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AUTHORITHY PORT OF LISBON

IAPH ANNOUNCEMENTS AND NEWS

IAPH Essay Contest 1992:

Mr. Samaratunge Of Sri Lanka Wins Top Prize

Mr. Goon Kok Loon (Singapore), Chairman of the IAPH Committee on International Port Development (CIPD), informed the Head Office of the results of the IAPH Award Scheme 1992, an essay contest in which applicants were invited to write on the subject "How the quality of port services could be improved".

According to Mr. Goon's fax message dated January 20, 1993, the panel of judges, chaired by the CIPD Chairman himself and including Mr. J.P. Lannou from the Port of Le Havre and Mr. Goon's colleagues from the SPI (Singapore Port Institute) had first selected three papers out of 16 submitted by qualifying entrants as candidates for consideration for the award. They were from:

- (1) W. G. Samaratunge of Sri Lanka Ports Authority
- (2) Rita Seno-Ogbinar of Phileppine Ports Authority
- (3) B. Brabakaran of Madras, India

After intensive consideration of these papers by the panel through exchanging views and comments, the panel agreed that Mr. W. G. Samratunge's submission is the best essay. He has made specific recommendations, such as demolishing old single-storey buildings which obstruct the movements of containers, replacing them with a multi-level freight station to optimize land use, and specified improvements to ship productivity which he has estimated at between 6.4 and 8.4 percent. Some cost indications have also been made on the purchase of additional equipment to enhance productivity.

As to the other two essays, the panel commented that their efforts had been appreciated but that they would have been more highly rated if they had contained original or realistic suggestions for enhancing port productivity.

As a result, the panel has announced the following three prize winners:

Akiyaman Prize (First Prize):

Mr. W. G. Samaratunge, Administrative Secretary, Sri Lanka Ports Authority, Colombo, Sri Lanka (to be awarded a silver medal, US\$1,000 and an invitation to attend the 18th World Ports Conference of IAPH in Sydney, Australia, with travelling and hotel accommodation provided)

Second Prize:

Ms. Rita Seno-Ogbinar, PPA Training Center, Philip-

pine Ports Authority (to be awarded US\$500)

Third Prize:

Mr. B. Brabakaran, Madras, India* (to be awarded US\$400)

Note: Mr. Brabakaran's entry was made in his capacity as a staff member of the National Institute of Port Management, India (Class D Associate Member of IAPH) before he moved to Madras Port Trust, and then to Maersk Line (Operations Manager for South India) and thus the panel judged his entry eligible.

The panel did not award a fourth or consolation prize. The paper of the Akiyama Prize winner is featured later in this issue.

Secretary General Kusaka officially issued an invitation to Mr. Samaratunge to attend the Sydney Conference and is making arrangements for him to travel to Sydney.

Mr. Lee Reports on 15th LDC Meeting

A comprehensive report of the IAPH delegation's attendance at the 15th Meeting of the London Dumping Convention was received at the Tokyo Head Office from Mr. Dwayne G. Lee (Los Angeles), Chairman of the IAPH Dredging Task Force. Mr. Lee says that his report, which is reproduced later in this issue, is longer than most because of the substantive discussions concerning an amendment convention to be held in 1994. Mr. Lee further comments that he wanted to provide more details than normal about the content and proceedings that are scheduled, since there is a potential for IAPH members to influence their national delegations participating in this amendment conference.

Chairman Lee says "I continue to find my responsibilities as the Chairman of the Dredging Task Force to be both challenging and professionally satisfying" and says that he looks forward to seeing IAPH friends in Sydney in April to share with them more information about the work pursued by IAPH concerning the LDC issues.

Members Asked to Submit Credentials

The Secretary General, in his recent letter to the Regular Members, asked them to submit a form of credentials advising the name of the delegate of each member organization attending the 18th Conference in person, or one of proxy specifying the names of individuals attending the Conference on behalf of organizations from which no delegates will be able to attend.

Separately, the IAPH Directors were asked to file to the Secretary General notice of their attendance at the Board meetings scheduled for Sunday, April 18 and Friday, April 23 respectively, by a form of credentials. Any Directors who will be unable to attend the Board meetings in person were asked to submit a form of proxy.

In accordance with Article II of By-Laws, the Conference Agenda needs the approval of the Board of Directors. To obtain the Board's approval, a meeting by correspondence was called by the Secretary General with the voting date set at the end of February to observe the required notice for a meeting by correspondence as stipulated in the By-laws — thirty (30) days' prior written notice.

As for the election of IAPH Directors and Alternate Directors, the By-Laws provide that their election may take place at any time and that not less than one such election be held by each group of Regular Members in each period between Conferences, not later than thirty (30) days before each Conference.

The number of elective Directors to represent each country relates to the number of Regular members in the country — one Director (and one Alternate Director) from a country with Regular Members numbering fewer than 10, two Directors from a coutnry with Regular Members numbering 10 or more but fewer than 20, and three from a country with 20 or more members, respectively. At the moment, Japan (39 Regular Members) and the U.S.A. (26 Regular Members) are represented by 3 Directors each, Australia (16 Regular Members) and Canada (11 Regular Members) by 2 Directors each, while all other countries are represented by one Director.

The Board of Directors representing each country are requested to confirm the names of the individuals who currently serve on the Board or any anticipated changes in the Board when they return the forms of credentials to the Head Office for the Sydney Conference.

Cargo Forecasting: Cooperation Sought

In May 1992, at the COPPSEC meeting in Charleston, a Sea Trade Sub-Committee was established, chaired by Ms. Lilian Liburdi (New York). Her Sub-Committee in Charleston established three task groups as follows:

Task Group 1: to clarify definition of types of cargo Task Group 2: to develop a standardized port forecast model

Task Group 3: to develop a port capacity database

As for the Task Group 2, it is exploring the possibility of creating a global forecast of trade for IAPH members. Pursuant to this task, a survey form was developed by the

4 PORTS AND HARBORS March, 1993

Group on the initiative of Chairman Liburdi, aimed at gathering information about members' current forecast activities in participating in a joint forecasting effort.

At the instruction of Chairman Liburdi, the Tokyo Head Office has circulated the following survey to all IAPH members, seeking their cooperation in returning the requested information as the basis for the task group's



Lilian Liburdi

preparation of the results for use at the Sydney Conference.

	*	*	*		
To:	IAPH Memb	er Ports			
From:	Lilian C. Lib	urdi, Chai	rperson,	Sea Trad	e Sub-
	committee				

Date: 28 January 1993

Subject: Sea trade Subcommittee Cargo Forecast Survey

The Sea Trade Subcommittee of the IAPH's Committee on Port and Ship Safety, Environment and Construction (COPSSEC) requests your assistance in gathering information about forecasting efforts underway at your port. The Subcommittee was established last May to explore issues of sea trade.

Under the guidance of Mr. Jean Pierre Hucher of the Port of LeHavre, the subcommittee has developed a survey to gather information about current forecasting practices at member ports. It will use the information to help determine the availability of cargo forecasts among member ports, and to determine if a standardized forecast is needed. The subcommittee hopes to combine a global forecast with broad estimates of regional cargo handling capacity to help members identify future capacity needs along the major trade routes.

The subcommittee would greatly appreciate your help in completing the survey by February 28, so that we may compile results in time for the Biennial meeting in Sydney. Thank you for your cooperation and I hope to see your in Sydney.

IAPH/COPSSEC — Sea Trade Subcommittee Port Cargo Forecasting Survey

The newly created Sea Trade Subcommittee is to consider the cargo movement throughout the world to provide port members of the IAPH with reliable information for investment and development decisions. To achieve this aim, the Subcommittee, as a first step, needs information on the way ports carry out their forecasts.

The results of this survey will be presented at the 18th IAPH Conference in Sydney and issued in "Ports and Harbors" Journal. Further to this analysis, a proposal of standardization will be discussed within IAPH and proposed to port members. To help the Sea Trade Sub-Committee in its task, you are kindly requested to fill in the following questionnaire before February 28, 1993. Many thanks for your support.

1. Name of Port:

Address: Telex/Fax:

Contact Person:

2. Please provide some background on your port.

TEU handled in 1991_____ Total metric tonnage in 1991_____ Does your Port Authority ____operate most or all port facilities?

- ____lease most port facilities to terminal operating companies?
- ____a government organization?
- ____a private organization?

____Does your port forecast cargo movements? ____Yes ____No

3. How is the forecast prepared? (check all that apply)

- a. ____using a computerized forecast model (*please indicate type of model* (*i.e. regression*)
- b. ____by the Port Authority
- c. ____by a private forecast service
- d. ____by a regional or national government agency
- e. ____other (please specify)

4. If the forecast is not prepared by the Port Authority, how are port staff involved in the forecast?

5.	Wh	nat elements are forecasted?	
	a.	Cargo:	
		mode of carriage (liner, tramp, tanker)	
		"general cargo"	
		container movements (fullempty)	
		TEU (fullempty)	
		break-bulk movements	
		ro/ro movements	
		other (please specify)	
		bulk movements	
		liquid	
		dry	
		commodity categories	
		origin/destination	
		domestic cargo	
		trans-shipped cargo	
		total cargo by major trading range	
	b.	ships:	
		Do you forecast number of ship calls? Yes	No
		Are forecasts broken into vessel types? Yes	No
		Please list the types of ships forecast:	
		Are forecasts broken into size of vessel?Yes	No
6.	a.	How far forward do forecasts extend?	
		Cargo:	
		short term (1 year less)medium term (2-5 years)long term	
		Ships:	
		short term (1 year or less)medium term (2-5 years)long term	
	b.	Are cargo forecasts made for individual quarters, years?	
		Are ship forecasts made for individual quarters, years?	
	c.	How often are forecasts revised?	
		Annually Quarterly Monthly Other	

7. Does the port have unique cargo handling characteristics which dictate special forecasting considerations? ____Yes ___No

If so, please explain:

8.	Please	indicate	the imp	ortance	of the follo	wing	ex	planat	ory	variables	and source	s of	f da	nta in
	short,	medium	and lo	ong term	forecasts.	Use	a	scale	of	1 (least	important)	to	5	(very
	import	tant).												

Explanatory Variables

	Short Term	Medium Term	Term Long
	1-2 years	3-5 years	5 + years
a) Opinion of Shipping lines using the port			
b) Prospects for World Trade			
c) Prospects for Countries/Regions Served by Your Port			
d) Competitive Aspects			
e) Evolution of Types of Ships			
f) Size of the Operating Fleet			

What other explanatory variables are important?

Sources of Data

	Short Term 1-2 years	Medium Term 3-5 years	Long Term 5 + years
a) World Economic Datab) Economic Data for Regions/Countriesc) Domestic Economic Data:			
Value Quantity			
d) Historical Port Statisticse) Consultants' forecasts/publications			
(Ocean Shipping World Sea Trade, Drewry, etc.) f) Cost Studies			
g) Market Share Studiesh) Opinion of Shipping Lines/Land Carriers			
i) Opinion of Terminal Operatorsj) Opinion of Shippers/Consignees			
k) Review of Newspapers/Magazines			

What other sources of data are important?

9. How does the port forecast transshipped or relay cargo movements, if at all?

10. How precise have your latest forecasts been?

Short Term	
Medium Term	
Long Term	

11. Would the port participate in a global model of port cargo movements?

a. to calibrate individual port models	Yes	No
b. to develop a global model available to all member ports	Yes	No

12. Would you share your forecast with the Sea Trade Subcommittee?

13.	. Would a global model of trade be useful to you?	Yes	No
	No		
	Yes, with the following provisions		



Sydney Announces Updated Programs

Mr. John Hayes, Executive Secretary, the Organizing Committee for the 18th World Ports Conference of IAPH, recently supplied to the Tokyo Head Office updated programs for the Opening Ceremony and Working Sessions, which we feature in this issue, together with the provisional agenda for the Plenary Sessions and that for the joint meetings of the Board and Executive Committee scheduled for the conference week.

According to the Organizing Committee, as of January 29, 1993, 59 people have registed. The number of registrants and their nationalities were reported as follows:

Australia -10; Canada -14; Denmark -2; Gambia -1; Hong Kong -1; Iran -3; Jamaica -1; Japan -1; Kuwait -1; Mauritius -1; New Zealand -4; Sweden -4; U.K. -3; U.S.A. -13;

The 18th World Ports Conference, Sydney, Australia **Overall Schedule**

Saturday, 17 April 1993

- 0900/1000 Membership (chair: Lunetta)
- 0900/1000 Constitution & By-Laws (chair: Falvey)
- 1000/1200 COPSSEC sub-committees
- 1400/1500 Cargo Handling Operations (chair: Cooper)
- 1400/1500 Trade Facilitation (chair: Jeffery)
- 1400/1500 CLPPI (chair: Valls)
- 1400/1500 CIPD (chair: Goon)
- 1500/1700 COPSSEC (sub-committees)
- 1600/1700 PACOM (chair: Taddeo)
- 1730/1800 Nominating Committee (the chairman and members to be appointed by the Board)

Sunday, 18 April 1993

- 0800/0830 Resolutions and Bills Committee (1st)
- 0830/0900 Credentials Committee (the chairman and members to be appointed by the President from among the participants)
- 0900/1000 Finance/Budget (chair: Don Welch)
- 0900/1200 COPSSEC in full (reserve) (chair: Smagghe)
- 1300/1500 Joint Meeting of Board/Executive Committee
- Evening Opening Ceremony

Monday, 19 April 1993

- 0800/0830 Resolutions and Bills Committee (2nd)
- 0900/1000 Keynote Speeches
- 1015/1215 First Plenary Session
- 1400/1700 Working Session No. 1: Ports and World Trade

Tuesday, 20 April 1993

- 0800/0900 Honorary Membership Committee (the chairman and members to be appointed by the President from among the partcipants)
 0900/1200 Working Session No. 2: Ports in the '90s Management and Financing
- 1400/1700 Working Session No. 3: Ports and Trade Facilitation

Wednesday, 21 April 1993

Full day technical tour to the Port of New Castle and Kooragang Coal Terminal

Thursday, 22 April 1993

- 0900/1200 Working Session No. 4: Bulk Loading Ports - The Australian Scene
- 1400/1700 Working Session No. 5: Ports and the Environment

Friday, 23 April 1993

- 0800/0830 Resolutions and Bills Committee (3rd) 0900/1200 Working Session No. 6: Ports and Human
- Resources 1400/1600 Second Plenary Session and the Closing
- Ceremony
- 1600/1700 Post Conference Joint Meeting of the Board and Exco
- 1730/1800 Post Conference Meeting of the Exco
- Note: Lunch will be served in the exhibition area on Monday Tuesday, Thursday and Friday, while Wednesday's technical tour includes lunch at Hunter Valley after visiting the Kooragang Coal Terminal.

Opening Ceremony and Evening Programs

Sydney Opera House

Sunday, 18 April 1993

- 1500 1st coach leaves Sydney Hilton Hotel for Opera House
- 1530 Last coach leaves Sydney Hilton Hotel for Opera House
- 1530 Waverly Bondi Beach 25 piece brass band playing in the Southern Foyer
- 1616 Dignitary Party assemble in Green Room at the back of the stage
- 1545 Organ Music accompanied by a trumpeter commences in the Opera House





- 1625 Dignitary Party moves onto stage
- 1630 Australian Girls Choir sing Australian National Anthem

Mr. Max Moore-Wilton welcomes delegates, outlines procedures for the ceremony, acknowledges the perfomers and invites delegates to take the time to enjoy and appreciate the Opera House Concert Hall

Item by Australian Girls Choir

- 1640 The Conference Chairman Mr. Max Moore-Wilton delivers the opening remarks
- 1650 Address of Welcome to the City by the Lord Mayor of Sydney Ald. Frank Sartor
- 1703 Address by a Federal Government Representative
- 1715 Address and Declaration of Official Opening of 18th IAPH World Ports Conference by the NSW Minister for Transport, The Hon. Bruce Baird
- 1730 The Sydney Youth Orchestra performs
- 1755 Address by the IAPH President Mr. John Mather
- 1810 Closing of Ceremony by the Conference Chairman Mr. Max Moore-Wilton
- 1825 Delegates move to Man O'War Steps for IAPH Reception and Harbour Cruise
- 1830 1st vessel leaves Man O'War Steps
- 1900 Last vessel leaves Man O'War Steps

Cruise for approximately 1 hour then raft up at Farm Cove

- 2200 1st vessel back at Man O'War Steps
- 2215 1st coach leaves for Sydney Hilton
- 2230 Last vessel back at Man O'War Steps
- 2245 Last coach leaves for Sydney Hilton

Keynote Session Mr. Guy Pfeffermann

Working Sessions (Provisional Programs as of January 1993)

The 18th Conference Program allows for six Working Sessions of 3 hours each and two Keynotes Addresses:

Monday, 19 April

0900-1000

Mr. Campbell

Director, Economic Department International Finance Corporation (World Bank Private Sector Arm) Anderson Managing Director and Chief Executive Officer Renison Goldfields Consolidated Ltd.

Monday, 19 April

1400-1700

Session 1 Ports and World Trade

Session Chairman: Sir Keith Stuart, Chairman, Associated British Ports, U.K.

"Trends in Regionalisation of Trade"

- Americas: David Bellefontaine, Halifax Port Corporation, Canada

- Pacific Rim Countries: John Lightfoot, Australian Trade Commission

- African Continent: Jean Michel Moulod, Abidjan, Cote d'Ivoire

- Europe/The Baltic Region: Peeter Palu, Port of Tallinn, Estonia

"Port Promotion in the Shifting Winds of Trade"

Speaker: Lilian C. Liburdi, Port Authority of New York and New Jersey, U.S.A.

"The Consequence of the Changing World on Maritime Trade and Ports Activity"

Speaker: Jean Smagghe, Port of Le Havre, France

Tuesday, 20 April

0900-1200

Session 2 Ports in the '90s – Management and Financing Session Chairman – Max Moore-Wilton, Director-General, Department of Transport NSW (IAPH Conference Vice-President and Chairman of the 18th Conference)

"Trends in Privatisation or Corporatisation of Ports"

Issues to be covered:

- the trend in privatisation or corporatisation in the respective region or country;
- the model being used or proposed;
- why this model is relevant to the particular region or country;
- the efficiency gains achieved or expected in the ports; and
- what, if any, rationalisation of the number of ports in the country has been or can be achieved.

The following speakers will present papers:

- United Kingdom experience: David Hunt, Clydeport Limited
- United States experience: Erik Stromberg, AAPA
- Developing Countries experience: M. Rajasingam, Klang Port Authority, Malaysia

THE 18TH WORLD PORTS CONFERENCE OF IAPH



 Australia/New Zealand experience: C. Keifel, ANZ McCaughan Securities (NZ) Ltd.

Tuesday, 20 April 1400-1700

Session 3 Ports and Trade Facilitation

Session Chairman – Robert Cooper, Ports of Auckland Limited (2nd Vice-President, IAPH)

"Efficient Systems and Flow of Information are the Heart of Trade Facilitation — Where is the Vision and Strategy"

Speaker: David Jeffery, Port of London Authority, U.K.

