quays.

At the moment the Port of Constantza South features quays with a length of 5.5 km, lands with a surface of 180 ha, platforms of about 15.5 ha including 6,000 sq. m. of concrete platforms, 4,500 sq.m. of warehouses, roads, railway facilities, electricity, water supply, sewage facilities, a communication system, etc.

Possible economic activities in the free zone are:

- the storage, sorting, processing, assembly and manufacture of the goods;
- auctions: buying and selling of goods;

- stock exchange operations and financial banking operations;

- the hire of covered and uncovered areas;

- support services;

- conducting quality checks on goods; and

- the chartering, brokerage and supply of vessels.

It is our intention to carry out the necessary commercial and industrial operations in order to improve the efficiency of the free zone facilities. The extension of the free zone for 150 ha in the immediate vicinity of the port proper is also anticipated.

It is also feasible to reclaim land from the sea to the south of the port, producing a surface of area of 250 — 300

ha and quays with a length of 1,500 — 3,000 m.

Romanian and foreign trade companies will enjoy important facilities such as exemption from customs duties and from income taxes, reductions in tariffs and the scope to perform financial operations either in hard currency or in lei.

Through its location and dimensions, the Port of Constantza has a very good opportunity to make a significant contribution both to the national economy and to the international transport network.

Finally, with its transit potential the Port can be expected to become the "Rotterdam" of the Eastern part of Europe.

## Turkish Ports Past, Present, Future

By **Hasan Günay Ülgen**

Assistant Director

TCDD Ports Department

Surrounded by seas on three sides, Türkiye serves as a bridge between Europe and Asia.

Transport is a service sector and ports are an important part of transport sector and gateways opening to the world.

Türkiye, with its 8,300 km of coastline, has many ports and berthing facilities including 15 major public ports, about 30 municipal piers and 35 special purpose ports.

Infrastructure and superstructure facilities of the general purpose public ports, are projected and built by (DLH) General Directorate of Ports and Airports Construction in accordance with Law No. 5775 and after completion of the construction, they are transferred to the related operating organizations by the laws or the decrees of the Council of Ministers.

Seven major ports of Türkiye are operated by Turkish State Railways. The ports concerned are, Haydarpasa, Derince, Bandirma, Izmir, Mersin, Iskenderun and Samsun. On the other hand the ports operated by Turkish Maritime Organization are Trabzon, Hopa, Rize, Giresun, Tekirdag and Antalya.

Parallel to the country's growing economy, international trade volume and technological developments in

maritime trade, during the 4th five year development plan period and subsequent development plan periods, more importance was placed on port investment to operate the Turkish ports with modern management techniques and to respond the demands.

These investments can be summarized as follows:

- Rehabilitation of the infrastructure according to the developing technology and service.

- Acquisition of the high performance modern loading/unloading equipment.

- \* Acquisition of modern seacrafts.

- \* Reorganization of management techniques,

- \* Training the manpower.

On the other hand, although the container transport first started in the 60s, it has developed rapidly and had a widespread use within 30 years period.

Of course, Türkiye would not fall beyond these developments in order to keep pace with this transport system and to establish modern container terminals.

For the realization of this purpose, within the scope of third ports project loan, full container terminals together with special container equipment have been acquired starting from 1985 and in 1988 the container terminals at Haydarpasa, Mersin and Izmir were given into service.

The annual container handling and holding capacity of these three container terminals are as follows:

	HANDLING CAPACITY (TEU)	HOLDING CAPACITY (TEU)
HAYDARPASA	177,000	6,000
MERSIN	443,000	8,474
IZMIR	177,000	6,500
TOTAL	797,000	20,974

The studies regarding computerization of the ports starting from port of Haydarpasa has been finalized. Computer applications will be introduced firstly at the ports of Haydarpasa and Mersin and subsequently at Izmir and then to other ports beginning from early 1992.

Industrial installations in Türkiye is rather located in Istanbul and Izmit. The Port of Haydarpasa, due to its location, has very limited space to ex-

pand. To meet the container traffic demands to this region can only be met by establishing an alternative container terminal. The most suitable port for this purpose is the Port of Derince due to its location and its proximity to Istanbul. The prefeasibility study and project studies for a container terminal at this port has been conducted by TCDD Port Department.

On the other hand, Southeast Anatolia Project (GAP) together with the dams, hydroelectric power plants and irrigation facilities on the Euphrates and Tigris will provide the development of agriculture, industry, transport, education and health sectors in this region and will increase the services belonging to these sectors.

