Port Zayed, Abu Dhabi

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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: Port Klang Authority

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PORT Zayed witnessed a phenomenal growth in throughput during the first nine months of 1998, showing an increase of 40% in comparison with the corresponding period of 1997. A related article on page 39.
Port of Sines

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Aps
The IAPH (African/European) Ports Seminar was held in the conference room of Marine Safety Rotterdam Tuesday and Wednesday, 19 and 20 January, 1999. The seminar was organized by the Port of Rotterdam and Marine Safety Rotterdam (MRS) at the initiative of Mr. Pieter Struijs, IAPH Third Vice President for the African/European Region.

After the seminar the participants made a technical visit to ECT Delta Terminal and dredged material storage depot, the "Sulfher", or VTS Centre Hook of Holland and storm surge barrier. The visit was optional, however.

The session themes and speakers were:

**Session Theme: Port Safety and Environmental Protection**

- IMO’s perspective on port-related aspects of Port State Control: ISM Code, MARPOL 73/78 requirements: by Mr. K. Polderman, Chairman, IMO Subcommittee on Safety of Navigation, UK
- The European Commission’s perspective on port-related aspects of Port State Control: ISM Code MARPOL 73/78 requirements: by Mr. Jacques de Dieu, European Commission, DG VII, Transport, Belgium

**Session Theme: Aspects of Dredging**

- European regulations and international experiences: by Mr. Neville Burt, HR Wallingford, UK
- Introduction to the Dredged Materials Management Guide (PIANC): by Mr. Tiedo Vellinga, Port of Rotterdam, the Netherlands

**Session Theme: The Millennium Bug**

- Mr. Alan Lough, Lloyd’s Register, London UK (Classification Societies)
- Capt. Steen Rendler Petersen, BIMCO, Denmark (Shipping Sector)
- Mr. Jaap C. Lems, Acting Harbor Master, Port of Rotterdam (Port Sector)

**Session Theme: Port Privatization/Commercialization**

- The European perspective: by Mr. Malcolm F. Ravenscroft, Associated British Ports, UK
- The African perspective: by Mr. Rob Childs, Portnet, South Africa

**Session Theme: Aspects of Containerization**

- Efficiency of Container Terminals: by Mr. Rob J.M. van Eijndhoven, ECT, the Netherlands
- FAMAS – “First All Modes, All Sizes” – Future general container terminals: by Mr. Hans van Baaren, Centre for Transport Technology, the Netherlands
• Future Developments in Container Carrier Design: by Mr. Jan Gelderland, Sea-Land Services, Inc., the Netherlands

The participants and speakers were:

Mr. Malcolm F. Ravenscroft
Associated British Ports, UK

Capt. Steen Stender Petersen
BIMCO, Denmark

Mr. D.J. van der Graaf
Baggerbedrijf de Boer b.v., the Netherlands

Capt. M. Markous
Cameroon National Ports Authority, Cameroon

Mr. Jacques De Dieu
European Commission DG VII, Belgium

Mr. N.A. Bleil
Gambia Ports Authority, Gambia

Mr. I.D.K. Jangana
Gambia Ports Authority, Gambia

Mr. K.D. Boateng
Ghana Ports & Harbours Authority, Ghana

Mr. R. Seignette
Global Maritime, UK

Mr. Neville Burt
HR Wallingford, UK

Mr. N.A. van der Pool
HAVENSCHAP Moerdijk, the Netherlands

Mr. R.E. Verhulst
HAVENSCHAP Moerdijk, the Netherlands

Mr. Pieter Struijs
IAPH 3rd Vice President as Chair, Port of Rotterdam, the Netherlands

Mr. Alex J. Smith
IAPH Liaison Officer in Europe and Liaison Officer with IMO, UK