"Australian Customs Service — Electronic Initiatives to Promote Trade Facilitation"

Speaker: Frank Kelly, Australian Customs Service

"Prevention of Illegal Drug Traffic – How Can Ports Assist"

Speakers: Georges Davrou, Customs Co-operation Council, Frank Kelly, Australian Customs Service

Thursday, 22 April

0900-1200

Session 4 "Bulk Loading Ports - The Australian Scene"

Session Chairman (to be determined)

"Bulk Loading Coal Ports"

 Paper by a NSW coal mining company covering the mining and transportation of coal to the Port of Newcastle and outlining special techniques involved in blending coal at Port.

Speaker: Robert Yeates, Oakbridge Ltd.

- Paper by Gladstone Port Authority covering the operations of coal receival and stacking as well as the loading of large bulk coal carriers in Queensland ports.
- Speaker: **Reg Tanna**, Gladstone Port Authority, Qld., Australia

"Bulk Loading Iron Ore Ports"

 Paper by a Western Australian mining company covering the mining, transport, stockpilling and loading of iron ore at Port Hedland

Speaker: Derek Miller, BHP Iron Ore Ltd.,

W.A.

- Paper by Port Hedland Port Authority covering aspects of iron ore shipments generally from Western Australia, including the special port operations required for handling bulk carriers in limited waters.
- Speaker: Ian Baird, Port Hedland Port Authority, W.A.

Thursday, 22 April

1400-1700

Session 5 Ports and the Environment

Session Chairman – Hedley Bachmann, President, AAPMA

"Legal Aspects of the Environment and the Rapid Trend in Global Legislation"

Speaker: **Patrick Falvey**, Port Authority of New York and New Jersey

"A Summary of Recent Dredging Experiences in IAPH Ports"

Speaker: Dwayne Lee, Port of Los Angles, U.S.A.

"Environment and Port Development in a Changing World"

Three papers from the Port of Rotterdam Speakers: Kick Jurriens Peter van der Kluit Pieter Struijs

Friday, 23 April

0900-1200

Session 6 Ports and Human Resources

Session Chairman – Carmen Lunetta – Port of Miami, U.S.A. (1st Vice-President, IAPH)

"Human Resource Development to Meet the Impact of Global Economic Change"

Speaker: Goon Kok Loon, Port of Singapore Authority

Human Resources Paper (Title to be advised)

- Speaker: Arnie Masters, Canada Ports Corporation
- "Problems involved in the Development and Management of Small Ports"

Speaker: Takao Hirota, The Overseas Coastal



Area Development Institute of Japan

"Trends in Corporate & Directors Personal Liability"

Speaker: Judith Crick, Through Transport Mutual Services London

Provisional Agenda

Pre-Conference Joint Meeting of the Board and Exco

Sunday, 18 April

13:00 – 15:00 (Sydney Hilton Hotel, Sydney, Australia)

- 1. Board Chairman's opening address
- 2. Credentials Committee Chairman's report
- 3 Secretary General's report
- 4. Internal and Conference Committee Chairmen's reports and recommendations
- 4.1 Membership Committee: Chairman's report and recommendation
- 4.2 Budget/Finance Committee
 - 1) Chairman's report and recommendation on the Settlement of Accounts for 1991/1992 (Approval for submission to the plenary session)
 - 2) Chairman's report and recommendation on the Budget for 1993/1994 (Approval for submission to the plenary session)
- 4.3 Constitution and By-Laws Committee: Chairman's report and recommendation
- 4.4 Resolutions and Bills Committee: Chairman's report and recommendation, if any
- 4.5 Nominating Committee: Nominations of the President and 1st, 2nd and 3rd Vice-Presidents for the next term (Approval for submission to the plenary session)
- 5.6 Honorary Membership Committee
 - 1) Board's proposal, if any (Referral to the Honorary Membership Commitee)
- 6. Reports by Technical Committee Chairmen
- 6.1 CIPD (including UNCTAD liaison activities)
- 6.2 COPSSEC
- 6.3 Cargo Handling Operations
- 6.4 Trade Facilitation
- 6.5 Public Affairs (PACOM)
- 6.6 CLPPI
- 6.7 IAPH European Representative
- 6.8 Other Liaison Officers, if any
- 7. Report and recommendation on the new structure of the Technical Committees
- 8. Report and recommendation by the Chairman of the Resolutions and Bills Committee concerning the issue submitted by the Technical Committees, if any
- 9. Introduction of the dates and site of the 19th Conference of IAPH
- 9.1 Presentation of the proposed dates and venue for the Conference

- 9.2 Appointment of the Conference Vice-President for the next term
 - 1) Recommendation by the Board Chairman
 - Report and recommendation by the Resolutions & Bills Committee Chairman (Approval for submission to the plenary session)
- 10. Board Chairman's closing address

First Plenary Session

Monday, 19 April

10:15 - 12:15

- (Sydney Hilton Hotel, Sydney, Australia)
- 1. Opening Address by the President
- Report by the Chairman of Credentials Committee
 Declaration of a quorum of the Conference
- 3. Report and recommendations by the Secretary General, Chairmen of Internal and Conference Committees
- 3.1 Secretary General's Report
- 3.2 Membership Committee
 - Chairman's report and recommendation
- 3.3 The Settlement of Accounts for 1991/1992
 - 1) Board Chairman's report on the conclusion of the Board & Exco Joint Meeting
 - 2) Recommendation by the Budget Committee Chairman
- 3.4 Budget for 1993/1994
 - 1) Board Chairman's report on the conclusion of the Board & Exco Joint Meeting
 - 2) Recommendation by the Budget Committee Chairman
- 3.5 Amendment to the By-Laws, if any
 - 1) Board Chairman's submission of the proposed amendments
 - Recommendation by the Chairman of the Constitution and By-Laws Committee
 Recommendation by the Chairman of the Bills and Resolutions Committee
- 4. Report and recommendations by the Chairmen of Technical Committees
- 4.1 Committee on International Development (Inclusive of the commendation of the Top-prize Winner in the IAPH Essay Contest: IAPH Award Scheme)
- 4.2 Committee on Port and Ship Safety, Environment and Construction
- 4.3 Committee on Cargo Handling
- 4.4 Committee on Trade Facilitation
- 4.5 Committee on Public Affairs
- 4.6 Committee on Legal Protection of Port Interests
- 5. Board Chairman's report on the new structure of the technical committees
- IAPH Liaison activity with international organizations International Maritime Organization United Nations Conference on Trade and Development United Nations Economic and Social Commission
 - United Nations Environment Program
- 7. Report and recommendation by the Resolution & Bills Committee Chairman concerning the resolutions re-

THE 18TH WORLD PORTS CONFERENCE OF IAPH



lated to the technical committee matters, if any Closing address

Second Plenary (Closing) Session

Friday, 23 April

14:00 - 16:00

8.

(Sydney Hilton Hotel, Sydney, Australia)

- 1. Opening address by the President
- 2. Report and Recommendation by the Chairman of the Resolutions and Bills Committee
- 3. Report and Recommendation by the Honorary Membership Committee Chairman
- 3.1 Election of Honorary Members
- 3.2 Presentation of the Honorary Membership Certificate by the President
- Report and Recommendation by the Resolutions and Bills Committee Chairman Resolution of Thanks to the Host
- Announcement of the dates and venue of the 19th IAPH Conference in 1995 by the President
- 6. Invitation Address by the Host of the 19th IAPH Conference
- 7. Report and Recommendation by the President for the adoption of the Resolutions pertaining to the appointment of the Conference Vice-President
- 8. Report and Recommendation by the Nominating Committee Chairman
- 8.1 Nomination of the President, 1st, 2nd and 3rd Vice-

Presidents for the next term

- 8.2 Election
- 9. Address by the Outgoing President
- 10. Inaugural address by the New President
- 11. Announcement of the Appointive Members of the Executive Committee for the next term by the New President
- 12. Announcement of the Chairmen of the Technical Committees for the next term by the New President
- 13. Closing Address by the Conference Chairman

Post-Conference Meeting of the Board and Exco

Friday, 23 April

16:00 - 17:00

(Sydney Hilton Hotel, Sydney, Australia)

- 1. Board Chairman's opening address
- 2. Election of the "Elective Members" of EXCO for the new term
- 3. Appointment of Legal Counselors, if any
- 4. Consideration on the "Terms of Reference" of the Technical Committees for the new term
- 5. Consideration on the candidate/s to host the 20th Conference of IAPH in the European/African Region in 1997
- 5.1 Presentation by the candidate/s
- 5.2 Voting, if necessary



BPA Assumes Functions Of IAPH's London Office

Since 1981, IAPH has been operating its European Representative Office under an Agreement it concluded with the British Ports Federation (BPF), with Mr. A.J. Smith having been seconded by the BPF. However, last year it was known that BPF was in the process of voluntary liquidation and was to be dissolved after December 8, 1992, whereupon the IAPH/BPF Agreement was to terminate.

In the meantime, a new ports organization, the British Ports Association (BPA), was launched on November 26, 1992 at an inaugural meeting held in London on this date. According to a news release of the same day received at the IAPH Head Office by fax, BPA* has 80 ports amongst its membership including small, medium-sized and major ports in all parts of the UK and covering a wide range of port-related operations. Captain John Watson of Dundee Port Authority has been elected as Chairman of this newly formed organization.

Earlier last year the IAPH officers — the President, Vice-Presidents, the Secretary General and Legal Counselor Mr. Falvey — had been considering ways in which its London office could continue functioning and agreed to conclude the Agreement with the BPA following a preliminary offer from the British side. On December 8, 1992, the Agreement was newly made to the effect that:

- 1. BPA undertakes to perform the Agreement and to be bound by the terms therefore as if BPA were a party to the Agreement in lieu of BPF.
- 2 IAPH releases and discharges BPF from all claims and demands whatsoever in respect of the Agreement and accepts that on and from the date hereof BPA will be responsible for the Agreement in lieu of BPF and BPA agrees to be bound by the terms of the Agreement in every way as if BPA were named in the Agreement as a party thereto in place of BPF, signed by Captain J J Watson, Chairman, The British Ports Association, Mr John Sharples, Managing Director, The British Ports Federation and Mr. Hiroshi Kusaka, Secretary General, The International Association of Ports and Harbors.

At the launch, the Association's newly elected Chairman, Captain John Watson of Dundee Port Authority, said, "I am delighted at the marvelous response we have had from

the industry to the setting up of a new organisation. The British Ports Association will be a highly flexible and proactive organisation which can draw on its expertise to tackle issues and work with government to achieve the best possible conditions in which our industry can thrive. The number and mix of members demonstrates that our new Association is the most comprehensive and credible voice for an



John Watson

industry vital to the UK economy. As ever, the industry faces big challenges on Europe, the environment and a host of UK policy and legislative issues, including privatisation. We have set up a structure so that all these issues can be dealt with in the most efficient and constructive way possible."

The IPD Fund: Contribution Report

1

Contributions to the Special Fund For the Term of 1992 to 1994 (As of Feb. 10, 1993)

(As of Fed. 10, 1993)	
Contributors A	mount
Paid:	(US\$)
ABP (Associated British Ports), U.K.	3,000
Akatsuka, Dr. Yuzo, Univ. of Tokyo, Japan	100
Akiyama, Mr. Toru, IAPH Secretary	
General Emeritus, Japan	1,000
Barcelona, Puerto Autonomo de, Spain	1,000
Cameroon National Ports Authority,	
Cameroon	480
Cayman Islands, Port Authority of,	
the Cayman Islands	250
Constanta Port Administration, Komania	250
Copennagen Authority, Port of, Denmark	1,000
Cotonou, Port Autonome de, Benin	100
Cyprus Ports Authority, Cyprus Dolfriil/comphayon, Port Authority of	1,000
the Notherlands	250
do Vos Dr. Frod IADU Life Supporting	330
Mombor Conada	150
Dubai Ports Authority II A F	500
Dundee Port Anthonity, U.K.	250
Fiji Ports Authority of Fiji	100
Fraser River Harbour Commission Canada	250
Gambia Ports Authority the Gambia	250
Ghana Ports and Harbors Authority, Ghana	250
Halifax. Port of. Canada	250
Hiroshima Prefecture. Japan	523
Japan Cargo Handling Mechanization	
Association, Japan	259
Japan Port and Harbor Association,	
the Japan	493
Japanese Shipowners' Association,	
the Japan	516
Klang Port Authority, Malaysia	200
Korea Container Terminal Authority, Korea	100
KSC (Kuwait Oil Company), Kuwait	1,000
Marine Department, Hong Kong	500
Maritime Services Board of New South Wale	es,
Australia	367
Mauritius Marine Authority, Mauritius	200
Montreal, Port of, Canada	500
Nagoya Container Berth Co., Ltd., Japan	518
New York & New Jersey, Port Authority	4 000
of, U.S.A.	1,000
Okubo, Mr. Kiichi, Japan	274
Pacific Consultants International, Japan	243
Penta Ocean Construction Co., Ltd., Japan	500
Point Lisas industrial Port Development	100
Co. Liu., 1filliaa Dublic Doxt Corporation I. Indonesia	100
A A A A A A A A A A A A A A A A A A A	250
Shinning Cuides Limited II K	230
South Carolina State Ports Authority.	500
U.S.A.	1.000
Tauranga, Port of, New Zealand	500
Tovama Prefecture. Japan	254
UPACCIM (French Ports Association).	
France	1,905
Vancouver. Port of. Canada	500

Total:

* 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 December 18, 1992, Mr. J. Ron Brinson, President and COE, Mr. Robert H. Tucker, Jr., Commissioner, Mr. Steven Jaeger, Marketing & Sales Director, Mr. Hiroyuki Matsumoto, Far East Director, Port of New Orleans, and Mr. Richard Martinez, President, Transocean Terminal Operators, New Orleans



From L:Kusaka and Kondoh from IAPH, Matsumoto, Martinez, Brinson, Tucker and Jaeger from New Orleans

On January 27, 1993, Mr. Krzysztof Jaworski, Chief Expert, Ministry of Transport and Maritime Economy, Department of Shipping and Seaport, Poland, accompanied by Mr. Nobuyasu Kishimoto, Port Engineer, the Overseas Coastal Area Development Institute of Japan (OCDI)



From L: IAPH Secretary General Kusaka, Jaworski and Kishimoto

8 Chinese Ports Change Status to Regular Members

Following their enrollement as Temporary Members in June 1992, the eight Chinese ports have recently become full-fledged Regular Members effective from 1993. These initiatives have been taken through the good offices of the China Ports and Harbors Association in Shanghai (a Class B Associate Member of IAPH). The Chinese members state that the eight Chinese ports should join IAPH as full-fledged Regular Members without waiting for the termination of their Temporary Membership status in June this year and to participate in the forthcoming Sydney Conference as Regular Members, and furthermore to participate in the endeavours of IAPH committees and members in support of the various activities of this world organization.

As outlined in the Membership Notes Column of this issue, the Association has added 38 units – Shanghai (7), Dalian (5), Qinhuangdao (5), Tianjin (5) Qingdao (4), Nanjing (4), Guangzhou (5) and Zhanjiang (3). As a result, the total number of units subscribed by 233 Regular Members has reached 720, a record number in IAPH history.

President Mather, who has been at the forefront of membership recruiting efforts over many years, has expressed his satisfaction concerning this development and he stated his belief on the occasion of his recent visit to Shanghai that all IAPH members will benefit from the input these newly joined members will make through their active participation in the work of IAPH, while at the same time the Chinese ports community will benefit from contact with IAPH members.

Membership Notes:

New Members

Regular Members

Tianjin Port Authority	(China)
Address:	35, Er Hao Road, Xingang
	Tianjin 300456
Mailing Addressee:	Mr. Zhu Qing Yuan
-	Director
Tel:	(022) 973466
Fax:	(022) 987025
Nanjing Port Authority	(China)
Address:	19 Jiangbian Road, Nanjing 210011
Mailing Addressee:	Mr. Xi Zhi Cheng
-	Port Director
Telex:	34034 NJPA CN
Tel:	(025) 633898
Fax:	(025) 802053
Qinhuangdao Port Autl	nority (China)
Address:	2 Haibin Road
	Qinhuangdao 066012
Mailing Addressee:	Mr. Huang Guo Sheng
	Port Director
Telex:	271051 QHDHA CN
Tel:	(0335) 333719
Fax:	(0335) 335467
Shanghai Port Authorit	y (China)
Address:	13 Zhongshan Road (E.1)
	Shanghai 200002
Mailing Addressee:	Mr. Tu Deming
	Port Director
Telex:	33023 SHACO CN
Tel:	0086-21-3290660
Fax:	0086-21-3290202
Guangzhou Harbour Bu	reau (China)

Address:39 Gangqianlu, Huangpu District
GuangzhouMailing Addressee:Mr. Lu Tong Xun

	Director General	Tel:	35-508
Tel:	(020) 2278553	Fax:	211-202
Fax:	(020) 2278303	General Director:	Mr. Josip Stefan
		Econ. Adviser:	Mr. Zelimir Tomasic
Dalian Port Authority	(China)		
Address:	l, Gangwan Street	Autoridad Portuaria d	le Valencia [Regular] (Spain)
	Zhongshan District, Dalian 116002	(Formarly Puerto Au	tonomo de Valencia)
Mailing Addressee:	Mr. Wang Diang Dong	Address:	NIF. Q4667047G
	Port Director		Muelle de la Aduana, s/n
Telex:	86246 DHAB CN		46024 Valencia
Tel:	(411) 2637873	Mailing Addressee:	Mr. Fernando Huet
Fax:	(411) 2807148		President
		Telex:	64508 PAVE
Qingdao Port Authori	ty (China)	Tel:	34-6-3230991
Address:	Gang Qing Road 6, Qingdao	Fax:	34-6-3233272
Mailing Addressee:	Mr. Chang Dechuan		
	Port President	Queensland Port Aut	orities' Association
Telex:	32176 HABQD CN	[Class B] (Australia)	
Tel:	(0532) 224090	Address:	P.O. Box 134, Aspley
Fax:	(0532) 222878		Queensland 4034
		Mailing Addressee:	Mr. B. Birgan
Zhanjiang Port Autho	rities (China)	_	Secretary
Address:	No. 1 Youyi Road	Representative:	Mr. L. Zussino
	Zhanjiang 524027, Guangdong	-	Chairman
Mailing Addressee:	Mr. Liang Da Tong	Tel:	(079) 761333
-	Port Director	Fax:	(079) 723045
Telex:	452051 JZGDD CN		
Tel:	285255	The Japan Academic	Society for Port Affairs (JASPA)
Fax:	759-280814	[Class B] (Japan)	-
		(Formerly Japan Por	t Consultants Association)
Changes		Address:	Daihyaku Seimei Bldg.
Poduzece "Luka" p.o.	Rijeka [Regular] (Croatia)		1-4, Shibuya 3-chome, Shibuya-ku
(Formerly R.O. "Luka	a" Rijeka)		Tokyo 150
Address:	51000 Rijeka, Riva No.1	Mailing Addressee:	Dr. Ryuichi Yamamoto
Mailing Addressee:	Mr. Josip Stefan	U U	Chairman
-	General Director	Tel:	(Tokyo 03) 3400-4156
Telex:	24-165-HR-LUKA-R	Fax:	(Tokyo 03) 3400-9429

Report of the IAPH Observer upon Attendance at The 15th Consultative Meeting of Contracting Parties to the LDC

International Maritime Organization London, 9-11 November 1992

By Dwayne G. Lee Chairman, IAPH Dredging Task Force Deputy Executive Director of Development Port of Los Angeles



Dwayne Lee

During the week of 9-13 November 1992, I attended the Fifteenth Consultative Meeting of Contracting Parties to the London Dumping Convention (LDC) as the IAPH observer. The meeting was held at the headquarters of the International Maritime Organization (IMO), 4 Albert Embarnkment, London, SE1 7SR. I was accompanied by Joseph E. LeBlanc, Jr. of the firm of Nesser, King & LeBlanc in New Orleans, Louisiana, who has served as legal counsel for IAPH at consultative meetings of the LDC. The meeting was attended by 44 Contracting Parties, one associate member of IMO, seven observer countries, the International Atomic Energy Agency (IAEA) and the United Nations Environment Programme (UNEP), observers from four intergovernmental organizations, and observers from nine international non-governmental organizations (NGOs). This report will summarize the discussions at the meeting upon agenda items of concern to IAPH members.