During the forthcoming years, by the completion of the projects, the production increases in both agriculture and industry will affect the East Mediterranean Ports. Therefore the ports in the region namely Iskenderun and Mersin should be expanded as early as possible to respond the additional demands which will arise from GAP Project.

For this purpose, a project at Mersin regarding the lengthening of general cargo quays about 175m. and dredging of the berth Nos. 17, 18, 19 from 6m to 14m and extending the container berths 9 and 10 about 200m in the direction of general cargo mole, have been prepared and sent to General

Directorate of Ports and Airports Construction (DLH).

Besides, the study regarding the establishment of Iskenderun container terminal was tendered in 1988 and awarded to TÜSTAS Industrial Installation Inc. The studies were completed in 1990.

As regards the establishment of Greater Economic Cooperation in the Black Sea, the ports of Samsun, Hopa, Giresun and Rize have the sufficient capacity to meet the additional traffic.  
(*Türk Limanlari*)

## Asia/Oceania

### Third-Country Training Program on Management

The Singapore Port Institute (SPI), the training arm of the Port of Singapore Authority (PSA) is conducting the 2nd programme under the Third-Country Training Programme on "Effective Management of Port Operations" from 10 Feb-6 Mar 92. Fifteen officers from the Asia-Pacific region are attending

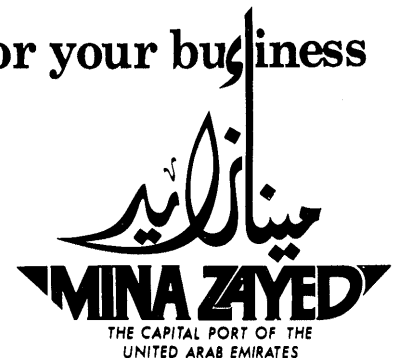


Mr. Goon Kok Loon, (seated 5th from left), Deputy Executive Director, PSA and Chairman, International Port Development Committee, International Association of Ports and Harbors (IAPH), with the participants.

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the programme. The first training programme was held from 25 Feb to 22 Mar 1991.

This programme is organised jointly by the Government of Singapore and the Government of Japan as part of their Technical Cooperation Scheme. The course is conducted by PSA in collaboration with the Japan International Co-operation Agency (JICA) with instructional resources drawn from the SPI.

In conjunction with the commencement of the current training Programme, an Opening Ceremony was held on 10 Feb 92 at the World Trade Centre Club. The Ceremony was officiated by Mr. Goon Kok Loon, Deputy Executive Director, PSA and Chairman, International Port Development Committee, International Association of Ports and Harbors (IAPH).

The 4-week programme is designed to provide participants with an overview of PSA's management and operating systems. The session covers the various aspects of port management, operations, finance, security, warehousing operations and information technology. It will be reinforced by visits to relevant PSA operations departments so that participants can relate classroom principles and concepts with practical applications.

The Port of Singapore Authority continues to be committed to providing comprehensive & practical training programmes in port management and operations for port personnel in the region.

### **Bangkok Port to Install Mainframe Computer**

The Port Authority of Thailand (PAT) recently signed the Bht. 91 million contract with Professional Computer Co. for the supply of an IBM ES/900 model 190 mainframe computer system.

According to PAT's Director General, Vice Admiral Somnuk Debaval, R.T.N., the installation will be completed within one year, but the first stage to computerize the accounting system and tariff billing system will be completed within nine months.

Upon completion of the entire project, the container operation at the Bangkok Port will be computerized as international practice. That will boost the port service efficiency in line with

the forecasted container throughput of over 1 million TEUs a year. The port also plans to link the port data with other involving agencies and foreign ports under the Electronic Data Interchange Programme. The first port authority to cooperate with PAT is the Singapore Port Authority, and other ports in the ASEAN region will follow soon.

### **PAT to Build Dangerous Cargo Warehouses**

The Port Authority of Thailand (PAT) will speed up its plan to build new dangerous cargo warehouses to replace those destroyed in the fire blaze last year.

Vice Admiral Somnuk Debaval, R.T.N. revealed that once the design work completes this September, PAT will call for a bid to select a contractor for the construction work, which is scheduled to be completed within 650 days after the contract signing.

According to the vice admiral, the warehouses will be designed in compliance with international standards and recommendations from UN, IMO and UNEP. These modern warehouses will have concrete fence including a new checking post to facilitate transportation of such cargoes. The warehouses will also be operated with advanced computer system and efficient systems of chemical fire fighting and prevention.

By May, two water, one foam and one chemical fire fighting engine trucks as well as oxygen breathing apparatus, chemical protection suit and other fire fighting equipments will be delivered to PAT.