Mr. R. Kondoh
IAPH Liaison Officer (Designate), the Netherlands

Mr. J. Smagghe
IAPH President, France

Mr. R. Kondoh
IAPH Head Office, Japan

Mr. J. Joyce
International Chamber of Shipping, UK

Mr. K. Polderman
IMO Sub-Committee on Safety of Navigation (Chairman), UK

Mr. Jule Nteere Imathiu
Kenya Ports Authority, Kenya

Mr. Alan Lough
Lloyd's Register, the Netherlands

Mr. H. Regelink
MarinéSafety Rotterdam, the Netherlands

Ms. Mariana Moga
Maritime Ports Administration Constantza, Romania

Mr. Ion Popescu
Maritime Ports Administration Constantza, Romania

Mr. Hans Versteegen
Ministry of Transport, Public Works and Water Management, the Netherlands

Mr. Gerard Patey
Port Autonome de Nantes-Saint-Nazaire, France

Mr. A. Kablankan
Port Autonome d'Abidjan, Cote d'Ivoire

Mr. A. Gnui
Port Autonome d'Abidjan, Cote d'Ivoire

Mr. S. Hien
Port Autonome d'Abidjan, Cote d'Ivoire

Capt. D.R. Padman
Port Klang Authority, Malaysia

Mr. G.C.G. van der Heuvel
Port of Amsterdam, the Netherlands

Mr. F.M.J. v/d Laar
Port of Amsterdam, the Netherlands

Mr. P.J. Keenan
Port of Cork Company, Ireland

Mr. J.M. Bubb
Port of Felixstowe, UK

Mr. B. Coloby
Port of Le Havre, France

Mr. J. Perrot
Port of Le Havre, France

Mr. Andre Grallot
Port of Le Havre, France

Mr. van Zoelen
Port of Rotterdam, the Netherlands

Mr. T. Vellinga
Port of Rotterdam, the Netherlands

Mrs. W. Cornelissen
Port of Rotterdam, the Netherlands

Mr. J.C. Lems
Port of Rotterdam, the Netherlands

Mr. R. Childs
Portnet, South Africa

Mr. Mdu Nene
Portnet, South Africa

Mr. Jan Verkij
Zeland Seaports, the Netherlands

Mr. Michel Audige
World Bank Group U.S.A.

In addition to the Port of Rotterdam and MarineSafety Rotterdam, the Seminar was supported by the Centre for Transport Technology, ECT, SeaLand Service, Inc., and was coordinated by Events Promotion Department of MSR.

IAPH African/European Officers’ Meeting

PRECEDING the IAPH African/European Ports Seminar, the IAPH African/European Officers’ meeting was held on the morning of Tuesday, 19 January at MSR with Mr. Pieter Struijs taking the chair. The items on the agenda were:

• A progress report on the questionnaire by Institutional Reform Working Group, IAPH 2000 Special Task Force: by Mr. Malcolm F. Ravenscroft, chairman of the working group

• An interim report on the work of the IAPH Strategic Planning Work Group, IAPH 2000: by Mr. J. Smagghe, IAPH President

• A report of the IAPH Liaison Officer with IMO and IAPH Representative Europe: by Mr. A.J. Smith

• Forthcoming change in IAPH Representation in Europe and liaison with IMO

• Ports and the Millennium Bug: Problem areas and solutions

• Partnership for Development between IAPH and UNCTAD

• Candidacy for the 2003 Conference: Presentation by Mr. R. Childs, Portnet

As to the IAPH Conference to be held in the year 2003, Durban being the Conference site, the meeting unanimously welcomed the invitation and agreed to proceed accordingly.
IAPH ANNOUNCEMENTS & NEWS

Legal Protection Committee Meets in Paris
on 15 January 1999 at French Ports Association

The Legal Protection Committee meeting was held on Friday, 15 January at the French Ports Association in Paris to discuss such major items as (a) Follow up of the position paper on ships’ arrest, (b) Provision of financial security (IMO papers), (c) Compensation for pollution from ship’s bunkers (IMO position), (d) draft convention on wreck removal (IMO), (e) Technical co-operation – subprogram for maritime legislation (IMO), (f) Control of ballast water – a working draft of a possible annex to Marpol 73/78, (g) legal problem-container in the local carriage of imported containers, (h) Ship/shore safety checklist for loading dry bulk cargo carriers. Mr. Bruno Vergobbi, Port of Dunkirk, was in the chair.