1. IAPH Submission to LDC 15

IAPH submitted an information document to the Fifteenth Meeting (LDC 15/INF.9) which set forth the views of IAPH on two recommendations of the Scientific Group affecting dredged material. (My report on the IAPH submission is introduced in the November 1992 issue of "Ports and Harbors" on its pages 10-12). In presenting the paper, I expressed IAPH's support for the proposed adoption of the new Waste Assessment Framework (WAF) on a provisional basis pending further action by Contracting Parties upon certain policy issues identified by the Scientific Group. IAPH believes the WAF presents a workable and understandable procedure that contains components that can be used effectively with the Dredging Material Guidelines.

I also informed the Meeting of IAPH's support for the recommendation that a review of the Dredged Material Guidelines be initiated at the Sixteenth Meeting of the Scientific Group in 1993, which would include (i) review of certain key terms in the Convention (i.e., "trace contaminants", "rapidly rendered harmless", and "significant amounts"), (ii) consideration of the relationship between the WAF and the Guidelines, and (iii) evaluation of the option of least detriment.

I expressed IAPH's opposition, on conceptual grounds, to the "reverse listing" approach suggested by some delegations for inclusion in the WAF. This would prohibit <u>all</u> susbtances from disposal at sea unless they are listed as acceptable for dumping. IAPH supports the current approach of determining acceptability for dumping at sea by scientific assessment and determination, rather than by "assumption". I also noted that, in the case of dredged material, there is no need to proceed by way of "assumption." Extensive experience demonstrates that marine sediments — even contaminated sediments — can be safely disposed at sea.

2. Report of the Scientific Group on Dumping

The meeting took note of the IAPH submission and of the support expressed by IAPH for the Scientific Group's recommendations.

The Chairman of the Scientific Group advised the Meeting that the WAF was scientifically and technically suitable for implementation and was recommended for adoption on a provisional basis pending resolution of certain policy issues. A number of Contracting Parties, including the United States, the United Kingdom, Canada, the Netherlands, Australia, Spain, Belgium, and Iceland, expressed support for provisional adoption of the WAF, at least with respect to dredged material. Other delegations, including Nauru, Denmark, Solomon Islands, Sweden, Kiribati, Vanuatu, Greenpeace, and Friends of the Earth International, felt that provisional adoption was premature until resolution of the policy issues. No opposition was expressed to application of the WAF to dredged material.

After all views were expressed, the Meeting recognized the scientific and technical validity of the WAF and agreed to adopt it on a provisional basis. The Meeting further agreed to direct the Scientific Group to establish appropriate approaches and mechanisms for the application of "action levels" for substances deemed by the consultative meeting to be appropriate for disposal at sea. This latter decision has major implications for dredged material disposal. IAPH must be heavily involved in any discussions relating to the development of "action levels." Such levels - in the form of sediment quality criteria – should be limited to use as a "screening" device to determine when dredged material should be subject to more rigorous biological testing and assessment. IAPH has opposed - and must continue to oppose - the establishment of "action levels" as absolute determinants of the suitability of dredged material for sea disposal.

The two "policy" issues identified by the Scientific Group for resolution during provisional use of the WAF involve notification procedures for the sea disposal of industrial wastes and adoption of a reverse listing approach as part of the WAF. Since the notification procedures, as currently proposed, would apply only to industrial wastes, they would not have an impact upon dredged material disposal at this time. With respect to "reverse listing", there appears to be growing support among Contracting Parties for this approach. In view of its likely adoption, IAPH must assure that dredged material is listed as a substance suitable for sea disposal. The reverse listing approach has been adopted in the new Paris Convention governing disposal in the North Sea, which recognizes the acceptability of dredged material for sea disposal. There appears to be widespread consensus among Contracting Parties that dredged material is acceptable for sea disposal under the LDC. However, from time to time, Greenpeace and Friends of the Earth International have indicated a desire to place additional restrictions - and quite possibly prohibitions upon the sea disposal of contaminated dredg ed material. IAPH must press for a categorical listing of all dredged material as suitable for disposal at sea.

The Chairman of the Scientific Group next reminded the meeting that the Dredged Material Guidelines adopted at LDC 10 (Resolution LDC 23 (10)) were scheduled for a five year review, which was initiated in a general fashion at the Fifteenth Meeting of the Scientific Group with a full review proposed for the Sixteenth Meeting and completion in 1994. The Meeting agreed that a full review of the guidelines should take place and should include the following tasks:

 (1) Review of the guidelines in light of experience gained by Contracting Parties, in particular with regard to application of the terms "trace contaminants" and "rapidly rendered harmless" as they are used in Annex 1 and the term "special care" as it is used in Annex 2.
 (2) Consideration of incorporation of the Waste Assessment Framework into the guidelines.

(3) A request to Contracting Parties to submit information on the following issues:

Trace contaminants Rapidly rendered harmless Special care techniques Option of least detriment

Agitation and sidecast dredging

(4) Consideration of any special requirements that might be proposed for inclusion in discussions related to the amendment of the Convention.

(5) A request that IAPH and PIANC aid in the support of developing countries in implementing the Dredged Material Guidelines.

The issues described in paragraph (3) above will be major subjects of debates at future meetings of the Scientific Group and the consultative body. These are issues upon which IAPH has taken positions and submitted scientific papers in the past. It will be important for IAPH to continue to have appropriate input into the discussion of these issues during the review of the Dredged Material Guidelines. For reasons discussed in paragraph 3 below, the initial review by the Scientific Group will probably not begin until Spring 1994.

3. Amendments to the Convention and Its Annexes

The principal focus of the Meeting was the draft resolution presented by Denmark (LDC 15/5/1) to convene an Amendment Conference in 1993. In an Appendix to the draft resolution, Denmark proposed several amendments to the text of the Convention and its annexes for adoption in principle at the Fifteenth Meeting. This was proposed as the most effective way to mark the twentieth anniversary of the signing of the London Dumping Convention. The Danish document proposed to incorporate past agreements by the Contracting Parties with regard to the incineration of noxious liquid substances at sea (Resolution LDC 35 (11)); the phasing out sea disposal of industrial waste (Resolution LDC 43 (13)); the application of a precautionary approach in environmental protection within the framework of the Convention (Resolution LDC 44(14)); and a proposal to prohibit the disposal at sea of low and intermediate level radioactive waste.

The Meeting expressed its general support for the underlying objectives of the amendment proposals put forward by Denmark and its desire not to lose the momentum for environmental protection created at the Earth Summit in Rio de Janeiro in June 1992. There were different views, however, on the time needed for an amendment program. Several delegations favored an amendment conference in 1993. Others thought it would be more realistic to schedule the amendment conference in 1994 to allow sufficient time for negotiating the text of the amendments and appropriate review by jurists/linguists.

A Working Group was established to develop an amendment program. Joseph LeBlanc, IAPH's legal advisor, participated in the working group during the three days of its deliberations. The discussions of the Working Group centered primarily on two areas identified in the plenary sessions, <u>i.e.</u>, the identification of a list of "core issues" for proposed amendments and a procedure for consideration of these amendments. Another list of longer range issues was prepared to be addressed in the context of the long-range strategy of the Convention.

The paper prepared by Denmark was used as the basis for developing the list of core issues. This included the Danish proposals and other issues which had been the subject of substantial debate and that stood a good chance of achieving consensus. After considerable discussion, the Working Group decided — and the Consultative Meeting approved — the following schedule for an Amendment Program:

- The Scientific Group will be asked to offer its technical and scientific advice on the core issues at its meeting in April 1993.
- A special negotiating session will be held in July 1993 in conjunction with the final meeting of IGPRAD to finalize the text of amendments.
- The negotiating text developed at the July 1993 meeting will be presented to the Sixteenth Consultative Meeting in November 1993 for discussion, with a view to reaching agreement.
- After the Sixteenth Consultative Meeting, the Secretariat will distribute a consolidated draft text of proposed amendments in all officials languages.
- In February 1994 a meeting of jurists/linguists will revise the draft text of proposed amendments to ensure legal and linguistic consistency in all official languages.
- In April 1994, the Secretariat will distribute a revised text of proposed amendments to all Contracting Parties in accordance with Articles XV(1)(a) and Resolution LDC. 9(B).
- An extended consultative meeting (1 1/2 weeks) will be held in late 1994 for formal adoption of the proposed amendments to the Convention and its annexes.

Even though the Contracting Parties identified thirteen issues (see Enclosure 2), IAPH has an interest in six of the core issues to be considered during this amendment process:

(1) Issue No. 3 — Basis for amendments to the annexes: This amendment will propose to extend the basis for amendments to the annexes of the Convention beyond scientific and technical considerations to, for example, legal, political, economic and social considerations. IAPH must closely monitor this issue because of the danger such an amendment could be used to justify future restrictions upon the sea disposal of dredged material when there is no scientific basis for such action.

(2) Issue 4 – Consider prohibition of disposal of radioactive wastes at sea: There is a related issue as to whether a definition or other description of "radioactive wastes" is needed. From IAPH's standpoint, it is essential that naturally occurring radioactivity in sediments be excluded from the definition of "radioactive waste". IAPH would also support establishment of a <u>"de minimis"</u> definition which would allow small quantities of low level radioactive waste to be disposed at sea.

(3) **Issue 8**—**Precautionary Approach:** This action would be based upon Resolution LDC. 44 (14), which endorsed the precautionary approach. IAPH must monitor action upon this issue to assure that the wording of the "precautionary approach" in any amendment to the Convention or its annexes tracks the language in the resolution and does not impose additional restrictions.

(4) Issue 9 — Redefinition of "Sea" (Article III (3) of the Convention): A number of delegations have proposed

expanding the coverage of the Convention to include internal waters, which are defined as waters on the landward side of the baseline from which the breadth of the territorial sea is measured, extending in the case of watercourses up to the freshwater limit. "Freshwater limit" means the place in a watercourse where, at low tide and in a period of low freshwater flow, there is an appreciable increase in salinity due to the presence of sea water. IAPH may wish to consider developing a position upon this proposal.

(5) Issue 11 — Waste Assessment Framework: IAPH must closely monitor any action relating to the Waste Assessment Framework, particularly with respect to the development of "action levels" and proposals to adopt a "reverse listing" approach, to assure that dredged material is recognized as acceptable for disposal at sea.

(6) Issue 13-Cross-Media Impacts of Pollution/Hollistic Approach: This issue will consider new obligations to prevent the transfer of pollution from one part of the environment to another. As this issue was discussed in the Working Group, it did not contemplate approval of the "option of least detriment", which is to be considered in connection with a review of the Dredged Material Guidelines. The option of least detriment would allow disposal at sea where the adverse impacts from such disposal would be less than disposal into other media. IAPH has long supported this approach to waste management. This is an issue that would best be addressed in the context of the Dredged Material Guidelines review rather than as part of the discussion relating to the disposal of other more controversial substances and waste.

The Secretariat will make a compilation of proposed amendments in each of the thirteen core areas. Contracting Parties are requested to submit their proposals in any of these areas by 1 April 1993. The list of thirteen core issues will be submitted by the Secretariat to the Scientific Group for consideration at its Sixteenth Meeting in May 1993. The Scientific Group is requested to provide scientific and technical guidance on any of these issues. In view of this request, the Chairman of the Scientific Group has indicated it will be necessary to defer a detailed review of the Dredged Material Guidelines until after the work of the Amendment Program is completed. Thus, it appears at this time that the submissions invited by Contracting Parties in connection with the Guidelines review will not be called for at the Sixteenth Meeting of the Scientific Group in May 1993, but, at the earliest, at the Seventeenth Meeting of the Scientific Group the next year.

4. Dredged Material Disposal Survey

The meeting noted that IAPH has previously conducted a survey of its member ports and presented an accounting of dredging in 82 ports over the world. IAPH has recently completed a second survey jointly with IMO, building on experience from the previous survey.

The meeting also noted the progress made by IAPH, IADC, CEDA, and PIANC with regard to the preparation of a bibliography on the affects of dredging and disposal of dredged material in the marine disposal environment and the progress of the IAPH/IMO Survey on the disposal of dredged material.

5. Change in the Name of the Convention

The Meeting considered the perception, identified by several Contracting Parties and observers, that the informal name of the Convention, the London Dumping Convention, suggested that Contracting Parties had formed a "dumping club". A number of delegations proposed that a new name be considered. After discussion, the meeting adopted the new informal title of the "London Convention (1972)", abbreviated to "LC'72" to be used in the future.

6. Future Issues of Concern for IAPH

Based upon the extensive work carried out by Contracting Parties at the Fifteenth Consultative Meeting, a number of issues can be identified that must be addressed by IAPH:

(1) In connection with review of the Dredged Material Guidelines, which is now expected to take place at the Seventeenth Meeting of the Scientific Group in the Spring of 1994, Contracting Parties have solicited — and IAPH must be prepared to present — submissions upon (i) the regulation of sidecast and agitation dredging under the Convention, (ii) the role of the option of least detriment in the regulation of dredged material, and (iii) the application to dredged material of the terms "trace contaminants" and "rapidly rendered harmless" in paragraphs 8 and 9 of Annex 1 and "special care" in Annex 2.

(2) In connection with resolution of the policy issues relating to the WAF during its provisional use, IAPH should consider the position that any "action levels" adopted for dredged material should be used only as a "screening" device to determine whether further biological assessment is necessary. IAPH must also take the necessary steps to assure that dredged material is listed as acceptable for dumping at sea in the case of adoption of a "reverse listing" approach in the WAF.

(3) IAPH must closely monitor and, if necessary, express its views upon certain of the thirteen "core issues" that will be considered in the Amendment Program for the Convention, including the need for a definition of "radioactive waste", the establishment of a <u>de minimis</u> definition, and the other core issues discussed above.

(4) IAPH must closely follow the continuing interest in waste audits to assure that they do not impose undue responsibilities upon ports in controlling upstream sources of pollution.

7. Conclusion

The London Convention (1972) is on the verge of major changes in its structure and application. The impetus for these changes has come from those countries and NGOs that are environmentally oriented and seek to impose additional restrictions and prohibitions upon disposal at sea. In view of the actions taken by Contracting Parties to ban or suspend the disposal at sea of most substances other than dredged material, the Convention will increasingly become a "dredging Convention." As this transition takes place, IAPH must assure that dredged material continues to receive the reasonable treatment it has had in the past.

International Conference on the Revision of the 1969 International Convention on **Civil Liability for Oil Pollution Damage**

and the 1971 International Convention on the Establishment

of an International Fund for the

Compensation of Oil Pollution Damage International Maritime Organization London, 9-11 November 1992

By Pamela Le Garrec Port of Bordeaux Authority for CLPPI

Considering that the 1984 Protocol to the 1969 International Convention on Civil Liability for Oil Pollution Damage (1969 Civil Liability Convention) and the 1971 International Convention on the Establishment of an International Fund for Compensation of Oil Pollution Damage (1971 Fund Convention) were unlikely to enter into force, because of the provisions they contained relating thereto, the IMO Council, at its 16th extraordinary session in October 1991 decided to convene a Diplomatic Conference to consider new draft protocols to these two conventions, based on the documents of an Intersessional Working Group established by the Assembly of the International Oil Pollution Compensation Fund (IOPC Fund) and approved by the Legal Committee of the International Maritime Organization (IMO).

The Conference was held at the Organization's Headquarters in London from 23 to 27 November 1992.

The representatives of 55 states participated in the Conference, under the presidency of His Excellency Dr. L.M. Singhvi of India.

Two intergovernmental organizations sent observers to the Conference:

- The Commission of the European Communities (EEC); and
- The International Oil Pollution Compensation Fund (IOPC Fund).

There were also observers from 10 non-governmental organisations, including the undersigned, Pamela Le Garrec for IAPH.

1. Opening of the Procedures

a) Opening Address by Mr. W.A. O'Neil

It was the Secretary General of IMO, Mr. William A. O'Neil, who made the opening address and presented the Conventions for revision, explaining that IMO had introduced regulations and standards in almost all aspects of maritime operations, which were generally recognized and accepted as being realistic and effective.

It had turned its attention to the legal field, following the Torrey Canyon disaster, to draw up the 1969 Civil Liability Convention and the 1971 Fund Convention, which

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have been in force since 1975 and 1978 respectively.

Two decades of changing situations, notably concerning the levels of compensation provided for victims of pollution damage, had led to IMO adopting the 1984 Protocols to update these two conventions. But in the light of recent events, the prospects of these protocols entering into force were unlikely.

This was the background that had led to the work on the new drafts, which Mr. O'Neil explained had few substantive changes compared with the 1984 protocols. There was a proposal submitted by Japan for the introduction of a cap, i.e. an upper limit to contributions to the fund, but otherwise only the ratification and entry into force provisions had been modified.

b) Presidential Address by H.E. Dr. L.M. Singhvi

This introduction was followed by the presidential address by His Excellency Dr. L.M. Singhvi, High Commissioner for India in the United Kingdom, who having thanked the other leaders of Delegations for his election, introduced the elected Vice Presidents, Professor H. Tanikawa (Japan), Mr. A.M. Al-Yagout (Kuwait), Mr. R. del Corral (Mexico), Mrs. A.O. Williams (Nigeria) and Mr. A. Os (Norway), together with Mr. A.H.E. Popp of Canada, elected as Chairman of the Committee of the Whole, and Mr. J.F. Wall of the U.K., the elected Chairman of the Drafting Committee.

Having described the work to be undertaken, he went on to encourage the Conference to complete its work in a spirit of goodwill and friendship, explaining that if diplomacy was the art of the possible, it should also be the art of making possible what is desirable.

