



The Publisher : The International Association of Ports and Harbors

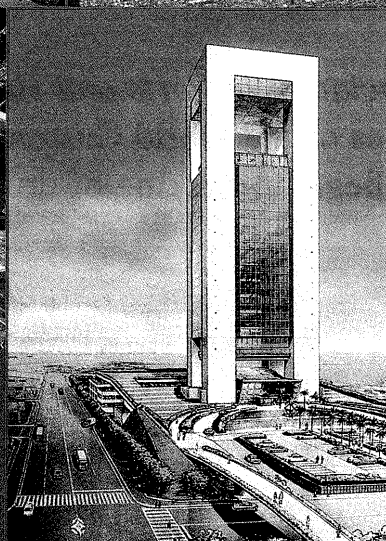
# Ports & Harbors

昭和44年11月15日  
第三種郵便物認可  
平成10年5月号  
平成10年4月20日発行  
第43巻 第4号  
(毎月1回 20日発行)  
ISSN 0554-7555

May  
1998  
Vol.43  
No.4



**Container Terminal:**  
Yokkaichi Port has two container berths with three gantry cranes available at the same time. The "2-berth, 3-berth crane" operating system and Yokkaichi Port International Freight Center combine to offer fast and efficient cargo handling services.

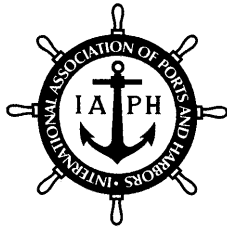


The year of 1999 falls on the 100th anniversary of the opening of Yokkaichi Port. In commemoration of the centennial, a building of 100-meter height, tentatively called "Yokkaichi Port Building," will be constructed at Kasumigaura Area in 1999.

## Port of Yokkaichi

### Inside:

• IAPH Develops Cargo Statistics Guidelines • Quality Pilotage: Charting the Future • The Needs of Port Authorities • Peruvian Ports: Cost Reductions and High Security • Asian Economic Crisis Affects US Coal Trade • ESPO Welcomes EC's Green Paper on Ports • Malta: Valletta Cruise Terminal Development Initiated • Turkey: Rapid Increase in Container Transport • Pusan: 80% Reduction in Port Dues and Anchorage Charges



Since 1955

Join us in IAPH's endeavours to pursue

## **World Peace Through World Trade World Trade Through World Ports**

**IAPH supports all efforts to prevent illegal trafficking  
of drugs!**

Drug Trafficking through seaports is a global problem requiring vigilance and the co-operation of the World's Port Communities.

World Ports must accept their responsibility to the World Community by working together to enhance security measures and improve communication of information to fight the illegal movement of drugs through ports.

The *International Association of Ports and Harbors* (IAPH) fully supports the efforts and initiatives of the World Customs Organization (WCO) in their fight against the illegal trafficking of drugs through ports.



**IAPH will meet in Kuala Lumpur Malaysia  
from 15 to 21 May, 1999,  
at its 21st World Ports Conference**

**Conference Theme: Global Trade Through Port Co-operation**

**Conference Host: The Klang Port Authority**

IAPH Head Office  
Kono Building  
1-23-9 Nishi Shinbashi  
Minato-ku  
Tokyo 105-0003  
Japan

Tel: 82-3-3591-4261  
Fax: 81-3-3580-0364  
E-mail: [info@iaph.or.jp](mailto:info@iaph.or.jp)  
E-mail (alternative): [iaph@msn.com](mailto:iaph@msn.com)  
Web site: <http://iaph.or.jp>  
Telex: 2222516 IAPH J

## IAPH Officers

### President:

Jean Smagghe  
Executive Vice-President  
International Affairs of  
Association of French  
Ports (UPACCIM)  
France

### First Vice-President:

Dominic J Taddeo  
President & Chief Executive Officer  
Port of Montreal  
Canada

### Second Vice-President:

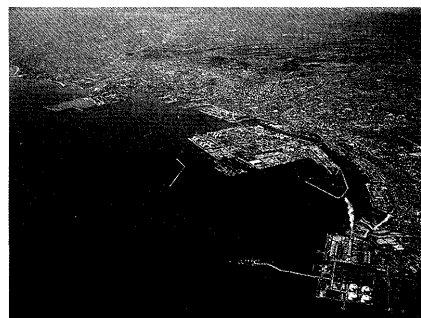
Akio Someya  
Executive Vice President  
Nagoya Port Authority  
Japan

### Third Vice-President:

Pieter Struijs  
Vice Chairman/Executive Director  
Shipping  
Rotterdam Municipal Port Management  
Netherlands

### Conference Vice-President:

O C Phang  
General Manager/Chief Executive  
Klang Port Authority  
Malaysia



## Port of Yokkaichi

**Y**okkaichi Port will celebrate its centennial in 1999. The port has been playing a vital role as a major international trading port in Central Japan and an energy supply base, with some of Japan's leading petrochemical complexes nearby. Related article on page 29.

## Contents

### IAPH ANNOUNCEMENTS & NEWS

|   |   |
|---|---|
| Trade Policy Committee Develops Cargo Statistics Guidelines .....   | 3 |
| CMI Centenary Conference: Antwerp 9/13 June 1997 .....  | 4 |
| TT Club's Terminal Security Booklet Sent to IAPH Members • S.Y. Tsui<br>Succeeds Ian B. Dale as Director of Marine, Hong Kong ..... | 7 |
| Visitors • Membership Notes .....   | 8 |

### OPEN FORUM

|  |   |
|--|---|
| Quality Pilotage: Chartering the Future – The Needs of<br>Port Authorities by John Hirst (AAPMA) ..... | 9 |
|--|---|

### INTERNATIONAL MARITIME INFORMATION

#### WORLD PORT NEWS

|   |    |
|---|----|
| UNEP IE Package on Accident Prevention • ICS Publishes Guidelines<br>on Garbage Management • New Publications .....   | 11 |
| <b>The Americas</b>   |    |
| World's Largest Floating Crane Calls Port of Halifax • OOCL Returns<br>to Halifax on the Grand Alliance • Peruvian Ports: Cost Reduction,<br>High Security .....  | 15 |
| 9-month US Port Traffic Valued at \$462 Billion .....   | 16 |
| Asian Economic Crisis Affects US Coal Exports • 'OOCL China' 1st Alliance<br>Ship to Call at LBCT • Maryland Port: Marine Terminal Upgraded .....   | 17 |
| Construction of Hyundai Terminal at Full Speed • Port of Tacoma Records<br>Best Year Ever in 1997 .....   | 18 |
| <b>Africa/Europe</b>  |    |
| ESPO Welcomes EC's Green Paper on Ports .....   | 18 |
| Rail and Waterways Win Bigger Share in Antwerp • Helsinki:<br>Specialist in Unitized Cargo Traffic .....  | 19 |
| Bremerhaven: Navigation Channel to Be Dredged • Hamburg 7th in World<br>Container Ports' League • Port of Cork: Traffic Reaches New Heights .....   | 21 |
| Economic Value of Cork's Cruise Liner Traffic • Malta Initiates<br>Valletta Cruise Terminal Project .....   | 22 |
| Amsterdam: Another Record-breaking year .....   | 23 |
| Göteborg Cargo Traffic Over 30 Million Tonnes • Post-panamax<br>Container Cranes to Port Göteborg • Turkey: Rapid Increase<br>in Container Transport .....  | 24 |
| ABP's Port Talbot Dock Gets New Lease of Life • London Planning<br>on Cruise Into the Millemmum .....   | 25 |
| <b>Asia/Oceania</b>   |    |
| Brisbane Will Donate €750,000 to Centre .....   | 25 |
| Comments Sought on 'Gateway Ports Area' • Hedland: DUKC System<br>for Ship Operations • Sydney Container Trade Up 10%<br>for First Half .....   | 26 |
| Sydney Ports Appoints Trade Rep to SE Asia • PPA: Nationwide Plan<br>to set Up Waste Facilities • PPA: Empty Containers Exempt<br>From Wharfage • PPA Now on the NET .....                                | 27 |
| Pusan: 80% Reduction in Port Dues, Anchorage .....  | 28 |
| Yokkaichi Centennial in 1999, Facilities Expanded .....   | 29 |
| Subang Conference by Asean Port Association .....   | 30 |
| Singapore Best Port (Asia), PSA Best Operator • PSA First to Handle<br>100 Million Containers • Singapore: Fund 92 Now in Force Re<br>Oil Pollution • Dalian: New Record in Cosco Vessel Turnaround ..... | 31 |
| Singapore: Joint Venture for Car Logistics • Taichung: New Gateway<br>to Central Taiwan Area .....  | 32 |

# 1877

## Following a Tradition

We are proud of our heritage stretching back over 100 years. Moulded in the Hanseatic business tradition, we confidently face the future and embrace its new opportunities. In this spirit - full speed ahead.

# 1998

## Forging Ahead

Globalisation presents new challenges. We have restructured our business to recognise these demands and make us faster and more responsive in global competition. The new BLG and its subsidiaries stand for competence and service in transport, cargo handling and logistics. Serving our customers. World-wide.

# BLG Logistics Group

- BLG Container
- BLG Automobile Logistics
- BLG International Logistics
- BLG Forest Logistics
- BLG Project Logistics
- BLG Technical Services
- BLG Data Services



You can find out more about the BLG Logistics Group by contacting us:

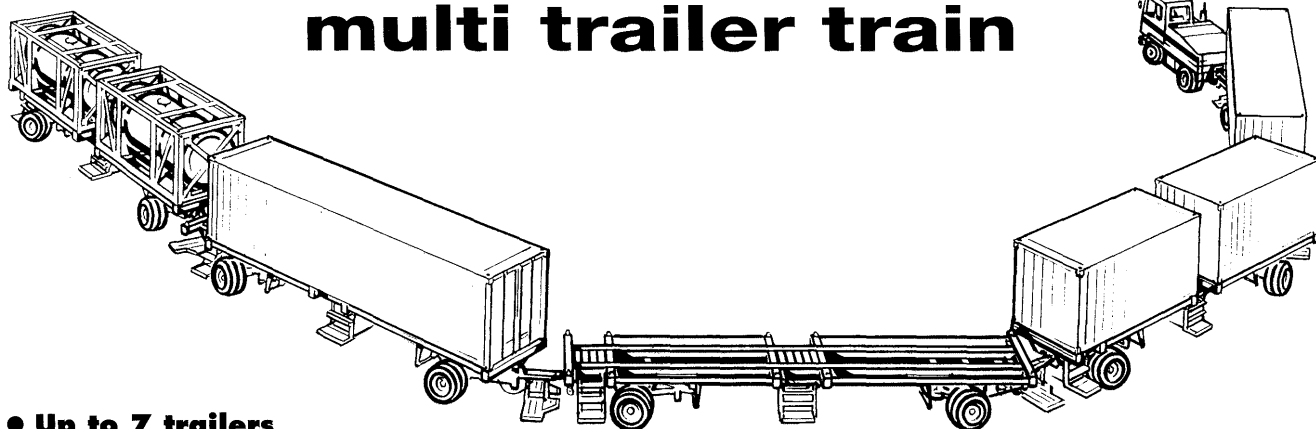
BLG Bremer Lagerhaus-Gesellschaft AG & Co. · Hafenstr. 55 · D-28217 Bremen · Germany  
Phone: 49-421/398 - 3484 · Fax: 49-421/398 - 3404  
<http://www.blg.de> · E-mail: 106003.3144@compuserve.com

**BLG**  **HOLDING**

© UDO ZEWASKI · HB · HI

# the sign of quality

## multi trailer train



- Up to 7 trailers behind 1 tractor
- Fully automatic coupling
- All trailers remain in the same track
- Special braking device and other features
- Over 10 years of reliable operation in the Port of Rotterdam

is the sign of ***buisca*** holland

Phone (0)55/5330955 - Fax(0)55/5333476 - Telex 36334

TRAILERS BUILT TO LAST

P.O. Box 1426 - 7301 BR Apeldoorn

7001



# IAPH ANNOUNCEMENTS AND NEWS

## Trade Policy Committee Develops Cargo Statistics Guidelines

ON 17 March, the Secretary General sent out a printed copy of guidelines for the collection and analysis of port trade statistics. The guidelines were adopted by IAPH at its 20th World Ports Conference held in 1997 in London, U.K.



Lillian C. Borrone

The guidelines were developed by the Statistics Sub-committee of the IAPH Sea Trade Committee (which has now been renamed the Trade Policy Committee), chaired by Lillian C. Borrone, Director of the Port Commerce Department of the Port Authority of New York and New Jersey. The Sub-committee was led by Mr. Fraser McKenzie, Chairman of the Port of

Tauranga, New Zealand.

The guidelines are intended to assist ports with a general approach to the collection and analysis of seaport statistics. They were developed in consultation with more than 50 representatives of interested organizations around the world.

The Committee recognized the difficulty of creating guidelines that provide consistency while meeting the needs of a diverse international community. The guidelines that follow are a first effort at providing brief but comprehensive guidance. IAPH will monitor comments and suggestions concerning the guidelines and will revisit the issue as required.

The Secretary General in his circular says, "IAPH wishes to thank all those people who helped develop these valuable guidelines."

## Trade Policy (formerly Sea Trade) Committee Cargo Statistics Guidelines

### **BASIC PRINCIPLES:**

- 1) Cargo types should facilitate analysis and provide a basis for international comparison.
- 2) Information on cargo by type should be readily available and capable of being accurately measured.
- 3) Definitions should be applicable throughout the world, whether used by a large or small port, a specialized "niche" port, or a port providing a broad range of services.

### **CONTAINER CARGO:**

That cargo which moves in containers. This includes cargo moving not only in 20/40/45 foot dry containers, but also moving in standard tank containers, flat-racks, refrigerated containers, open tops, half-highs, etc.

The number of containers is to be recorded by size (ISO 20 feet, ISO 40 feet, non-standard ISO), gross weight whether full or empty, direction of

movement (inbound, outbound) and by major container type (i.e. dry, refrigerated, tank containers).

### **BREAK-BULK CARGO:**

Non-containerized cargo that is moved on or off a ship on a piecemeal basis without using any bulk cargo handling equipment. This includes unitized cargo (moving on pallets stowed in cargo holds), or pre-slung, but not in containers.

Cargo should be recorded by weight and type.

### **DRY BULK CARGO:**

Any loose or unpackaged solid.

This cargo moves in large quantities, usually in special purpose ships.

Often the cargo is discharged or loaded using automated handling systems.

Examples include grain, ores, etc.

### **LIQUID BULK CARGO:**

Liquid cargo moving in large quantities using special purpose tank ships, or in deep tanks of other ship types.

Liquid bulk cargo should include four subcategories: 1. Liquid Gas (LNG and LPG), 2. Chemicals, 3. Hydrocarbons and, 4. Liquid Bulk not elsewhere specified.

### **WHEELED CARGO:**

Cargo loaded using wheels on/off ships, whether the wheels are part of the commodity, or cargo is placed on wheels for the purpose of mobility (i.e. heavy machinery on mafis).

Wheeled cargo should include three subcategories: 1. Automobiles, 2. Trucks and Buses, and 3. other self-propelled equipment. (Vehicles moving in containers are to be classified as container cargo.)

### **PASSENGERS:**

Number of passengers embarking or disembarking on ship.

Passenger counts should include three subcategories: (1. Ferry Passengers, 2. Cargo Ship Passengers, and 3. Cruise Ship Passengers).

### **LIVESTOCK:**

Head count and weight of animals loaded and discharged.

### **GEOGRAPHIC CONCERNS:**

Cargo movements are to be distinguished by their origin and destination.

Categories should include: 1. National Cargo (a. waterborne imports, b. waterborne exports, c. waterborne cargo inbound from the same country as the port, and d. waterborne cargo outbound to the same country as the port), 3. Trans-shipment (inbound by water and outbound by water through the port with an ultimate origin and destination outside of the country), and 4. Transit (inbound or outbound by water with an inland origin or destination in a different country than the port.)

### **UNITS OF MEASUREMENT:**

Metric tonnes and number of units by type (ISO containers, non-ISO containers, vehicles, passengers, animals, etc.). Ports should use the United Nations' 5-digit port identification codes to identify themselves.

# CMI CENTENARY CONFERENCE

Antwerp 9/13 June 1997

## SUMMARY

**By Marcel-Yves Le Garrec**

*IAPH Liaison Officer with the CMI*

*(submitted to the Secretary General on 16 March 1998)*

**T**HE International Maritime Committee (CMI) held its 36th Conference from 9 to 13 June 1997 in Antwerp. It coincided with the centenary anniversary of its foundation and enabled the Committee to pay homage to the major role played by Belgium in the birth and evolution of the CMI.

The Belgian Association of Maritime Law was responsible for the organisation of the event and the quality merits being highlighted both with regard to the intensity of the work programme and the hospitality offered to participants by Belgium, as well as the town and port of Antwerp.

Before the plenary session, devoted to the "Future of the CMI", eight working sessions covered the following subjects.

### 1. Off-shore mobile craft:

The decision was made that the International Sub-committee appointed to work on this topic should continue to do so and to deal first with mobile craft, and from there possibly extend its work to cover fixed structures.

### 2. Toward a Maritime Liability Convention:

Such a convention would pose a problem of coordination with the conventions already in force, given that there is already a global limitation convention (LLMC 1976 and 1996 protocol).

A third party liability convention does not seem to be a real necessity. However, the idea is attractive and such an instrument could be a "model law" in a non legislative approach.

### 3. EDI:

It is necessary to place the bill of lading as a shipping transaction in the context of the transportation chain.

Considering the transfer of negotiability, the transfer of rights and the



transfer of liability, it is essential to formulate rules for the electronic transfer of goods in transit rather than rules for electronic bills of lading only.

### 4. Collision and Salvage:

The Legal Committee of IMO has encouraged the CMI to continue to monitor the problems which arise in practice.

### 5. Wreck Removal:

Port Authorities are not really involved by the WRC unless it is extended to territorial waters by member states or if access channels leading to port facilities extend beyond territorial waters (island ports off the coast).

It can be noted that there would be obligatory insurance but the mechanism remains to be debated from the point of view of the limitations of liability and the possibility of escaping liability because of the malfunctioning of navigational aids.

Some questions remain as far as the coastal state is concerned as to competing claims of competence between several coastal states or lack of interest from the competent one, or default by the shipowner.

### 6. Maritime Liens and Mortgages - Arrest of Ships:

Several questions were raised. As far as the revision of the convention on the arrest of ships is concerned, the IAPH observer drew attention to the point of view of the ports recalled in the position paper adopted during the 20th IAPH Conference held in London in June 1997.

It was answered that, if it is true that the procedure differs from one country to another, the JIGE (Joint Intergovernmental Group of Experts) considers that, for the moment, the problem cannot be covered by an international convention but depends on national law. Nevertheless, this

might change if the Diplomatic Conference takes into account the necessity of persuading the states to take measures in this way.

### 7. Classification Societies:

The Antwerp Conference confirmed that there was a consensus on the principles of conduct and the model clauses proposed including the limitation of liability of classification societies.

The limitation of CS liability would be an interesting break in the argument based on the "fortune de mer", which justifies the limitation of the shipowner's liability while refusing to limit the liability of the other parties (for instance, port authorities).

### 8. Uniformity of the Law of the Carriage of Goods by Sea:

The proliferation of international conventions and national codes creates confusion, and at some stage, a solution to this lack of uniformity will be required.

The Plenary Session was devoted to the "Future of the CMI". The CMI seemed to have shrunk since the fifties when the UN Agencies decided to become more involved in the preparation of the international legal texts and under the influence of the newly independent countries which did not recognize themselves in the CMI "dominated", said the China delegation, by the Euro association".

Furthermore, some delegations criticized the CMI for being too devoted to the carriers of the goods (shipowners) and not to all the participants in the carriage of goods (cargo and shippers are excluded).

But the question was asked if it was not in the national association that this had happened in the first instance.

In conclusion all the delegations, including those from developing countries, considered that the CMI ought to continue its work by working on draft projects and by ensuring assistance to the international organisations and to the countries concerned in the development of maritime law. At the same

time, it was said that maritime industries and the legal profession should

become more involved.

## **Note by the IAPH Head Office:**

**F**URTHER to the above report summarizing the eight sessions of the CMI Conference, we introduce in this issue two reports in full: 5. Wreck Removal and 6. Maritime Liens and Mortgages – Arrest of Ships. In case any IAPH members wish to obtain the other reports, they will be available upon application to the Tokyo Secretariat.

## **WRECK REMOVAL**

One of the afternoon conferences of the first day was devoted to considering the draft Wreck Removal Convention, which is currently under discussion in the Legal Committee of IMO.