In a bid to improve dangerous cargo handling work, PAT also receives technical assistance from the Swedish National Rescue Services Board.

### **Singapore: Piling for Keppel Distripark Starts**

**By Adrian Lim**

**Public Relations Dept.  
Port of Singapore Authority**

Piling for the \$400 million ultra-modern container freight station cum cargo distribution centre, the Keppel Distripark, has started.

On 24 Oct 91, PSA and L & M Geotechnic Pte Ltd signed a contract

worth \$11.5 million for the installation of bored cast in-place concrete piles for buildings at Keppel Distripark to be completed in eight months and for the bridge linking Keppel Distripark to the port terminals. CDRE (Res) James Leo, Executive Director, PSA and Mr. Robert Oei, Executive Director, L & M Geotechnic Pte Ltd signed the contract.

When completed in 1993, the Keppel Distripark will offer 114,000 square metres of prime space for value-added activities such as cargo consolidation/deconsolidation, storage and regional distribution of cargo, logistics management, sampling, surveying, remarking and repacking.

The complex promises to take the business of cargo consolidation and redistribution to new frontiers with a wide range of facilities and services available on site. These include container storage and chassis handling areas, computerised gate control and computerised inventory control of all containers within the complex. The complex will be aesthetically developed with a pleasant landscape to match its natural surroundings.

Located within the Free Trade Zone, the Keppel Distripark will enhance Singapore's position as a global distripark offering one-stop total port service.

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### **Saigon Port at Glance**

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Saigon Port is situated at 10°50' North Latitude, 106°45' East Longitude, 46 nautical miles (84 km) from Vung Tau sea anchorage, Saigon Port was officially built in April 1863. From that date up to this moment, it has always been one of the major commercial ports of Vietnam, a shipping center between the cities, provinces of the southern part of Vietnam with South East Asia region and the world.

After 1975, Saigon Port has been gradually rehabilitate and constructed to serve the economic and social development requirements of Vietnam. During its development process, Saigon Port still holds a central position, a major trade traffic node of Ho Chi Minn city and the southern region.

From 1976 to 1990, Saigon Port has fulfilled its production and business plans, increasing the operation effi-

ciency, gradually gaining good views from ship owners, shippers, consignees and other port users inland and overseas.			1990	4,347,155	939	<ul style="list-style-type: none"> <li>● Tapioca ..... 537 T</li> <li>Dry Bulk ..... 1,382 T</li> <li>● Wheat ..... 2,004 T</li> <li>● Coal ..... 1,239 T</li> <li>● Clinker ..... 1,027 T</li> <li>● Fertilizer ..... 1,260 T</li> <li>Steel-Iron ..... 1,043 T</li> <li>Machinery &amp; Equipment ..... 951 T</li> <li>General Cargo ..... 551 T</li> <li>Container (234TEUs) ..... 1,694 T</li> <li>Refrigerated Cargo ..... 423 T</li> <li>Cotton Bales ..... 702 T</li> <li>Log, Timber ..... 1,116 T</li> <li>Vegetables ..... 301 T</li> </ul>
<b>Throughput and Ship Calls Development</b>			<b>Handling Rates</b> (Average tons/ship/day)			
<b>Year</b>	<b>Throughput (tons)</b>	<b>Ship calls</b>	Cargo in Bags ..... 1,137 T			
			● Rice ..... 1,640 T			
			● Sugar ..... 1,323 T			
			● Agric. products ..... 567 T			
			(beans, sesame, coffee)			
			● Fertilizer ..... 1,475 T			
			● Wheat Flour ..... 1,483 T			
			● Cement ..... 1,118 T			
			● Chemicals ..... 580 T			
			● Maize ..... 1,509 T			
1980	973,597	578				
1986	2,291,619	789				
1987	2,497,185	908				
1988	3,075,259	961				
1989	4,048,267	1,049				