He concluded by wishing the Conference success in its work.

2. The Committee of the Whole

a) The mandate

The task of the Committee of the Whole was to give consideration to:

 the entry into force of provisions of the draft protocols to the International Convention on Civil Liability for Oil Pollution Damage, 1969 and to the International Convention on the establishment of an international Fund for Compensation of Oil Pollution Damage, 1971, as contained in article 13 of the draft Protocol to the 1969 Civil Liability Convention and article 30 of the draft Protocol to the 1971 Fund Convention respectively;

- the proposal by the Government of Japan for the insertion, in article 12 of the Fund Convention, of a system setting a cap on the contributions payable by oil receivers in any given State; and
- the draft conference resolutions.

b) The debates

The first of the six meetings held by the Committee was devoted to the adoption of the agenda and to the election of two Vice-Chairmen, the first being Dr. R. Renger (Germany) and the second Vice-Admiral J.C. Toledo (Chile) before turning to debate the work in hand.

It was clear from the outset that the delegates were eager to bring the Conference to a successful conclusion and, if possible, to bring both Protocols into force simultaneously.

At an early stage, there was general agreement on the substances of Articles 1 to 12 and 14 to 18, following a minor amendment regarding the Spanish text of Article 5, of the Draft Protocol to the Civil Liability Convention; and Articles 1 to 29 and 31 to 39 of the Fund Convention, so it was decided not to open any further discussion on these provisions.

Nevertheless delegates expressed varying views relating to the provisions on the conditions of entry into force and ratification of the two conventions, notably that of the Protocol to the 1971 Fund Convention.

Equally, whilst understanding the position of Japan, there was also a reticence on the part of a number of delegations to set a precedent by the introduction of a capping system, since this meant that the oil receiving companies in any State qualifying for capping would be paying a lower price per ton for oil than those in other States, as their contribution per ton to the fund would be less.

The Chairman decided to hold a number of informal consultations which would enable him to put before the Committee of the Whole different compromises that he felt might be acceptable, a method which was to prove successful.

c) The agreements reached during the debates

i) Protocol to the Civil Liability Convention

Article 13 of the Draft Protocol to the Civil Liability Convention was duly forwarded to the Drafting Committee to be amended:

 to provide for an entry into force following ratification, acceptance approval or accession by ten States, including 4 States each with not less than one million units of gross tanker tonnage.

- to provide for Contracting States to the 1971 Fund Convention, or those in the process of doing so, via the Draft Protocol to Fund Convention, <u>to delay its entry into force</u> for a period of 6 months, as provided in Article 31 of the Draft Protocol to the Fund Convention.

(This is to give time for such States to denounce previous treaties – Protocols to the 1969 and 1971 Oil Conventions).

— that any State making a declaration in accordance with the preceding provision, could withdraw it by notifying the Secretary General of IMO. Withdrawal taking effect as of the date of notification, provided that any such State had deposited its instrument of ratification, acceptance, approval or accession in respect of the Protocol on that date. to provide an entry into force after twelve months for any State, ratifying, accepting, approving or acceding to it, once the entry into force conditions, (above), had been met.

ii) Protocol to the Fund Convention

The provisions for an interim capping, were finally incorporated in the Article 36 ter, covered by Article 26 of the Draft Protocol, that inserts 4 new articles. It reads as follows:

- "Subject to paragraph 4 of this Article, the aggregate amount of the annual contributions payable in respect of contributing oil received in a single Contracting State during a calendar year shall not exceed 27.5% of the total amount of annual contributions pursuant to the 1992 Protocol to amend the 1971 Fund Convention, in respect of that calendar year."
- "If the application of the provisions in paragraphs 2 and 3 of Article 12 would result in the aggregate amount of the contributions payable by contributors in a single Contracting State in respect of a given calendar year exceeding 27.5% of the total annual contributions, the contributions payable by all contributors in that State shall be reduced *pro rata* so that their aggregate contributions equal 27.5% of the total annual contributions to the Fund in respect of that year."
- "If the contributions payable by persons in a given Contracting State shall be reduced pursuant to paragraph 2 of this Article, the contributions payable by persons in all other Contracting States shall be increased <u>pro rata</u> so as to ensure that the total amount of contributions payable by all persons liable to contribute to the Fund in respect of the calendar year in question will reach the total amount of contributions decided by the Assembly."

However, paragraph 4 of article 36 ter sets a time limit or a maximum amount of contributing oil per calendar year on such a capping:

— "The provisions of paragraphs 1 to 3 of this Article shall operate until the total quantity of contributing oil received in all Contracting States in a calendar year has reached 750 million tonnes or until a period of 5 years after the date of entry into force of the said Protocol has elapsed, whichever occurs earlier."

Article 30 of the Draft Protocol, relating to the entry into force, was fixed at

- Eight Contracting States, having received between them at least 450 million tons of contributing oil during the preceding calendar year.
- iii) Resolutions

A number of Resolutions was agreed and forwarded to the Drafting Committee. These involved:

 Resolution 1, on the recognition of Certificates issued in accordance with the 1969 Civil Liability Convention (Continued on Page 26)

OPEN FORUM

IAPH Essay Contest 1992: Akiyama Prize (First Prize) Winning Paper

How the quality of port services could be improved



By W. G. Samaratunge Administrative Secretary Sri Lanka Ports Authority

* Due to the limited space available, certain maps and drawings originally attached to the paper have been omitted from this presentation.

SUMMARY

The Port of Colombo handled 669.448 containers (TEUs) in 1991. A recent demand forecast indicates that this number will increase to 1,960,000 by the year 2000.

Colombo has recorded significant achievements in the sphere of container handling as a result of the happy combination of several factors.

To be precise, 70% of the containers handled in Colombo are transhipment containers, which earn 60% of the total revenue in foreign exchange.

Even with the completion of the Port development projects presently being undertaken, if the existing constraints due to the limited stacking/marshalling area for containers/cargo are not eliminated, efficiency levels and the marketability of the Port will be adversely affected.

An attempt has been made in this essay to present certain recommendations to meet any situation of congestion by rationalising the use of available land resources of the Authority. The proposals would also contribute to increased productivity and improved services.

INTRODUCTION

Sri Lanka, an insular country, has four commercial ports, namely Colombo, Galle, Trincomalee and Kankasanturai, as well as a number of relatively small fishery harbours. The four commercial ports are managed by the Sri Lanka Ports Authority, which was created by an Act of Parliament. The commercial ports in Sri Lanka form gateways, linking seaborne traffic to road and rail transport and vice versa. Due to the insularity of the country, coastal shipping is also a mode of transport that plays a competitive and at times a complementary role to land transport within the country. Being ideally situated, the ports of Sri Lanka form a base for transhipment activities for cargo with origins and destinations ranging from countries in the West and the Middle East to those in the Far East and in the southern hemisphere.

In achieving Sri Lanka's national development objectives of maximising real national income, stimulating growth in the economy, increasing employment levels, generating more trade, improving the balance of payments, developing regional areas etc and the suchlike port development has become a pivotal factor in the country's development efforts. Thus port development has been of vital importance, to:

- i. ensure the efficient flow of goods in and out of the country, serving the needs and requirements of the country's international trade;
- ii. provide a base for transhipment activities and the entrepot trade, thus contributing towards improving the national balance of payments; and
- iii. facilitate coastal shipping, thus stimulating economic growth and regional development, while contributing to reducing transport costs.

Since a country's ports system constitutes a macro-scale transport interchange between seaborne and land based traffic, ports in Sri Lanka occupy a paramount position in the National Transport Plan.

Colombo, the principal port of Sri Lanka, is located on the West Coast of the country. It has evolved from an open roadstead in the past to a modern container port. The geographical location of the port has enabled it to become a leading port in South Asia, catering for the transhipment trade in the Region.

Incidentally, the Port abuts the busy metropolis of Colombo, which has resulted in a highly congested city road network that carries the Port traffic as well. It also acts as a constraint to any outward expansion from the Port Perimeter.

Present Situation

Several steps have been taken in the recent past to improve the efficiency of the Port operations in order to



attract more trade, particularly transhipment traffic, by exploiting the strategic location of the Port. The Port administration has been brought under one unified Ports Authority amalgamating three State Sector institutions the Colombo Port Commission (a Government Department), Port Cargo Corporation and Port Tally & Protective Services Corporation (two State Corporations). The purpose of constituting a single Ports Authority was to improve the efficiency of port activities by avoiding the overlapping of functions, ensuring better co-ordination and uniformity of procedures and accelerating the development of ports and shipping in the country.

As a result of innovative and commercially-oriented management policies and streamlined and flexible operations adopted by the Authority, the Port of Colombo has now developed into one of the best ports in Asia with a reputation as an efficient port, handling both conventional cargo and containers. In fact, Colombo has been acknowledged as one of the most economical ports in the region, with no frequent breakdown of equipment, labour unrest or stoppages of work. High performance levels and the availability of adequate equipment, well trained, dedicated personnel, computerisation and attractive and competitive port charges have been other contributory factors.

Development plans – current and future

Keeping abreast with the global trend towards containerisation of cargo for shipping, the Port of Colombo has already provided two modern container terminals — Jaye Container Terminal and Queen Elizabeth Container Terminal. These two terminals together provide four berths, are fully equipped and have linkage facilities with the hinterland industrial zones. The Ports Authority has already embarked on the construction of a Port Access Road %1 connecting the port to the outlying Container Freight Stations and the public highway system, bypassing the congested city roads, to enable the smooth flow of in-bound and out-bound port traffic. This project is targeted to be completed by early 1994. In view of the annual increase in container traffic through the Port of Colombo, the Ports Authority has already signed a contract for the construction of a third container berth at Jaye Container Terminal. This will be completed by mid-1994 and will increase the container handling capacity of the Port by 300,000 twenty-foot equivalent units per year. This will be followed by the construction of a fourth container berth at this terminal to enable the Port to keep pace with the increasing container traffic through the Port of Colombo.

In addition to the above new projects, the re-paving of Queen Elizabeth Container Terminal is underway to strengthen and upgrade the quay-surface at this terminal. While certain Port services have already been computerised, additional areas and activities have been programmed for computer application, to be undertaken in stages. The Ports Authority is also in the process of introducing Electronic Data Interchange techniques communication technology by linking all Port-related institutions and major Port users to Port computerised and information systems with a view to providing expeditious and effective port services to the users.

Problem Identification

The Sri Lanka Ports Authority, which administers the Port of Colombo, has 12 Divisions.

(Organisational Structure of S.L.P.A.)

The Operations Division is the largest Division which is responsible for providing services for stevedoring, lighterage, shipping, transhipment, landing and warehousing of

ORGANIZATIONAL STRUCTURE OF S.L.P.A.



cargo, operation and management of container terminals, supply of fresh water to ships, hiring out of cargo handling equipment etc. This Division is divided into the following administrative and operation units:

- a) Queen Elizabeth Container Terminal
- b) Queen Elizabeth Quay
- c) Bandaranayake Quay
- d) Export Unit
- e) Pettah Lighterlanding Unit
- f) Kochchikade Dangerous Cargo Handling Unit
- g) Jaye Container Terminal
- h) Guide Pier
- i) Prince Vijaya Quay
- j) Floating Craft Section

The Engineering Division is responsible for maintaining and improving all civil engineering structures, roads, paved areas, maritime facilities and to acquire, fabricate and maintain plant/machinery and floating craft required for operational activities and provide all other engineering services to meet the needs of the Ports Authority. This Division has four main sections namely civil, mechanical, electrical and marine.

The Navigation Division is responsible for the piloting of ships in and out of harbour, the berthing of ships, providing the services of tugs and floating cranes, harbour safety and measures to combat sea pollution, services of the Port fire brigade, fire safety, the issue of certificates of competence to masters, mates and coxswains, the licensing of boats,

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launches, ships' chandlers, ship repairers, navigational rules and regulations, providing shipping information for the public and shipping agents, monitoring messages to and from ships, craft building and repairs, the control of marine craft and providing and maintaining around the island coastal light-house services for navigational purposes.

The Commercial Division is responsible for ensuring proper documentation as well as the systematic delivery of import cargo after the recovery of wharfage charges, rent and other charges according to the tariffs; it also ensures the speedy checking of service certificates for billing on stevedoring services, the maintaining of bonding services, the disposal of claims from importers, the sale of uncleared cargo, unserviceable assets and old equipment by Auction or Tender, the registration of clearing agencies and wharf clerks operating in the Port, the provision of regular tally services on vessels, the drawing up of cargo stowage and bay plans and the surveying of bad order cargo on vessels. It has its working points and transit sheds/warehouses at all quays/units of the Port.

In addition to the above offices, transit sheds, warehouses, workshops, etc. belonging to the main divisions stated above which are directly involved in Port operations, other supporting divisions such as Finance, Medical, Security and the Supplies divisions have functional sections housed at various locations of the Port.

This unplanned construction of the buildings within the Port to locate various working units has led to enormous problems for the Port in providing sufficient space to stack containers either until clearance by the local consignees or

PORT OF COLOMBO

BUILDING TO BE DEMOLISHED AND AREAS TO CONSTRUCT MULTI-STORIED BUILDINGS



until the loading of transhipment containers by the shipping agents to the final destinations. The Port of Colombo was a conventional cargo handling port until the late 1970s. According to the records available, containers had been brought by conventional cargo ships since 1967 and handled by make-shift methods. However, the first container vessel handled in the Port of Colombo was the American President Line's "President Taylor", which arrived in 1973. Since then, the number of containers handled in the Port has increased dramatically, as illustrated below: —

Table I

No. of containers handled in the Port of Colombo 1981-1990

Year	No. of containers handled (TEUs)
1981	59,471
1982	106,120
1983	146,590
1984	187,727
1985	220,207
1986	348,142
1987	436,618
1988	628,485
1989	551,810
1990	595,356
1991	669.488

Source: Statistical Section, SLPA

Thus, the Port of Colombo has become a leading container port in South Asia. However, conventional cargo throughput also has not decreased, which has necessitated the continuous provision of basic facilities such as transit sheds, yard area, etc., for the handling of such cargo. With the Port of Colombo achieving the status of a leading container Port in the region, it has become necessary to provide more facilities such as cargo handling equipment, skilled labour, sufficient land for stacking of containers/cargo, etc., in order to maintain high levels of efficiency in container terminal management and operations. This has become vital as around 70% of the containers handled in Colombo are transhipment containers. Shipping Agents are allowed to retain transhipment containers within the Port for up to 28 days rent-free in order to encourage transhipment trade via Colombo.

Table II

Transshipment Containers Handled in the Port of Colombo 1981-1991

		or coronioo .		-
Year	Domestic	Transhipment	Restoring	Total
	Containers	Containers		
1981	49,987	7,820	1,664	59,471
1982	70,983	32,261	2,876	106,120
1983	77,009	65,801	3,780	146,120
1984	93,379	88,105	6,243	187,727
1985	103,313	112,044	4,331	220,207
1986	120,950	220,456	6,736	348,142
1987	129,076	300,222	6,320	435,618
1988	135,439	485,501	7,545	628,485
1989	158,980	385,217	7,613	551,810
1990	173,039	410,772	11,545	595,356
1991	188,183	469,519	11,786	669,488
~	G			

Source: Statistical Section, SLPA

In addition to the necessity of providing space for a comparatively longer dwelling time for the transhipment containers, it has been observed that the dwelling time for containers consigned to local consignees (import containers) and containers originating from Sri Lanka (export containers) too is in the range of 5 to 6 days. As the hinterland served by the Port of Colombo is limited as already stated,

and also with the development of the other ports of Sri Lanka such as Galle, Trincomalee and Kankasanturai, the number of local containers handled by the Port may change only marginally unless more and more local cargo is imported/exported in containerised form, which in turn will depend on such factors as the possibility of stacking certain types of cargo in containers, facilities to handle containers at the receiver's go-down and other favourable conditions. However, as the Port of Colombo has already achieved the status of a hub port in the South Asian Region, in order to serve as a base port to receive transhipment containers and relay them from Colombo to the final destinations, it is expected that a considerable increase of transhipment containers which should be handled in Colombo is expected. The Port's capacity to handle an increased number of containers will be enhanced by additional facilities such as Gantry Cranes, Transfer Cranes and Container Berths, which will be made available with the completion of berths numbers 3 and 4 of the Jaye Container Terminal.

Table III

Container Throughput (TEUs) to be handled in the Port of Colombo 1992 – 2000 (Demand Forecast)

Year	Domestic	Transhipment	Restoring	Total
1992	199,000	537,000	14,000	750,000
1993	216,000	590,000	14,000	820,000
1994	229,000	838,000	16,000	1,083,000
1995	246,000	1,098,000	16,000	1,360,000
1996	259,000	1,157,000	18,000	1,434,000
1997	276,000	1,306,000	18,000	1,600,000
1998	289,000	1,423,000	18,000	1,730,000
1999	305,000	1,525,000	20,000	1,850,000
2000	320,000	1,620,000	20,000	1,960,000
Source:	Container th	hroughput foreca	est by the	Statistics

Section

The possibility of handling the anticipated number of containers, maintaining present efficiency levels of Port operations or upgrading services at the two Container Terminals largely depends on the new yard area that can be obtained from within the Port premises itself. For instance, Queen Elizabeth Container Terminal has about 1,500 TEUs container dry slots and 32 TEUs of reefer slots in an area of 13.6 hectares which is hardly sufficient to maintain the efficiency levels of the Jaye Container Terminal - due to lack of physical space. This area had been a conventional cargo handling quay, which was converted to a container yard to meet the immediate demand for container handling requirements with the increasing arrival of container ships in the Port of Colombo in the late 1970s. It is not a purpose - built container terminal and has three transit sheds and seventeen other buildings within the entire Queen Elizabeth Container Terminal Yard area.

The Jaye Container Terminal has 3,432 TEUs of container dry slots and 144 TEUs of reefer slots in a back-up area of 17 hectares. Once the Jaye Container Terminals Berth No.3 is available for operation in 1994, the number of slots will be increased by 2028 dry slots and 72 reefer slots, and with the completion of Jaye Container Terminal Berth No.4 another 1980 dry slots and 72 reefer slots will be added to the stacking area.

Both at Queen Elizabeth Container Terminal and Jaye Container Terminal, laden containers are stacked up to 3 tiers high due to various considerations which restrict the number of containers that could be stacked within the container terminals. Containers which are brought for the purpose of transhipment should be stacked closer to the berth where the on carrier is allocated for the loading of such containers by introducing a system for improving productivity and the efficiency of Port operations immensely.

This would serve to bring more recognition to Colombo as an efficient port similar to major container ports throughout the world, whereby Colombo could be shown on the world Container Port Map as a leading container port in the region. Since most of the requirements to maintain an efficient port have been introduced in the Port of Colombo, a purpose of this essay is to make certain proposals as to how the limited land area within the Port could be utilised to improve the efficiency of the Port.