This draft convention had been prepared by the delegations of Germany, the Netherlands and the United Kingdom. The task of the CMI Sub-Committee is to study the rules governing Wreck Removal and to render assistance in connection with the work of the Legal Committee.

The chairman's preliminary report and a questionnaire had been circulated in March 1996.

Certain aspects of international law and a comparative analysis of national laws relating to Wreck Removal were examined by several members of the Sub-Committee.

These different studies have been submitted to the Legal Committee.

At its meeting in October 1996 the Legal Committee had decided to establish a correspondence group to consider certain key questions including the geographical scope of application and the relationship between this convention and other conventions.

The replies to the CMI questionnaire indicate that in most countries the authorities can, under the present rules, take any appropriate action outside their territorial sea in pollution cases. Some countries (the Netherlands and Denmark) also take such steps outside their territorial waters if the wreck is a danger to surface navigation.

But this seems to be restricted to waters where the authorities maintain the marking of fair-ways or where there is sea-borne traffic to and from ports in the country. Other countries (Germany) consider it impossible to take such steps and have faced difficult legal problems with the elimination of hazardous wrecks located beyond their territorial waters and over the reimburse-

ment for the costs incurred. These countries therefore feel the need for a convention on Wreck Removal relating to the waters beyond the territorial waters.

The very broad application of such a convention to all waters outside territorial waters would be highly controversial.

Another question to be considered is whether the national regimes for Wreck Removal within the territorial waters have so many similarities that it could be possible to include these areas within the scope of the WRC.

Since the majority of Wreck Removal cases will relate to wrecks within the territorial sea, it would be important to obtain widespread international unification of the rules.

Some standardization may be obtained as a result of the system introduced in the draft WRC under which a state party can decide that the convention is applicable to its territorial sea; however, there would be much greater uniformity if the WRC by itself were applicable also to national waters but

permitted a state party to exempt such waters from the application of the convention.

The Legal Committee will be notified of the result of the discussions in Antwerp.

In conclusion, Port Authorities are not really involved by the WRC unless the convention is extended to territorial waters by member states, or if access channels leading to port facilities extend beyond territorial waters (island ports off the coast).

Taking into consideration the duties of the owners of ships involved in a casualty, it can be noted that there would be obligatory insurance (the provision of justification for financial solvency and liability insurance), but the mechanism remains to be debated from the point of view of the limitations of liability and the possibility of liability being avoided because of the malfunctioning of navigational aids.

As far as the coastal state is concerned, this state has some duties (marking the wreck, monitoring the contractor mandated to remove the wreck, removing the wreck in the case of default) but some questions remain. For instance, what will happen in the case of competing claims of competence between several coastal states, or in the case of lack of interest from the competent coastal state, for example if the cost of the removal is greater than the limitation of liability, or in the case of default by the owner? In the last instance, will it be possible to ask the Flag State for a financial contribution?

## **MARITIME LIENS AND MORTGAGES ARREST OF SHIPS**

### **1. Convention on Maritime Liens and Mortgages**

1.1. The panel discussion was based on an analysis done by Pr BERLINGIERI on the provisions on the 1993 Convention in the light of the previous conventions and the "travaux préparatoires".

The study on the revision of the two Conventions on Maritime Liens and Mortgages started with an investigation into the reasons why the 1926 Convention had not been ratified by Common Law countries, whilst the 1967 Convention had not even come into force.

After having presented the history of the unification of the law on maritime

liens and mortgages through the work of the CMI and the 1926 and 1967 Conventions, the BERLINGIERI report is an analysis of the provisions of the 1993 Convention through its precedents, commencing from the 1926 MLM Convention, through the travaux préparatoires of the Lisbon Draft and finally the work of the Joint Intergovernmental Group of Experts (JIGE).

IMO and UNCTAD decided to place in their work programmes the revision of the two Conventions.

Through a questionnaire prepared by the Chairman of the International Subcommittee set up by the CMI, it appeared that the 1926 Convention was

considered unsatisfactory by the National Associations of the countries which had not ratified it and obsolete by many Associations of the countries which had ratified it. As for the 1967 Convention, it was considered satisfactory, save minor changes, by a large majority of the Associations.

A new Draft Convention prepared by the Sub-committee was submitted and approved (with certain changes) at the Lisbon Conference.

1.2. IMO and UNCTAD decided to deal jointly with the subjects of maritime liens and mortgages and the arrest of ships and to establish a joint working group of experts (JIGE) with the following mandate:

To examine the subject of the maritime liens and mortgages conventions and possible consideration of:

- the review of the MLM Conventions and related enforcement procedures, such as arrest,
- the preparation of model laws or guidelines on maritime liens, mortgages and related enforcement procedures such as arrest,
- the feasibility of an international registry of maritime liens and mortgages.

The Diplomatic Conference held in Geneva from 19 April to 6 May 1993 established the text of a new International Convention on Maritime Liens and Mortgages based on the Lisbon proposal.

1.3. During the panel discussion in Antwerp, it appeared that the link between the MLM Convention and the Ship Arrest Convention was not necessary, each claimant having the right to arrest a vessel.

Some national associations declared that they would not approve the ratification of the 1993 MLM Convention because the claims corresponding to ship maintenance expenses are no longer in the list of maritime liens of Article 4.

It was answered that such claims could be reintroduced through Article 6 which makes it possible for each state party to grant, under its own law, other maritime liens to secure claims.

The question of the efficient protection of cargo has been raised, given that the cargo claims come after all the other maritime liens and mortgages (through Article 6).

The 1993 Convention is a compromise and Article 6 provides an opportunity to grant other maritime liens, but does not impose an obligation to do so.

Another question raised was: Is it possible to arrest a ship under the 1993

MLM Convention if the claimant has no maritime liens and if the claim is not against the owner (for example for a stevedore having a contract with the charterer)? The answer is no.

- Provisional registration after a de-registration: Do the liens survive? This is only possible if all mortgages and hypothèques have been registered. The convention deals only with a definitive registration.

## 2. Revision of the 1952 Convention on the Arrest of Ships

2.1. In May 1993, the United Nations/IMO Conference, having adopted the new Convention on Maritime Liens and Mortgages on the basis of the draft prepared by the JIGE, approved a resolution in which it recommended that "the relevant bodies of UNCTAD and IMO reconvene the Joint Intergovernmental Group with a view to examining the possible review of the International Convention for the Unification of Certain Rules Relating to the Arrest of Sea-Going Ships, 1952".

JIGE decided to take as a basis of its work the draft of a new Arrest Convention approved by the Lisbon Conference of the CMI, and has discussed most of the article.

2.2. During the panel discussion at the CMI Centenary Conference, the travaux préparatoires of the Draft Articles were described by Mr. Karl-Johan GOMBRII, the last chairman of JIGE; three sessions were devoted to the Arrest Convention. After the 1994 session under the chairmanship of Mr. George IVANOV, draft articles were prepared by the IMO and UNCTAD Secretariats.

After some discussion at the 1995 session held in London under the chairmanship of Mr. IVANOV, JIGE decided to use the Draft Articles as a basis for its deliberations, and undertook that the outcome of the work would be embodied in a new convention rather than a protocol.

At the 1996 session in Geneva, under the chairmanship of Mr. Karl-Johan GOMBRII (Mr. IVANOV having retired), JIGE reviewed the Draft Articles and, at the end of the session, adopted a recommendation proposing to the General Assembly of the United Nations the convening of a Diplomatic Conference to adopt a new convention on the basis of the work done by the group of experts.

2.3. Several questions were raised during the panel discussion at Antwerp, in particular the following points:

- The IAPH observer drew attention to the point of view of the ports recalled in the position paper adopted during the 20th IAPH Conference held in London, in June 1997.

"Throughout the world, ports are the unwilling hosts of arrested vessels which can block major berths for months and even years. In small ports, this can greatly affect the activity of the port, the traffic, the commercial operations and the activity of other users."

Furthermore, when ships' agents resign their office, safety and protection measures for the vessels and the environment depend upon the initiatives of the Port Authority alone.

The draft convention which is to be submitted to the Diplomatic Conference after its adoption by the group of experts in Geneva deals with the issue as if it were only a commercial law agreement between the claimants and the sued parties and, despite the proposal of the French delegation, supported by several other delegations, and the demand of the IAPH representative, this text does not mention the fact that the detention of an arrested ship cannot take place other than within the domain of a third party, the host port, which can have its own interest.

The draft text leaves major points to be settled without mention, by national and procedural legislation. This is not consistent with the universality aimed at by maritime law.

The ports consider that the Diplomatic Conference should be aware of the following points:

- The Convention should mention that the arrest and detention of a ship take place in a port,
- The competent authority responsible for navigational safety should be in a position to settle all safety measures to be taken (location of the ship, crew to be kept on board, unloading of HNS or perishable cargo, maintenance of mooring lines, lights, etc).
- In the event of default by the shipowner, the claimant should bear the port dues and costs incurred by the arrest and detention of the ship (which should be in conformity with the principal of common law). This arrest and detention should be limited in time before release, renewal or conclusion by the enforced sale of the ship.

Ports consider that it would be most useful if the preamble to the Convention include a reference to the needs of future legislation at national level to protect the interests of ports and other parties involved.

Such legislation already exists in cer-



tain national laws but it should be generalised within the preamble of the Convention in order to fill the gaps left by the Convention itself.

Pr BERLINGIERI admitted that the procedure differs from one country to another but suggested that, if there is in some countries a real problem about protecting port interests, JIGE considers that, for the moment, this problem cannot be covered by an international convention. It depends on national law. Maybe the situation will change if the Diplomatic Conference takes into account the necessity of encouraging the states to take measures in this way.

- The question of a closed list of maritime claims (Article 1) giving the right

to arrest has been raised. Some consider that it should be possible to arrest a ship for the debts of the charterers and not to dissociate the charterer and the owner. This has been developed by the French Cour de Cassation through "la théorie des apparences". But today, if it is not possible to arrest for the commercial debts of the charterer, it is possible to do so for debts concerning the safety of the ship. It has been pointed out that, today, 75 % of goods are transported by chartered ships. This implies a possible action against the contractual carrier and the performing carrier:

- Some participants debated whether it should be determined whether or not the notion to impose upon the claimant

the obligation to provide security of a kind and for a given amount should be an obligation rather than a possibility.

But some delegations considered that the "may" should not be a "shall" because the Court must be free to impose simple proofs as a condition of the arrest rather than imposing security.

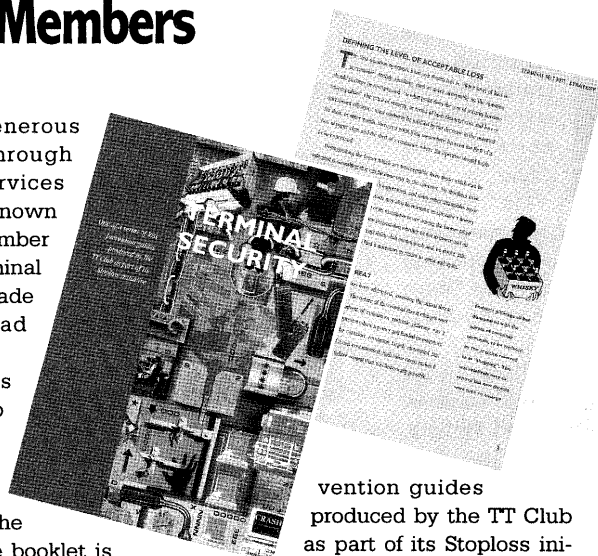
- Some delegations would have preferred to amend the 1952 Arrest Convention rather than adopting a new Convention. But this was not the general feeling.

The Diplomatic Conference dealing with the new Arrest Convention should be convened at the end of 1998 or in early 1999.

## TT Club's Terminal Security Booklet Sent to IAPH Members

**T**HROUGH the generous arrangement of Through Transport Mutual Services (UK) Ltd., which is better known as TT Club, an Associate Member of IAPH, the TT Club's Terminal Security booklet has been made available to the IAPH Head Office.

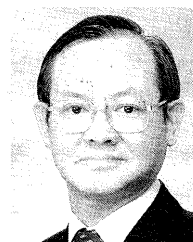
The Tokyo Secretariat has distributed one copy each to all IAPH Regular Members, with a covering letter from the Club's Chairman David Martin-Clark and one from the IAPH Secretary General. The booklet is described as one of a series of loss pre-



vention guides produced by the TT Club as part of its Stoploss initiative.

## S.Y. Tsui Succeeds Ian B. Dale as Director Of Marine, Hong Kong

**T**HE IAPH Head Office has recently learned from Mr. Ian B. Dale that, with effect from 6 March 1998, he was leaving his position as Director of Marine, Hong Kong, and returning his home in UK on retirement. In his letter dated 5 March to President Smagghe



S.Y. Tsui



I.B. Dale

Asia's Leading Shipping Daily.

# Shipping and Trade News

After 48 years, Shipping and Trade News continues to provide the hottest and latest information on international physical distribution activities from around the world.

For further information, just inquire by fax to

**TOKYO NEWS**

Publisher Tokyo News Service

Tsukiji Hamarikyu Bidg., 3-3 Tsukiji 5-chome, Chuo-ku, Tokyo 104, Japan

Fax: 3-3542-5086

**Special Discount Rate  
offered to IAPH members.  
New Edition Weekly  
Delivery ONLY  
US\$300/yr.  
(including postage)**

offering his resignation from the Chairman of the IAPH Marine Operations Committee, Mr. Dale comments, "I have enjoyed and been privileged to work with many of the most experienced people in the port industry and wish the Association continuing success in the future."

President Smagghe has written to Mr. Dale expressing the deep appreciation of IAPH for his efforts in support of the work of IAPH.

As Mr. Dale's successor, Mr. S.Y. Tsui has been promoted to the Director of the Hong Kong Special Administrative Region Government. Mr. Tsui, in his

recent letter to the Secretary General, says, "I will certainly continue to give our support to the Association and I shall take part in the committee activities in the future". Mr. Tsui has also taken office as the IAPH Director, and Mr. M.C. Tsang, Deputy Director, as IAPH Alternate Director.

## Visitors

ON Thursday 12 March, **Mr. Ed Altemus**, Director of Trade Development, the **Port of Corpus Christi**, Texas, USA, together with **Mr. Ichiro Iwawo**, the



From left, Messrs. Altemus, Kondoh and Iwawo

Port's Representative in Tokyo, visited the Head Office and met with Mr. R. Kondoh to exchange views on the current situation of trade involving the Texas ports and Japan.

On Tuesday 24 March, **Mr. John Fossey**, Deputy Editor, **Containerization International**, UK, visited the Head Office, where he was received by Mr. R. Kondoh. Mr. Fossey was visiting Tokyo and Hong Kong to meet with officials of various maritime industries in the region.



From left (seated), Captain Pringle, Ms. Hunt and Mr. Kikuchi

On Friday 3 April, **Captain David Pringle**, Operations Director, **Fender Care Ltd.**, a Norfolk-based company specializing in floating fenders and STS (Ship to Ship) transfer work, **Ms. Debbie Hunt**,

Marine Operations, and **Mr. Kazuhiro Kikuchi**, President of **MBC International**, an IAPH life supporting member from Yokohama, visited the Head Office, where they were received by Mr. R. Kondoh and Ms. K. Takeda. The visitors had reportedly been in Kaohsiung, Taiwan to participate in KaoPort 21 Conference - International Conference on 21st Century Shipping Development & Port Management.

On Friday 3 April, **Ms. Jenny de-Wit**, Shipping Manager, **Sydney Ports Corporation**, visited the Head Office and met Secretary General Kusaka and Deputy Secretary General Kondoh. Ms. de-Wit was heading to the Port of Yokkaichi, which marks this year the 30th anniversary of its sister-port



Ms. de-Wit (center) is pictured with Secretary General Kusaka (left) and R. Kondoh

relationship with Sydney Port. In Yokkaichi she is reportedly spending three weeks on research and field work in an exchange program specially arranged by the Port of Yokkaichi.

## Membership Notes:

### New Member Associate Member

**The World Trade Institute** [Class D] (U.S.A.)  
Address: 1 World Trade Center, 55th Fl.  
New York, NY 10048  
Mailing Addressee: Dr. Bill Clutter  
Chief Executive Officer  
Tel: (212) 346-1847  
Fax: (212) 346-1115  
E-mail: bclutter@fsmail.pace.edu  
Internet: http://www.wti.pace.edu

### Changes

**Chittagong Port Authority** [Regular] (Bangladesh)  
Mailing Addressee: Mr. Md. Rezwanul Haque  
Chairman

**Marine Department, Hong Kong** [Regular] (China)  
Director of Marine: Mr. S. Y. Tsui  
Deputy Director: Mr. M. C. Tsang

**Constantza Port Administration** [Regular] (Romania)  
Mailing Addressee: Mr. Mihaita Visoianu  
General Manager  
Tel: +40 41 611540  
Fax: +40 41 619512  
E-mail: office@apcra.eunet.ro

**Puertos del Estado** [Regular] (Spain)  
Tel: +34 91 524 5500  
Fax: +34 91 524 5502

**INTERTANKO** [Class B] (Norway)  
Visiting Address: Bogstadveien 27 B, Oslo  
Postal Address: P.O. Box 5804 Majorstua  
0308 Oslo

# OPEN FORUM

## QUALITY PILOTAGE: CHARTING THE FUTURE THE NEEDS OF PORT AUTHORITIES

By John Hirst

*Executive Director*

*The Association of Australian Ports and Marine Authorities Incorporated  
(AAPMA)*

**I**N any Australian port today, and in fact most overseas ports, the Port Authority or Corporation is the focus for the provision of a range of cost-effective, efficient services which operate at or near world's best practice at a level of acceptable risk and with operating practices required by the authority and its stakeholders to meet their individual and collective goals. The needs of the port authority and, importantly, by extension, the port community, will basically be the same – whether the port authority is in Government ownership as part of a Government department, a statutory authority, corporatized (with Government ownership) or otherwise owned.

In addition to ensuring all necessary services are provided for the port community, the port authority has to manage overall port operations, navigation services, trade facilitation, industrial relations, political issues, etc.

The services that are required are probably common to all ports in varying degrees, that is, pilotage, towage, mooring and unmooring, ships agents, terminal operators, stevedores, land transport, depots, freight forwarders, bunker suppliers, ship repairers, providers, etc., as well as the requirements of Government regulatory bodies.

Pilotage is one, and an important one, of the services required by the port community. I stress community, as although the port authority may be regarded as the focal organizing body, there may be no ongoing business for the port authority or service providers if there is a major collapse in the provision of any one service.

Thus the port authority and the service providers are dependent on each other – there should be no one group which regards themselves as better or more important than any other.

Even though pilotage is a high profile service I wish to at the start debunk the

idea that pilots are the most critical of all the service providers team. They are a member of the team, all of whom are critical in achieving the goals of a port.

Let me now turn to looking at some of the issues facing pilotage and their relationships with the port authority and the broad port community.

### **Contracted Pilotage Services**

As a result of waterfront reforms, some ports and regulatory authorities have offered pilots the opportunity to contract pilotage services to the port rather than to continue as employees of the port authority. Contracting out of the pilotage service has been the practice in some areas in Australia and in many overseas ports for many years and appears likely to continue. In general, contracting out has worked well in Australia. Where pilotage has been contracted out there have generally been improvements in efficiency, with lower costs to users and a more flexible approach to the provision of the service. This does not imply criticism of employment of pilots by those port authorities who consider this to remain appropriate.

In some cases, pilot companies have unfortunately taken time to accept that they are no longer direct employees of the port authority and there have been some difficulties in reconciling their individual needs as pilots, to the needs of the pilot contracting company. Where this has been a problem, it appears that the company is organized more along the lines of a co-operative rather than a corporation where the chief executive is empowered to make decisions on behalf of the corporation and its employees. A pilotage company where the chief executive makes a decision and agrees that decision with the port authority, yet has the decision publicly disagreed with or undermined by the other pilots/employees, is not going to continue to be a successful contractor

for pilotage services in the medium to long term.

The relationship between the pilotage company and the port authority needs to be that of any principal and contractor, both of whom will be working towards a common goal. This will require the establishment of a close working relationship between the port authority and the company which can take some time and requires careful planning. This relationship should not be seen as one of control from either side.

Where the pilots are contractors to the port authority, it is important that they accept that they remain accountable to the authority, and through the authority, to the shipping companies which use the port. A contract pilotage provider should not attempt to act in isolation, and assume it has the status of another authority.