The 8th 5-Year Port Development Plan of Japan (1991-1996)						Items						
						7th Plan		8th Plan		B/A		
						Amount	%	Amount	%			
						(A)		(B)				
By R. Kondoh Head Office, IAPH  Hereunder is an extract from the Five-Year Plan for Port Improvement (1991-1996) of Japan as approved by the Cabinet in November 1991 in accordance with the Law for emergency Measures for Port Improvement.						1.	Establishment of efficient commodity distribution systems	5,010	19.6	11,000	30.6	2.60
						a.	Container terminals	1,900	7.4	3,340	9.3	1.76
						b.	Multipurpose terminals	980	3.8	4,550	12.6	4.64
						c.	Unit-load terminals (coastal)	250	1.0	310	0.9	1.24
						d.	Main access roads to ports	1,450	4.7	2,200	6.1	1.52
						e.	Redevelopment of commodity distribution terminals	40	1.7	600	1.7	1.40
						2.	Making ports as amicably acceptable					
						a.	link in passenger movement	8,700	34.2	12,700	35.4	1.46
						a.	Passenger terminals	—	—	920	2.6	
						b.	New transit systems			180	0.5	
A. The overall scope of the 8th 5-year Plan, as compared with the 7th 5-year Plan (Unit: Yen 100 million) is as follows:						3.	Boosting port's contribution for the quality of life	8,700	34.2	12,700	35.4	1.46
						a.	Development of waterfront areas	530	2.1	1,280	3.5	2.42
						b.	Marinas & recreational facilities	500	2.0	1,050	2.9	2.40
						c.	Improv. of marine environments	430	1.7	420	1.2	0.98
						d.	Improv. of socio-infrastructure	5,430	21.3	6,570	18.3	1.21
						e.	Regional sewage disposal & treatment	1,510	5.9	3,140	8.8	2.08
						f.	Seismic-resistance improvement	300	1.2	240	0.7	0.80
						4.	Improvement of facilities for the stable supply of resources and the promotion of local industries	5,820	22.8	3,800	10.6	0.65
						a.	Enriching of fuel stocking facilities	720	2.8	730	2.0	1.01
						b.	Promotion of local industries	5,100	20.0	3,070	8.8	0.60
B. Major objectives of investment Of the above, the two marked items will be further broken down into:						5.	Improvement of safe and dependable navigation by improving port facilities and channels	4,700	18.4	5,200	14.5	1.11
						a.	Breakwaters & other infrastructure	3,880	15.2	4,170	11.6	1.07
						b.	Shelter ports improvement	350	1.4	420	1.2	1.20
						c.	Channel deepening & maintenance	470	1.8	610	1.7	1.30
						6.	Creation of land for commercial and leisure use	970	3.8	1,800	5.0	1.86
						a.	Redevelopment of port areas	970	3.8	1,530	4.3	1.58
						b.	Offshore island development	—	—	270	0.7	
						7.	Promotion of technology for advancing port improvement	300	1.2	300	0.8	1.00
						a.	Study on the adequate use of coastal areas	120	0.5	120	0.3	1.00
						b.	Engineering & technologies	180	0.7	180	0.5	1.00
C. Investment items estimated (draft) (Unit: ¥100 mil)						Total		25,500	100.0	35,900	100.0	1.41
						8.	Disaster-related projects & Local contingency projects	4,800		5,400		1.13
						9.	Functional facilities	5,800		9,400		1.62
						10.	Adjustment and miscellaneous	7,900		6,300		0.80
						Grand Total		44,000		57,000		1.30

D. Regional distribution of investment (draft)  
(Unit: Yen 100mil)

Region	8th Plan		7th Plan*		A/B
	Amount	% Amount	Amount	%	
Honshu, Kyushu & Shikoku Islands	27,392	76.3	18,791	73.7	1.46
Hokkaido	4,259	11.9	3,481	13.6	1.22
Remote Islands	2,016	5.6	1,523	6.0	1.32
Amami Islands	479	1.3	382	1.5	1.25
Okinawa Islands	1,754	4.9	1,323	5.2	1.33
Total	35,900	100	25,500	100	1.41
Disaster-related projects & Local contingency projects	5,400		4,800		1.13
Functional facilities	9,400		5,800		1.62
Adjustment and miscellaneous	6,300		7,900		0.80
Grand Total	57,000		44,000		1.30

E. Major target items and objectives of the 8th 5-Year Plan as well as the overall parameters of the state of development in the early part of the 21st century are given in the Plan. The format is:

Development Item/ Parameters of the 8th 5-Year Plan/ Projected in the early part of the 21st century	
Provision of container terminals and multi-purpose terminals (overseas)/ length of wharves of such terminals to be constructed by the 8th 5-year Plan: Approximately 30 km, involving 90 ports/ Total of 130 km of containership wharves. Those container terminals should be located in the 3 Bay Areas (Tokyo, Ise & Osaka), and the selected 12 regions.	
Improvement of unit-load terminals for coastal shipping/ To be developed and improved at about 20 ports/ Each prefecture should be provided with at least one such port (amounting to about 30 selected regions, 39 hub ports and 33 supplementary ports).	
Passengership (overseas) terminals/ At about 10 selected ports/ Each prefecture should be provided with one or two such ports (amounting to some 70 ports)	
Provision of green areas/ Some 715 ha should be developed as green areas/ A total of some 5,000 ha of space on the waterfront should be turned into green areas	

F. Funding of projects

The central government, using its general accounts and funds from post office savings accounts, and the local governments (using the general accounts as well as the proceeds of bond issues guaranteed by the central government, will be the two major sources of funds. There will be participation by the private sector but not on a significant scale.