Recommendations

The following recommendations are made to optimize utilisation of the limited land areas within the Port in order to improve the efficiency of Port activities and provide a better service to the Port users, whilst handling an increased number of containers as anticipated in the near future.

As a priority and urgent measure, it is suggested that no building or utility structures be constructed within Port premises without a well-coordinated planning strategy. This will result in having more land available for operational purposes such as the stacking of containers.

Secondly, it is recommended that all ancillary service units geographically scattered at present be shifted either to a selected block or to land close to the SLPA workshops at the Beira Basin, or — preferably — relocated on land owned by the SLPA outside the Port premises or on an area adjacent to the newly built Port Access Road. It is recommended that the following worksites/workshops be shifted to one of the areas indicated:

1)	Carpentry shop	(Area I)
2)	Cargo Craft Section at Kochchikade	(Area I)
3)	Stress bed	(Area II)
4)	Chief Inspector of work section	(Area III)
5)	Trains and goods officer's office	(Area III)
6)	Central Kitchen	(Area IV)

Once the above ancillary units which are required to provide supporting services for the Port operations are shifted, approximately 15 hectares of land could be released for stacking of containers. With this additional land, at least another 3000 TEUs of slots could be made available.

Thirdly, it is recommended that only multi-storied buildings be constructed hereafter, instead of single-storied buildings to locate all the transit sheds and other buildings which are occupied by various service units. With this in view, all transit sheds at Queen Elizabeth Quay and Unit 2 area should be demolished after the construction of a multi-storied building with 3 to 4 floors either at the site where the QEQ 3 warehouse is situated or T 3 warehouse located at Unit 2. In these multi-storied buildings, warehouse space could be provided for storing cargo until clearance by the consignees (either destuffed from containers or imported as break-bulk cargo) or until it is loaded onto vessels brought by the exporters. Further more, storekeepers' offices, the Finance Division Revenue Collection offices, the Cargo Surveyors' offices, the QEQ Unit office, the gear stores and other facilities could be housed in this building. It would be ideal to utilise the ground floors of these buildings as container freight stations/transit sheds and other floors to house other service units mentioned above. This would result not only in better utilisation of the limited space within the port premises but would also serve to render prompt and efficient services to the Port users under one roof.

The following service units could be considered for accommodation at the proposed multi storied building either at QEQ or at Unit 2:

QEQ/1	 Transit Shed
QEQ/2	 Transit Shed
QEQ/3	 Transit Shed
Finance Division	Revenue Collection Unit at QEQ
Finance Division	Revenue Collection Unit at QCT
Tally Section Car	go Survey Office
9/10	- Transit Shed
T/2	 Transit Shed
F/2	 Transit Shed
F/3	- Transit Shed
Unit/2	- Water Ground's Office
Finance Division	 — QEQ Pay Office
QEQ	 Unit Office
QEQ	- Gear Office
QEQ	 Shrine Room

The implementation of the above recommendation would definitely help to absorb the overflow of containers at Queen Elizabeth Container Terminal area and promote operational efficiency at this Terminal for stacking more containers.

Although the construction of such a multi-storied, multi-purpose building at QEQ will cost approximately Rs. 60 million (US1 = S.L. Rs. 44.19), it is worth proceeding with such a project in view of the immediate advantages and benefits which could be derived.

The Pettah lighter landing unit area, has three under-utilised large transit-sheds, a field inspection office, a welfare supervisor's office, a unit office and the customs landing waiter's office. If a multi-storied building is constructed with four floors to provide warehouse facilities for the cargo brought in sailing craft and the cargo destuffed from the containers until clearance, another 450 TEUs of container slots could be added to the present stacking capacity to cater for transhipment containers handled at JCT. The construction of such a building may cost about Sri Lankan Rs. 80 million, but this will gain more long-term financial benefits for the SLPA by attracting additional transhipment trade as a result of the improved efficiency of port operations and the increased productivity at the berths.

Once the recommendations made above are implemented to make available more land for the stacking of transhipment containers close to the berth, quay-side productivity could be improved immensely. It has been estimated that the present production rate of container handling at JCT is 18 boxes per hour, including detention time.

Once the containers for loading are available closer to the berth, vessel-wise, weight-wise, destination-wise, the present production rate could definitely be increased to 26 boxes per hour.

As service units of the Engineering, Navigation, Finance, Commercial, Security and Operations Divisions are scattered all over the Port, a considerable area of space is occupied by the buildings which are required to house such worksites/offices/workshops etc. This situation has arisen as a result of the decentralization of certain activities for historical reasons. Hence it is strongly recommended that all possible decentralised service units be centralised by amalgamating such work units which would result in addition to the rationalising of manpower and the demolishing of unnecessary single story buildings. With the implementation of this recommendation, along with the location of service units in multi-storied buildings, a considerable area of land could be made available for stacking containers/cargo. A list of possible work units to be amalgamated is shown below:

- 1. Gear Stores
- 2. Labour Muster Points
- 3. Engineering Work Sites
- 4. Workshops
- 5. Finance Division Pay Units
- 6. Security Zonal Offices
- 7. Planning, Research & Development Division Worksites
- 8. Operations Division Worksites

It has been observed that around 20% - 25%, of the containers handled at the port are empty. These are brought in the form of empty containers for the stuffing of cargo in Colombo or are shipped out after the destuffing of cargo brought in containers to Colombo, mainly for the purpose of transhipment. The congestion within the Port premises from stacking such empty containers could be avoided if suitable land is obtained from the area adjacent to the new Port Access Road outside the Port. Empty containers after the destuffing of cargo and empty containers brought in for the purpose of stuffing cargo in Colombo could be stacked in this area, allowing more space for the laden containers to be stacked within the Port premises. The possible alternative land area which could be utilized for the stacking of empty containers are shown in annexure IX (omitted) adjacent to the newly built Port Access Road.

In addition to the area which could be developed as an empty container stacking yard adjoining the new Port Access Road, another area (comprising two hectares) opposite the SLPA Training Institute could also be used for this purpose. It is estimated that about Sri Lankan Rs. 65 million would be required to develop the above area by levelling, enclosing, improving the access road and providing equipment etc., so that it could operate as a cont ainer stacking yard.

The situation at the container terminals in Colombo is unique in view of the number of shipping lines using the container terminals, which necessitates providing facilities to handle containers for several destinations and routes. With the development of Colombo as a base port in the region, additional space which could be provided as a result of the proposed changes in land utilisation and an appropriate system of marshalling the containers could be introduced to improve the efficiency of the port operations at the container terminals. This would result in reducing the ship turn-around time considerably.

Expected ship turn-around time at berth as a result of introducing an appropriate system of marshalling of containers

Container	Terminal		
Container Terminal	Present ship's turn-around time at berth (hrs)	Possible turn- around time at berth (hrs)	Improvements as a percentage
JCT	21.67	19.84	8.4
QCT	24.44	22.87	6.4

Further more, it had been the practice to lease out land, buildings and other facilities to outside parties before large-scale development plans were undertaken by the Ports Authority. Several outside parties still occupy a considerable area of land/buildings even at present. (Lands/buildings which are leased out to such parties are shown at annexure XI). It is recommended that all such premises be taken over from outside parties (maybe by not renewing the lease agreements) for port development work. Such land could also be utilised for the stacking of containers/cargo, solving the problem of a lack of sufficient land within the Port if only to a limited extent.

As indicated above, with the addition of land by shifting certain supporting services and the demolition of single-storied buildings, a greater yard area could be obtained for the stacking of containers. With such an arrangement, additional container handling equipment such as Top Lifters, Forklift Trucks would have to be provided and Prime Movers at the Queen Elizabeth Container Terminal and extra land area obtained for the purpose of stacking of containers. Details of the equipment required and the cost involved are

given below.

Equipment	uipment required and cost involved		
Equipment	No. required	Cost involved	
Top Lifters	03	US\$1,566,000	
40 tons			
Top Lifters	06	US\$2,262,000	
25 tons			
Prime Movers	10	US\$610,000	
Trailers 40'	20	US\$460.000	

Once the aquisition of the land required for the stacking of containers within the Port's premises and within close proximity to the Port were arranged by implementing the above recommendations, the Port of Colombo could meet the demand for handling an increased number of containers, thus rendering efficient services to the Port users. This increased efficiency, which could be obtained by the optimum utilisation of land belonging to the Port would definitely result in improving Port operations.

1971 were adopted by consensus with one Reservation submitted by Italy because the principle of compensation for

environmental damage had not been recognized in the Pro-

The President of the Plenary closed the Conference,

International Conference on-

(Continued from Page 19)

- and the Draft Protocol thereto, especially those relating to insurance or other financial security.
- Resolution 2, on the establishment of the International Oil Pollution Compensation Fund, 1992 (to take over from the 1971 Fund).
- Resolution 3, relating to the need to avoid a situation in which two conflicting treaty regimes are operational. (such as the regime provided by 1984 Protocols and the regime of the present Protocols.)
- Resolution 4, on certain problems of treaty law concerning States which have already expressed their consent to be bound by the 1984 Protocols.
- Resolution 5, on the acceptance of an interim cap on contributions payable by oil receivers in any given State.

(explaining that it responds to a specific situation and should not be considered as a trend.)

3. The Final Plenary

The Final Plenary session was held on Friday, 27 November 1992.

The IMO was authorized to correct a few minor drafting errors which remained in the texts so that the final texts of the 1992 Draft Protocols would be open for ratification as of the 15 January 1993.

Thus the 1992 Protocols to the International Convention on Civil Liability for Oil Pollution Damage, 1969 and to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage,

having thanked the Delegates for their hard work and congratulating them on the successful conclusion, by asking the Heads of the National Delegations to come forward in alphabetical order to sign the adoption.

4. Conclusion

tocols.

In addition to the lower conditions for entry into force for both Protocols and the interim capping system, introduced for high contributing States in an initial phase in the Protocol to the Fund Convention, there are as in the 1984 Protocols provisions for substantial increases in the limitations amounts covered by these two Conventions:

Civil Liability Convention:

- will have a minimum liability of 3 M SDR for ships of less than 5,000 tonnage units;
- with an increase of 420 SDR per tonnage up to a maximum liability of 59.7 M SDR, a limit reached at 140,000 tonnage units (compared with the current 14 M SDR).

The International Fund Convention:

- will have a two tier system with an initial increase to 135 M SDR from present 60 M SDR; and
- a second increase to 200 M SDR, when the amount of contributing oil received by Member States in the same year has reached 600 M tonnes.

There was assurance from a number of State Delegations (including Japan) that their States would immediately start making provisions for the early ratification of the 1992 Protocols, which would lead one to hope that these Protocols have more chance of meeting with success that did the 1984 Protocols, especially since they are not dependent on ratification by any specific State, in order to enter into force.

Modern container terminal operatoins and management systems



By Mr. Eiji Fukunaga Manager (Engineering) Conceptual Engineering Dept. Advanced Systems Engineering HQ. Mitsui Engineering & Shipbuilding Co., Ltd.

The evolution of container terminal operations and management has been accelerated by the modern computer and communication technologies which are penetrating rapidly into our business world and the activities of individuals. In recent years, a strong demand for proven package software has arisen for resolving today's sophisticated networks of container terminal operations and management. The proven package software based system is the most beneficial solution to the terminal operator for either installing a new system or upgrading the existing system with minimized lead time and maximized return on investment.

Introduction

Since 1972, MES (Mitsui Engineering & Shipbuilding Co., Ltd.) has been developing the most technologically advanced Container Terminal Management Systems (CTMS) in conjunction with port authorities, shipping lines, terminal operating and stevedoring companies. Below is a brief list of the CTMS over the past 20 years:

- 1973 Tokyo International Container Terminal, Japan
- 1976 Vostochny Port, CIS
- 1977 Kobe International Container Terminal, Japan
- 1979 International Transportation Services, U.S.A.
- 1981 Container Terminal Australia Ltd., Australia
- 1982 Marine Transport International, Saudi Arabia
- 1984 Unikai Hafenbetrieb, Germany
- 1985 Penang Port Commission, Malaysia
- 1985 Sri Lanka Port Authority, Sri Lanka
- 1987 China Container Terminals, PRC
- 1987 Trans Pacific Container Service, U.S.A.



By Mr. Tetsu Ishihara Manager Systems Marketing Dept. Marketing HQ. Mitsui Engineering & Shipbuilding Co., Ltd.

- 1989 Kawasaki Kisen Kaisha, Japan
- 1991 Mitsui OSK Lines, Japan
- 1992 TIPS, Thailand

As a pioneer of CTMS, MES's extensive experience has resulted in a highly professional capability for supplying package based application systems which can be optimized easily for today's marine container terminals.

The key concept of MES's CTMS is a modular approach based on the following eight systems which will be configured in accordance with the terminal's information needs:

MES's Container Terminal Management Systems Modular systems and functions

- Yard Plan Computer Systems (YPCS) Gate control and online EIR printing Container tracking and yard inventory control Ship loading and discharging operation support Inquiries, reports and billing Generating work instructions for the Yard Operation Computer System (YOCS) Electronic Data Interchange (EDI) with trading partners
- 2. Yard Operation Computer Systems (YOCS) Monitoring yard operations Control of container handling equipment Control of work instruction messages and data transmission Data logging and daily reports on yard operations

- 3. Data Transmission System (DTS) RF (Radio Frequency) data transmission between YOCS and yard equipment
- 4. Transtainer Operation Supervising System (TOS) Display of work instructions in the driver's cabin Work completion notice by pressing a push button Inquiry relative to work instructions Interface with the Position Detection System (PDS)
- 5. Position Detection System (PDS) Gantry position (yard bay) identification Trolley position (stacking row) identification Hoist position (stacking height/tier) identification Twistlocks trigger control
- 6. Tractor Control System (TCS) Display of work instructions in the driver's cabin Work completion notice by pressing a push button
- 7. Portainer Operation Supervising System (POS) Display of work instructions in the driver's cabin Work completion notice by pressing a push button Inquiry relative to work instructions
- 8. Ship Stowage Planning (SSP) and Yard Storage Planning (YSP) workstations

Graphical representation of ship and yard stowage images

Connection with the YPCS for more flexible planning operations

Modern Container Terminal Systems

The typical facility is a common-user container terminal consisting of container stacking storage with vessel berthing facilities. It has in and out gate complexes with multiple truck lanes where the gate booth is equipped with a computer data entry unit, which is a key to the high level of service and turn-around time. The regular data entry unit is configured around a normal character display with a standard keyboard and a heavy duty dot-matrix printer to produce an on-line EIR document many times. An on-line truck scale and AEI (Automatic Equipment Identification) readers can be interfaced with the data entry unit for reducing manual data entry key strokes and eliminating errors in data entry.

I. Yard Plan Computer System

The data entry units at the gate complexes interface with the Yard Plan Computer System (YPCS), a main computer system which is an essential part of the total computerized equipment control data base. The YPCS provides a high degree of efficiency for daily operations, improves storage and equipment utilization, maintains inventory records and provides timely management information. In a growing terminal, this YPCS system will materially contribute to increased productivity and reduced unit cost.

Choosing the right computer platform is one of the important aspects when determining the most advantageous The platform will be determined with terminal system. currect sizing in accordance with the user's information needs and be expandable as the terminal grows. For this reason, there are choices from the open system, midrange and mainframe host computer systems. The most modern

platform can be configured around GUI (Graphical User Interface) and Windowing systems, Relational Data Base, Client/Server computing and LANs involving popular PCs. Today, EDI is emerging rapidly to free the user of proprietary protocol in the ocean transportation industry.

The application software is driven by user's information needs regardless of the user's location. Such a software is designed by using CASE tools and Object Oriented Design method, which enable application designers to isolate all terminal functions and facilities independently to define consistent application elements. This modern software design practice presents the great advantage of modern application software, which is easy to operate and understand for users, with pull-down and pop-up menu screens.

II. Yard Operation Computer System

Container handling equipment is linked by radio data terminals which provide field personnel with direct access to the Yard Operation Computer System (YOCS). In other words, the YOCS allows field personnel to obtain work instruction messages for the on-board radio data unit. The work instruction messages are compiled for available container handling equipment automatically and effectively routed by the YOCS's equipment optimization logic. Real yard operations are monitored by terminal managers on a larger high-resolution color graphic screen in the office.

III. Data Transmission System

The on-board radio data unit communicates with the YOCS all the time via the spread-spectrum collection system, which features a high data transmission rate in comparison with the regular RF data communication system. This state-of-the-art technology is incorporated into the Data Transmission System (DTS). The on-board unit is mounted either in the operator's cab or in the yard clerk's truck and displays the location of containers in the computer while providing receiving/delivery, shifting and loading/ discharging work instructions to the field personnel.

IV. Transtainer Operation Supervising and Position Detection Systems

The location of containers in the stacking storage can be automatically identified by a yard gantry crane equipped with the Position Detection System (PDS) and a trigger by twistlock operation. This eliminates visual check and manual data entry for a new spot and identifies the exact X-Y-Z container address automatically to indicate where the yard gantry crane's spreader is operating for handling a designated container. The Transtainer Operation Supervising System (TOS) has been developed specifically to make it "user friendly" for the crane operator.

V. Ship Planning and Yard Planning Workstations

Ship stowage planning (SSP) and yard storage planning (YSP) workstations allow users to make ship and yard operations plans with color graphic representation. This feature enables users to operate the workstation only by clicking an object on the ship or yard pictures on the screen. The planning workstations share a common data-base server configured with the YPCS and operate as a fully graphical planning aid for each planner.



Advantages of Computerized Container Terminal Operation



Ship Planning Workstation



Yard Planning Workstation

Conclusion

Other optional systems and functions can be integrated with the CTMS. On-dock rail operations and interface with railways are indispensable for today's intermodal business in the U.S. and Europe. Full terminal CFS functions are supported with a billing module. Personnel registration, labor roster, maintenance and inventory for spare parts, E-mail, Fax transmission and miscellaneous office applications can be incorporated into the system as part of the entire corporate management. These extensive functions can be loaded on to the system to enhance the terminal's information resources so as to accommodate the most modern business practices. The MES's package software systems are fully modular, enabling the terminal operator to invest in the necessary modules, then expanding with more modules in accordance with the growth of the terminal and the goals of the computerized terminal operations.

Today, the container terminal system is a necessity and is a critically competitive tool for operating and managing the modern container terminal. MES is fully capable of supplying a package based solution with its accumulated knowledge of over 20 years' experience of the CTMS, and MES's solution will accommodate the optimum operations and management of the individual terminal.





International Maritime Information **VVORID PORT NEVV5**

Asia Ports Symposium Sept. 6-8, 1993, Kobe

The First Asia Ports Symposium on Strategic Waterfront Management and Development will take place in Kobe, 6-8 September 1993. It is being organized by the Japan Overseas Ports Cooperation Association, which was recently established by major Japanese port authorities and port-related private companies, fully supported by Japan's Ministry of Transport (MOT), with a view to promoting Japan's cooperation in port management and development. The symposium will be hosted by the Port of Kobe under the co-sponsorship of the International Association of Ports and Harbors (IAPH), the Sasagawa Peace Fund, the Japan Port and Harbor Association and the Overseas Coastal Area Development Institute (OCDI) of Japan.