Regulation of pilotage in terms of pre-qualification, training etc., is considered to be essential and this should continue to be undertaken by a regulatory body which is not directly involved in contracting the service. Such regulation may need to be accompanied by an ongoing audit process if there is no formal serial contracting arrangement with a port authority.

### **Communications**

As mentioned, pilots and the port authority are part of a team – and this team includes all service providers and the port community. Teams do not work successfully if there is an "us and them" approach. Communication is the responsibility of all parties in a team – and that includes both port authorities and pilots.

There must be a regular formal monthly or bi-monthly meeting between pilots and port authority management and from time to time, other service providers, in order to discuss relevant industry developments and issues, navigational issues, changes in technology, difficult pilotage occurrences, review for ward programs, reviewing incidents, etc. In addition, informal meetings will help develop and maintain a team approach which is essential for on-going good relations between pilots and the port authority and the meeting of overall port community goals.

The same comments apply in the case of pilots who are port authority employees – they are still part of the team and must be exposed to broader industry issues.

## Risk Management

Pilots cannot afford to be risk averse or too inward looking and hinder the acceptance and implementation of new technology.

No one doubts there are risks inherent in pilotage. Equally, no one expects the pilots alone to carry all the risks, but it is hard to allocate risks.

It is essential that risk are identified and that the different perspectives on risks be discussed and recognized. This will enable the establishment of guidelines on risk taking. In this regard it would appear to be essential that pilots maintain records of their handling experience with ships visiting their port so that they can be easily referred to in respect of subsequent voyages.

Port authorities must consider what is an acceptable level of risk resulting from pilot actions and from this establish appropriate standards of operations and ongoing training requirements in conjunction with not only their pilots, but using the experiences of other ports and their pilots.

As part of the port community, pilots must work with port authorities, towage operators and with Government regulators in order to work out solutions to handling vessels that may be "pushing the limits". The port cannot stand still in terms of its growth and helping in the achievement of economies for its shippers.

Thus pilots must demonstrate flexibility and lateral thinking in handling such situations, as must all other relevant parties, including port authorities and Government regulators. All must keep abreast of new technology and embrace it. In fact, why shouldn't pilots take on the challenge of leading port authorities in terms of the adoption of new technology.

Where port authorities may not have suitably qualified maritime staff, they perhaps should consider utilizing expert advisers to assist in reaching mutually acceptable decisions, having regard to those vessels that are "pushing the limits". An expert advice could also be used as an arbitrator, if appropriate. It is recognized that pilots will respond better to their maritime qualified peers than perhaps to non maritime people when issues of liability and risk are being discussed, especially in specific situations.

In addition, perhaps port authority staff could share with the pilots some of the risks in the first or some other voyages of vessels "pushing the limit" by joining pilots in such passages – this could be one very effective way of removing the "us and them" relationship.

Pilots need to be more flexible in their approach to tug usage, especially hav-

ing regard to the handling capabilities of vessels having bow and stern thrusters and other technological advances in new vessels. There is a nexus between the cost of safety and operating costs and pilots should work with port authorities, towage operators and ship owners/masters in order to ensure that unknowns are examined and options properly considered.

## Competency

There are views that the standards or performance criteria employed by some pilot groups are based on the lowest common denominator in order to protect colleagues. In any job, employees' levels of competence can deteriorate overtime as a result of many factors. However, such lowest common denominator basis for competencies should not be linked into weather constraints, excessive usage of tugs etc., as this could have a continuing and profound effect on the efficiencies of a port.

Pilotage management as well as port authorities must recognize that every pilot has his/her own level of competency and that this can change over time. All pilots will not be competent in handling all vessels in all conditions and at all hours. Expectations and arrangements to ensure that all pilots are treated equally may lead to unacceptably high levels of stress on some individuals and increased levels of risk-taking which will be unacceptable to the port community. The issue of pilot fatigue is highly relevant.

I would therefore urge that pilotage companies and port authorities establish standards of behavior and procedures for the carrying out of the pilotage function. This will enable objective testing of each individual's ability to meet the agreed standards. This happens in most other industries.

This should lead to salary scales being linked to demonstrated competencies of individuals. It could also open the way for more new entrants joining the pilotage service, possible casual work for some pilots who may be more limited in terms of their competencies through no fault of their own, more flexible rosters and promotion opportunities. Whilst the immediate reaction to this suggestion may be heresy by some, and the means of employing a larger number of pilots by others, as well as immediate thoughts of a higher overall cost of pilotage, it need not necessarily be so if pilots and port authorities could sit down together and think flexibly and laterally about this issue. I do not underestimate the difficulties in this as it could be very deflating to some egos, but the industry generally must look forward to meeting future needs in the most effective and acceptable way.

## Training

It may be timely that consideration be given to a more formalized means of initial and ongoing training of pilots so that there is an ongoing supply of trained pilots with a broader skills and knowledge base. The present system of mainly recruiting serving masters has probably served us well in the past with highly experienced operational pilots but this may not be the most appropriate training basis for present and future needs.

In developing such training packages, it must also be recognized that there are vastly different standards of ships and of crews and that this can impact upon the level of experience of masters who may be seeking to become pilots. With increasing technology and the need to understand the role of port authorities and the needs of the port community, there would be advantages in combining seagoing operational experience with a broader, more formalized training. This could possibly include some academic type study together with the use of simulators covering a range of ports and port conditions in order to develop wider ship handling skills. This could be completed with a local content training model provided by a port authority employer. Such systems are increasingly required in a number of overseas countries.

In addition, ongoing training programs are essential to keep pilots up to date with developments, not only in technology and operational issues, especially with the handling capabilities of vessels with bow thrusters etc., but also in relation to port operations. For example, pilots should possibly spend some time with tug operators during manoeuvring operations and also in the port operations office to gain an understanding of port management issues. This of course, already occurs in some ports. Most of the ongoing training will have to be developed around the specific pilot and port operations.

Furthermore, bridge resource management has a significant role in the ongoing training of pilots. Pilots' attendance at these courses should be mandatory as whilst it will not only upgrade the pilot's overall skillsbase and experience, it will also assist in enhancing their professionalism and image.

In this regard, I would like to throw open the question as to whether in a country like Australia, Bridge Resource Management courses should ensure that the methodology of implementing aspects of passage planning is consistent. If the basic components of briefing a Master for the pilotage passage were

**Continued on Page 11**

# WORLD PORT NEWS

## UNEP IE Package On Accident Prevention

**T**HE United Nations Environment Program Industry and Environment (UNEP IE) is pleased to announce the publication, in a limited edition, of "Management of Industrial Accident Prevention and Preparedness - A Training Resource Package". This is one of a UNEP IE series of trainers' resource kits on various aspects of industrial environmental management.

The package is designed to be used in universities and colleges and not in the workplace. Its objective is to provide materials which can be developed, extended, adapted and translated into local languages by those responsible for the education of undergraduate and postgraduate engineers and environmental managers and for the continuing and refresher education of practicing professionals. The overall goal is to build industrial environmental management concepts and practices into the education of tomorrow's decision-makers, so that the accumulated knowledge and experience of the present generation can be passed on and enhanced.

The package is in six parts, as follows:

- 1 Introduction
- 2 Workshop organisation and hints for effective training
- 3 Background papers on accident prevention and preparedness
- 4 Resource package on APELL\*, including primer, transparencies and relevant UNEP IE publications
- 5 List of references, background documents and audiovisual aids
- 6 Exercises and case studies.

UNEP IE will supply a copy free of charge to training institutions in devel-

oping countries which commit to working with the package and supplying feedback to UNEP IE for the benefit of future editions. Please note that this offer is generally limited to one institution per country and that it accordingly may not be possible to fulfill all requests.

*\*: Awareness and Preparedness for Emergencies at Local Level*

## ICS Publishes Guidelines On Garbage Management

**T**HE International Chamber of Shipping (ICS) has published Guidelines on the Preparation of Garbage Management Plans to assist shipping companies meet new IMO requirements. ICS Marine Director, Captain John Joyce, explained:

"From 1 July this year, every ship will be required to have on board a Garbage Management Plan. The new regulation is an amendment to Annex V of the MARPOL Convention. The Garbage Management Plans will very probably be inspected by both flag and port state control authorities and will be expected to be an integral part of a ship's Safety Management System under the ISM Code."

The ICS Guidelines incorporate a model plan to facilitate the development of ship specific plans and take full account of IMO Guidance on the contents of Garbage Management Plans and should serve as a valuable reference document for personnel who are required to be aware of the current regulatory requirements and technical aspects relating to garbage storage and disposal. Copies of the Guidelines can

be obtained direct from ICS for £25 including postage.

## New Publications

### Bulk Trade and Shipping: The Investment Outlook

**I**N the latest of its studies (Bulk Trade and Shipping: The Investment Outlook), Ocean Shipping Consultants Ltd. has investigated prospective port development in the light of the forecast growth in the major bulk trades. Whilst the conclusions tend to be particularised by region and individual trade, the scale of forecast trade throughput in much of Asia indicates a continued pressure on port structures in this region.

By contrast, many of the bulk ports of the Developed World evidence a stable, if not declining, throughput level, with increased competition having direct impact on port operations and profitability.

The following is a summary of the main findings of the 297-page Report.

### Trade Growth

At the aggregate level, the world's ports can look forward to a continued rise in throughput levels. Total seaborne trade of coal, iron ore, grain, phosphate rock and bauxite/alumina stood at around 976m tonnes in 1990, rising to an estimated 1,088m tonnes by 1995, and forecast to increase to around 1,188m tonnes by 2000 - a period increase of 22 percent.

By far the greatest prospective rise is forecast for the coal sector, with traded

## Continued from Page 10

consistent between ports, then a Master who may be visiting several ports, would find it easier to accept our practices especially if there were language difficulties.

There are also current issues with regard to the revalidation of Master's Certificates for pilots in Australia. The requirement by AMSA for Masters to

keep up to date with ship operations knowledge and with current industry developments is worthy of support, especially as it would become part of the ongoing training needs of pilots. However, whether a full revalidation is required for pilots is a subject for debate as possibly specific checks relating to pilotage operations may be more applicable.

I was told recently that pilotage is

hours of boredom punctuated by moments of terror. I hope that these few moments have not provided you with additional terror. It has certainly not been boring preparing this paper, but I genuinely feel that the time is now right for port authorities and pilots to sit down and co-operatively and positively think about the issues that will challenge them in the future and develop appropriate responses.



volumes of steam coal in particular escalating rapidly. The two main dry bulk trades of coal and iron ore were approximately equal in volume in 1990 and 1995, but a stagnant profile for iron ore is forecast for 2000, whilst that of coal is forecast an increase of 20 percent.

Collectively, in tonnage terms the remaining bulk trades have declined over the 1990-95 period, from an estimated 285m tonnes to just under 273m tonnes. This reflected developments in the grain and phosphate rock trades. However, by 2000 an overall period increase of 2.2 percent is forecast (to over 291m tonnes by 2000), with volume increases expected in all three trades, particularly that of the predominant grain sector.

### Terminal Number and Vessel Capacity Rise

Although there are many terminals that have a dual role, by purely a functional definition, worldwide ports/terminals (35,000dwt+) involved with the load/discharge of these trades have increased in number from 967 in 1990 to 1,121 by mid 1996.

At the collective level, this development has been accompanied by a distinct upward shift in terminal capacity. Although terminal number have generally increased across all the capacity ranges, this has been particularly marked in the Panamax and 150,000dwt+ ranges. Much of this development can be traced to terminal upgrade rather than the introduction of entirely new facilities.

Based on an evolution of announced plans, terminal number is set to increase to 1,168 by 2000, much of this investment set for the discharge sector.

On the load side, although some modest investment is planned in the 35/50,000dwt range, the greatest development is to reside in the expansion of larger, 100,000dwt+ facilities.

In terms of the world's discharge facilities, the range of investment is far more broadly based, although the Panamax sector, in particular, is forecast to see the highest level of terminal additions, with substantial further investment committed to larger discharge terminal facilities.

In general, it is clear that ports will continue to invest in facilities able to handle larger vessels. This is central to a prominent position in a dry bulk market dominated by pressure to reduce shipping unit costs.

(Figures 1 and 2 offer a graphic presentation of overall load/discharge ter-

minal development 1990 - 2000).

### Sectoral Development

**IRON ORE:** Since the late 1980s trade in iron ore has escalated sharply. In line with the cyclical nature of industry demand, overall tonnages are forecast to re-approximate the current level (405m tonnes) by 2000.

Japan and the EU will continue to provide a focus for much of this trade, but increased volumes are likely to be shipped to countries of the Far East. Despite the impact of production based on scrap, for example, the sheer scale of demand indicates increased production based on the blast furnace.

Implications for ports for the most part rest in the development of efficient port capacity in Asia, particularly PR China. Although further terminal capacity is planned, questions remain as to the overall adequacy of these investments. Much of Chinese trade is likely to be handled across less than optimum berths.

Load terminal development predominantly rests in terminal upgrade, which is characteristic of much of the world's load facilities across all bulk trades.

**COAL:** Coal trade development is likely to be one of the main drivers of increased bulk trade, particularly as regards the strong development of coal-fired power stations in the Far East.

Once more, terminals have increased in average vessel capacity, boosted by the growth of newer supplies to the world market - from Indonesia and Venezuela, for example. Many of the world's active coal terminals continue to upgrade existent capacity and it is the larger end of the capacity size range that is scheduled for the sharpest development in the period to 2000.

This period is likely to see a continued re-orientation of trading patterns, with the EU likely to see a growing propensity to imports, and further Japanese, Indian and Chinese port investment underway. Indian port plans are relatively well advanced, there remaining considerable doubt over the overall efficacy of Chinese plans.

Newer world suppliers continue to fund further coal load terminal development, with much of the expansion of coal discharge facilities resting in the Panamax (Asian) sector.

**GRAIN:** Of grain terminals of 25,000dwt and above, the load and discharge function is roughly evenly distributed, the trade itself heavily centered on Handy Size and Panamax vessels. North America remains the hub of the supply of internationally traded

grains and many of the load terminals here are restricted in vessel capacity. In conjunction with the importance of the broad Asian region as discharge area, as well as restrictions of other suppliers, average grain port capacity is set to remain limited.

However, there has been a recent pronounced shift of average capacity as many terminals limited to Handy Size vessels have been upgraded to Panamax. Terminal development in the period to 2000 is set to see further investment in facilities larger than Panamax.

Load facilities are largely in place and there are few instances of further major investment in this sector. The greatest developments are forecast for the discharge sector. The Asian region is the centre of terminal development, both of plans and likely further investment. None of these plans, however, include terminals with vessel capacities of more than 100,000dwt.

Confirmed plans for grain terminal (25,000dwt+) development indicate an increase of 10 terminals by 2000, to a total of 402. A further 10 plans are likely to be implemented.

**PHOSPHATE ROCK:** Consumption of phosphate rock is forecast to improve steadily as demand in the Developed World improves, and that of the Developing World escalates. Actual traded volumes of phosphate rock itself, however, continue to be undermined by increased downstream processing at the site of production. Trade, therefore, is forecast only a gradual increase to 34m tonnes by 2000.

Although around 80 percent of phosphate rock shipping demand is associated with vessels of 50,000dwt or less, recent terminal development has centered on the Panamax sector. Over the 1990-96 period, terminals active in this sector rose from 15 to 35.

The stagnant outlook for overall phosphate rock trade suggests very little dedicated terminal investment. Indeed, over the 1990s much of the US load sector has withdrawn from handling phosphate rock. Limited development is forecast for PR China, this in relation to specific supplies to Japan.

**BAUXITE/ALUMINA:** With a reasonably strong demand profile over the coming years, traded volumes of bauxite/alumina are also forecast to increase. Contrary to much of the dry shipping market, the impulse towards larger parcel size is somewhat undermined by the continued increase of demand for alumina relative to bauxite. Indeed, virtually all relevant terminals

are able to service vessels of less than 80,000dwt and the rise of the alumina trade has encouraged a resurgence of terminal number in the 35/50,000dwt sector. The growth centers of demand tend once more to be located in Asia, and port capacity is still relatively undeveloped in the region as a whole.

This could be problematic for PR China if demand for aluminum escalates too rapidly. There are a number of port development plans underway in India which should facilitate the country's growing level of exports. Although central to the supply trade, Africa's reliance on the bauxite trade threatens to undermine any port development.

Asides from the above individual trade points, there are a number of other important issues arising out of this study and these include:

The limited number of suppliers to the world market of most of the major bulk commodities has several consequences for the port sector. Load terminals tend to be specialist, with relatively sophisticated operations and often incorporating a high level of industry participation.

Discharge terminals are far more disparate, with a far greater propensity to handle a variety of commodities. They more frequently compete on an intra-regional port basis with resultant high competitiveness. As much as for reasons of practicality as for reasons of marketing, these ports very often present themselves as 'multi-bulk'.

Vessel capacity development has a central position in securing relative competitiveness.

The maturation of the market in some regions indicates that some reorientation of load/discharge function is likely. This is underlined by developments in the US are regards phosphate rock, which include withdrawal from the export market. In Western Europe the demise of domestic subsidy on coal production is likely to lead to further imports. Both these central regions to the collective dry bulk port sector are relatively well-endowed with port capacity.

There is a serious potential lack of port capacity for the (essentially) import-centered Chinese market. Smooth handling of a number of the major bulk commodities is threatened by inadequate facilities and plans. These pressures could intensify as throughput volumes escalate.

The outlook for Indian ports – as the other major regional centre of development – is far more positive. A number of major plans are actively being pursued

with finances, at least in part, secured. There will still remain, however, certain congestion problems, although it seems likely that export servicing will be adequately handled.

*Bulk Trade and Shipping: The Investment Outlook* was published in November 1996. Price GB£425 or US\$725. It is available from:

Ocean Shipping Consultants Ltd.  
Ocean House, 60 Guildford Street  
Chertsey, Surrey KT16 9BE, England  
Tel: 01932 560332  
Fax: 01932 567042

## Global Container Port Demand and Prospects

Ocean Shipping Consultants has published *Global Container Port Demand and Prospects* which covers:

- Container Port Throughput and Regional Competition
- Regional and Port Range Forecasts to 2010
- Port Capacity and Investment Projects
- Intermodal Developments
- Capacity Utilisation Trends and Forecasts
- Port Investment Requirements to 2010

Price £480.00 (UK) or US\$845.00 (all overseas sales) each, inclusive of air-mail delivery and packing.

The book is available from:  
Study Sales Department  
Ocean Shipping Consultants Limited  
Ocean House, 60 Guildford Street  
Chertsey, Surrey KT16 9BE, England

Tel: 01932 560332  
(international +44 1932 560332)  
Fax: 01932 567084  
(international +44 1932 567084)

## Ro-Ro Shipping: The Flexible Alternative to Containerisation

**T**HE fundamental split in Ro-Ro shipping is between the short and deep sea markets, and over several years this has also come to be the split between Ro-Ro growth and Ro-Ro contraction.

Many short sea operators in North Europe and the Mediterranean are now

introducing a new generation of larger, faster and operationally optimised Ro-Ros to meet the strong growth in intra-regional unitised traffic and the increasingly exacting demands of shippers.

By contrast, the deep sea sector has hardly seen a new ship in ten years. Only Wilhelmsen and Grimaldi have shown sufficient confidence to invest in newbuildings to take on the massive containership armada, and significantly each of these operators has a strong presence in the car carrying trade.

A new Drewry Briefing Report, *Ro-Ro Shipping: The Flexible Alternative to Containerisation*, analyzes the commercial and operational issues which have led to this sharp divergence of performance in the Ro-Ro sector, and identifies the factors which will determine the future direction of the concept as containerships and containerisation gain an ever greater domination of the liner general cargo market.

## Divergence and Contrast in the 1998 Ro-Ro Fleet (% of fleet dwt)

| Age (years) | <20,000 dwt | 20,000 dwt+ |
|-------------|-------------|-------------|
| 0-4         | 10.8        | 2.6         |
| 5-9         | 12.2        | 2.5         |
| 10-14       | 21.0        | 35.6        |
| 15-19       | 31.3        | 46.6        |
| 20+         | 24.7        | 12.7        |

Source: Drewry Shipping Consultants Ltd

## Creating a Premium Niche

Ro-Ro ships, with their significantly higher capital and operating costs, can only be successful where they are able to exploit the cargo flexibility conferred by their ramp and deck configuration to command a rate premium.

In short sea trades this task has been accomplished in most of the world's largest regional markets, with the notable exception of the intra-Asia arena. The Ro-Ro's ability to carry trailers as an integral part of road based distribution systems has pushed containers and Lo-Lo ships to the margins.