The meeting was attended by:
- Mr. Bruno Vergobbi, General Manager, Port of Dunkirk (in the chair)
- Mr. J. Braems, Head, Department for European and International Affairs, Port of Dunkirk
- Mr. Denis Asuagbor, No.1 Counselor Technique, Cameroon Office, National Ports Authority
- Mr. Frans J. W. van Zoelen, Legal Department, Port of Rotterdam
- Mr. Marcel-Yves Le Garrec, Port of Bordeaux
- Mr. Andre Pages, Honorary Member of IAPH, France
- Mr. Alex J. Smith, IAPH Liaison Officer with IMO
- Mr. Rinnosuke Kondoh, IAPH Head Office

Combined Meeting of the Committees on Port Safety & Environment and Marine Operations
in London on 3 December 1998
by Peter van der Kluit, Chairman

THANKS to the kind hospitality of Mr. Jeffery of the Port of London Authority (PLA), it was possible to hold the combined meeting of the Committees on Port Safety & Environment and Marine Operation in the Offices of the PLA.

Mr. John Hirst, Mr. Pat Keenan and Mr. Alex Smith could not attend since they had to participate in IAPH meetings in New York. Mr. Jose Perrot, Mr. Per Olson, Mr. Marc Bethelot and Capt. Bah (successor to Capt. Jallow) had previously apologized for not being able to attend. Unfortunately, Mr. Jeffery was unable to attend the meeting since urgent business required his presence elsewhere.

In the light of the above, it was quite pleasing that in the end 12 people attended the meeting, including representatives from IHMA and IMPA. Mr. Compton, being a member of the Committee, also represented ICHCA. The names of those attending are annexed.

1. Port reception facilities, developments in IMO

The Committees discussed the latest developments in IMO. These include the endorsement of a new chapter of IMO’s “Comprehensive Manual on Reception Facilities”, describing the various ways in which reception facilities can be financed and also possible charging systems. The most suitable system can be selected in accordance with local circumstances. An important basic document for this new chapter was the IAPH survey on financing systems, the result of which were published in 1997.

IAPH has also participated in the discussion in IMO on the adequacy of reception facilities. As a member of a correspondence and working group, IAPH submitted the views of the Association. Based on this submission, it was further agreed that, to achieve “adequacy”, ports should have regard to the operational needs of users and provide reception facilities for the types and quantities of waste from ships normally using these ports.

2. Ballast water management
2.1 Global Environment Facility (GEF) project

This project, under the auspices of the IMO, serves to help ports in developing countries to cope with the consequences of the implementation of IMO’s (draft) “Guidelines for the Control and Management of Ships Ballast Water”. IAPH is involved in this project, which is expected to start by March 1999 in six countries and to run for three to four years.

2.1. Draft Guidelines for the Control and Management of Ships’ Ballast Water

MEPC is in the process of deciding which legal instrument is most suitable for implementing the Guidelines. A seri-
uous possibility is a new Annex to the Marpol Convention. At MEPC several problem areas were identified, which will be addressed by a correspondence group internationally.

3. Ports in relation to training aspects of people working in a port marine environment

As a result of discussions in IMO’s Working Group on the Ship/ Shore Interface (SPI), IAPH, in cooperation with other relevant international organizations, will prepare a base document for the next meeting of SPI. The paper will identify areas and personnel which should be covered within the definition of port marine personnel, together with other relevant international organizations, to form a comprehensive list. This appears to be caused by the wording of the section dealing with the signing of the commitment by the ship and terminal representatives. This matter has been referred to IAPH’s Committee on Legal Protection for advice.

4. Draft guidance document on VTS in ports

The Committees discussed and endorsed the circulated document, advising the title be changed to “Guidance for the procedures to establish the required level of vessel traffic services in ports.” The document will be submitted to EXCO for endorsement at the Kuala Lumpur Conference.

5. Safety of dry bulk carriers

The Committees discussed the apparent reluctance of terminals to use the recommended ship/shore safety checklist. This appears to be caused by the wording of the section dealing with the signing of the document by the ship and terminal representatives. This matter has been referred to IAPH’s Committee on Legal Protection for advice.