Symposium Theme

Seven out of world's top ten busiest ports are located in Asia and consequently strategic port management and development may be of much interest to regional port authorities and portrelated entities. The symposium intends to provide Asian ports with an opportunity to meet together and exchange information on future plans for port development and management. It will also highlight the recolocation and renewal of old port areas and the redevelopment of these areas, as well as issues concerning effective waterfront administration, protection, and development.

Program

Participants from port authorities in Asian countries, namely, Bangladesh, Cambodia, China, Hong Kong, India, Indonesia, Japan, Korea, Malaysia, Myanmar, Pakistan, the Philippines, Singapore, Sri Lanka, Thailand, the Russian Federation, Viet Nam and so forth, will be invited to make presentations on those issues concerning port management which they have been addressing recently and future plans for port development.

Keynote papers will be delivered by

several resource persons from certain model ports focussing on current issues of strategic waterfront management, such as relocation and redevelopment of old port areas, after which some papers selected from the general call for papers will be presented and discussed. Summary session for conclusions and recommendations for the next symposium is scheduled for the final day.

Participation

Research/review papers on the above theme are invited for presentation at the symposium and those interested are requested to send a summary of their papers (preferably typed on A4 size, max. two pages) to the Asia Ports Symposium Organizing Committee (APSOC), c/o the Japan Overseas Ports Cooperation Association by April 30, 1993. The writers of papers selected for presentation at the symposium may enjoy free accommodation in Kobe and receive per diem for their participation. However, travel expenses are the responsibility of participants.

If you are interested in the symposium and wish to be kept informed of developments please send contact detials, viz. (a) names, (b) organization, (c) position held, (d) address to APSOC. Further details can be provided on request by Kazutoshi Sasayama, Mayor of Kobe City and Chairman, APSOC.

Kazutoshi Sasayama Mayor of Kobe City & Chairman, APSOC c/o The Japan Overseas Ports Cooperation Association Kotohira-Kaikan Bldg., 4F 1-2-8, Toranomon, Minato-ku Tokyo 105 Japan Tel: 81-3-3508-0371 Fax:81-3-3508-0372

EQUIPORT'93: Le Havre 12-15 May 1993

EQUIPORT'93 is well on its way to becoming the international event for port activities.

Four months from the opening, an

impressive number of international and French companies representing the three sectors (shipbuilding and repair, shipping and port equipment) have already confirmed their presence.

Just to mention a few of the major players exhibiting:

DELMAS, CNC, CGM, SCAMAR, CHEGARAY DE CHALUS, RUBB BUILDING (Great Britain), LES ATELIERS ET CHANTIERS DU HAVRE, SIREN, NAVIMOR (Po-CUMMINS, PERKINS. land). WARTSILA (Finland), KHERSON (Russia), BABCOCK (Sweden), KALMAR, TRELLEX, TELEME-CANIOUE. AARTHUS (Denmark), GOTTWALD (Germany), VALMET (Finland), MOL (Belgium), CAILLARD, SVETOMO (Sweden), FENWICK, PEINER (Germany), KGW (Germany), FANTUZZI (Italy), SVETRUCK (Sweden), LIEBHERR, BELOTTI (Italy), ELME (Belgium), VAN DE GRAAF (Holland), SPECIMENS (Italy), etc...

Up until now, the strong presence of the leading companies representing the three sectors confirms the international scale of this event.

Top level (simultaneous translation) conferences at EQUIPORT'93 will include speakers from the E.E.C., and will cover the following topics:

1. Port quality and management

2. Port training

3. Port communication and computerization

For additional information: EDIT EXPO INTERNATIONAL Anita Giannis 12 rue Vauvenargues 75018 PARIS - FRANCE Tel: 33.1. 42.23.13.56 Fax: 33.1. 42.23.13.07

CPHA: Environmental Code of Practices

The Canadian Port and Harbour Association (CPHA) has adopted an Environmental Code of Practices which acknowledges the importance of preserving, protecting and improving the quality of the environment.

"CPHA members believe that the construction, maintenance, and operation of port and harbor facilities should be consistent with the principles of sustainability," observed Association President Capt. Norman Stark, Port Manager and CEO of the Vancouver Port Corporation.

"Sustainability," he explained, "means integrating the demands of our economy with the ability of our environment to sustain us today and for future generations."

In outline, the general policy of the Code is:

* Where generic, even global, environmental issues threaten the integrity of the operations of ports and harbors, resolutions should be proactively pursued.

* Business planning, operating practices, and training programs should be examined from an ecological perspective.

* Work in co-operation with all agencies in line with principles of sustainability, developing and implementing environmental legislation and regulations in order to set priorities and ensure the effectiveness of the legislation and regulations.

* Where underway already, work in cooperation with all stakeholders on setting priorities for and the development of effective legislation and regulations.

* Share information with appropriate stakeholders on the environmental aspects of operations and undertakings.

* Ensure that environmental impacts and hazards associated with port and harbor operations identified and responsibly managed through regularly scheduled reviews, management systems, and operating practices and procedures.

* Facilitate appropriate ways of reducing the use of raw materials, toxic substances, energy, water, and other resources, and of reducing the impacts of day-to-day operations.

* Undertake periodic environmental audits of compliance with regulatory requirements, codes of practice, corporate policy and so on.

* Identify and promote throughout the Association innovative ways of achieving economic advantages through improved environmental practices.

The Code notes that ships are required by international convention to dispose of wastes in an environmentally appropriate manner, or to discharge them at appropriate reception and treatment facilities.

It further notes that wastes from urban communities adjacent to port areas can have a direct effect on environmental quality and conditions. For example, the accumulation of waste pollutants in sediments "can create subsequent problems for dredging and dredged material disposal." Accordingly, "port management should work closely with municipal units to ensure minimization of impacts on port activities."

The Code declares that CPHA members "will meet environmental objectives of applicable laws, regulations and operating codes of practice established by governments and themselves."

Members will develop and participate in environmental programs which may include environmental audits, inspection, and monitoring. They "will also implement an environmental management concept within their management structure." This may include "environmental considerations in purchasing policies and practices, use of environmental appraisals and compliance auditing to identify facilities or operations creating legal or financial environmental liabilities, and use of environmental auditing to identify management course of action to mitigate impacts and protect the environment of the port area."

(AAPA Advisory)

New Publications

A Report to Congress on the Status of the Public Ports of the United States 1990-1991

By the U.S. Maritime Administration. Office of Port and Intermodal Development. (Washington, D.C.: October 1992). 39 pages. Introduction. Tables. Figures. Appendices. Order from: Maritime Administration, Office of Port and Intermodal Development, MAR-830, Room 7201, 400 Seventh Street, S.W., Washington, D.C. 20590. Tel: (202) 366-4357. Note: According to MarAd, copies will not be available until January.

The U.S. Secretary of Transportation has been required by law since 1980 to report annually to Congress "on the conditions of the public ports of the United States, including the (1) economic and technological development of the ports; (2) the extent to which the ports contribute to the national welfare and security; and (3) factors that may impede continued development of ports."

The reports are prepared annually by the Maritime Administration's Office of Port and Intermodal Development and cover the nation's inland, Great Lakes, and coastal deepdraft ports. The report for 1990/91 begins with an industry "overview" of industry traffic flows, port facilities, funding and investment in shoreside port infrastructure, and the industry's financial condition.

The second section focusses on "key issues" that include contaminated waste disposal, clean air and water, oil pollution, wetlands, landside access to terminals, federal user fees, land use developments, dredging, labor, and national defense.

The report argues that "the U.S. public port industry's future success clearly rests with its ability to address and resolve these critical issues." To do so "will require planning and cooperation within the industry and with those segments of government and industry that regulate, use, and benefit from the port industry's activities."

(AAPA Advisory)

AAPA Publications

Graphics Manual for Seaports. By the AAPA Facilities Engineering Committee. Price: \$45 to AAPA members, \$55 to non-AAPA members. Postage included if prepaid.

Mission: Port Development. By Walter P. Hedden. 321 pages. Price: \$10 U.S. and Canada, \$11 elsewhere. Postage included if prepaid. * * *

Planeamiento Estrategico: Una Guia para la Industria Portuaria. By the AAPA Planning and Research Committee. Price: \$10 for members and \$20 for non-AAPA members. Postage included if prepaid.

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Port Maintenance Manual. By the AAPA Port Engineering Committee. 224 pages. Price: \$15 U.S. and Canada, \$16 elsewhere. Postage included if prepaid.

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Public Port Development – Mitigation in the 1990's: A Handbook for Public Port Authority Managers. By the AAPA Harbors, Navigation and Environment Committee, 56 pages. Price: \$35 to AAPA members, \$50 to non-AAPA members. Postage included if prepaid.

Seaports of the Western Hemisphere. Annual AAPA directory and listing of members, officers, committees, and other information. Limited copies sent to members only. Non-members or members desiring additional copies can order them at \$64 plus \$5 shipping and handling (\$130 aboard) from: K-III Information Co., Inc. 424 West 33rd Street, New York, NY 10001. Tel: (212) 714-3100.

Strategic Planning: A Guide for the Port Industry. By the AAPA Planning and Research Committee. Price: \$20 for members and \$35 for non-AAPA members. (Temporarily out of stock.)

Unless otherwise indicated, order from: AAPA, 1010 Duke Street, Alexandria, Virginia 22314. Telephone: (703) 684-5700 Fax: (703) 684-6321

The Americas

Mr. Tessier Appointed Chairman, CIT-Canada

Mr. Jean Michel Tessier, President and Chief Executive Officer of Ports Canada, was appointed Chairman of the Chartered Institute of Transport (CIT) in Canada by the National Executive Committee on November 18, 1992.

The Chartered Institute of Transport, with headquarters in London, England, is the largest organization of transportation professionals in the world. Founded in 1919, CIT has world-wide membership of more than 20,000 members. The Honourary President is H.R.H. The Princess Royal.

The goals and objectives of the institute are to promote a greater degree of professionalism among transportation sector managers and practitioners. In Canada, CIT has over 400 members with nine regional councils established in British Columbia, Alberta, Manitoba, Toronto, Ottawa, Montréal (2), Québec City and the Atlantic.

In assuming his new position, Mr. Tessier spoke with enthusiasm of the new mission statement that had been adopted. "The Chartered Institute of Transport will seek to position itself as an objective, respected and nationally recognized organization for transportation professionals. This role will be achieved through education and recognition of excellence in transportation, public forums and liaison with the transportation industry."

Mr. Tessier went on to state his goals for the institute for the next two years. They include increasing communication between CIT-Canada and other professional and business organizations, as well educational institutions both nationally and internationally on transportation education, public issues and other areas of common interest; strengthening the viability of the transportation sector by providing employment opportunities for qualified professionals; and raising the awareness of CIT-Canada and increasing the membership across the country.

Mr. Bellefontaine Head Of Gateway Council

Private and public sector industries with a stake in the success of the Port of Halifax are teaming up to ensure continued success. Mr. David Bellefontaine, President and CEO of the Halifax Port Corporation, announced the formation of the Port of Halifax Gateway Council. Mr. Bellefontaine will act as Chairman of the Council.

At a meeting in Halifax on December 17, 1992, the Council established a mission and set its objectives. Mr. Bellefontaine explained that their mission is: "To forge a unifying relationship among the Port's transportation stakeholders in order to provide and promote a competitive, high-quality level of transportation service for our customers."

Specially, the Council will work toward increasing cooperation among the Port's stakeholders with a view to enhancing the quality of port services, and improving competitiveness and traffic volumes. In addition, they aim to increase public awareness of the Port's economic benefits.

Founding members of the Council include senior officials from virtually all of the Port's major employers and labour locals, as well as shipping organizations and CN North America. Mr. Bellefontaine commented that this Council is starting off with an action oriented attitude, and the right people to make things happen.

This is the first ever stakeholders alliance in the Port of Halifax. Halifax's Gateway Council expects to work with similar associations representing other Canadian ports, and with Advantage Canada, providing and promoting a seamless, competitive, high-quality Canadian transportation system.

Gold-Headed Cane to Captain Roger Llewellyn

The President and Chief Executive Officer of the Port of Montreal, Mr. Dominic J. Taddeo, on January 4, 1993 presented the famous Gold-Headed Cane to Captain Roger Llewellyn, master of the M/V OOCL Assurance, the first ocean-going vessel of the year to reach port without a stopover.

The Port of Montreal has been open for business 12 months a year since January 4, 1964, when the Danish vessel Helga Dan inaugurated year-round navigation in Montreal.

The first arrival of 1993, the M/V OOCL Assurance, is a British/Hong Kong-flagged container carrier. Owned and operated by Orient Overseas Container Line, it is represented in Montreal by OOCL (Canada) Inc.

The ship came from the port of Le Havre in France and opened the navigation year in Montreal by crossing the port's limits at Sorel at 10:33 a.m. on January 1, 1993. It then proceeded to tie up at Racine Terminal, Berth 62, where its cargo of 750 containers was handled by Racine Terminal (Montreal) Ltd., terminal operators and stevedores.

The OOCL Assurance is scheduled to leave January 9 for Hamburg (Germany) and Le Havre before returning to Montreal.

The happy first-time recipient of the Gold-Headed Cane, Captain Llewellyn, was born in Manchester (England) in 1944. He went to sea for the first time



at age 16 and attained the rank of captain in 1975. Captain Llewellyn has been sailing the St. Lawrence River for more than 25 years and was an officer aboard the first container ship that called in Montreal in 1967 while working for Manchester Liners.

The Port of Montreal also paid tribute the same day to the pilots of Saint-Laurent Central Inc. who brought the M/V OOCL Assurance safely into port. Pilots Ghyslain Héon and Ronald Poirier were each presented with wine goblets.

Before an audience of dignitaries, Mr. Taddeo spoke of the reasons that still motivate the port to perpetuate the tradition of the Gold-Headed Cane.

Mr. Taddeo stated: "Now, in addition to honouring the master of the first ocean-going vessel of the year, the Gold-Headed Cane also reinforces the importance of year-round navigation to Montreal. "The Gold-Headed Cane not only acknowledges the experience, training and sound judgment of the officers and crew who bring the first ocean-going vessel safely into port each year, but it also pays tribute to the imagination, ingenuity and determination of those Canadians who have made winter navigation a reality.

"For many, it still comes as a surprise to learn that we do not close for the winter. The fact that the Port of Montreal is a vibrant, bustling hub of domestic and world trade year-round is one we cannot stress enough."

In fact, winter navigation is extremely important to the Port of Montreal, which handles approximately one-quarter of its annual volume of general cargo in the winter months. Without the container traffic loaded and unloaded at its docks in January, February and March, the Port of Montreal would not have been able to



attain its current status as Canada's number one container port and a leader on the North Atlantic.

The Port of Montreal generates an economic impact of approximately \$1.2 billion per year for the Greater Montreal region and Quebec and creates some 14,000 direct and induced jobs.

North Fraser for Coordinated Change

The changing waterfront character and environment is not unique to the North Fraser according to an international conference in Washington, D.C. in October, 1992.

"While we may have our own unique characteristics, the North Fraser is experiencing similar pressures to other ports", said NFHC Commissioner Irene Frith. Irene had just returned from the 10th annual conference of Urban Waterfronts, with the theme: *Cities Reclaim Their Edge*. The Washington, D.C., conference featured topics ranging from re-vegetating streambanks to the role of piers in waterfront development.

"These technical conferences are fairly detailed and offer opportunities to discuss common challenges in waterfront development," said Irene. "This one was particularly useful from the standpoint of strategic planning for the North Fraser in that it confirmed for me that we are on the right track. It also let me compare our progress with other ports.

"Confirming that a 'sense of community' — from urban planning on the landside to riverfront planning on the water side — is critical if we are going to ensure one complements the others," she said.

"This sense of community was also covered in a session on waterfront celebrations. This had special meaning for the NFHC because of our annual Workboat Parade and the other community activities we participate in," she said. "We're re-evaluating the Workboat Parade and looking at additional ideas right now, so the celebration part of the conference came at a good time for us.

"The case studies from Washington, Massachusetts, Minnesota, New York, Oregon and even from here in B.C. added a lot to the approaches other ports and urban developers were taking to reclaiming and enhancing the waterfront," said Irene. "We'll be able to use some of the ideas presented here on the North Fraser. The one constant theme at the conference was the same one we have here — that's change, change and more change to the waterfront. We can either be a victim of change or a participant in it. The NFHC has chosen to be a participant in it by being a facilitator for coordinated change," she said.

(The Working River)

Statement by Chairman, NY & NJ Port Authority

Everyone's talking about the infrastructure these days. The Port Authority is one of the few public entities in the nation that currently is devoting massive resources to renewing our airports, bridges, tunnels, and other public assets. We have spent more than \$4 billion on such investments since 1987 and anticipate spending another \$4 billion through 1997.

I am pleased that Executive Director Stanley Brezenoff and the Port Authority's staff have been able to sustain this high level of infrastructure investment without toll and fare increases, and despite lagging revenues caused by the continuing regional recession. This is only possible because of the stringent economies and productivity increases staff has been able to achieve during the last few years.

I am also pleased to hear Stan Brezenoff's report on the improvements we are making to oversight and accountability, with respect to both capital program management and procedures designed to prevent even the appearance of ethical conflicts by staff. This reflects the high priority the Board and I have placed on ensuring that our agency's standards in these areas are second to none.

Mr. Grant Elected Pres. Of Seattle Commission

Mr. Gary Grant was elected January 12, 1993 to serve a one-year term as the President of the Port of Seattle Commission. Mr. Grant replaces outgoing President Paige Miller.

Mr. Grant was elected to the Port

of Seattle Commission in November 1989. Prior to joining the Commission, he served on the King County Council from 1977 to 1989, including two terms as chairman. Mr. Grant also has 15 years experience as a Washington state legislator, serving five years in the Senate and ten in the State House of Representatives. He presently serves on the board of the Washington State Convention and Trade Center, a post he was appointed to by Governor Booth Gardner in 1988.

"We have to continue to meet our customer's needs in a timely way," said Mr. Grant. "In 1993, I hope to see continued progress on the Container Terminal Development Plan. I would like to see the Port be aggressive in expanding our international service at

AIMCOR Expansion At Port of Long Beach

AIMCOR, Carbon Products Group, a major exporter of petroleum coke through the Port of Long Beach, has launched a \$5 million expansion of their current facility.

A number of improvements will be made over the next eight months, including the construction of a new Sea-Tac Airport, to enhance our reputation as a gateway. And with the opening of the new headquarters at Pier 69, we will have a facility that allows us to showcase Seattle."

Mr. Grant said a major priority of his was for the Port to be sensitive to community concerns. "The Port has to serve the public in an effective and efficient way, mindful of the impact of taxes on citizens while continuing to invest in economic development for the region. We also have a responsibility to be a good neighbor with our marine and aviation operations," said Mr. Grant.