Crucially the deep sea sector has seldom been able to develop the same level of premium paying traffic, since vehicles – the ultimate Ro-Ro cargo – have been increasingly captured by the specialist PCC/PTC fleet operating in contract, rather than liner, markets. The deep sea Ro-Ro can still claim a distinct advantage in handling large, heavy, indivisible loads, but where it is competing predominantly for containerised cargo Drewry's new Briefing Report, *Ro-Ro Shipping: The Flexible Alternative to Containerisation*, shows that it cannot hope to match the economies of scale and intrinsic cost advantages of cellular

ships.

The apparent contradiction, though, is that ACL and Wilhelmsen Lines, two of those Ro-Ro operators which are competing against containership operators on sections of the east-west axial route, have been recording far superior profitability to their cellular rivals. Their success, however, has been achieved by keeping exposure to the container market at levels consistent with the specific configuration of their ships.

The Ro-Ro concept will generally prove unfeasible as a primary alternative to containerisation in mainstream deep sea liner markets, and the future of the deep sea Ro-Ro – if it is to have one – will require a shift in emphasis away from confrontational competition with containerships. To be successful the deep sea Ro-Ro will need to develop cargoes which exploit its greater flexibility – in some north-south trades this may centre on the shipment of large lots of primary cargoes and/or indivisible project type traffic – but increasingly the salvation of the deep sea Ro-Ro is likely to be global vehicle trade.

Ro-Ro and car carriers demand the same operational expertise, and where the two markets can be combined in a common service itinerary the potential synergies seem likely to offer good prospects for success. The next Wilhelmsen newbuilds seem set to recognise this by maximising capacity for wheeled cargoes at the expense of container space. Equally, in what is a warning to some Ro-Ro lines, modern PCTCs are now much more flexible in their ability to stow the heavier, larger rolling cargoes that would once have been the preserve of the deep sea freight Ro-Ro.

Moreover, the lack of deep sea Ro-Ro newbuildings for a decade and more will ultimately produce a tonnage crisis that will challenge many carriers to maintain their place in the market – at least as Ro-Ro operators. This is the retonnaging dilemma which confronts many carriers, and which must ultimately be answered by deep sea lines as positively as it has by the short sea specialists.

*Ro-Ro Shipping: The Flexible Alternative to Containerisation*, 110pp, is published by Drewry Shipping Consultants Ltd. Individual copies of the Report are priced at UK£250 post-paid to anywhere in the world. It is available from:

Drewry Shipping Consultants Ltd  
Drewry House  
Meridian Gate – South Quay

213 Marsh Wall  
London E19 9FJ

Tel: +44(0) 171 538 0191  
Fax: +44 (0) 171 987 9396  
E-mail: enquires@drewry.co.uk  
Internet: www.drewry.co.uk/drewry/

## World Reefer Ports: Competition in the Global Cool Chain

THE global port market for breakbulk reefer cargo handling (counting load and discharge volumes) is expected to grow from over 39 million tonnes per annum to a figure in excess of 46 million tonnes by 2005. This is all the more significant given the increasing loss of market share to containers, but Drewry estimates that by 2005 conventional traffic will still account for over 50% of total trade. Whilst containers will dominate east-west routes, the seasonal north-south routes will largely continue to be carried in conventional form.

### Forecast Global Breakbulk Reefer Port Handling Market (Million tonnes\*)

|                 | 1994 | 2005 | % change |
|-----------------|------|------|----------|
| Palletised      | 30.2 | 39.9 | +32.1%   |
| Loose cartons   | 9.0  | 6.4  | -28.8%   |
| Breakbulk total | 39.2 | 46.3 | +18.1%   |

\* Excluding fish.

Source: Drewry Shipping Consultants Ltd

### Palletisation and Obsolescence

Within these figures, the move towards palletisation is expected to continue, with most major commodities largely palletised by 2005. In the past, the bigger North West European terminals have invested heavily in handling loose cartons of bananas – providing sophisticated elevators, conveyors and palletising equipment. As the banana trade gradually moves towards prepalletised loads, much of this equipment will effectively become obsolete. Terminals are preparing for this eventuality, as seen at Belgian New Fruit Wharf, Antwerp, where in the short term loose cartons will be placed on stevedore pallets for discharging with pallet gantries, installed ready for full palletisation.

### New Markets

While consumers in existing markets demand ever higher standards and greater choice, new markets such as those in China and Russia are opening up as massive populations exert new-

found buying power. Thus developing economies are enjoying rapid increases in conventional reefer handling. At present the port infrastructure in these countries is often not adequate to cope with this growth and therefore offers considerable potential for investment in warehousing and related control systems. Similarly loading port terminals in the less developed exporting countries offer considerable potential for the provision of cooling facilities and associated temperature controlled warehousing.

### Changing Role for Ports

The increasing requirement from retailers to deal direct with the port terminal rather than inland warehouses is also dramatically changing the terminal operator's role in the cool chain. In addition to the increased port-located warehouse capacity required, terminal operators are also expected to provide additional "value added" services – e.g. repacking and inspection. This service can be provided directly by the terminal or through sub-contractors. It is certain that this trend will continue, and will lead to increased success for those terminals willing and able to co-operate.

### Reefer Terminal Operating Cost Structure

(250,000 import pallets per annum)

| Cost element      | Percentage of total |
|-------------------|---------------------|
| Landside payroll  | 31.4%               |
| Stevedoring costs | 22.2%               |
| Fuel/electricity  | 8.9%                |
| Wharfage          | 8.9%                |
| Land rent         | 4.0%                |
| Plant engineering | 4.4%                |
| Maintenance       | 4.4%                |
| Other purchases   | 3.5%                |
| Depreciation      | 12.3%               |
|                   | 100%                |

Source: Drewry Shipping Consultants Ltd

### Profitable Sector

The operation of a successful reefer terminal remains a profitable one. Drewry estimates that a typical North European discharge facility generates a margin of 14.1% on a turnover of \$6.5m per annum, but this performance is highly volume sensitive, and based on a balanced flow of cargo throughout the year. A halving of volumes from the envisaged 250,000 pallets per annum leads to a shortfall of \$1.3m, whilst a 20% increase results in a doubling of profit. A high proportion of fixed costs means that economies of scale can be obtained and incremental business can be the "icing on the cake". Seasonality can also have a dramatic effect on profit, with the same hypothetical terminal

suffering a shortfall of \$0.5m per annum if cargo arrives in a compressed period of time rather than regularly, and the facility is under-utilised in the off-season. However, the use of temporary or casual labor can offset this problem to a large extent – the cost of labor is still one of the most important elements of reefer terminal operation.

For breakbulk reefer ports, the implications of growth and change in the market-place are highly significant. New and improved facilities dedicated to reefer cargoes are necessary whilst the influence of technological change is apparent in the form of bar-coding and electronic data interchange. This latest report from Drewry Shipping Consultants Ltd examines all these factors in detail, as well as assessing cost structures and revenue issues in this dynamic and specialist sector of the port industry. Including an overview of

all major facilities around the world, it also provides analysis of operational issues and the relative merits of different cargo handling methods.

**WORLD REEFER PORTS:** *Competition in the Global Cool Chain*, 112pp, is published by Drewry Shipping Consultants Ltd. Individual copies of the Report are priced at UK£250 post-paid to anywhere in the world. It is available from:

Drewry Shipping Consultants Ltd  
Drewry House  
Meridian Gate – South Quay  
213 Marsh Wall  
London E14 9FJ

Tel: 0171 538 0191  
Fax: 0171 987 9396  
E-mail: enquires@drewry.co.uk  
Web: www.drewry.co.uk/drewry/

Vice President, Operations for OOCL (USA), Inc. "We look forward to a very successful relationship with our Grand Alliance partners on the Halifax call – Hapag-Lloyd, NYK, and P&O Nedlloyd".

OOCL will contribute 3 ships on the AEX service and will offer weekly service over Halifax. Other North American ports of call on the AEX service are New York, Charleston, and Norfolk. The AEX service connects Halifax with ports in Southeast Asia, West Asia and the Indian Sub-Continent. OOCL vessels will also be deployed in the Grand Alliance PAX service calling Halifax.

OOCL vessels made their first appearance in Halifax on March 1 with the inaugural call of the 3,161 TEU vessel, *OOCL Fortune*. OOCL made the transition to the AEX service on February 21 with the chartered vessel, *Nordstrom*.

## The Americas

### World's Largest Floating Crane Calls Port of Halifax

"WE are very excited to welcome the *Saipem 7000* to the Port of Halifax", states David Bellefontaine, President & CEO, Halifax Port Corporation. "Measuring over two football fields in length and one football field in breadth, it is one of the largest structures to call our port."

The *Saipem 7000* is a semisubmersible dynamically positioned heavy lifting crane vessel, owned by Saipem (Portugal) Comercio Maritimo Sociedade Unibessoal S.A. "It is the biggest, most powerful lifting vessel in the world," states Lorenzo Cella, Project Manager Offshore Installation, for the Sable Offshore Energy Project.

The *Saipem 7000* will arrive in Halifax in the first week of March en route from Rotterdam. It will berth alongside a special mooring barge at the Woodside Atlantic Wharf, in Dartmouth, where it will load two wellhead jackets and piles for use in the construction of the Sable Energy Project offshore drilling platform.

The *Saipem 7000* is equipped with deck cranes capable of 14,000 tonne tandem lifts, at a reach of 41.5 metres. When raised into position for these lifts, the *Saipem's* cranes will be 190 metres, almost four times as high as the bridge

deck of the Angus L. Macdonald Bridge. The vessel will be secured alongside with a combination of lines and cables.

Holmes Maritime is vessel agent for the *Saipem 7000* Halifax call.

### OOCL Returns to Halifax On the Grand Alliance

ORIENT Overseas Container Line (OOCL) are back in Halifax for the first time since 1991. "This is significant for the Port of Halifax", stated David Bellefontaine, President & CEO of the Halifax Port Corporation. "The return of this customer to the Port has taken over 6 years, and we are excited to welcome them back".

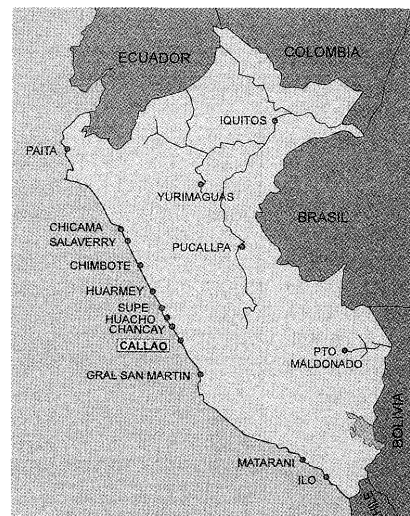
OOCL is returning to Halifax as part of the "Grand Alliance" shipping line consortium which calls Halifax on the "Asia East Coast Express" (AEX) and the "Pacific Atlantic Express" (PAX) services. "We are pleased to be back in Halifax", stated Capt. T.F. Hau, Senior

### Peruvian Ports: Cost Reduction, High Security

ENAPU S.A. "Empresa Nacional de Puertos del Peru" (Peruvian National Ports Enterprise) is an state enterprise of private law created in 1970 in order to manage and operate peruvian ports, inside the sector of transportation and communications.

Inside its organization, the terminals which have more significance in handling a higher percentage of loading for foreign trade are: Callao, Paita, Salaverry, Chimbote, General San Martin, Matarani, Ilo, and the river terminal of Iquitos.

The following launch terminals operate in a lower proportion: Chicama, Supe, Huacho, and the river ports of Yurimaguas and Puerto Maldonado.



The conception of the port policy changed since 1990 with the new goals outlined by the Peruvian Government in order to increase the support to foreign trade.

Since then ENAPU has been adapting its systems and has succeeded in improving its levels of efficiency and competitiveness to initiate the privatization process.

The results of the reforms have been notable and are reflected in important cost abatements, higher security and guarantee for goods, fast attention and the increase of port operations.

After the reached objectives, the peruvian ports prepare themselves to face new challenges: to become development agents of the economic axis of Peru and the continent, and to offer a good alternative to international trade due to its strategic location in the Pacific Ocean.

## Port of Callao

The port is located in the central zone of the Peruvian coast, inside the river basin of the Pacific Ocean. Callao port is reached by the interoceanic routes crossing the Panama channel and the Magallanes Strait.

It is interconnected to the City of Lima through four highways. Its terrestrial ways are: the Panamerican highway, which joins the Peruvian coast from north to south, and the Central highway and railroad, which conduct to the regions of Andean highlands.

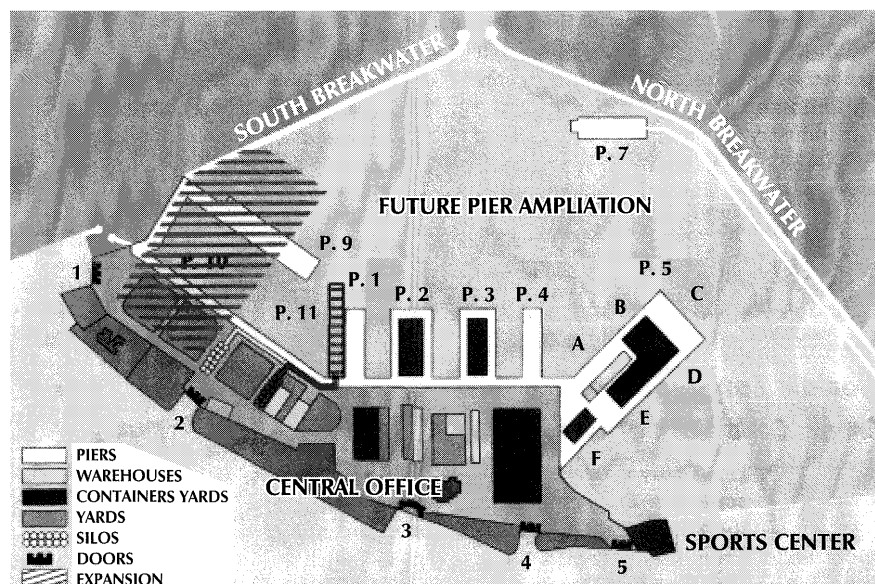
For an aerial interconnection, the Jorge Chavez International Airport is near the sea port.

Future Construction of the South Pier in Callao Port mooring berths for containers and grains for third generation ships:

The project elaborated by the Overseas Economic Cooperation Fund, Japan (OECF) comprises the construction of one mooring berth for 350-meter long container ships, with a 14-meter depth of an estimated area of 88,000 m<sup>2</sup> for container storage, two pier cranes for container loading/unloading, four yard cranes for carrying containers, three elevators with a capacity of 18

tons, two elevators with a capacity of 42 tons, twelve yard tractors, eighteen yard chassises and seven elevators with a capacity of 2.5 tons; one mooring berth for 270-meter long grain ships, with a 14-meter depth, grain silos for a capacity of 50,000 metric tons, one carrying band with two unloading units of 400 Tn/per hour/per unit; administration offices with an area of 300 m<sup>2</sup> and maintenance building with an area of 1,000 m<sup>2</sup>.

Additionally, it will be made a dredging of the channel and operation area equivalent to 2,400,000 m<sup>3</sup> and the construction of an area taken from the sea equivalent to 1,750,000 m<sup>3</sup>.



## 9-Month US Port Traffic Valued at \$462 Billion

SOME 768.9 million metric tons of import-export cargo valued at \$462 billion were shipped through U.S. ports during the first 9 months of 1997.

In volume terms, trade was up 6.2% and 5.4%, respectively, compared to the same 9-month periods of 1996 and 1995.

A. U.S. WATERBORNE FOREIGN TRADE  
Metric Tons, 000s

| Cargo Sector | January-September |         |        |
|--------------|-------------------|---------|--------|
|              | 1997              | 1996    | Change |
| EXPORTS      |                   |         |        |
| Liner        | 47,372            | 51,302  | -7.7%  |
| Tanker       | 34,895            | 33,538  | 4.0%   |
| Tramp        | 184,500           | 196,591 | -6.2%  |
| TOTAL        | 266,767           | 281,431 | -5.2%  |
| IMPORTS      |                   |         |        |
| Liner        | 42,989            | 42,422  | 1.3%   |
| Tanker       | 345,237           | 295,338 | 16.9%  |
| Tramp        | 113,894           | 104,694 | 8.8%   |
| TOTAL        | 502,120           | 442,475 | 13.5%  |
| TOTAL TRADE  |                   |         |        |
| Liner        | 90,362            | 93,744  | -3.6%  |
| Tanker       | 380,132           | 328,877 | 15.6%  |
| Tramp        | 298,395           | 301,285 | -1.0%  |
| TOTAL        | 768,888           | 723,906 | 6.2%   |

Note: Due to rounding, figures may not sum precisely to totals  
Source: U.S. Bureau of Census

However, the dollar value of export/import cargo rose by less than 1% from 1996 and actually trailed the 1995 figure by 2%.

Growth was concentrated entirely in the import sector, up 13.5% from 1996 to

502.1 million tons. This was largely due to the continuing surge in imported crude petroleum and a more modest but still substantial gain for tramp, or dry bulk, cargo. Exports remained depressed as a result of falling volumes of liner and dry bulk cargo. Table A provides further analysis.

Top gainers among non-petroleum

B. U.S. WATERBORNE FOREIGN TRADE  
TOP RANKING IMPORTS (Metric Tons, 000s)  
January-September

| COMMODITY           | 1997    | 1996    | Change |
|---------------------|---------|---------|--------|
| Crude Oil           | 264,923 | 222,113 | 19.3%  |
| Refined Petroleum   | 64,730  | 60,238  | 7.5%   |
| Iron Ore            | 13,365  | 12,994  | 2.9%   |
| Cement              | 10,829  | 8,557   | 26.6%  |
| Aluminum Ores       | 8,925   | 8,620   | 3.5%   |
| Salt                | 6,180   | 7,744   | -20.2% |
| Iron/steel          | 4,768   | 3,281   | 45.3%  |
| Semi-Finished steel | 3,799   | 4,632   | -18.0% |
| Bananas             | 3,093   | 3,156   | -2.0%  |
| Limestone           | 3,039   | 2,644   | 14.9%  |

Source: U.S. Bureau of Census



**C. U.S. WATERBORNE FOREIGN TRADE**  
**TOP RANKING EXPORTS (Metric Tons, 000s)**  
January-September

| COMMODITY         | 1997   | 1996   | Change |
|-------------------|--------|--------|--------|
| Coal              | 52,792 | 57,894 | -8.8%  |
| Corn              | 30,650 | 35,577 | -13.8% |
| Wheat             | 19,077 | 24,589 | -22.4% |
| Refined Petroleum | 16,673 | 17,297 | -3.6%  |
| Petroleum Coke    | 15,104 | 14,466 | 4.4%   |
| Soybeans          | 12,675 | 14,283 | -11.3% |
| Fuel Wood         | 6,445  | 6,443  | 0.0%   |
| Rough Wood        | 5,760  | 6,625  | -13.1% |
| Ferrous Scrap     | 5,056  | 5,056  | 0.0%   |
| Woodpulp          | 3,487  | 3,517  | -0.9%  |

Source: U.S. Bureau of Census

imports included cement, iron/steel products, and limestone. Summary detail for the top 10 import commodities is in Table B.

Tonnage losses afflicted most of the leading export commodities during the first 9 months of 1997. Hardest hit were wheat, corn, soybeans, wood, and coal. Specifics are shown here:

Among the U.S. ports ranges, the South Atlantic and Gulf experienced the

greatest tonnage growth over 1996, reflecting their preeminence as petroleum

handlers. Much of the crude oil credited to the South Atlantic is offloaded in Puerto Rico and the Virgin Islands. The South Pacific and Great Lakes also showed some improvement, but results overall were negative for the North Atlantic (which was especially hard-hit by the drop in coal exports) and North Pacific ranges.

(AAPA Advisory)

**D. U.S. WATERBORNE FOREIGN TRADE**  
**TOTAL TRADE BY PORT RANGE**  
Metric Tons, 000s

| PORT RANGE     | January-September |         |        |
|----------------|-------------------|---------|--------|
|                | 1997              | 1996    | Change |
| North Atlantic | 161,167           | 166,828 | -3.4%  |
| South Atlantic | 68,709            | 61,339  | 12.0%  |
| Gulf           | 384,150           | 340,097 | 13.0%  |
| South Pacific  | 68,947            | 67,421  | 2.3%   |
| North Pacific  | 57,110            | 57,320  | -0.4%  |
| Great Lakes    | 28,630            | 28,416  | 0.8%   |

Source: U.S. Bureau of Census

coke. Canada and Venezuela are the leading importers of U.S. lignite.