To identify the amounts payable by local governments ("local funding"), although we have no exact data on the breakdown of such funding for the 5-year Plan, the situation drafted in the proposed budget for 1992 (Apr 1992/Mar 1993) may be roughly estimated by deducting the total of the national

budget and lending from the total value of the projected investment.

The situation is something like the following (Unit: Yen 100 mil):

Item	Amount (100 mil)	Ratio vs.1991
1) Improvement and development of Ports and Harbours		
Total amounts projected	6,050	1.03
General Account (Central Gov)	3,392	1.06
National lending	74	0.82
Estimated local funding	2,584	
2) Protection of coastlines		
Total amount projected	752	1.045
General Account (Central Gov)	375	1.042
Estimated local funding	377	
3) Projects involving the private and mixed economies sectors		
Total amount projected	1,664	1.278
National lending	548	1.098
Estimated private sector funding	1,116	
4) Projects to be funded by bond issues		
Total amount projected	7,560	1.245
National lending	3,650	1.172
Estimated local funding	3,910	
5) Total	16,026	
General accounts	3,767	
Local funding	6,871	
National lending	4,272	
Private sector funding	1,116	

Provision of marinas and recreational facilities/  
Projected at some 60 ports/  
Some 140 public marinas should be developed. A total of some 60,000 pleasure craft should be accommodated.

Improvement of marine environments/  
Projected at some 47 ports and sea areas/  
Systems for the treatment of toxic bottom sediments in closed water areas by means of covering by sand or other measures should be developed with a view to trying to restore the natural environments

Improvement of infrastructure for the quality of life/  
Projected at some 490 ports and harbors/  
Some 900 ports nationwide should be covered

Regional sewage and treatment systems/  
Some 70 km of embankments are projected/  
A total of some 180 km of embankments (enclosure walls) for garbage and exhaust disposal sites. Large-scaled disposal facilities (processing) for major urban areas should be provided.

Measures against seismic disaster (anti-liquefaction measures, for example)/  
Projected at some 40 ports/  
Some 400 seismic-tremor-resistant wharves should be provided at some 140 ports nationwide.

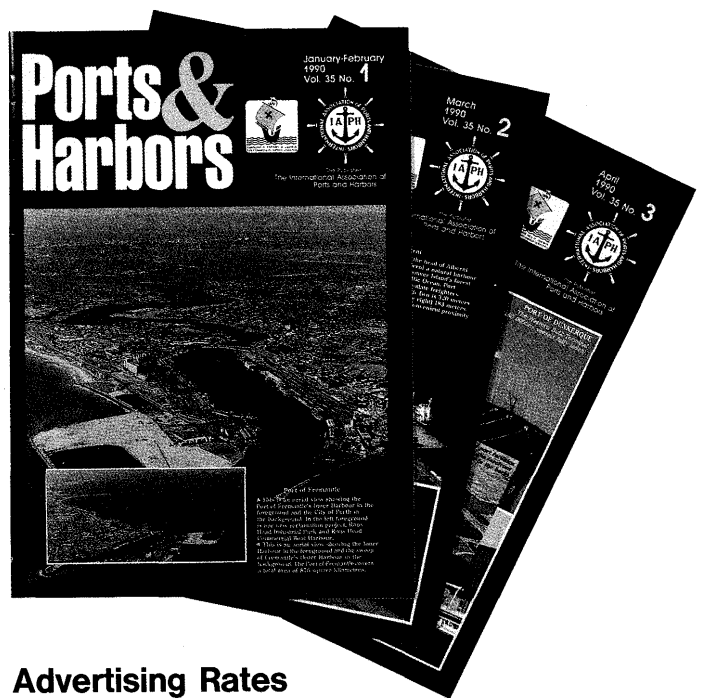
Development (deepening and cutting-out) of channels/  
Projected at some 16 channels/  
Some 20 new channels should be developed.

Promotion of re-development of ports  
Projected at some 50 ports/  
Some 100 re-developed sites should be created.

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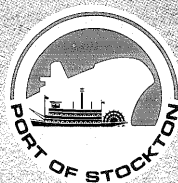
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