Other officers elected were Mr. Paul Schell as Vice President, Ms. Patricia Davis as Secretary and Mr. Jack Block as Assistant Secretary.

screening house and a new truck dump and loader. The project also will upgrade the stacker unit by raising it 13 feet, and a new 22-foot high wall will be erected around the entire site.

AIMCOR maintains a 25-year lease with the port, and the improvements are part of long-range plans for increased bulk exports through Long Beach.



Examining plans for modifications and improvements of AIMCOR's facility at the Port of Long Beach, California are, from left: Mr. Steven R. Dillenbeck, Executive Director, Port of Long Beach; Mr. Charles P. Gallagher, Chairman and CEO, AIMCOR; Mr. David L. Hauser, President, Long Beach Bord of Harbor Commissioners; Mr. Vincent Kennedy, Vice President of Supply, AIMCOR; and Mr. Joe Lombardi, Director of West Coast Supply and Operations, AIMCOR.

To Reduce Impact of Traffic at Long Beach

The Port of Long Beach, the City of Long Beach, the Union Pacific Railroad and the Port of Los Angeles have agreed on a mitigation plan to reduce the impact of train traffic through north Long Beach. The plan calls for a two-phase program which includes installation of welded tracks to reduce noise from the trains, security fences, soundwalls and grade separations.

Phase One is to be implemented immediately and includes installation of the welded track throughout Long Beach, security fencing between Wardlow Road and Arlington Street, construction of 29,500 linear feet of soundwalls, design and construction of a grade separation at South Street, and the conceptual design of a second grade separation at either Wardlow, Artesia, or Candlewood Avenues.

Phase Two will be implemented only if the Alameda Corridor will not be substantially under construction by 2000 or substantially complete by 2005. This phase includes construction of the second grade separation and design and construction of the two remaining separations.

Union Pacific will pay for all of the welded track installation and security fencing, 10 percent of the cost of the first grade separation, and ongoing maintenance of the soundwalls and security fencing. Los Angeles will contribute up to \$12.19 million for the Phase One soundwalls and grade separation; it will not participate in the second phase of the program. Long Beach will pay for all soundwall and grade separation costs after UP and Port of L.A. contributions, up to \$24.37 million in Phase One, and up to \$58.71 million in Phase Two.

Upon completion of the welded rail installation, permit restrictions on the number of trains using the Union Pacific corridor will be lifted. Time of day restrictions on trains also will be lifted upon completion of the South Street grade separation. (*Tie Lines*)

Charleston: Customs Export System Unveiled

U.S. Customs' new Automated Ex-

port System (AES) was introduced to freight forwarders and steamship lines December 9, 1992 at the Port of Charleston.

The Port of Charleston, Customs, the U. S. Census Bureau, and Sea-Land Service have worked together to create AES which will automate the filing of Shippers' Export Declarations (SED), also known in the industry as "export dec's." AES has been under development for just over a year. The Port of Charleston's ORION system has been the seaport link in the multiparty system. ORION is in its tenth year of providing a paperless environment for document filing.

Through ORION, freight forwarders and steamship lines nationwide will have access to AES for automated filing of SED's. The single filing of an SED will satisfy the export documentation requirements of Customs, Census, and the State Department.

"Computer-based filing of SED's will enhance overall export operations much as ORION and the Automated Manifest System have expedited cargo clearance," said Mr. Dana Streets, senior systems analyst at the Port of Charleston. "Filing an SED will give the Port advanced information on incoming export cargo which will allow for better cargo management on the Port's terminals. Containers and cargoes can be centrally located prior to a ship's arrival and special equipment and handling requirements can also be relayed in advance."

AES is in its production phase, with the full pilot system to be operational on January 4, 1993, the first business day of the new year. On January 4, any ORION subscriber will be able to access AES. The pilot will run through February. The system will be reviewed in March and April with full operation expected by June.

Charleston's ORION system also provides AMS and electronic data interchange (EDI) services and was the only port computer network to provide hazardous cargo marks and numbers to meet the federally mandated deadline this past July.

Tacoma-Vladivostok Regular Service Seen

For the first time in 11 years, a Russian vessel with Far Eastern Ship-

ping Company (FESCO) returned to the Port of Tacoma on December 1, 1992.

Officials with FESCO Agencies U.S.A. say they may resume regular service between Tacoma and the Russian port of Vladivostok if they can gain approval from top FESCO officials in Vladivostok.

"I. hope to do all we can to have regular service to Tacoma," said Mr. Alexander D. Buriy, director of FESCO Agencies U.S.A., a joint venture company now headquartered in Seattle.

The arrival of the orange-hulled, ice-breaking vessel *Vasiliy Burkhanov* on December 1 provided more evidence of warming relations between the Port of Tacoma and its most recent sister port, the Port of Vladivostok.

The vessel was loaded with a variety of cargo and set sail December 3 for an eight-day voyage to the Russian ports of Magadan and Vladivostok.

FESCO, Russia's largest sipping line, is headquartered in Vladivostok. During the 1970s, the line operated regular service to Tacoma to deliver shipments of rubber from the Far East. However, that service halted in December 1981 because of escalating tensions between the United States and the former Soviet Union.

Those tensions have been replaced by a new spirit of outreach and cooperation. The ports of Vladivostok and Tacoma have exchanged visits and information in an effort to lay the groundwork for possible trade ties between the Pacific Northwest and the Russian Far East.

Last October, the Port of Vladivostok hosted a 10-member delegation from the Port of Tacoma. At the same time, delegates representing the City of Tacoma officially established ties with Vladivostok by signing a sister city agreement.

During the visit to the Russian seaport, Port of Tacoma Executive Director John Terpstra and Port Commission President Ned Shera met with FESCO to encourage a return of regular shipping service to Tacoma.

"We are hopeful that this recent call by FESCO ship may lead to regular service that will benefit both Vladivostok and Tacoma," said Mr. Terpstra.

"This is a good example of how our sister port relationship can create new trade ties in the future," said Mr. Shera. In Tacoma, Port Commissioner Pat O'Malley welcomed the FESCO ship by presenting a plaque to Capt. Valeriy Gavrilov on the ship's bridge.

"We want to welcome you back to our Port and we hope that you will return to Tacoma soon," said Mr. O'Malley.

Officials with FESCO are equally optimistic despite facing uncertain political and economic changes in their homeland.

"We're hoping to be able to eventually leave this vessel in this particular service," said Mr. Buriy.

FESCO officials plan to discuss the potential for regular service to Tacoma during a mid-January meeting, according to Mr. Robert Guinan, president of FESCO Agencies U.S.A.

"This is something we'll definitely be pushing for," said Mr. Guinan.

Eleven tons of donated books also were loaded aboard the Vladivostokbound vessel. The donated books were gathered in California by a husbandand-wife team of teachers who plan to distribute them to English-speaking students in Russia. The books were loaded in Tacoma for no charge by Stevedoring Services of America.

Africa/Europe

New Record Traffic For Port of Antwerp

The port of Antwerp can look back on 1992 as being a very successful year, in which it succeeded in breaking its own record traffic. In 1992, some 103 million tonnes of cargo were handled, which is an increase of 1.6% when compared to 1991, and one million tonnes more than the previous record figure dating from 1990.

Loadings amounted to 62.2 million tonnes, an increase of 2.5%. Unloadings amounted to 40.8 million tonnes, 0.2% more than in 1991. Though general cargo maintained at 45 million tonnes, container traffic is still growing. Container traffic amounted to 18.9 million tonnes, which is 1.2% more than in 1991. In TEUs, traffic rose by 3.6% to 1,825,000 TEUs. Also the bulk sector showed some excellent results. Dry bulk increased by 3.6% to 31.5 million tonnes and also liquid bulk increased by 3.7% to 26.5 million tonnes.

In 1992, 16,615 vessels called at the port of Antwerp. The overall G.R.T. figure amounted to 155 million.

New Block-Train Links Container Terminals

As of April 1993 a container block-train will travel the stretch between the Container Terminals in Bremerhaven and Hamburg. This new service in intermodal container transport was initiated by the firms SCL, Service-Centrum-Logistik Bremen GmbH, a subsidiary of the BLG, Bremer Lagerhaus-Gasellschaft, the private railway company EVB and the Container Terminal operated by Gerd Buss AG & Co. in Hamburg.

This new container railway connection will offer customers an economical alternative to truck transport. The railway company EVB hopes in future to transport on the rails a substantial share of the containers presently transported on the road each year between the river Weser and the river Elbe (more than 100,000 TEUs).

As container transport is growing significantly in Bremerhaven as well as in Hamburg, traffic between these two large German seaports — both by tradition engaged extensively in rail transport — will likewise increase.

1992 Record Year At Port of Cork

In 1992 the Port of Cork became Ireland's No. 1 port when cargo throughput reached a record level of 7 million tonnes, an increase of 1.03 million tonnes or 17.3% over the 1991 figures. Imports rose by 530,000 tonnes or 14.7% to 4.18 million tonnes while exports increased by 500,000 tonnes or 21.5% to 2.83 million tonnes.

Oil throughput increased by 390,000 tonnes or 12.1% while container traffic soared to 86,000 TEUs, an increase of over 100% on the previous year. Other significant increases were recorded in imports of trade vehicles, molasses and sulphuric acid and exports of milk powder, livestock, cereals and woodchips. Passenger throughput increased to 213,000 passengers while tourist car numbers increased to 53,000 units.

The outlook for 1993 is very positive. The Port of Cork is the only Irish port which offers direct scheduled lift-on lift-off and roll-on roll-off services to mainland Europe. At present the port offers a choice of 10 containerised sailings per week to continental ports such as Rotterdam, Antwerp, Le Havre, Hamburg and Bremen. These services are provided by six container lines and the resultant competition has led to reduced door-to-door freight rates to the benefit of Irish exporters and importers.

There will be a sharp upturn in continental car ferry sailings to Ringaskiddy next summer. Brittany Ferries will operate three sailings per week to Roscoff (the Cork - Roscoff route at 14 hours is the shortest direct crossing from any port in Ireland to mainland Europe) and St. Malo while Irish Ferries will operate two sailings per week from Le Havre and Cherbourg. In addition, Swansea Cork Ferries will operate daily services from Swansea.

The Port of Cork has invested £11 million in new and improved facilities over the past two years, primarily at the Ringaskiddy Deepwater Terminal and the Tivoli Container Terminal. At present work is in progress on a £1 million contract to provide additional ferry dolphins at the Ringaskiddy Ferry Terminal to accommodate the new breed of jumbo ferries which will service the port from this year onwards, starting with Brittany Ferries' 31,000-ton vessel Val de Loire.

During the past week Cork Harbour Commissioners have made a detailed presentation to the Department of the Marine requesting E.C. Cohesion Fund grant aid for five projects involving a total capital investment of £23 million. The projects include upgrading the Ringaskiddly Ferry Terminal, further re-furbishment of the Tivoli Container Terminal and the provision of a new tug and dredger.

These new facilities, together with the port's quality services and favourable geographical location vis-a-vis mainland Europe, should ensure continued future expansion at the Port of Cork, Ireland's Europort.

Amsterdam: Int'l Center For Combined Transport

On Tuesday 5 January, Amsterdam city fathers gave the green light for the creation of "Amsterdam Westpoint", an international multimodal logistics centre in the port of Amsterdam. After formalisation by the City Council at the end of this month, building activities will be able to start his Spring.

The centre will be managed by operating company Amsterdam Westpoint. Mayor and Alderman agreed to the municipality entering into a partnership during the preliminary stages and early years of operation through municipal limited company Hallum. The other partner will be the Ridderkerk based Van de Lande Group. This company is specialised in public warehousing and in sea shipping. Both partners will own a 50% share and bring in up to 4 million guilders.

The Mayor and Aldermen also agreed to allocate a 65-hectare site with quay facilities at the Amsterdam Westpoint and also to provide some 22 million guilders of credit for the constructions of quay facilities.

The proposals made by the Mayor and Alderman will be submitted to the City Council for approval at the end of January.

Amsterdam Westpoint will occupy a site of 65 hectares in the northwestern part of the America harbour with a 100-metre-long deep-sea quay and roll-on/roll-off facilities.

There will be special docking for inland navigation vessels and 300,000 square metres of open storage. The site will receive a railway link-up, extensive adapted warehousing with indoor loading and unloading facilities for the handling of trucks and containers, and offices.

Amsterdam Westpoint is the embodiment of a new logistics strategy. This new transport centre will be accessible to inland waterway vessels, coasters, sea vessels, freight trains and road vehicles. It is particularly designed to support combined transport (truck and train, ship, train and truck etc.) and thus relieve the roads and benefit the environment. Amsterdam Westpoint offers an unprecedented range of storage, transshipment and traffic facilities at a single location for shipping and transport companies.

This also makes it suitable as a city distribution centre. The Amsterdam harbour area, close to Schiphol Airport, offers a perfect location to establish such a centre. In the long run Amsterdam Westpoint will provide a significant increase in employment in the North Sea Canal area.

Large Profit Expected At Port of Gothenburg

The Port of Gothenburg group of companies is expecting to reach over Swedish Kronor 100 million in profits in 1992. Preliminary results indicate SwKr 106 million, equal to £10 million. The positive result is a joint effect of rationalization, better use of resources, and low inflation rates. The group's turn-over will be about SwKr 800 million (£75 mio).

In 1991, the Port of Gothenburg had its first year in the black since the mid-80s. The trend carried on through



1992, and the forecasts are now that a considerable profit will be made also in 1993.

The positive development is the result of several measures co-inciding with a decrease in Swedish inflation rates. Under a sale/lease back scheme, the Port of Gothenburg pays an inflation-based annual fee to lease back 'its' quays and buildings from a large pension fund organisation.

More than half of the economic improvement has active reasons, though, like the change of working patterns and the trimming of technical and manpower resources. Special attention should be payed to the working time-table introduced at the Skandia container harbour, the port's main dry cargo facility. The time-table makes two-shift operation possible with only two half-hour breaks, which means a smoother rhythm in cargo handling.

Profit-sharing Planned For Port of Gothenburg

The board of the Port of Gothenburg is considering to introduce a profit-sharing system whereby the employees of the port company would benefit from the successful operation of the port.

At the last December board meeting of the Port of Gothenburg, a plan was suggested by the port management to let port profits be shared by three bodies, namely the owners (i.e. the City of Gothenburg), the company (Port of Gothenburg AB), and the 1,000 employees of the port company.

Although well-known in the private enterprise field, profit-sharing is a newcomer among public services in Sweden. Many public services in Sweden are run in the form of limited companies with national or local governments as their sole shareholder, and there is nothing to legally prevent the profits of these companies to be partly distributed among the employees.

The Port management's incentive to introduce a profit-sharing scheme is threefold, according to Port of Gothenburg president, Mr Göran Wennergren.

- Firstly, sharing the profit of an enterprise makes the employee more involved in the way an operation is performed. He demands, from himself and his colleagues, that work be performed more efficiently.

- Secondly, offering a profit-sharing scheme to our employees will make us a more attractive company to work with. It will give us a wider choice of applicants when recruiting personnel in future.

- Thirdly, the self-esteem of the employee of a company offering a profit-sharing scheme is most certainly to be increased. In this way he will be a good promoter of his company and what it stands for, says Mr Wennergren.

The introduction of a profit-sharing scheme is at the discretion of the owners, and such a decision is not to be expected before the shareholders' meeting in April, 1993. If a decision is made in favour of the scheme, 1993 profits could be shared under the scheme in 1994.

The scheme suggests that the profit be defined as what is left before appropriations and tax. The owners decide the dividend; companies owned by the City of Gothenburg should yield at least 12 per cent on equity. What is left is then to be shared by the company and the employees, not necessarily in equal parts. Also, thee are restrictions as to how large an amount is to be shared, depending on the actual inflation rate.

Tanzania Planning Study Awarded to S.L.I. Team

S.L.I. Consultants, a joint venture Sandwell Inc., N.D. Lea International Ltd. and International Rail Consultants has been retained by the Tanzanian Harbour Authority to execute a 14months, \$1.5 million planning study of the Port of Dar es Salaam. Financed by the World Bank, the study was awarded to S.L.I. following an international competition that also included port consultants from the United States, United Kingdom, France, Germany and Australia.

The Port of Dar es Salaam handles some two million metric tonnes of breakbulk and containerized general cargo plus two million metric tonnes of petroleum products per year. Major imports include fertilizers, grain and rice, automobiles, iron and steel and consumer goods. Major exports include copper and zinc ingots, tobacco, sugar, coffee, food products and pulp and paper. Facilities comprise eight general cargo berths, three container berths served by two container cranes, a petroleum products jetty and a single point mooring for the import of crude oil. The port's hinterland is served by two railways and an increasingly reliable road network in Tanzania, Zambia, Zaire, Burundi, Rwanda and Uganda.

The master planning project is intended to outline a framework for development of the port to the year 2004. Key project activities will include:

- traffic forecasts of imports and exports by commodity for each country in the port's hinterland;
- recommendations for improvements in cargo handling methodologies and equipment;
- computer simulation modelling of overall port operations to analyze the impact of changes in the port's operation:
- recommendations on privatization of various aspects of port operations;
- economic and financial analyses;
- environmental impact analysis of port development options; and
- development of an overall master plan with alternative port layouts for future expansion.

The study will be executed by a project team resident in Dar es Salaam. S.L.I.'s project manager, Bill Allen, mobilized to Dar es Salaam in late November, will be joined by five other consulting team members in the first week of January.

ABP-Immingham Invests To Improve Environment

Associated British Ports' (ABP) port of Immingham has announced plans to spend over £1 million to control dust and improve environmental standards on its Dock Estate.

A new contract with Anglian Water Services will result in an abundant supply of industrial water and the facility to spray certain minerals, a procedure set out in the guidelines of the Environmental Protection Regulations.

After consultation with the port users involved, the scheme will involve the provision of a 300mm main from Killingholme, which is to the west of Immingham, onto the Dock Estate. The project has been partially aided by a support grant from the European Regional Development Fund.

Complementary to this scheme, a

wheel-washing facility at the port's Mineral Quay has just been commissioned. Costing over £100,000, the facility removes all loose minerals and dust, keeping the roads clean when lorries leave the quayside. Similar systems are also being installed at the leased premises operated by the importers of bulk materials.

Both projects represent part of the industry's commitment to improving conditions for the handling of bulk minerals at the port of Immingham.

Total Cargo Tonnage Up by 5.6% in 1992

The Port of Felixstowe in 1992 raised its container throughput by 6.7%, roll-on roll-off traffic by 41.2%, grain trade by 122% and total cargo tonnage by 5.6%.

Containers totalled 1,063,828 (1,529,915 TEUs), Felixstowe improving still further its position as leading container port in the British Isles and fourth in Europe.

Rotterdam stays top of the European league, but Felixstowe is beginning to challenge Antwerp for third place.

Trinity, Britain's largest terminal, handled 785,772 (6.47% more) of the Felixstowe containers, while Landguard terminal raised its throughput by nearly 20% to 201,481.