U.S. imports of bituminous coal reached 7.4 million tons in 1997, up 3.8% from 1996 and just short of the record 7.5 million tons imported in 1994. The leading source countries were Colombia, Venezuela, Canada, and Indonesia.

There were also gains in U.S. imports of furnace coke (+41%) and briquettes (+20.3%), most of which come from Canada, China, and Japan.

(AAPA Advisory)

## 'OOCL China' 1st Alliance Ship to Call at LBCT

**O**RIENT Overseas Container Line's *OOCL China* was the first ship of the newly aligned Grand Alliance to call at Long Beach Container Terminal (LBCT). The other partners in the vessel-sharing group are NYK Line, Hapag-Lloyd and P&O Nedlloyd. The Grand Alliance deploys a total of 92 ships throughout the world, of which 43 are in its trans-Pacific services.

## Asian Economic Crisis Affects US Coal Exports

**T**HE United States exported 82.4 million short tons of bituminous coal in 1997. That was down 8% from 1996 and 3% below average volume for the years 1992 - 1996. The final quarter was especially weak, with tonnage off 13% from fourth quarter 1996.

Substantial gains in exports to Canada and South America (especially Brazil) were overwhelmed by declining volumes bound for Asia and Europe, as detailed below:

Mostly to blame for last year's loss

**U.S. Bituminous Coal Exports**  
Short Tons, 000s

| WORLD REGION          | 1997   | 1996   | Change |
|-----------------------|--------|--------|--------|
| ASIA, AFRICA, OCEANIA | 19,004 | 24,313 | -21.8% |
| European Union (EU)   | 35,652 | 41,926 | -15.0% |
| Non-EU                | 3,524  | 3,022  | 16.6%  |
| TOTAL EUROPE          | 39,176 | 44,957 | -12.9% |
| NORTH AMERICA         | 16,381 | 12,881 | 27.2%  |
| SOUTH AMERICA         | 7,872  | 7,314  | 7.6%   |
| TOTAL                 | 82,433 | 89,465 | -7.9%  |

Source: National Mining Association

was a 34% drop in steam coal exports to overseas markets, particularly the European Union, Japan, South Korea, and Taiwan. Shipments to Canada were significantly higher, up 76.4% from 1996. Registering year-to-year increases as

well were exports to the United Kingdom (+15%) and Mexico (+57%).

U.S. steam coal is encountering stiff competition in Europe from Colombia, South Africa, and Venezuela, and in Asia from Indonesia and Australia. This is reflected in prices that have dropped so low that at least some U.S. producers have indicated they will withdraw from the export market partially or entirely in 1998.

The problems for U.S. coal abroad will undoubtedly be exacerbated by the Asian financial crisis that has sent the dollar soaring and thus made U.S. coal even more expensive for buyers in these countries.

Sales of U.S. metallurgical coal fared better, with total volume down just 2% from 1996 largely as a result of reduced movements to Canada (-19%), Italy (-13.5%) and Japan (-14%). Gainers among the 10 leading markets for U.S. metallurgical coal included Brazil (+15%), the United Kingdom (+17%), and Spain (+7%).

As for other coals and coal products, the year ended with a gain of 47% for lignite and declines of 17% and 26%, respectively, for anthracite coal and

## Maryland Port: Marine Terminal Upgraded

By Denise Ziolkowski

**T**HE Maryland Port Administration (MPA) is improving aesthetics, safety, and convenience at the Dundalk Marine Terminal Gateway where construction is wrapping up on a new visitors' entrance. The work is part of a \$3.2 million capital improvement project.

"We hoped to make our marine terminals entrance as safe and convenient as possible for all the visitors, tenants, and customers," said MPA Executive Director Tay Yoshitani. "We are confident that the new configuration will improve the flow of traffic into and out of the marine terminals."

Located on Broening Highway, the gate serves as a visitors' entrance to both Dundalk and Seagirt Marine Terminals. It is backed by a brick wall the length of North Service Road from Broening Highway to First Street. A flag court surrounded by shrubs and plants has been added to the left of the gate facing Broening Highway, and a pedestrian walkway was constructed along

the west side of the entry.

In addition, there is a new police building with a canopy, a renovated bus terminal, and a new visitors information booth. Additional outbound and inbound lanes will enhance the flow of traffic to and from the terminals.

The new police building is similar to the current one, but has tinted windows, a climate controlled interior and added shelf space for computer equipment and TV monitors. A canopy spans the building and all four lanes to provide for an all-weather operation.

"This allows for increased security, without disrupting the flow of traffic," said MPA Police Chief James Beatty. "Officers will have an easier time identifying people in authorized vehicles. Intercoms connect to the outer lanes, and the police have monitors to observe traffic congestion and to keep an eye on parking lots."

An information booth located at the southwest corner of First Street and North Service Road contains two telephones and a bulletin board, protected by Plexiglas, with information on bus schedules, taxi cabs, and a map of the terminal. This booth will assist both visitors and sailors whose ships are docked at the terminal.

*(The Port of Baltimore)*

## Construction of Hyundai Terminal at Full Speed

CONSTRUCTION activities related to the container terminal the Port of Tacoma is building for Hyundai Merchant Marine are continuing at a rapid pace through the Pacific Northwest winter. Cargo operations at the terminal are expected to begin by mid 1999. In order to maintain that schedule and meet the requirements of the lease agreement with Hyundai, the Port recently began enlarging the turning basin at the south end of the Blair Waterway and driving piles for the terminal's pier structure.

Enlarging the turning basin from its present diameter of 1,200 feet to 1,400 feet requires removing 770,000 cubic yards of dirt. Approximately 10,000 cubic yards of soil will be stored just a few hundred yards south, on Port property bordering State Route 509. The rest of the material will be disposed of at a designated dredge disposal site in Commencement Bay. The new profile of the turning basin will include a curved shoreline on the eastern side, where a

sloped, riprap rock wall will be installed.

The enlarged turning basin will provide more space for maneuvering the large container vessels Hyundai will bring to Tacoma, some of which are over 900 feet long. *(Pacific Gateway)*

## Port of Tacoma Records Best Year Ever in 1997

THE Port of Tacoma posted record revenues and containerized cargo volumes in 1997, while setting the stage for continued growth in coming years.

Operating revenues reached an all-time high of \$57 million, a 7 percent increase over the \$53 million the Port earned in 1996. Income from operations totaled \$10 million, 6 percent higher than in 1996, bringing net income to \$16.8 million. The Port's debt service coverage ratio was a healthy 4.5.

In the area of containerized cargo, the Port handled a record 1.16 million container TEUs (twenty-foot equivalent units), an increase of 8 percent over 1996.

The biggest surge was in the volume of international export containers, which grew to 338,363 TEUs, 22 percent higher than 1996. International import container volumes totaled 401,796 TEUs, representing a 5 percent increase. The volume of containers moving between Tacoma and Alaska grew 2 percent to 418,526 TEUs. The Port's

two intermodal railyards recorded a total of 246,500 container lifts, an increase of 7 percent over 1996.

Autos were another success story in 1997. The number of vehicles handled at the Port increased by 37 percent to 107,000 units. It was also a critical year for transportation infrastructure development in and around the Port area. Completion of the new SR 509 corridor and removal of the Blair Bridge on East 11th Street in January 1997, accomplished two important goals. First, removal of the Blair Bridge opens the upper Blair Waterway to navigation by larger, more modern vessels and creates the potential to develop more than 300 acres of new marine terminals on the waterway.

Secondly, it provides Tacoma commuters with a new route across the Port area that is not plagued by drawbridge openings or railroad crossings.

Just three months after the new roadway opened and demolition of the Blair Bridge began, Hyundai Merchant Marine became the Port's newest customer on the Blair, signing a 30-year lease for a 60-acre container terminal. The new terminal, which can be expanded to 100 acres, will open in 1999. The \$63 million facility will have a dedicated, on-dock intermodal rail yard and two vessel berths.

The Port also took steps in 1997 to help its current steamship line customers grow. Acreage was added to the Sea-Land Terminal, the Evergreen Terminal and the Totem Ocean Trailer Express (TOTE) Terminal.

*(Pacific Gateway)*

## Africa/Europe

### ESPO Welcomes EC's Green Paper on Ports

THE European Sea Ports Organisation (ESPO) has welcomed the European Commission's Green Paper on Sea Ports and Marine Infrastructure, its exposure of the issues facing ports and its acknowledgement of their vital role to the EU.

In its response published on 12 March, ESPO has said that where public funding is seen as being necessary, it must be transparent. Guidelines should also be put in place as to where

aid is permissible.

This is one of the key issues. The degree of state aid to individual ports must be made public to ensure fair and undistorted competition.

In welcoming the preparation of the Green Paper, ESPO says the quality of



the performance of Europe's ports can influence the whole transport chain and with it the economy of the European community.

ESPO chairman David Jeffery said: "We believe that competition is better than regulation or direction to ensure that ports give their customers a high quality of service. Attempts to regulate prices across Europe would be bureaucratic and bring no benefit to ports or users.

"Where it is seen that state aid is necessary, this help should be openly acknowledged and made 'transparent' within the port's accounts. Guidelines from the Commission are needed so that every one knows where they stand, with any distortion of competition assessed and kept to the minimum," he said.

"Ports have already demonstrated their concern for protecting the environment and safety standards in operations and navigation and environmental legislative measures and their implementation must be harmonised to avoid unfair competition. We must have the fullest consultation on all new proposals likely to affect ports," said Mr Jeffery, who is also Chief Executive of the Port of London Authority.

ESPO also supports the paper's proposals to promote intermodal transport, including short sea shipping and the simplification of controls and procedures, provided that they do not unfairly distort competition between modes. It emphasises that ports and port services should not just be seen as an integrated part of the maritime transport system. As the predominant link in intermodal transport, the ports' comprehensive involvement in transport logistics must be taken into account in any policies that might emerge.

"The Green Paper sets out proposals for debate. ESPO wants to be involved in further detailed discussion with the Commission and other European institutions and looks forward to developing policy jointly with them, to bring about the improvements we all want to achieve," added Mr Jeffery.

## **Rail and Waterways Win Bigger Share in Antwerp**

**C**ONTAINER traffic in Antwerp again forged ahead in 1997. The number of maritime containers handled rose by 11.9% to 2,969,189 TEU, while container tonnage rose 13.5% to

## **Antwerp – Modal choice for container traffic in Antwerp in 1997**

(x 1,000 TEU)

|               | Unloaded | Loaded | Total |
|---------------|----------|--------|-------|
| Transhipments | 151      | 151    | 302   |
| Waterways     | 514      | 497    | 1,011 |
| Rail          | 120      | 142    | 262   |
| Roads         | 1,254    | 1,199  | 2,453 |
| Total         | 2,039    | 1,989  | 4,028 |

## **Antwerp – Modal split for containers shipped to the hinterland (excl. transhipment)**

(%)

|           | 1995  | 1996  | 1997  | + of - 1995/1997 |
|-----------|-------|-------|-------|------------------|
| Waterways | 22.7  | 24.3  | 27.1  | +4.4             |
| Rail      | 5.2   | 6.2   | 7.1   | +1.9             |
| Road      | 71.2  | 69.5  | 65.8  | -6.3             |
| Total     | 100.0 | 100.0 | 100.0 |                  |

Source: AGHA-SEA Survey

33.4 million tonnes. The share of containers in general cargo traffic rose to 59.2%.

Current concern about mobility has focused attention on the share of the various traffic modes in container distribution. Figures about this aspect are collected annually by AGHA (the Antwerp Port Federation) by means of counts carried out at the gates of the container handlers.

Note that significantly more containers are counted at container terminal gates than can be accounted for by the maritime statistics. The reasons for this include the "cargo generating" capacity of the port of Antwerp, internal movements of containers within the docks, and exchanges with other ports.

In 1997 the various modes of transportation handled 4,028,000 TEU both incoming and outgoing, 397,000 TEU (10.9%) more than 1996. Ship-to-ship transfers rose 46,000 TEU to 302,000 TEU. The number of containers carried by inland navigation grew by 191,000 TEU (up 23.3%) to break the 1 million TEU barrier for the very first time. The strongest percentage growth was seen on the railways though, with a rise of 25.4%, making a total of 262,000 TEU. Even so the roads are still the dominating mode, carrying a total of 2.45 million TEU, an increase of 107,000 TEU or 4.6%. Nonetheless the rate of growth of the roads as a traffic mode has significantly slowed, contrasting sharply with the powerful growth in the other modes.

Container traffic with Antwerp's hinterland (i.e. after the deduction of transhipments) came to 3,726,000 TEU in 1997, or 25.5% more than the number of

containers effectively loaded into and out of sea-going ships in the port of Antwerp. In the 1995-1997 period the market shares of inland navigation (up 4.4%) and the railways (up 1.9%) improved at the expense of the roads (-6.3%).

The division of the container trade among the various transport modes thus seems to be moving in the right direction, even though there is still a long way to go before it can be regarded as optimal.

## **Helsinki: Specialist in Unitized Cargo Traffic**

**T**HE Port of Helsinki – Finland's largest general cargo harbor – has not emerged overnight, but reflects a history of gradual, orderly evolution over five centuries. It all began in 1550, with a decree from Gustavus Vasa, the King of Sweden-Finland, ordering the establishment of the town of Helsinki at the mouth of the River Vantaa. Helsinki's task was to compete for the Baltic trade with the Hanseatic League's Tallinn, just across the Gulf of Finland. Nearly one hundred years later, the Governor-General Per Brahe relocated the town and its harbor some kilometers further south, to what is now almost the centre of modern Helsinki.

Helsinki and its environs form the commercial hub of Finland. A million consumers live in the Greater Helsinki area, inside a radius of 45 kilometers from the port. St. Petersburg in Russia can be reached from Helsinki in a day,

and Moscow in two days. Helsinki is a safe and reliable Western port city. Helsinki's harbors form a major national centre for logistics and maritime services. Cargo handling and warehousing ADP systems are smooth and efficient.

The Port of Helsinki specializes in unitized cargo traffic. Goods pass the port in containers, trucks and trailers. More than ten million tons of the country's foreign trade passes through our port annually. This accounts for some 13% of the nation's seaborne goods traffic. We are clearly the country's largest general cargo port and passenger harbor.

The Port of Helsinki draws up an annual environmental survey. This presents a picture of the effects on the harbor environment of the port, the companies working in the various dock areas, and the vessels entering and leaving Helsinki. On the basis of this survey, the various parties operating in the port can seek out mutual areas of cooperation and concentrate on those issues that will enable the port of Helsinki to form a harmonious element in the overall city structure.

### Traffic

Cargo traffic through the port of Helsinki totalled rather more than 11.3 M tons in 1997.

The port of Helsinki is Finland's largest general cargo harbor. Concerning imports the harbor was the port of entry for nearly half of the nation's general cargo imports, it is consumer, capital and semifinished goods. About 0.5 M tons of general cargo imports consist of transit cargo from the West to the Russian market.

In terms of export harbors, Helsinki ranks second in Finland. Nearly half of the export total is made up of forest industry products. Exports by the metals and engineering branch account for almost as large a share on the total, and the remainder is divided among other industrial sectors. Helsinki is the main harbor for certain export goods such as foodstuffs, textiles, glassware, and metal products.

Bulk imports are mainly in the form of oil products and coal to feed the local energy supply requirements.

Coastal traffic is mainly in the form of transports of oil products from the domestic oil refineries for consumption locally, and the movement of sand and building aggregates to supply local construction sites. In 1997 coastal traffic totaled around 1.2 M tons.

The port of Helsinki handles nearly

two-thirds of Finland's container traffic. Some 40% of the general cargo volume passing through the port is in containers. Helsinki also sees to more than half of the truck and trailer traffic passing through Finnish ports. Practically all of the general cargo volume passing through the port is now in the form of unitized container, truck, and trailer or other unitized traffic.

### Accent on Service

Since the beginning of 1995 the Port of Helsinki has been a municipally-owned commercial enterprise. This affords greater independence in operational and fiscal activities. The only area of the Port of Helsinki's operations to be ratified in the annual City Budget is now the profit targets for the year. Meanwhile, the Port has a greater degree of freedom in determining the measures to be taken to ensure that these targets are met.

The Port of Helsinki's organization is divided into four profit-centers: Operations, Port Traffic, Harbor Engineering, and Administration and Finance. In addition, a Head Office Resources unit operates under the Port of Helsinki's Managing Director.

The Port of Helsinki has a certificated quality system (standard SFS-EN ISO 9002). Certification covers all port services produced by the Port of Helsinki, such as vessel services, cargo services, internal services and technical services. We are keen to expand the system of feedback from customers, in order increasingly to be able to listen to their wishes and suggestions. The quality system activates the Port of Helsinki's staff to take part in the development work in this area. This in turn supports the commercial management of the Port and ensures that environmental protection issues can be given due consideration.

### The basic elements of our quality service policy:

*"The Port of Helsinki supplies and develops harbor services to meet the requirements of our customers and produce for the Port of Helsinki the scheduled result. Our goal is that our customers and other interest groups are satisfied with the services provided and eager to continue doing business with us. They must under all circumstances be able to rely on the quality of the Port of Helsinki's operations.*

*"In all our activities we take due account of environmental protection requirements. The management of the Port of Helsinki has ratified a code of*

*environmental principles in order to see that these requirements are met."*

The Harbor Committee consists of nine members elected by the City Council for a four-year term.

### Environmental principles

The Port of Helsinki continuously studies and applies better, economically viable methods for diminishing harmful environmental effects and preventing damage to the environment. The Port of Helsinki regards the discharge levels laid down in law as maximum values and endeavors to go below them. The Port of Helsinki has committed itself to the strategy for sustainable development of the City of Helsinki. In regular meetings with top staff, the Managing Director of the Port of Helsinki follows up and evaluates the implementation of environment policies.

In environmental control, the Port of Helsinki heeds the following primary principles:

- (1) We contribute to the environmental work of all parties that operate in the port.
- (2) We take the responsibility for the appropriate environmental education of the personnel.
- (3) We implement investment and acquisition policies that spare the environment.
- (4) We impose on ourselves concrete and realistic environmental goals, always considering the demands for a continuous improvement of the environment and taking the location of the various parts of the port into account. We follow up and evaluate the realization of these goals.
- (5) Through internal development we diminish waste water discharges, discharges into the air, noise, and discharges of dust, and reduce the quantities of refuse.
- (6) We actively cut down the use of energy, water, and various materials and work methodically at conversion and recycling.
- (7) We work in active interchange with other parties in order to diminish the harmful environmental effects of shipping and other traffic.
- (8) In our activities we pay attention to maritime nature, the seascape, and the recreational use of the sea and the shore.

*(Port of Helsinki Handbook 1998)*

### Bremerhaven: Navigation Channel to Be Dredged

**T**HE navigation channel at the Bremerhaven Container Terminal will soon have a water depth of 14 meters below chart datum. This has now been decided by the highest federal authority responsible for shipping and waterways in Germany. Dredging work will commence in spring so that modification of the navigation channel can be completed within this year. For Bremerhaven the construction project means that all container ships currently in operation in practice will be able to call at the terminal regardless of the tide.

Terminal operator BLG expects this to enhance Bremerhaven's attractiveness in international competition significantly. The port facilities are located directly on the open North Sea so that no voyages on the river are necessary. Bremerhaven's quick accessibility will be further improved by the deepening

of the navigation channel.

Even today the largest container carriers in the world are to be seen at the BLG Container Terminal, such as the two 346-meter-long and 42.8-meter-wide MAERSK S-Class vessels. The megacarriers with 104,696 dwt call together with eight other ships of nearly the same size regularly at Bremerhaven.

With Container Terminal III Bremerhaven is prepared for the traffic growth of the coming years. This project stage, which includes two new berths measuring 350 meters in length each, was completed in December last year. In 1997 1.7 million TEUs were handled in Bremerhaven. This corresponded to a rise of 10.5 percent over the previous year. Since traffic forecasts in Bremerhaven expect an increase in container traffic to around three million TEU by the year 2010, further expansion of the terminal, designated as CT IIIa, is already in the planning phase.



BLG Container Terminal Bremerhaven (BLG Container GmbH & Co.)

### Hamburg 7th in World Container Ports' League

**L**AST year the Port of Hamburg held 7th position in the world container ports' league with a total turnover of 3.34 million containers (in TEU terms). An increase of 9.3% on the 1996 figure meant that Hamburg's container turnover growth was slightly higher than the average figure for the world's top twenty container ports.