6. Next meeting

The next meeting of the Committees is scheduled to take place in Kuala Lumpur on Saturday, 15 May, prior to the meeting of the IAPH/IMO Interface Group.

Mr. Patrick P.F. Chun
Hong Kong Marine Department
Mr. Mike Compton
Ports’ Safety Organisation
Capt. Hans-Jürgen Roos
Port of Bremen, IMPA
Capt. Koos Maat
Port of Dordrecht, IMPA
Capt. Robert Bishop
Intertanko
Capt. Geoff Taylor
IMPA
Capt. John Jones
IMPA
Capt. Norman Matthews
IMPA
Capt. Derrick Cooke
Portnet, Port of Durban
Mr. Gerry Askham
ICHCA
Mr. Nouhoum Diop
Port of Dakar Authority
Mr. P.C. van der Kluit
Port of Rotterdam (chairman)

List of Participants
London, 3 December 1998

London, 3 December 1998

IMF MEETING REPORTS

42nd session of the Marine Environment Protection Committee (MEPC 42)

By A.J. Smith, IAPH European Representative

MEPC 42 was held at IMO Headquarters, London, UK from 2 to 6 November 1998 under the chairmanship of Mr. Michael Julian (Australia).

Delegations were present from 73 Member States, one Associate Member and representatives from 36 inter-governmental organizations and non-governmental organizations including IAPH.

Without seeking to detract in any way from the importance to the international maritime community, of the work programmes of other IMO committees and subcommittees, I remain convinced that the subject matter of MEPC’s work programmes has the great significance for IAPH members.

The Secretary-General, IMO, for example, has repeatedly underlined the importance of the following high priority items in MEPC work programme:

- the extension of the Oil Pollution Response Convention (OPRC) to Hazardous and Noxious Substances (HNS);
- regulations and code to minimise the harmful effects of aquatic organisms in ballast water;
- solutions to the inadequacy of reception facilities for ships’ wastes;
- the harmful effect of anti-fouling paints;
- improving the guidelines for protection of sensitive sea areas (SSAs);
- the removal of sub-standard shipping; and
- bringing into force MARPOL 73/78 Annex IV dealing with Sewage.

IAPH members may judge the especial importance of these subject areas as respects their respective local circumstances. IAPH, however, does need to address each of them to ensure that the collective port view is definitive, effective and authoritative, and that its presentation in discussions demonstrates both expertise and credibility.

Reference is made to the current position on these and related matters in this report in no particular order priority.

Technical Co-operation

As respects marine environment protection, MEPC 42 agreed that the thematic priorities for technical priorities for technical cooperation for the period 2000-2001 should reflect:-

1. the fostering of regional co-operation for the implementation and enforcement of relevant IMO instruments;
2. the enhancing of regional co-operation as respects OPRG activities;
3 the implementation of training programmes and exchange of expertise to strengthen national and regional capacities to prevent, control, combat and mitigate marine pollution;
4 helping countries to implement their obligations as respects MARPOL 73/78 including, in particular, the provisions of reception facilities and ballast water management and control.

Each of these matters needs to be addressed from a regional standpoint by both regional and national associations, and globally from an IAPH standpoint in so far as representations will almost certainly have to be made by through IAPH to establish their respective priorities.

Anti-fouling Paints for Ships
A draft Resolution was agreed for submission to the 21st Assembly urging MEPC to work towards the development of a global legally binding instrument to address the harmful effects of anti-fouling paints. The intent also is to ensure a global prohibition on the application of organization compounds acting as biocides in anti-fouling systems by 1 January 2008.

Inadequacy of Reception Facilities
Understandably, IAPH has been heavily involved over the years in consideration of matters relating to the provision of reception facilities for ships’ wastes, as described in MARPOL 73/78, and perceived inadequacies in these respects which have arisen from time to time. It will be recalled that more recently IAPH carried out an extensive survey to assess the availability and detail of reception facility systems in place at ports worldwide. Much of the data received was incorporated, after analysis, in documentation for consideration by MEPC. MEPC 42 has approved with slight amendments, the detail of work leading to the revision of Chapter II in the Comprehensive Manual on Port Reception Facilities. IMO’s Secretariat has been instructed to incorporate the new chapter and arrange for its printing in a new edition of the Manual as soon as possible.