Felixstowe also did well with roll-on roll-off freight, traffic over the port's common-user facilities rising by no less than 155.66% to 129,900 units.

This big surge is explained by Norfolk Line trailers on the Scheveningen route being switched to Felixstowe early last year. In addition, P & O European Ferries carried 55,647 units (a rise of 20.4%) on its Zeebrugge passenger and freight service, 140,252 (up 4.9%) on its pure freight link with Europort.

Grain trade at Felixstowe soared 122.23% to 71,527 tonnes, mainly exports of barley and wheat from East Anglian farms.

But recession did have a marginal effect on the port's tonnage figures. Imports of forest products, principally paper, declined by just under 3% to 636,187 tonnes. More arrived in unitised form, much less as conventional cargo.

Liquid bulk cargoes were 8.75% down at 222,395 tonnes, although imports of molasses almost doubled to meet a greater demand for use in animal

feeding stuffs in the Eastern Counties.

Felixstowe exports rose 11.75% to 8,042,393 tonnes, imports falling by 0.64% to 8,880,603 tonnes, making total cargo of 16,922,996 tonnes.

Port of London Initiative: TOSCA Gets Go Ahead

It was formally agreed at a plenary meeting of the prospective members of TOSCA (Thames Oil Spill Clearance Association) that a fund of £800,000 would be established from conservancy charges on oil cargoes entering the port, to equip a rapid response team to be co-ordinated and operated by PLA.

It is expected that with this agreement in place, equipment and a standby recovery vessel will be in service by the middle of 1993.

The area of operation will be between Sea Reach Buoy No. 1, which is east of Shoeburyness, and Tower Bridge. The vessels and equipment with which TOSCA is to be provided, will ensure that in normal circumstances it will be able to:

- Respond over an area Sea Reach No 1 to Tower Bridge.
- Respond within 30 minutes to an incident between Canvey and Erith (where the majority of installations are located).
- Recover oil afloat or likely to float from an oil pill up to 50 tonnes and to provide an initial response to a larger incident.
- Deal with a wide range of oils, viscosities and certain immiscible chemicals.
- Deploy booms to minimise wider contamination.
- Temporarily store recovered material.
- Arrange for the disposal of material recovered.

Asia/Oceania

Brisbane: Strategic Plan To 2005 and Beyond

Key Port Brisbane: Strategic Plan to 2005 and Beyond, the Authority's new plan for development of the Port of Brisbane, was launched by the Queensland Minister for Transport, the Hon David Hamill, MLA on 26 May 1992.

The plan is the culmination of nearly two years of research and consultation. It builds on the success of the first strategic plan of 1976 which set the guidelines for construction of Brisbane's internationally competitive, world class port facilities at Fisherman Islands.

Key Port Brisbane is an integrated plan developed from the contributions of a broad base of the port's key stakeholders, and the results of exhaustive studies conducted by Authority staff and expert consultants on trade, port master planning, economic impact, environment and other areas.

The plan sets out infrastructure, land and facilities requirements to meet forecast growth in trade through the Port of Brisbane, expected to reach 29 million tonnes and 400,000 TEUs by the year 2005. A detailed review of the plan in consultation with key stakeholders will be undertaken every three years to keep it in line with changes in the port's operating and physical environments.

Key Port Brisbane Key Points

- 80% trade growth to 29 million tones by the year 2005;
- 3,640 extra jobs created for Queenslanders by 2005;
- an annual injection of \$870 million into the Queensland economy;
- \$640 million in regional economic output during the construction phase;
- an additional 10 berths at Fisherman Islands in the long term, with five of these to be constructed by 2005;
- deeper shipping channels to accommodate large tankers and bulk carriers;
- dedicated major road and rail links;
- improved handling efficiencies at the port;
- greater concentration of port related activities in the Fisherman Islands area;
- ongoing environmental monitoring of Fisherman Islands area;
- pioneering techniques to revegetate mangroves and seagrass to protect and maintain fish and bird life; and
- allocation of Lytton port land along the Bay foreshore as a habitat buffer zone.

Fremantle Container Throughput Up 29.2%

Fremantle Port Authority's container imports increased by a dramatic 29.2 per cent for the first quarter of 1992/93 compared with the same period the previous year.

The growth in intermodal cargo is due to an increase in intermodal port cargo being railed to Adelaide and Melbourne.

The growing success of Fremantle Port's niche intermodal system has opened up more opportunities for manufacturers looking to increase their export activities.

In the past two years, Fremantle Port has successfully proven the benefits of its fast, efficient intermodal rail and road system. Cargo can be transported to or from the Adelaide or Melbourne markets up to seven days faster than by sea.

Westrail and other rail authorities continue to canvas prospective landbridging clients. In recent times, inspections of facilities involved in the integrated landbridging concept have also been undertaken by railway's eastern states shippers.

As announced in the last Fremantle Port News, Fremantle has become the first discharge port in Australia for Mediterranean Shipping Company's (MSC) vessels bringing containers from Europe, South Africa and the east coast of the United States.

MSC has doubled its port calls to Fremantle, and is landbriding cargo to Adelaide by rail.

Additionally, the Baltic Shipping Company has made arrangements to discharge cargo at Fremantle and landbridge between 30 and 50 TEUs per month to Adelaide. At present, there is an imbalance of intermodal ocean cargo being rail-freighted across the country, with intermodal cargo going east far outweighing the amount being railed back to the west.

This offers Eastern States exporters an excellent opportunity to utilise the excess capacity and rail freight their goods across the country to Fremantle Port.

There is the opportunity for exporters to integrate their freight movements with domestic freight movements through the development of strategic alliances with major rail forwarders. Increased use of the cellular palletwide container (which enables two 1.17 metre square Australian domestic pallets to be loaded side by side and slotted onto conventional container ships) has opened the way for Australian exporters to standardise on the same pallet as used in their domestic business.

Speeding up the transit time by sending goods out through Fremantle will allow overseas markets to receive Australian goods much quicker.

(Fremantle Port News)

1992 – Successful Year For MSB Sydney Ports

1992 has been an eventful year for the MSB Sydney Port Authority, with important developments on several fronts.

One significant event has been the release of the Authority's first Annual Report - a true milestone for us, produced as part of our move towards greater autonomy in business management and reporting.

This report highlights our outstanding financial performance in the 1991-92 financial year.

Despite the continuing economic recession our total revenue was \$113.2 million and we achieved a record operating surplus of \$28.82 million.

Trade Increase

Total trade through Botany Bay and Sydney Harbour was up by 2.7% to more than 39 million revenue tonnes, with 1,275 vessels visiting Sydney Harbour and 1,065 going to Botany Bay during the year.

A major development in port services and operation has seen the transfer of Sydney Harbour and Botany Bay pilotage services to private enterprise, while another important move is the Authority's participation in the Frontline anti-drug campaign. (Refer separate articles of these events.)

Sydney Ports – Well Placed

The Authority is working to develop Sydney Ports as a load centre for Eastern Australia and our strategies are assisted by a number of important factors.

These include the position of Sydney Ports with its major population centre; improving road and rail links; and the fact that more than 60 shipping lines have vessels which regularly call into Sydney, linking Australian importers and exporters with more than 200 markets around the world.

Continual Authority involvement in international forums is a vital aspect of the Authority's drive to promote our Ports and the competitive services we have to offer. (*Rapport*)

Penang Picks Consultant For Master Plan Study

Consulting Engineering firm, Sir Bruce White, Wolfe Barry & Partners has been appointed to undertake a Post Master Plan Study for Penang Port Commission (PPC).

Sir Bruce White, Wolfe Barry & Partners is undertaking Phase 1 of the study in association with Coopers & Lybrand Management Consultants Sdn. Bhd. and Sepakat Setia Perunding Sdn. Bhd.

Sir Bruce White, Wolfe Barry & Partners is selected from among 10 consulting firms which have registered their interest to undertake the project at the end of last year.

The study costing PPC M\$0.8 million commenced in June 1992 and it is expected to be completed in early 1993.

The Port Master Plan Study will be carried out in two phases.

Phase 1 of the study entails a detailed micro and macro analysis of the role of Penang Port for the next 20 years in the context of the industrial and agricultural development policies and plans of Penang state in particular and of northern Penisular Malaysia in general.

Under Phase II of the project, PPC will conduct an engineering feasibility study on the findings and recommendations of consultants for the first phase of the project.

The Port Master Plan Study would assist Penang Port in fulfilling its role as the gateway for northern Peninsular Malaysia and as a catalyst for the economic development of its hinterland.

Besides outlining the future of the Port up to 2010, the Port Master Plan Study will also develop a port marketing programme and review operations of the ferry service of PPC.

(Berita Pelabuhan)

King Fahd Industrial Port And Saudi Development

The transformation of the Kingdom of Saudi Arabia from merely a raw material exporting country to an industrial producer was always within the dreams of the kingdom's government and it's population.

At the beginning of the seventies the opportunity was there to make this dream a reality and the establishment of the gas-oil based industry was possible. This development took place primarily in Jubail and Yanbu.

The construction of King Fahd Industrial Port in Jubail began in 1394H (1974G) adjacent to the Jubail Industrial City. The port has been designed for importing the raw materials needed for the industries and for exporting the industries' products such as petrochemicals, chemical fertilizers, sulphur and refined oil products.

The port played an essential role in the construction of the industrial city, by providing specialized berths for the import of prefabricated modules. The Saudi Sea Ports Authority paid its utmost attention to the port because of its importance. Since the port commenced operation in 1402 (1982), it participated in the continuous success story which is the pride of all Jubail projects today.

The Saudi Sea Ports Authority with all port users are looking forward to the dawn of the second decade of operation and to the continued success in achieving the aims set by the government of the Custodian of the two Holy Mosques and his heir apparent and in serving our national industries and economy.

The port was designed to handle a variety of cargoes. There are two berths to handle heavy modules such as pre-assembled parts of industrial plants as well as steel structures fabricated by secondary industries in Jubail for the last few years. Nine berths are dedicated for handling bulk solid materials such as the export of sulphur and chemical fertilizers and for the import of iron ore. Eleven berths are available for handling bulk liquid products such as petrochemical and refined petroleum products.

Cargo handling operations started in 1402H (1982G).

The Custodian of the Two Holy

Mosques, King Fahd bin Abdul Aziz Al-Saud inaugurated the port on 12 Shaban 1403H (24 May 1983).

To date, more than (140) million tonnes have been handled, with 5,726 ships calling at the port.

PSA's New Container Terminal Officially Opens

Brani Terminal, Port of Singapore Authority's new container terminal on Pulau Brani, will be officially opened by Prime Minister Mr Goh Chok Tong on 22 Oct 92.

The ceremony will take place at Berth 4, Brani Terminal. About 400 guests, including the Minister for Communications, Mr Mah Bow Tan, senior government officials and statutory board representatives, major port users and shipping association representatives will join PSA in commemorating this milestone event.

Brani Terminal will help PSA excel as a global hub and take Singapore one step further in its position as a premier maritime centre. When fully completed in 1994 with 5 main and 4 feeder berths, Brani Terminal will have a handling capacity of 4.8 million TEUs (twenty-foot equivalent units). Together with PSA's other terminals at Tanjong Pagar and Keppel, Brani Terminal will boost PSA's total container handling capacity to 13 million TEUs.

Brani Terminal marks a new generation in container handling and reflects PSA's commitment to investment in long term development in order to stay ahead of the latest trends in container shipping services. Costing a total of \$1,400 million, Brani Terminal, when its operations are fully onstream, will have a high degree of automation. It will extensively apply sophisticated technology and computer systems to its operations.

PSA will also use Brani Terminal to serve as a test bed for new technology to be developed for its terminals of the future. This will generate new capability and great capacity for better customer service to PSA's port users in the years ahead.

Speech by Prime Minister

Modern Singapore began as a port on the banks of the Singapore River.

In 1823, Raffles declared:

"...the Port of Singapore is a Free Port and the Trade thereof is open to ships and vessels of every nation free of duty equally and alike to all..."

His free trade policy laid the foundation for Singapore's development. It gave the impetus for the growth of the riverine port. Chinese junks, Indian opium clippers, Thai Wangkangs and Indonesian Palaris began to drop anchors here. By 1827, exports from Singapore reached \$45 million. The population then only numbered 11,000.

This trade continued to grow and more and more ships came. By 1965, Singapore was the world's 5th busiest port, in terms of shipping tonnage. By 1982, it became the world's busiest. Two years later, it became the world's top container port, overtaking Hong Kong. And for the last five years, the Asian Freight Industry has voted Singapore "the Best Port in Asia".

Singapore is now more than a world-class port. It is a global maritime hub, living up to Raffles' vision. This offers considerable advantages to our businessmen. They can bring in and send out their products from and to all parts of the world easily, quickly and cheaply. With many shipping lines and sailings to choose from, they save time, stocks and money.

Our well-connected port also benefits our neighbours. By using Singapore as their hub port, their exports enjoy the same advantages as Singapore's. indeed, this was what an Indonesian Minister told me recently when I was in Jakarta for the Non-Aligned Movement Summit. He said that the efficiency of our port and the availability of numerous sailings helped their exports.

Our port has become a global maritime hub because of farsightedness. PSA took a long view. It planned and built ahead of demand. Its forecast of cargo traffic turned out right and its efficiency helped to make it so.

The Brani Terminal is a good example. Though the project was given the go ahead in 1988, it was conceptualised more than 10 years ago.

Today, even as we formally open the terminal, work is already underway for its Phase Two Development. The entire Brani project is scheduled to be completed in 1994. But that is not the end of the story. For Singapore to stay ahead, it must plan way ahead. Two years ago, PSA started to plan yet another new container terminal, bigger than Tanjong Pagar and Brani put together. It will be located at Pasir Panjang.

The Pasir Panjang project will make

Singapore a mega port. It will be designed to handle up to 36 million TEUs (container units) a year, nearly three times the current total container handling capacity of the PSA. It will serve Singapore well into the 21st Century.

The project will be carried out in phases over many years. Phase I, which



PSA's new Brani container terminal, when completed in 1994, will have a total of 15,000 ground slots over 80 hectares of land. It will have a container handling capacity of 4.8 million containers annually. Its rubber-tyred gantry cranes that stack containers eight across and seven high also makes PSA the port with one of the highest stacking densities in the world.

will begin next year, will cost more than \$2 billion. By comparison, the Brani Terminal, when fully developed, will cost \$1.4 billion. PSA will reclaim 129 hectares of land off the West Coast to build eight container berths. The first three berths should be ready by 1997.

The transformation of our port, from riverine, to conventional, to container. is made possible only because our port workers are willing to be trained and retrained, and are capable of acquiring new skills and new technologies. The port worker of today has a very different job from the early immigrant coolies and lightermen in the harbour. He does not have to break his back and walk precariously on planks. The Singapore port is one of the most advanced in the use of Information Technology. Almost all documentation on shipping and cargo are now transmitted electronically. Computerised expert systems are used to plan, monitor and manage the operations in the port. The port worker is now therefore more computer-literate and multi-skilled.

This megaport will be a high-tech port. The new Pasir Panjang Terminal will be automated. PSA is spending millions of dollars on research and development to introduce unmanned operations for this terminal.

Singapore is one of the top ports in



the world. I congratulate the management and workers for gaining us this reputation. Those in charge have shown that they possess the same vision and faith that Raffles had in Singapore. I have every confidence that Singapore will remain one of the great free ports in the world, open to all ships and vessels of every nation that come to trade.

It now gives me great pleasure to officially declare the Brani Terminal open.

Technology at Terminal

Brani Terminal, often termed as PSA's high tech/high touch container Terminal, will be supported by a wide range of computer applications, from expert planning systems to real-time operational systems. In addition, there will be CCTV surveillance to ensure safety and security within the terminal and at Gate 4.

Computer-Integrated Terminal Operations Systems (CITOS)

CITOS was designed to plan and direct all operational moves in the container terminals in real time mode enabling all terminal resources to be fully utilised. Various applications have been designed under CITOS, including expert systems for complex planning tasks and fault-tolerant computer systems to direct operational moves for optimum efficiency.

Expert Planning Systems

Expert systems like the Ship Planning System (SPS) and the Yard Planning System (YPS) will speed up turnaround time of vessels. The YPS will place the containers adjacent to the berth, while the SPS will facilitate stowage of containers on board vessels enabling greater operational efficiency. Other expert planning systems, like the Berth Allocation System ensure that as many vessels as possible are berthed on arrival.

Operations Systems

A Yard Control Computer will centralise operations in the terminal. The centre receives and disseminates real-time information critical to the smooth functioning of all terminal operations such as traffic movement, yard and vessel operations.

Information and instructions will be relayed via a wireless data communication system, the Mobile Radio Data Transmission System (MRDTS) to the data terminals onboard the container handling equipment. Through touchscreen terminals, the equipment operators will be able to view the next container job and be provided with all relevant information for other handling such as the location, sequence of loading or discharging of containers. He will also be able to update the information upon completion of the job via this touch screen terminal. With more accurate and timely information, containers will not be misplaced. This system also ensures better matching of supply and demand of resources, resulting in faster vessel turnaround time.

At Brani Terminal Gate 4, the Gate Automation System makes use of a comprehensive network of CCTV cameras, electronic sensors and transponders to identify the right containers. Touch-screen computers for faster processing of containers are also used. Not only are paper documents eliminated but the time spent at the gate has been halved to 45 seconds. The automation at the gate will be further enhanced by the introduction of the Container Number Recognition System (CNRS) and the automatic lifting of the barrier gates.

Implementation of CITOS

CITOS is currently being implemented in phases. The various modules are being gradually introduced and integrated so that staff are better trained and customers familiarised with this new automated mode of operations. Together with a team of experienced and trained staff, Brani will be geared for higher speed, efficiency and productivity.

Fact Sheet — Brani Terminal

Location: Pulau Brani, south of Singapore Date of commencement of construction: Early 1990 Date of completion: 1994 Date of commencement of operations: end-1991 (two berths in operation)

Facilities	1992	Fully completed (1994)
• Total Area	36 ha	80 ha
• Handling capacity	0.75 mil TEUs	4.8 mil TEUs
• No. of Groundslots (TEU)	5,500	15,000
 For DG Containers 	187	187
• No. of berths	2 main	5 main
	1 feeder	4 feeder
• Berth Length	760 m	2,600 m
• Depth Alongside		
- Main Berth	15 m	15 m
— Feeder Berth	12 m	12 m
• Quay Cranes		
— Single Trolley	6	27
 Double Trolley 	4	4
• Rubber-Tyred Gantry Cranes	40	107
• Rail-mounted Gantry Cranes		5
• Prime Movers		
— Single PM	12	52
 High Density PM 	40	128
• Trailers		
— Single Stack	12	58
- Double Stack	40	134
• Power Points for reefers	192	704
• Causeway	330 m	330 m
• Gate	14 lanes	14 lanes



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OTAS: Transtainer[®] Automatic Steering System
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 OPOS: Portainer[®] Operation Supervising System



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