The top two container ports are still Hong Kong and Singapore, both handling more than 14 million TEUs of containerized cargoes. The next three ports – Kaohsiung, Rotterdam and Busan – are a long way behind the top two in terms of turnover. Hamburg's twin city Shanghai moved furthest up the table last year with a jump from 18th to 11th place and a turnover of 2.5 million in 1997.

As Port of Hamburg Marketing and Public Relations (HHVW) reports, last year's positive development has continued in the first two months of 1998 so there is a general air of confidence that Hamburg can hold, and even improve, its good position.

### Port of Cork: Traffic Reaches New Heights

**L**AST year the Port of Cork enjoyed its most successful year ever with cargo throughput reaching a record level of 8.5 million tonnes. This represented an increase of 1.3 million tonnes or 18% over 1996. Container traffic recorded a most impressive increase of 19,000 t.e.u.'s or 29% to 84,000 t.e.u.'s. With an average of ten sailings per week, primarily to mainland European ports, importers and exporters in the South of Ireland are guaranteed frequent, competitive and efficient container services to meet all their shipping requirements for European and overseas markets.

Port Chief Executive Pat Keenan expressed satisfaction that Cork had now moved into number two position in the table of Irish container ports having overtaken Waterford in the process and had achieved a dramatic increase in market share. During 1997 the port had substantially completed a £6 million investment in four new straddle carriers and in the expansion and upgrading of the Tivoli Container Terminal. Mr Keenan said that within months he



expected an order to be placed for an additional state of the art container crane which would further expedite discharge and loading operations and would provide valuable time savings for both container lines and shippers using the Port of Cork. He said that the success of Irish Industrial Development Authority's policy of attracting overseas investments to the southern half of Ireland, the much improved road access to Cork and the efficiency in servicing road transport at the Tivoli Container Terminal were all contributing substantially to the increased throughput.

Highly impressive figures were also returned in the bulk liquids sector. Oil throughput improved by 1.2 million tonnes or 32% due principally to the provision of additional refining capacity at Whitegate Oil Refinery in late 1996. Imports of molasses increased by 26,000 tonnes or 19% to a record level of 159,000 tonnes while imports of caustic soda grew by 13% to 42,000 tonnes.

Mr Keenan said that increased imports of animal feedstuffs were offset by reduced throughput of cereals, fertilisers and livestock due primarily to the continuing fallout from the BSE crisis. He said that the introduction of Gaelic Ferries' service to Cherbourg assisted farmers in servicing European markets and it helped to offset some of the lost opportunities in overseas markets. *(Portlines)*

## **Economic Value of Cork's Cruise Liner Traffic**

**EXECUTIVE Summary of the Report by Richard Moloney and Trevor Donnellan of the Input-Output Team at the Department of Economics, University College, Cork.**

1. This report, commissioned by Port of Cork Company, is an assessment of the contribution made by Port of Cork Cruise Liner Traffic to the region which it serves. For the purposes of this study this area consists of the Cork/Kerry/Waterford region. The population of this area is approximately 625,000.

The study relates to the activities of Port of Cork Cruise Liner Traffic in the 1997 season. The report provides:

- A decision of the methods of analysis used.
- An estimation of the total contribution to the region of Port of Cork Cruise Liner Traffic including:

- 1 spending by cruise visitors;
- 2 other expenditure arising in the course of a cruise liner visit.
- An outline of the direct contribution of cruise liner traffic through the Port of Cork, including the spending of visiting passengers and crew and other expenditure arising due to cruise liner visits.
2. The study has been undertaken by Richard Moloney and Trevor Donnellan of the Input-Output team at the Department of Economics, University College, Cork.
3. The findings of the report are based on:
  - A unique data set of the region, collected and compiled by the Input-Output team;
  - Responses to expenditure surveys of visiting cruise liner passengers and crew conducted during the 1997 season;
  - Additional data supplied directly by Port of Cork.
4. In 1997, 17,032 cruise liner passen-

gers and 8,990 crew visited the Port of Cork.

5. The overall contributions to the region of Port of Cork of cruise liner business for 1997 are:

- Purchases of £5.7 million worth of goods and services, of which £940,000 is in wages and salaries;
- 76 full - time equivalent jobs.

6. The direct contribution of Port of Cork Cruise Liner Visitors for 1997 are:

- Spending by passengers, crew and on other activities related to cruise liner business totalled £3.6 million worth of locally produced goods and services.

7. If the spending patterns of visitors in 1998 are similar to those of 1997 visitors then the projected value of the contribution of Port of Cork Cruise Liner Traffic to the region in the 1998 season is set to reach £7.7 million worth of goods and services and 103 full-time equivalent jobs. *(Portlines)*

## **Malta:Valletta Cruise Terminal Development Initiated**

**T**HIS is one of a number of projects which were initiated by the Prime Minister and which are intended to bring about the complete rehabilitation of historical sites particularly those along the waterfronts in Valletta and Cottonera. These projects include the yacht marina and related development at Cottonera, the cruise terminal and ancillary activities at Valletta, the restoration and rehabilitation of a number of areas in Valletta, a new lift system intended to link the capital centre with the waterfront and the latest project - details of which have just been announced by the Prime Minister - calls for the complete rehabilitation and re-use of the old Opera House into a new centre of attraction.

These projects, although separate, are in fact part of an overall plan aimed at enhancing the economic prosperity and social conditions of the citizens of the area through private sector investment in commercial activities. Certain linkages are already evident, for example through the planned waterborne connections between Cottonera and Valletta quays and into the City centre via the new lift system.

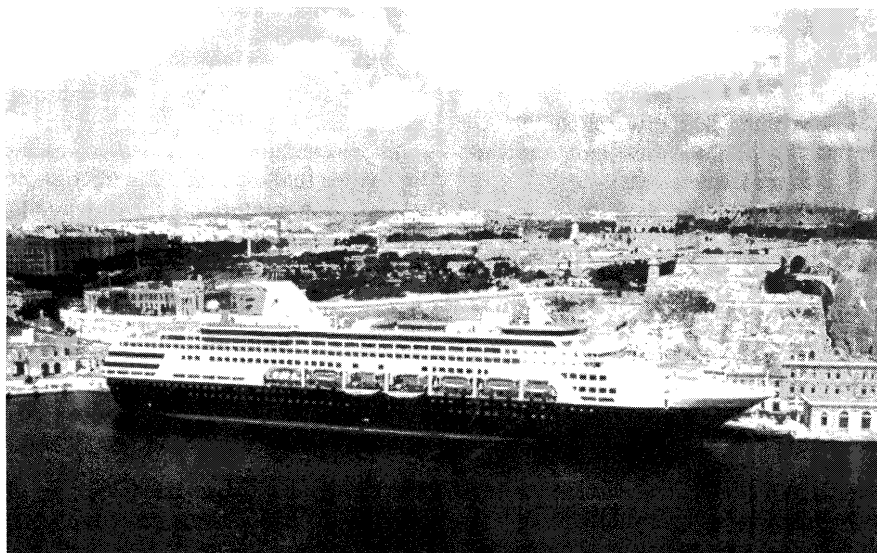
The main highlights of the Valletta

Terminal Project include:

- the building of a major cruise terminal capable of handling a number of cruise liners simultaneously;
- the setting up of large duty-free facilities;
- the embellishment and landscaping of the public promenade;
- the setting up of retail, catering and other commercial establishments;
- the rehabilitation and re-use of the historic Pinto Stores and its environs; and
- the construction of a tunnel for vehicular traffic.

The proposed waterfront development envisages the allocation of circa 5,500 square metres for the cruise passenger terminal, approximately 4,800 square metres of duty free facilities and around 7,100 square metres of retail, commercial or leisure-related activities. There is a total of over 20,000 square metres of open space including the quays, landscaped restricted security areas and other public spaces.

All proposals submitted would be evaluated by this Steering Committee which was specially set up by the Prime Minister, following recommendations submitted by the New Initiatives Group. The Steering Committee con-



sists of representatives of the Ministry for Transport & Ports, Ministry of Tourism, Malta Maritime Authority, the Planning Authority and experts in the fields of finance and economics. It is expected that this Committee will continue to monitor the project until execution.

The main aim of the project is the transformation of the historic waterfront area along Pinto Stores starting from Customs House at one end, to just beyond the existing ferry terminal at the other end, into a major international cruise and ferry passenger hub. This will open up the possibility of attracting a number of cruise and ferry companies to use Valletta as a home port for their operations in the Mediterranean thereby capitalising on Malta's strong tourist potential, strategic location and logistical capabilities.

Overall the Mediterranean has witnessed unprecedented growth as a major cruise destination, second only to the Caribbean both in terms of the number of cruise passengers as well as in the number of cruise liners calling in the region.

The port of Valletta, strategically situated in the centre of the Mediterranean, has been a major player in this development. In recent years, cruise lining activity has increased considerably. Last year over 129,000 cruise passengers visited the Port, representing a 78% increase over the previous year's figures. Forecasts for this year indicate an even better performance over last year's record figures. In all there are over 35 cruise operators which call regularly at the port with the largest number of passengers hailing from Britain, USA and Germany, reflecting the main cruise markets worldwide and the high

quality of cruise liners.

In launching this initiative, Government has set itself a number of objectives the most important being to develop modern facilities for passenger handling and to support such facilities with other commercial activities and services so as to enhance Malta's potential as a cruise and ferry destination. It is expected that the proposed development would create an overall ambience serving to generate greater maritime-related economic activity and stimulate commercial development in the port area.

In this regard, this project is similar and complementary to that across the harbour where another maritime-related leisure development based on the construction of an international yacht marina and linking the waterfront along the Three Cities, is due to start later on this year. Both projects will serve to revive waterborne links between Valletta and the Three Cities.

Another important objective is to ensure the rehabilitation and re-use of the historic Pinto Stores and its environs. Government is emphasising that the proposed waterfront development is situated within a highly historic context and that any new intervention must be skillfully grafted onto the historic fabric. Pinto Stores are to be rehabilitated in their entry and no major changes will be permitted to the facades.

As stated earlier, this project forms part of an overall plan including yacht marina, cruise, ferry, transport connections and the rehabilitation and re-use of the old Opera House aimed at enhancing the economic, social, touristic and commercial fabric of the area.

The closing date for the registration of expressions of interest by developing

groups is 30th April 1998 following which short-listed companies would be invited to present conceptual design and planning proposals in line with a Development Brief currently being finalised by the Planning Authority. The selected group would be able to negotiate the conditions of lease and land title.

*(Malta Maritime Authority Press Release issued on 9 March 1998)*

## Amsterdam: Another Record-breaking Year

**I**N 1997, the Amsterdam Sea Ports, the combined ports of Amsterdam, Zaanstad, Beverwijk and IJmuiden, enjoyed a third successive record-breaking year, with transshipment volumes totaling some 56.5 million tons. Amsterdam Port Management figures show an increase of 3.2 percent on 1996. Prime cause were increased transshipment volumes for dry bulk, with levels rising by 8 percent, thereby totaling some 38.3 million tons. Liquid bulk remained steady at 10.9 million tons (-1.1 percent). General cargo levels fell by 11.6 percent to 7.3 million tons.

"It is gratifying to hear that the Amsterdam Ports have broken their own 1996 record", Amsterdam Port Management Managing Director, Godfried van den Heuvel, tells us. "More so considering increased goods volume in an industrial port like Amsterdam means greater added value and more employment. Also favorable for employment is the increasing demand for sites, translating into increased company operations. Over the past year, we leased some 28 hectares and are still in the midst of negotiations with many other interested parties."

General cargo: Over the past twelve months, 11.6 percent less general cargo was transshipped, to a total of 7.3 million tons. This fall is primarily due to a decline in container transshipment volumes and the expiration of the temporary contract for storage and transshipment of a large number of pipes. In addition, cacao transshipment is shifting increasingly from sacks to bulk. Container transshipment was halved to 825,000 tons on the previous twelve-month period. 5.9 tons of conventional general cargo were transshipped, a slight decline of 2.4 percent. The ro/ro sector grew in the past year by 17 percent to 585,000 tons.

## Göteborg Cargo Traffic Over 30 Million Tonnes

**L**AST year was a record year for the Port of Göteborg. For the first time ever, the Port passed the 30-million-tonne mark for total cargo turnover. Also, it passed the 500,000 TEU level in container traffic.

The Port saw an eight-per-cent increase in total cargo volumes in 1997 compared to 1996. The cargo handled amounted to 30.4 million tonnes. The oil shipments represented 60 per cent of the cargo total.

The oil sector had a good year at Göteborg last year, with volumes up 13 per cent compared to the previous year. General cargo increased by four per cent; the container figure was up nine per cent from 1996.

The unit load traffic consisted of a total of 976,000 units, including containers, cassettes, flats, trucks, trailers, semitrailers and railwagons. This was an increase from 1996 by seven per cent.

## Post-panamax Container Cranes to Port of Göteborg

**T**WO post-panamax container cranes were delivered to the Port of Göteborg during the second week of March. The two cranes, built by German manufacturer Noell in Abu Dhabi (UAE), came fully assembled on the 'Dock Express 12' after a sea voyage lasting four weeks.

The new cranes lift containers 8.5 meters higher and reach 10 meters further over the vessels they will serve compared with the Port's six older cranes. They reach 18 container rows on a container ship, which means there is a margin of one row compared with the width of the largest vessels now serving the port.

The new cranes also feature between 20 and 50 percent higher velocity in the lifting and ship-to-shore movements compared with the container cranes already serving Göteborg's container harbor.

The post-panamax cranes represent approximately one-half of a US\$20 million (£12 million) investment program also including dredging, quaywall reinforcement, and the acquisition of four new straddle carriers.

The cranes will be put to work in April and May, serving vessels of different sizes. The upgrading of the crane park at Göteborg will be especially

appreciated by Maersk Line, who have been calling on Göteborg for two years with their K and S class container vessels, the world's largest; until now, the three extreme port rows of containers on these ships have not carried Göteborg containers.

The decision to invest in the two post-panamax cranes was a strategically important one for the Port of Göteborg. Conventional economical considerations were supplemented by 'if not' considerations. The freight market would have interpreted a buy-not decision as a giving up of ambitions to act as a Nordic bridgehead for direct-calling deep-sea liners in future. The Port of Göteborg is the only Nordic port with a supply of such lines. Thus, the two cranes have a symbolic meaning as well as being tools in the port's core business.

## Turkey: Rapid Increase In Container Transport

**T**HE progress of Turkey in the shipping transportation tonnage includes both maritime cabotage and international transportation.

According to the Maritime Cabotage Law, maritime transportation carried out by Turkish ships loading from and unloading to Turkish harbours and seaports, is defined as maritime cabotage. Based on the data of the Maritime Undersecretary, the Maritime transport services had been materialised in 1996 by loading 15,806,160 tons and discharging 20,355,997 tons.

International sea transportation includes the transit cargoes belonging to other countries loading and discharging in Turkish harbours and the goods of export and import loading and discharging in the harbours of the country.

Based on the data released by the Undersecretariat for Maritime Affairs and the State Statistics Institute, the total transportation volume in 1996 was 91.6 million tons (18.8 million tons of exports and 72.8 million tons of imports), an increase by 8.9% from the 1995 figures of 84.1 million tons (20.1 million tons of exports and 64.0 million tons of imports).

The 91.6 million tons of foreign trade cargoes transported by Turkish shipping in 1996 is classified as 36 million tons of bulk liquid, 22.5 million tons of bulk solid, and a remaining 33.1 million tons of mixed cargo including 28.9 million tons of industrial products and 1 million tons of agricultural products.

Container transportation (including expensive goods appropriate for package transportation and meeting the quality standards of general cargoes which can be transported by containers with air-conditioning) increased rapidly in volume the last years. The frontiers of classic transportation, which depends on ports, are extending up to the stores of the seller of the receiver by container transportation. Consequently, the ports became cargo-passing points in container transportation. Containers of 20 and 40 TEU handled in Turkish ports during 1996 was 983,179 TEU being 699,051 in number, with an increase from 764,625 TEU being 556,507 in number in 1995.

In terms of Turkey's seaborne trade transportation, the share of OECD countries (US, Canada, etc) in the total exports of Turkey by ships was 42.7% with 8.6 million tons in 1995 which rose to 48.9% with 9 million tons in 1996. The share of import by ships from these countries decreased to 27.8% with 30.2 million tons in 1996 from 30.5% with 19.5 million tons in 1995.

The export by ships to the European Community rose from 7.4 million tons in 1995 to 7.6 million tons in 1996 and the import went up from 9.2 million tons to 10.2 millions tons.

The export to Islamic countries fell to 4.4 million tons in 1996 from 5.8 million tons in 1995 and the import increased to 26.6 million tons from 24.6 million tons.

## Port Development

Sea transport constitutes the biggest part of international trade. Using ships proves to be the most economic way of transportation both in Turkey and in the world.

The total coastline of Turkey is 8,333 km with nearly 300 establishments, not counting small coastal villages.

During 1996, 36,162,157 tonnes of cabotage transport, 898,830 tonnes of transit, 72,834,074 tonnes of import, 18,846,238 tonnes of export and in total 128,741,299 tonnes of transport have been handled in Turkish ports.

The distribution of total harbour activities in 1996, in the country's four regions was: 55.8 million tons in the Marmara area (19.4 million of cabotage, 0.1 million of transport, 6.5 million of export and 29 million of import), 26.6 million tons in the Aegean Area (5.7 million for cabotage, 0.2 million for transit, 5.1 million for export, and 15.1 million for imports), 32.7 million tons in the Mediterranean Area (6.4 million for cabotage, 0.4 million for transit, 6.1 million for export, and 19.6 million for import),

13.4 million tons in the Blacksea Area (4.5 million for cabotage, 0.07 million for transit, 1.0 million for export and 7.7 million for import).

## **ABP's Port Talbot Dock Gets New Lease of Life**

**T**HE Rt. Hon. John Morris, Q.C., M.P. for Aberavon, will today (13th March 1998) officially re-open Associated British Ports' (ABP) Port Talbot Dock following the dock's return to commercial use.

The dock ceased operations in 1970, the year in which the new Port Talbot tidal harbor was opened for business, effectively replacing the enclosed dock system for the importation of raw materials for British Steel's manufacturing plants in Wales.

Sir Keith Stuart, ABP Chairman and host of the official ceremonies marking the re-opening of Port Talbot Dock, said:

"Over the years since the privatisation of ABP in 1983, we have invested over £70 million in improving and expanding our South Wales ports, and the largest single element in this investment programme has been here at Port Talbot. Only last year we completed a £20 million programme to deepen the tidal harbor and provide a new dredger to maintain it at its now deeper depths, allowing British Steel to bring ships of up to 160,000 tonnes, fully laden, into the harbor."

"During the period that the enclosed docks have remained unused we have always left the option to reopen them if new business opportunities should arise. This is exactly what has now happened – a joint venture between British Steel and Tarmac, Cambrian Stone, has developed an entirely new trade which will involve moving 400,000 tonnes a year of processed slag from Port Talbot to the River Thames for use in the construction industry," he added.

Cambrian Stone has invested £8 million in providing a state-of-the-art granulating plant within the Port Talbot steel works. The slag, a co-product of steel-making, will be reprocessed at the plant and handled through Civil & Marine Slag Cement Limited for the construction industry.

The M.P. for Aberavon, who is Attorney General, hailed this development as a catalyst for the revitalisation of the dock estate. Mr Morris said:

"I welcome in particular the environmental advantages to South Wales of the reopening of the dock, the reduction

of 12,000 lorry movements per year on the M4 in the removal of the slag, and the dramatic reduction in noise and dust by the use of large machines in slag-clearance further away from residential areas."

"By using coastal shipping, we avoid cluttering up our already congested road system and at the same time a material, which might in the past have been regarded as simply low value, is now being put to good use," Sir Keith commented.

Anthony Morgan, General Manager of Cambrian Stone, said:

"We are very pleased to be involved with ABP and British Steel in a venture that sees new investment in the granulation process, revitalizing the potential of the existing Port Talbot dock infrastructure. The investment further reinforces Cambrian Stone Limited's commitment to blast-furnace slag processing in South Wales."

## **London Planning on Cruise Into the Millennium**

**P**LANS are being drawn up to provide the ultimate cruise ship destination for the dawn of the next Millennium where time begins on the Meridian line at Greenwich, England.

The Port of London Authority (PLA) is currently investigating the possibility of mooring up to three cruise ships actually on the line of zero degrees longitude where it crosses the River Thames.

These moorings will be in addition to the new Greenwich Meridian Cruise

Terminal opposite the Cutty Sark and National Maritime Museum at historic Greenwich, and the three moorings upstream in the Pool of London, adjacent to Tower Bridge.