“Adequacy” will now be defined in the context of the local operational needs of users capable of being met without undue delay for ships. Further work will be carried out, however, by a Correspondence Group led by the UK government, leading to the development of draft guidelines to help countries to assess review their port reception facilities so as to identify:

- normal needs;
- practical problems in developing or implementing port wastes management strategies;
- problems in relation to the collection, treatment, transport and final disposal of wastes from ships including the interface between ships, ports and facility so as to improve levels of service to users.

IAPH Committee will need to consider urgently the nature and substance of a definitive port viewpoint on the issues to be addressed by the Correspondence Group. MEPC 42 also approved a new format for reporting inadequacy of reception facilities which will be issued under cover of an MEPC Circular.

Revision of the OPRC Convention
A revised draft Protocol on Preparedness, Response and Co-operation to Pollution incidents by Hazardous and Noxious Substances, 2000 was adopted in principle by MEPC 42 for consideration and adoption by a Conference of 4/5 days duration to be held back to back with MEPC 44 during March 2000. It should be noted that the draft Articles of the Protocol do have implication for port authorities as, for example, Article 3 includes provision for inspections by port authorities of shipboard emergency plans.

Prevention of Air Pollution from Ships
It will be recalled that IAPH had a particular interest in this subject in the lead-up to the agreement to add a new Annex VI to MARPOL 73/78. IAPH’s concern at the time related to possible port implications of the discharge of sulfur emissions from bunker fuel. Draft guidelines to monitor these are now under development.

As respects Vapour Recovery Systems, Governments will be requested by MEPC Circular to notify IMO of ports and terminals in which emissions are regulated together with requirements which may be imposed on ships calling at these ports and terminals.

Harmful Aquatic Organisms in Ballast Water
Resolution A868(20) on Guidelines for the Control and Management of Ships’ Ballast Water to minimize the transfer of Harmful Aquatic Organisms and Pathogens, is already used by some States to protect their marine environment. MEPC, however, does not consider that to be sufficiently effective and is generally agreed that a legally-binding instrument is necessary. That view was given added effect by the fact that A868(20) also requested MEPC and the Maritime Safety Committee specifically to work towards the completion of legally-binding provisions with a view to their consideration and adoption in 2000.

A Working Group, in which IAPH participates, has consequently been developing draft regulations and a related

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MSC 70 was held at IMO Headquarters, London, UK from 7 to 11 December 1998, under the chairmanship of Dr G Pattofatto (Italy).

Delegations were present from 84 Member States and 2 Associate Members; also present were representatives from 4 UN agencies, 6 inter-governmental organisations and 31 non-governmental organisations, including IAPH.

It is in the nature of things that matters usually discussed at MSC meetings are very much ship-specific and generally quite technical in that regard. IAPH members would not normally be expected to be conversant with these matters. Some issues, however, do need to be addressed by IAPH on behalf of the global port community.

On Ship/Port Interface issues, for example, MSC 70 agreed that a high priority should be given to improving ship/shore communications including the development of checklists and manuals. That decision is therefore supportive of IAPH’s commitment to the Bulk Carrier Safety Checklist and the development of related guidance to ports.

MSC 70 has endorsed a circular on Training Requirements for Cargo-related matters; a model course on the safe and secure packing of cargo transport units; a contemplated model course for use by terminal operators. IAPH has been, or will be closely identified with these developments.

MSC 70 did not, however, agree that IMO’s Ship/Port Interface Group should carry out work on the possible development of an international convention, or the extension of present conventions, covering aspects of port safety. Such matters are believed to be the preserve of individual sovereign States.

Many IAPH members will rightly wish to be identified with IMO’s Technical Cooperation strategy the mission statement of which indicates an intention to assist developing countries by contributing to the enhancement of their capacity to comply with international rules and standards relating to maritime safety and the prevention and control of marine pollution.