The PLA is still finalising details, but hopes to be able to accommodate up to seven cruise vessels of varying sizes in the River Thames on the big night. The moorings on the Meridian Line should be capable of accepting vessels up to 150 meters in length and six meters draught.

Anyone visiting London for the Millennium celebrations on 31 December 1999 will have the chance to visit the massive and exciting Millennium Dome, the focus of Britain's celebrations, see historic Greenwich and enjoy the attractions in central London.

Cruise line passengers will have the added bonus of a grandstand view of all the festivities on the river, including the stunning fireworks displays scheduled to take place along the Thames from Big Ben to Greenwich to mark the dawn of a new Millennium.

Geoff Adam, Head of Port Promotion at the PLA said: "We are looking to accommodate seven cruise ships close to or directly on the Meridian Line, where at midnight on 31 December 1999 Greenwich Mean Time, passengers will be able to mark the exact moment when the year 2000 really begins."

"London plans to celebrate the Millennium in style and the PLA wants cruise ship companies to have the unique opportunity of giving their guests an unforgettable and unrepeatable experience," he said.

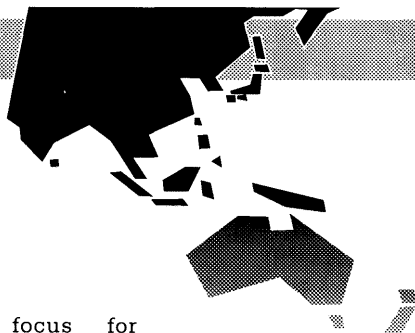
## **Asia/Oceania**

### **Brisbane Will Donate \$750,000 to Centre**

**T**HE Port of Brisbane Corporation will donate \$750,000 to assist with the construction of a new Moreton Bay Research Station and Study Centre at Dunwich, Stradbroke Island.

The centre will provide a world class research, teaching and community facility in Moreton Bay, and will have the capacity to deliver tangible economic and environmental benefits to the local community and industries.

As well, the centre will become the



focus for national and international collaborative research.

Facilities and services provided by the centre will include training for student groups, public museum displays, and a meeting venue for local and other interest groups.

The Centre will also become a focal point for cultural groups and public

educational tours.

Port of Brisbane Corporation Chairman, Elizabeth Nosworthy, said that the Corporation's Board and shareholding Ministers fully supported the proposal, which would bring a world-class research facility to Moreton Bay.

"We believe the Centre will assist us in a range of ways to continue to carry out our business in an environmentally responsible manner, and we anticipate carrying out some specific research when the centre is operational," she said.

The proposal to redevelop the facility which was originally established in 1949 and has been run by the University of Queensland since 1961, is supported by Griffith University, Queensland University of Technology and Southern Cross University. (Brisbane Portrait)

### Comments Sought on 'Gateway Ports Area'

THE State Government publicly released the draft strategy for the Brisbane Gateway Ports Area (BGPA) in November last year. To assist in the further development of the draft, comments and submissions have been sought from all interested parties wishing to have input into the final report, due early 1998.

The Gateway Ports Area comprises approximately 8,000 hectares of land and waterway located at the centre of Brisbane's metropolitan region, and contains both the Port and the Airport, major drivers of the economy in the region.

The area also contains major transport, distribution and logistics centres as well as petroleum, chemical, manufacturing and construction industries. With over 7,600 businesses in the BGPA area, around 20,000 people are directly employed there.

The draft strategy seeks to optimise development of the BGPA as a world-class transport and industrial hub while balancing the economic, environmental and social impact of that development.

A key objective of the final report will be to establish a Brisbane Gateway Network to help co-ordinate a collaborative approach to the sustainable development and management of the area.

PBC GM Corporate Affairs, Peter Mathews, said that the recommendations contained in the draft provided an appropriate framework for stakeholders such as the Port, Brisbane Airport

Corporation Ltd and Brisbane City Council to optimise development of the region.

"We are confident of continuing to increase trade through the Port of Brisbane by attracting key import/export industries, and that regional economic and employment prospects will be considerably boosted by adoption of the final report," Mr Mathews said.

(Brisbane Portrait)

### Hedland: DUKC System For Ship Operations

PORT Hedland experiences a very large tidal range, which at times exceeds six meters. With the long navigational channel (over 40 kilometres) action had to be taken to ensure that the deeply laden very large iron ore carriers could utilise every centimetre of tide. Accordingly, following the major dredging in 1986, the Authority introduced its first Under Keel Clearance System. This system, although computerised, was static in nature. That is, it did not take into account "real time" conditions such as sea and swell. This system operated effectively until late 1995 when the Authority introduced the DUKC system.

Following a presentation by Dr Terry O'Brien of O'Brien Maritime Consultants, benefits that could be derived from the new system were readily apparent. Dr O'Brien was subsequently commissioned to conduct a desktop study for the Port of Port Hedland. The results were amazing! It demonstrated that we could achieve an average increase in draft of 30 centimetres. On an average-sized iron ore carrier (150,000 Dead Weight Tonnes) this equated to an increase of almost 4,000 tonnes per shipment! If we take the price of iron ore at \$25 per tonne, each increased shipment equalled an increase in export dollars of \$100,000 per ship!

However, we did not stop there. Stage 1 of the DUKC operated on broad-banded generic ship information. It was obvious that if a ship was individually modeled, that is, that particular ship's data be utilised, further increases in draft were attainable. This has subsequently been done.

Another first for Port Hedland was our commissioning O'Brien Maritime Consultants to conduct a full-scale squat study of vessels using the channel. This was commissioned to verify the Eryuzlu formula for ship motion, the

formula that is used in the computerised ship model, and to ensure that this advanced technology would not impact on our safety record. The trials were successful on both counts.

It can now be categorically stated that Port Hedland Port Authority leads the way, both nationally and internationally, with the electronic application of Under Keel Clearance in the field of very large ship operations.

To summarise, what is the introduction of this technology worth? Although an exact figure is not available, it is safe to state that the system generates in excess of 25 million dollars per annum in revenue to the state. It is initiative of this type that keeps Port Hedland Port Authority to the forefront of bulk-handling ports. (By Captain David Baker)

### Sydney Container Trade Up 10% for First Half

TOTAL container trade through Sydney's ports grew by over 10% in the first six months of the 1997-98 financial year to almost 420,000 TEUs, which is a rate of growth double that achieved in the previous full financial year.

In releasing the figures Chief Executive Officer of Sydney Ports Corporation, Greg Martin, said the trade results to date have been outstanding, but SPC was looking cautiously at prospects for the next six months.

"Only time will tell what impact the Asian economic situation will have on our 12-months results. However, the fact that Sydney trades in such a diverse range of goods, and ships to over 200 destinations, will assist the prospect of replacement markets," Mr Martin said.

Exports of full containers during the six months increased by 12% to more than 130,000 TEUs. The largest export commodity by volume was non-ferrous metals (including aluminum, zinc and copper), accounting for 184,000 mass tonnes.

Exports of cotton through Sydney during the half year increased by almost 50% to a record level of more than 180,000 tonnes (approximately 14,000 TEUs). The largest single market for cotton was Indonesia, followed by Japan and China.

"The export trade in cotton has been a great success for us over the past 12 months, and with a record crop ready for harvest in April, we are hopeful of increasing this trade. We are facilitating



the growth of Sydney's market share of cotton trade to existing and developing markets by promoting cost-effective, reliable intermodal links for exporters to Port Botany," Mr Martin said.

Imports of full containers increased by 11% for the six months to December compared to the same period last year. The main import country was the USA, and the largest single import commodity was chemicals.

Container vessel movements increased by 2.6% for the first six months of the financial year compared with the same period last year.

SPC has been active in developing trade through the ports of Sydney Harbour and Port Botany by working with exporters and importers, particularly targeting new businesses.

### **Sydney Ports Appoints Trade Rep to SE Asia**

**S**YDNEY Ports Corporation has shown its long-term commitment to developing trade links with South-East Asia by appointing its first overseas trade representative, based in Singapore.

Sydney Ports Corporation has retained specialist trade development company, Piers Resources & Services Pte Ltd, to seek out shipping export/import opportunities between South-East Asia and the ports of Sydney Harbour and Port Botany.

According to Business Development Manager of Sydney Ports Corporation, Andrew Gibson, South-East Asian countries have contributed strongly to a 10% increase in containerised trade through Sydney's ports in the first six months of the 1997/98 financial year.

"The impact of current economic conditions will affect our trade in the short term, but we are confident of building trade in the future.

"We are looking to develop longer-term prospects and encourage use of Sydney as the preferred hub port for trade with the region through our relationship with Piers Resources and Services," Mr Gibson said.

He added that Sydney will be aggressively selling to South-East Asian markets the competitive advantages offered by shipping into Port Botany and Sydney Harbor.

"Over 80% of Australia's population is within 15 hours of Sydney by land transport, making us the pivotal transport hub. Sydney's access to Australia's

largest import markets gives South-East Asian shippers key cost and efficiency advantages not matched by other ports.

"In addition, the availability of empty containers and shipping slots is now making Sydney an increasingly preferred load port for exports to South-East Asia. There are also more frequent shipping services into and out of Sydney than any other Australian port.

"We want to ensure that whatever trade there is with Asia, Sydney is the preferred port," Mr Gibson said.

### **PPA: Nationwide Plan to Set Up Waste Facilities**

**T**HE Philippine Ports Authority (PPA) is starting a project to establish waste facilities nationwide to improve ship and port waste management.

A committee was formed to review the proposals from the private sector to undertake a feasibility study on the installation of the facilities and the provision of related services.

The move is an offshoot of a memorandum of agreement (MOA) between the port agency and the International Maritime Organization (IMO) Regional Program signed on July 11.

The MOA obliges the PPA to take the necessary steps to improve the country's portwater waste system.

The agreement between the PPA and the IMO unit includes the plan to pilot test the waste-facility project in the ports of Batangas and Manila which host major port facilities. The results of the study will be replicated in other major ports like those located in Cebu, Iloilo, General Santos and Zamboanga.

The PPA's special prequalification, evaluation and awards committee will review the bids for the feasibility study. (Port News)

### **PPA: Empty Containers Exempt From Wharfage**

**T**HE Philippine Ports Authority (PPA) has reiterated its position that empty containers will continue to be exempt from payment of wharfage fee.

In a memorandum, GM Agustin said that the exemption includes foreign and locally-owned empty containers, provided these belong to the carrying ships.

The memorandum was issued to clar-

ify guidelines issued in 1996 on the exemption of import and export empty containers from payment of wharfage fee.

Memorandum Circular No.03-95 specifies the proper assessment and collection of wharfage fees based on a port tariff system implemented in 1994.

The memo states that the containers shall be treated as part of vessels' gears and as such are free from wharfage charges.

It also states that empty containers will be exempt from wharfage dues as a policy unless these are imported into the country or used in coastwise trade by vessels other than their owners.

If these are used for trading, the containers will be reflected as commercial cargoes and subject to wharfage fee.

The exemption also covers stripped containers or those empty containers which previously carried imported cargoes and are consequently used to hold domestic items. (Port News)

### **PPA Now on the NET**

**<http://www.ppa.gov.ph>**

**T**HE Authority is now on line with its own webpage on the internet as part of the agency's modernization program.

PPA's computerization program involves setting up of a homepage and a state-of-the-art billboard and communication systems.

The Management Information Services Department has completed the design of the PPA homepage. At the moment, updated information are being generated for incorporation into the relevant sections of the homepage.

Net surfers can access PPA at <http://www.ppa.gov.ph>.

The homepage contains basic information such as PPA's history, organization, mandate and strategies, recent performance indicators, build-operate-transfer or joint venture opportunities, and linkages with other websites.

At the head office level, functions of each PPA responsibility center and the Philippine Port System and location of the port management offices (PMOs) and the top commodities that Philippine ports handle and a map illustrating jurisdictional limits of all the port district and PMOs are among the information that can be culled from the website.

The homepage being developed has a minimum graphics due to the constraint in terms of speed of data trans-

mission. Since the leased line was originally intended for e-mail with international organizations such as Asean Ports Association and for browsing by four users at a time, a 19.2 kbps (kilobits per second) line was leased in view of cost consideration..

With a homepage for browsers, it would be ideal to get a 64 kbps line. This would also enhance the current homepage being developed through the incorporation of more graphics.

On the other hand, a computerized bulletin board system (BBS) will be adopted by virtue of Executive Order which will cover port charges and general port rules and regulations which are on a nationwide scale.

BBS will also have a pre-port basis coverage to include five-year operational dock statistics under the PPA port system, five-year financial statistics, cargo handling operator, services available, and tariff rate. On the other hand, computerized communication facilities are in place with the Internet and the Netware Connect.

As regards to the Internet, an Internet server linked to all responsibility centers of the head office is connected to an Internet Service Provider (ISP) which is the PhNet. The server functions as a gateway to other servers worldwide.

In the case of Netware Connect, field office computers can connect to the Netware server at the head office through "dial-up". This would mainly serve to facilitate file transfer from one field office to another or from the head office to a field office, or vice-versa. This also has an e-mail feature.

## **Pusan: 80% Reduction In Port Dues, Anchorage**

**T**HE Port of Pusan has started actively promoting its bunkering markets as a port-related business by offering an 80% reduction in port dues and anchorage charges, which will be valid as of February 20, 1998. Exemption from the marine conservancy charge will also be included in the special offer. Moreover, vessel call procedures will be streamlined with the omission of five kinds of documents, such as cargo manifest and storage list. This offer is designed exclusively to attract the vessels in service between the Pacific and Asia and is applicable to vessels which are to sail out within 24 hours of mooring at this assigned anchorage for the purpose of bunkering and taking on

supplies of fresh water and ship stores.

The POP is a substantial new entrant in the bunkering market. In order to prepare for the severe competition in the Asia-Pacific region and the rapid increase in its bunkering market, the POP has improved its anchorage capabilities by designating N-3 and N-4 (Anchorage A and M to be assigned in bad weather conditions) as of September 20, 1997.

In order to be competitively positioned in the bunkering market, POP, making the most of the current low oil prices, will constantly improve its services to the customers not only to help them achieve cost-saving but to receive the best service. The POP expects that this new policy of offering an 80% reduction in rates will be rewarded by a steady increase in vessels bunkering at the port.

### Facilities for bunkering

| Anchorage | Location     | Depth    | Capacity                      | Remarks                    |
|-----------|--------------|----------|-------------------------------|----------------------------|
| N-3       | South Harbor | 17M      | 20 ships<br>3,000-10,000 tons |                            |
| N-4       | South Harbor | 35M      | 10 ships<br>over 10,000 tons  |                            |
| A2        | North Harbor | 14M      | 1 ship<br>over 10,000 tons    | For bad weather conditions |
| A6        | North Harbor | 8.5-9.3M |                               |                            |
| M7        | North Harbor | 7-7.3M   | 1 ship<br>under 10,000 tons   |                            |
| M8        | North Harbor | 9-10.1M  | 1 ship<br>over 10,000 tons    |                            |
| M9        | North Harbor | 10-11M   |                               |                            |



## **SABAH PORTS AUTHORITY**

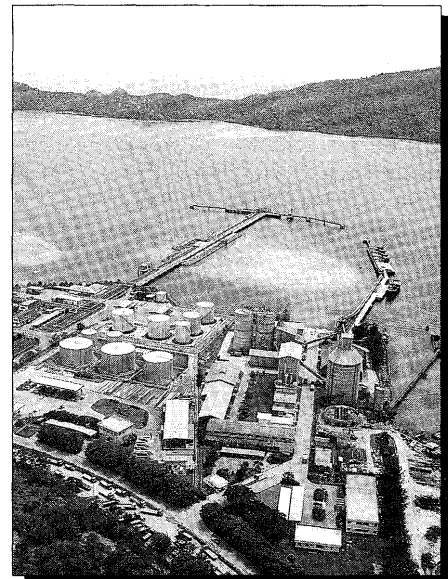
### **LEMBAGA PELABUHAN-PELABUHAN SABAH**

SPA Headquarters Building, Tanjung Lipat, Locked Bag 2005,  
88617 Kota Kinabalu, Sabah, Malaysia. Tel : 088-256155, 252140 (DL)  
Fax : 088-223036

# THE GOLDEN GATEWAY TO BETTER BUSINESS OPPORTUNITIES IN SABAH, MALAYSIA

### FACILITIES & SERVICES PROVIDED

- Container / Ro-Ro / Convention Cargo Facilities ● Warehousing / Storage
- Bulk Cargo Facilities ● Fresh Water Supply



# Yokkaichi Centennial in 1999, Facilities Expanded

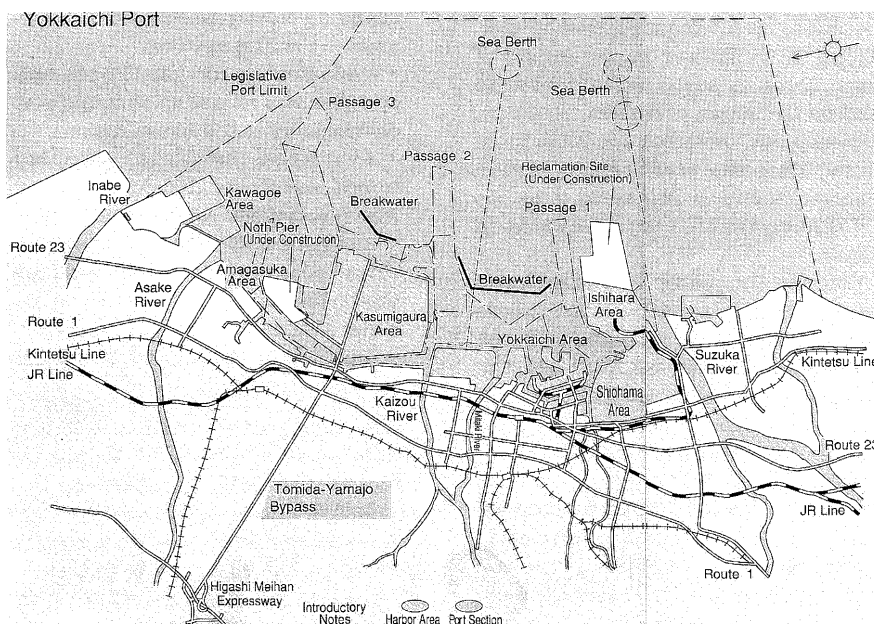
## Brief Summary

**Y**OKKAICHI PORT, which was opened in August 1899, will celebrate its centennial in 1999. It once prospered as a raw wool and cotton importing port and was designated as a specially important port for foreign trade in 1952.

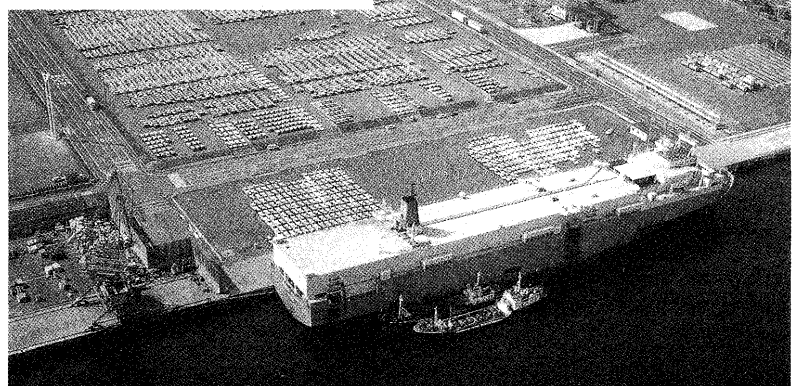
The port has been playing a vital role as a major international trading port in Central Japan and as an energy supply base, with some of Japan's



*South of Yokkaichi Port is Yokkaichi Area, the "birthplace" of Yokkaichi Port, which marked a first step as international trading port in 1899 when it was designated as an open port. Port development has since continued in parallel with trade growth.*



*Kasumigaura Area, located in the Port of Yokkaichi, consists of Kasumigaura South Pier now developed as a core of cargo traffic at Yokkaichi Port and the land for use by energy-related industries such as petrochemical, electric power and gas.*



*The hinterland of Yokkaichi Port has a variety of industries and their products are exported; cars account for 70 percent of the exports from Yokkaichi Port. Cars are shipped by car-carriers mostly for North America and Europe.*

leading petrochemical complexes nearby. It was quick to cope with the containerization of international ocean transportation, starting with container cargo handling in 1969. Recent years have seen an increase in the number of container liners on routes linking Japan with Australia, Southeast Asia and elsewhere.

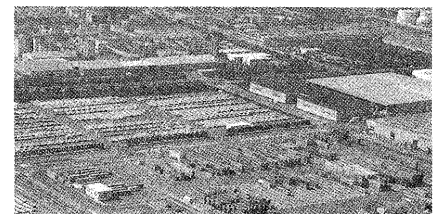
To meet the ever-diversifying needs of physical distribution and to help streamline cargo movements, the port is continuing to enlarge and improve its facilities and is creating a waterfront where citizens will feel at home.

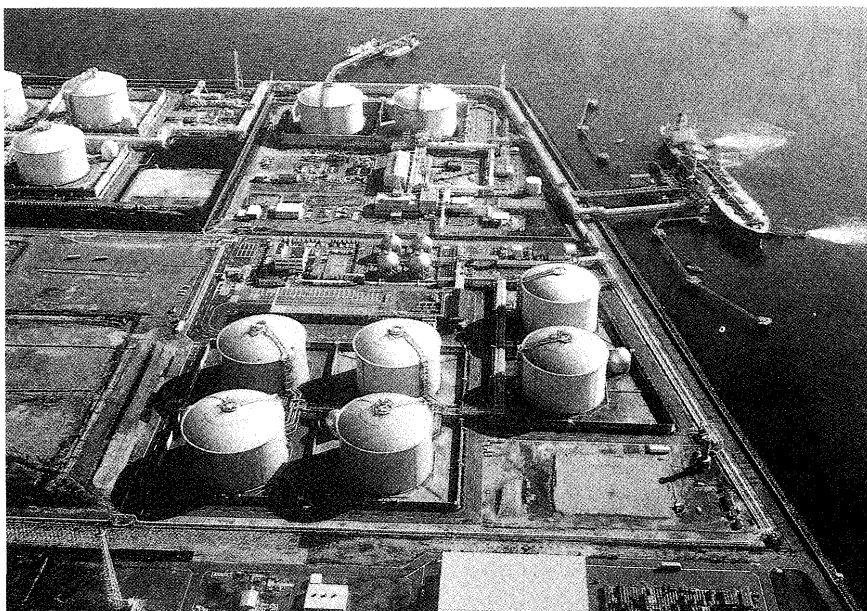
The port is easy to access from neighboring districts via a network of roads, national and local. This has greatly contributed to rationalizing transportation, operations in terms of time spent, distance covered and total costs.

With some new high-standard roads to be completed in the near future, Yokkaichi Port will become a key point linking land and sea traffic.



*Spouting Breakwater designated as a national important cultural property*





LNG (Liquefied Natural Gas) is important clean alternative energy. LNG from Indonesia and Qatar is discharged at the pier in Kasumigaura Area and delivered from here as material for town gas and as fuel for generation of electricity. LNG (Liquefied Petroleum Gas) from abroad is also discharged here and delivered to many parts of Japan.

### History

As long ago as 1878 the Port of Yokkaichi was the biggest commercial port in Ise Bay. Blessed with natural deep coastal waters and calm inlets, Yokkaichi was in a geographically advantageous position as a junction linking Edo (Tokyo) with Kamigata (Kyoto and its neighborhood). It was one of the 53 Stages on the Tokaido Highway, which had long been the one and only main overland and traffic artery between Tokyo and Kyoto.

The inauguration of a liner service between Yokkaichi and Tokyo in 1870 led to a sharp rise in cargo and passenger traffic through Yokkaichi.

Here one must mention Sanemon Inaba, who was the inspiration behind the construction of the port, laying the foundations for what the port is today. He devoted himself disinterestedly and unreservedly to the construction and enlargement of the port.

The port's designation as an open port on August 4, 1899 marked its first step toward

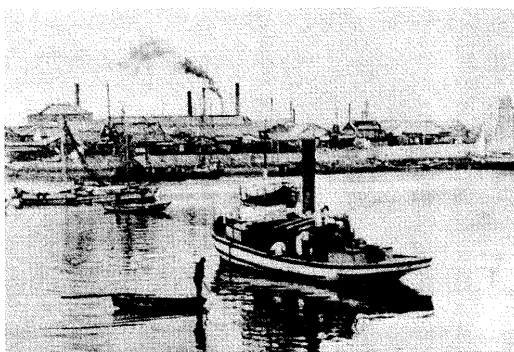


Sanemon Inaba, pioneer of port construction

becoming an international trading port. Trade then centered on the import of such items as soybeans and oil cake and on the export of cement, ceramics, cotton goods, green tea and other products. After the start of raw cotton imports, Yokkaichi Port came to be the third largest cotton importing port in Japan.

Early in the period following World War II, there was a noticeable increase in wool imports, but soon crude oil took the place of wool as the No.1 import in parallel with the formation of petrochemical complexes near the port, making the port a typically industrial one.

Containerized transport by sea through Yokkaichi Port began in August 1969, when the M.S. *Australian Enterprise* called at the port as the first container ship. With the container berth at Kasumigaura North Pier as the core is under way, for completion in 2000. With the 21st century just around the



Yokkaichi Port in the early 1900s

corner, Yokkaichi Port is today being transformed into a "comprehensive port" in harmony with industry accommodating substantial cargo flows and responsive to citizen's lifestyles.

### Subang Conference by Asean Port Association

THE Asean Port Association (APA) hosted the Asean Port Conference and Exhibition in Subang, Malaysia from Nov. 30 to Dec. 3, 1997.

The conference had for its theme: "Asean Ports Into the 21st Century."

Asean, being one of the fastest growing regions, will have significant impact and influence on port and maritime industry whose business opportunities and challenges the conference focused on.

The conference achieved the following:

- reviewed APA's role vis-a-vis the changing trends faced by the Asean ports in the 21st century;
- evaluated trends, challenges and opportunities related to strategic port development in the Asean region;
- evaluated the global shipping trends and its significant impact on Asean economies and port industry;
- quantified the achievement and experiences of development and how these developments will take shape in the 21st century; and
- deliberated the changing role of port management in Asean.

The conference also highlighted successful case studies and discussed future trends likely to impact on the port industry in the Asean region.

A maritime-related exhibition to complement the conference was participated in by some 200 companies. The Philippine Ports Authority (PPA) participated in the exhibition together with the International Container Terminal Services Inc., operator of the Manila International Container Terminal, and the Asian Terminals Inc., operator of the Manila South Harbor.

The exhibition showcased products and services on ports and shipping, equipment suppliers and manufacturers; ship engineering, marine tourism, port engineering, logistics services, and other support services.

PPA GM Agustin talked on the opportunities and challenges in strategic port development schemes of the country on the third day of the conference.

(Port News)



## **S'pore Best Port (Asia), PSA Best Operator**

**T**HE Port of Singapore emerged tops at the 1998 Asian Freight Industry Awards (AFIA) by once again bagging the Best Seaport (Asia) award despite an increasingly competitive business environment. PSA Corporation, the world's single largest container terminal operator, also brought top honours by clinching the Best Container Terminal Operator (Asia) Award. The results were announced at the 12th AFIA presentation ceremony organised by Cargonews Asia in Singapore on 23 March 98.

These 2 awards make it the eleventh successive year that Singapore has been voted the best seaport and the ninth time PSA has been voted the best container terminal operator.

Mr Chen Tze Penn, Director-General of the Maritime and Port Authority of Singapore (MPA), said, "The MPA is proud to receive the Best Seaport (Asia) Award. We want to thank the shipping community for yet another strong vote of confidence in the Port of Singapore. We will continue to be a leading global player in the use of new technologies and provide efficient port facilities and qualified personnel for the industry. We believe that port users will benefit from the excellent customer service that is tailored to their specific needs when they make Singapore their natural port of choice in this part of the world."

"This Best Container Terminal Operator Award is especially significant to PSA Corporation since it is our first year as a commercial organisation. To receive this award, especially in the current economic situation, is a positive endorsement from our customers. We would like to thank our customers for giving PSA the opportunity to be their partner and assure them that we will try even harder to listen and respond to their shipping needs," commented Mr Khoo Teng Chye, Group President, PSA Corporation Limited.

## **PSA First to Handle 100 Million Containers**

**P**SA Corporation, the world's largest single container terminal operator, handled its 100,000,000th container at Keppel Terminal on 24 March 1998. PSA is the first terminal operator in the world to achieve the handling record of 100 million contain-

ers. The handling of the container was witnessed by Mr Mah Bow Tan, Minister for Communications, together with PSA's Chairman, Dr Yeo Ning Hong, at the opening ceremony of SingaPort '98, Expo Gateway of World Trade Centre via a "live" broadcast.

"We would like to thank all our customers who have supported us in a big way to achieve the '100,000,000th TEU' milestone. Since 1972, PSA has handled huge volumes of containers. This milestone is testimony that our customers continue to choose Singapore because PSA is cost-effective and adds value to their businesses.

"We expect a lower growth rate in container traffic of 1998 as compared to 1997 due to the regional economic crisis. PSA's goal for this year is to strive even harder to find more enduring ways of enhancing value and increasing both PSA's and our customers' competitiveness," said Dr Yeo Ning Hong, Chairman, PSA Corporation Limited.

PSA's container throughput has seen tremendous growth since the advent of containerisation in 1972. From handling a throughput of 24,515 containers in 1972, PSA now handles about 40,000 containers in just a day. The steady growth of PSA's throughput is attributed to the strong support from customers and high productivity achieved by the terminals.

When these 100,000,000 containers are lined side-by-side, they circle the globe at least 15 times.

Despite the prevailing economic situation, PSA recorded last year a 9.1% growth in container throughput to 14.12 million TEUs (Twenty-Foot Equivalent Units), which constituted 1/10 of the world's container throughput.

## **Singapore: Fund 92 Now In Force Re Oil Pollution**

**S**INGAPORE has become a party to the Protocol of 1992 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage 1971 (Fund 71). The Instrument of Accession to the Protocol (Fund 92) was deposited with the International Maritime Organization (IMO), which is the depository for the Protocol, on 31 December 1997. Fund 92 will enter into force for Singapore on 31 December 1998.

Fund 92 was adopted by IMO in November 1992 and came into force internationally on 30 May 1996. It adds

to the compensation for oil pollution damage available under the CLC 92 for the victims who are unable to obtain adequate compensation under the CLC 92. It raises the limit of compensation for oil pollution damage from 59.7 million special drawing right (SDR) (approximately S\$130 million) to 200 million SDR (approximately S\$436 million). The conversion rate of SDR into Singapore Dollars is fixed by the International Monetary Fund. CLC 92 is the 1992 Protocol to the 1969 International Convention on Civil Liability for Oil Pollution Damage (CLC 69). Singapore acceded to the CLC 92 in September 1997.

Under Fund 92, oil companies and oil traders that receive more than 150,000 tons of crude and fuel oils in the preceding year, in a State party to the Convention, are required to contribute to the 1992 International Oil Pollution Compensation (IOPC) Fund. The amount of contribution by each company is computed on a per ton basis, depending on the amount of oil received by the company. The major oil companies and oil traders in Singapore will bear the Republic's share of contribution to the 1992 IOPC Fund. The amount to be paid each year will depend on the number and size of oil spills in the States party to the Fund 92, the amount of claim that exceeds the limit of the CLC 92, the cost and expenses of the administration of Fund in the relevant year and any deficit from operations in proceeding years.

By acceding to the Fund 92, Singapore has reaffirmed its position of responsibility in ensuring that compensation is also available to victims of oil pollution where there is no liability upon the shipowner under the CLC (e.g. if the damage resulted from an exceptional natural phenomenon, an intentional act or omission by a third party) or where the owners are financially incapable of meeting their obligation under the CLC.

## **Dalian: New Record in Cosco Vessel Turnaround**

**D**ALIAN Container Terminal (DCT) achieved a record performance in the turnaround of a COSCO vessel MV *TaiHe* on 22 Feb 98. This outstanding performance at DCT was achieved when MV *TaiHe* needed to unload all the Tianjin import boxes at DCT for subsequent transshipment through its feeder vessels. 539 boxes

were handled in 5 hours and 30 minutes achieving an impressive vessel rate of 98 moves per vessel hour.

This is the fastest vessel record since COSCO introduced the North America Express (NEA) service in August 97. This also the first time DCT has handled transshipment boxes for the Bohai Rim ports.

Mr Roger Tan, General Manager, DCT, said, "We would like to thank COSCO, Penavico (Agency for COSCO), the Port of Dalian Authority officials and the local government agencies for their strong support and assistance in helping the DCT team achieve this record-breaking performance. We've had a close working relationship with COSCO since the start of our operations in 1996. We are happy to facilitate COSCO's request to turnaround MV *TaiHe* quickly. As one of DCT's key customers, COSCO can be assured of our continued commitment to provide them with our best service."

Mr Zhu JianDong, General Manager, Container Transportation Department, COSCO, said, "We are pleased with the terminal's performance and grateful that DCT continues to provide us with very efficient service which facilitates our transshipment operations. DCT understood our exceptional operational needs for MV *TaiHe* and facilitated speedy departure of the boxes. The early departure of MV *TaiHe* has enabled the NEA services to catch up with its tight schedule and maintained fast connection of the import boxes to Tianjin port."

COSCO is China's national shipping line owning one of the world's largest fleet of container vessels.

DCT is PSA's flagship overseas joint venture project. PSA's International Business Division is working closely with Chinese partners to develop, manage and operate three container berths at Dalian's Dayaowan Container Terminal. This project is set to transform Dalian into China's north-eastern container hub.

### **S'pore: Joint Venture for Car Logistics Business**

**H**ORST Mosolf GmbH & Co and PSA Corporation Limited signed an agreement on 10 March 1998 to set up a joint venture company for the development of automotive logistics business in Singapore and in Asia. The signing of this agreement also rein-

forces PSA's strategic plan to develop Singapore into the region's Automotive Logistics Hub.

The Agreement was signed by Mr Jörg Mosolf, Managing Director, Horst Mosolf GmbH & Co and Mr Khoo Teng Chye, Group President, PSA Corporation Limited.

The joint Venture company plans to set up a Vehicle Processing Center (VPC) to provide a comprehensive range of services for new cars which include pre-delivery inspection (PDI), de-waxing, polishing, repairs, interior grooming, rectification of quality defects, chassis and mechanical works, painting, installation of accessories, customisation, storage and delivery services.

Centralising PDI operations, value-added services and vehicle storage for new cars at the point of import at PSA will result in significant cost and time savings through the reduction of multiple-handling and transportation. Part of the centralised operations will include cost effective and environmentally friendly handling of waste materials. Car importers will enjoy better quality services. The VPC will be used to attract more transshipment volume through Singapore and help Singapore become an automotive logistics hub.

"We are happy to develop a highly efficient network for automotive logistics in Asia with the reputable PSA Corporation. Our customers worldwide will benefit significantly from the new range of services to be provided by the Joint Venture in Singapore and the region," said Mr Jörg Mosolf, Managing Director of Horst Mosolf GmbH & Co.

"We are honoured to have Horst Mosolf as our partner in developing an automotive logistics hub in Singapore. Despite the slowdown in the regional market, we are optimistic about the growth potential of vehicle sales in the region. With our joint efforts, we are poised to meet the region's automotive logistics needs and demands," said Mr Khoo Teng Chye, Group President, PSA Corporation Limited.

Horst Mosolf GmbH & Co is a German automotive logistics specialist with a strong track record in the automotive logistics and forwarding business. Horst Mosolf has over 40 years of experience and handled over 2 million cars in 1997. It operates 35 branches in 11 countries in Europe and is expanding rapidly into Central and Eastern Europe, Central and South America. Horst Mosolf is keen to build its network in the Asia-Pacific region.

### **Taichung: New Gateway To Central Taiwan Area**

**T**HE Port of Taichung, a man-made port carved from a barren stretch of open seashore on the central west coast of Taiwan, is a new international port. It is about 110 nautical miles voyage from both older ports of Keelung to the north and Kaohsiung to the south.

The Port of Taichung was projected to cope with the fast-growing needs of the national economic development. Since the 1960s, this country has vigorously striven for economic reconstruction. The foreign trade had rapidly increased and the two existing Ports of Keelung and Kaohsiung had gradually become imperative. After several years of study and surveys by specialists, the Port of Taichung was finally chosen to be constructed as a new international port. It not only can take pressure off those two existing shipping centers, but also, in the meantime, can provide a gateway to central Taiwan so as to promote a balanced regional development in the whole Taiwan area.

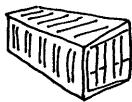




According to its master plan, the Taichung Port project calls for a commercial port, an industrial port and a fishing port. The whole project was scheduled to be executed in two phases. The first 10-year phase with construction organized in three stages, was formally started on October 31, 1973 and completed in June 1983.

At present, there are 36 deep-water wharves that have been completed. They include 5 container wharves, 15 general cargo wharves, 2 bulk cargo wharves, 6 liquid cargo wharves, 3 cement wharf, 2 grain wharves, 1 waste iron wharf and 2 coal wharves. The warehousing facilities include 14 transit sheds, 2 grain silos, 20 cement silos, 8 storage areas, 3 container yards, 224 liquid cargo storage tanks. The stevedoring and warehousing business in the terminals are open to the investment of private firms, equipped with automated unloading & warehousing and high efficiency handling.

The future development project—a commercial port expansion plan and an industrial port development plan—will be carried out according to the pace of international marine transportation development. The ultimate goal of the Taichung Port project is to make the port a multi-purpose port that includes a commercial port with 88 deepwater berths.



here today - here tomorrow

| MON   | TUE  | WED   | THUR   | FRI   | SAT  | SUN       |
|---|--|---|--|---|--|-----------|
|   |                 | <b>1</b><br>0930<br>Internal<br>meeting   | <b>2</b>   | <b>3</b><br>River barge<br>incident in<br>Shanghai.<br>Call Richard<br>in HK. | <b>4</b>   | <b>5</b>  |
| <b>6</b>  | <b>7</b><br>Hurricane-<br>damage to<br>crane at<br>port<br>Call Carl<br>in Miami                 | <b>8</b><br> | <b>9</b>   | <b>10</b>   | <b>11</b>  | <b>12</b> |
| <b>13</b><br>1800<br>TRMP<br>presentation   | <b>14</b>  | <b>15</b>   | <b>16</b><br> | <b>17</b>   | <b>18</b><br>CIM<br>dispute in<br>Frankfurt.<br>Call Andreas<br>in London.                         | <b>19</b> |
| <b>20</b><br>Freight<br>forwarders<br>truck hijacked<br>in CIS.<br>Call Alan<br>in Moscow | <b>21</b><br> | <b>22</b>   | <b>23</b>  | <b>24</b><br>Loss<br>prevention<br>survey<br>out all day<br>with JRN          | <b>25</b><br> | <b>26</b> |
| <b>27</b>   | <b>28</b>  | <b>29</b>   | <b>30</b><br>RUG<br>Conference -<br>out all<br>day   | <b>31</b>   |  |           |

**Not a good month?**

Damaged cranes in Miami, lost boxes from a river barge in Shanghai or a CIM dispute in Frankfurt – the TT Club provides comprehensive liability and equipment insurance against unforeseen accidents.

Guidance for today, advice for tomorrow, round the clock, round the world.

TT Club - here today, here tomorrow

For further details concerning TT Club services please contact:

**London**

Tel: +44 171 204 2626  
Fax: +44 171 204 2727

**Hong Kong**

Tel: +852 2832 9301  
Fax: +852 2574 5025

**New Jersey**

Tel: +1 201 557 7300  
Fax: +1 201 946 0249

Out-of-hours number for all offices: (+44) 7000 TTCLUB or (+44) 7000 882 582.

For an instant faxback brochure: Tel: +44 171 705 7205

Web Address: <http://www.webcom.com/ttclub>



**TT CLUB**  
THE TRANSPORT MUTUAL

Global service – local delivery

# Bintulu Port

## Strategic Location

Located strategically along the busy sea-lanes between the Far East and Europe. Poised to be the major gateway for the rapidly growing industrial area in central Sarawak.

## Modern Facilities

Well-equipped facilities to handle containerized, breakbulk and dry and liquid bulk cargo.

## Efficient Services

The customer takes first priority and enjoys our excellent customer-friendly services as we are totally committed to service excellence. Be our partner in Bintulu. It's your window of opportunity in Sarawak.

## Your Window of Opportunity in Sarawak, Malaysia



### Bintulu Port Sdn Bhd

P.O. Box 996, 97008 Bintulu,  
Sarawak, Malaysia.

Tel: 086-251001/20 (20 Lines)

Fax: 086-253597 Telex: BIPOPT MA73179

e-mail: bpsb@po.jaring.my