In its Integrated Technical Co-operation Programme (ITCP) for 2000-2001 a budget of US$16.7 million has been agreed for regional programmes and global activities of which nearly US$12 million will be used to address maritime safety and related institutional development issues. These allocations support the shift in emphasis within IMO from the development of new regulations to the implementation of existing ones.

MSC 70 also noted the development of an ad hoc assistance project for the restoration of port and marine services in Central America following the damage caused by Hurricane Mitch.

MSC 70 noted that substantive work by a UN Working Group would begin in Vienna in January 1999, on the development of an international instrument regarding trafficking of migrants (including by sea). As a contribution to that work and to help Member States with guidance in the interim, MSC 70 agreed the issue of a Circular on Interim Measures for combating unsafe practices associated with trafficking or transport of migrants by sea. The substance of that Circular has an impact on port operations. IAPH members are therefore encouraged to discuss the subject with their respective Governments.

Piracy and armed robbery against ships continues to give concern to IMO. The areas most affected continue to be the South China Sea, Straits of Malacca, Indian Ocean, East and West Africa and South America. Clearly, the eradication of the crime requires positive and sustained action by relevant Governments and the political will to enforce strict countermeasures. Ports in the areas are necessarily involved. IAPH will therefore want to consider the nature and extent of the contribution it can make to the activities of an informal industry group, led by BIMCO, which will seek to coordinate efforts aimed at reducing the risks of piracy, armed robbery, stowaways and drug smuggling.

A documentation on Standards for Training and Certification of VTS Personnel submitted by IALA, in which IAPH has a considerable interest, was deferred for discussion at MSC 71.

MSC 70 noted that Singapore will host the 9th International Symposium on Vessel Traffic Services (VTS 2000 Symposium) from 18 to 21 January 2000. Finally, MSC 70 agreed the substantive items for inclusion in the agendas of MSC 71 and MSC 72. Details of these can be made available on request. The work programmes of subcommittees were also agreed.

The next meeting, MSC 71 will be held from 19 to 28 May 1999. MSC 72 will be held during May-June 2000.
General Information

THE 21st World Ports Conference of the International Association of Ports and Harbors is being held in Kuala Lumpur from 15 to 21 May 1999. The Conference hotel is the Palace of the Golden Horses.

Registration And Information Desks
The main registration and information desks are located at the lobby of the Palace of the Golden Horses and will be open between the following times:

- **Sunday**: 16 May 0800-1830 hrs
- **Monday**: 17 May 0800-1800 hrs
- **Tuesday**: 18 May 0800-1800 hrs
- **Wednesday**: 19 May 0800-1800 hrs
- **Thursday**: 20 May 0800-1800 hrs
- **Friday**: 21 May 0800-1800 hrs

IAPH Statutory Committee Meetings
IAPH Committee Members who are required to attend the Saturday 15 May and Sunday 16 May committee meetings will need to pre-register before attending the meetings. A special registration desk will be set up at the Conference hotel for this purpose and will be open between the following times:

- **Saturday**: 15 May 0800-1800 hrs
- **Sunday**: 16 May 0800-1300 hrs

Conference Language
The official conference language is English. Simultaneous interpretation will be provided for Japanese within the conference hall. Delegates are invited to participate in the trade exhibition.

Exhibition
A trade exhibition will be held simultaneously with the Conference at the Unity Ballroom, one level below the conference hall. Delegates are invited to visit the exhibition. The official opening of the trade exhibition will be on Monday 17 May at 0945 hrs.

Immigration/Visa
A valid passport (and visa wherever applicable) is required for all persons entering Malaysia. Please check with your travel agent for details.

Climate And Clothing
Malaysia has an equatorial climate with fairly uniform temperatures throughout the year. Temperatures range from 24 degrees Celsius at night to 32 degree Celsius during the day. Lightweight or mixed fibre clothing will be more than adequate.

Local Time
Standard Malaysia Time is eight hours ahead of GMT.

For further information please contact:

- **IAPH Conference Chairman**
  - Port Klang Authority
  - Mail Bag Service 202, Jalan Pelabuhan 42005 Port Klang, Malaysia
  - Tel (603) 3688211
  - Fax (603) 3670211/3689117
  - E-mail: pka.secretary@pka.gov.my

- **Conference Organiser**
  - 21st World Ports Conference of the IAPH
  - Asian Strategy & Leadership Institute (ASLI)
  - Level 14, Menara SungeiWay
  - Jalan Lagoon Timur, Bandar Sunway
  - 46150 Petaling Jaya, Malaysia
  - Tollfree 1800 88 3096
  - General Line (603) 7317775
  - Fax (603) 7314758/59
  - E-mail: skenanga@yahoo.com/
    - karen@asli.po.my

Conference Fees and Registration
The IAPH executive committee has approved the registration fee for delegates. The provisional programme together with the registration forms for the conference and exhibition has been sent out.

- **IAPH Members**
  - Before 31 March 1999 – RM4,500
  - On or after 31 March 1999 – RM5,700

- **Non-IAPH Members**
  - Before 31 March 1999 – RM5,700
  - On or after 31 March 1999 – RM7,000

The registration fee include one accompanying person, who can take part in the arranged social functions and the spouse programme. For each additional accompanying person the fee is RM1,300.

Note: Payment can also be made in US dollars at the conversion rate of RM3.80 to US$1

IAPH Business Programme
The IAPH Statutory Committee Meetings will be held on Saturday 15 May and Sunday 16 May 1999. All these committee meetings will be held at the Palace of the Golden Horses starting at 0900 hours. Details of timing and meeting rooms are in the provisional business programme.

Working Session 1
Changing Structure Within the Shipping and Port Industries

Working Session 2
Forging Ahead With IT in the Maritime Industry

Working Session 3
Port Development and Management – Changing Trends

Working Session 4
Global Trend in International Trade and its Impact on the Maritime Industry

Working Session 5
Protection of the Marine Environment

Working Session 6
Advancement in Technology and its Implications on Port Operations

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You must fill in a currency declaration form on arrival in Malaysia. There is no limit to the amount of foreign currency notes and travellers cheques denominated in foreign currency you can bring into the country. However, you are permitted to bring in Ringgit currency notes of up to RM1000 per person only.

On leaving Malaysia, you can carry with you foreign currency notes and travellers cheques denominated in foreign currencies up to the amount brought into Malaysia, as well as Ringgit currency notes of up to RM1000 per person.

You as well as your children are
required to complete and submit a Travellers Declaration Form to the Immigration officer at the point of entry, indicating the amount of foreign currency notes and travellers cheques in your possession, including Ringgit notes in excess of RM1000. The Travellers Declaration Form will be endorsed and attached to your passport, to enable you to declare.

If you require any assistance or clarification regarding the 21st IAPH Conference in Kuala Lumpur in 1999, please contact: Chong Choon Yin or Ali Termizi

21st IAPH Conference
Port Klang Authority
Mail Bag Service 202, Jalan Pelabuhan, 42005 Port Klang
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(603) 368 7344
Fax: (603) 368 9117 (603) 367 0211
e-mail: cychong@pka.gov.my aaltermizi@pka.gov.my

Outline Programme

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<td>IAPH Statutory Committee Meetings</td>
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<td>Post Conference Executive Committee Meeting</td>
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CORRECTION
In the Registration Form which was recently circulated to IAPH members and potential attendants from the host of the 21st World Ports Conference, the date for the Technical Tour was erroneously indicated. The date of the TECHNICAL TOUR IS Wednesday, 19 May 1999 (not Tuesday, 18 May 1999)
Pre-And Post-Conference Tours

As is the norm of all IAPH Conferences, we have planned various pre- and post-Conference tours for your enjoyment. All you need to do is select your holiday, book it for a date of your convenience either before or after the Conference and leave all the arrangements to us. We are sure that you will enjoy the choice of holidays and plan ahead. This would be an excellent time to mix business with pleasure and even have that well deserved rest or maybe a family vacation!

Langkawi (3-day tour)

A group of 99 islands nestled on deep blue water, Langkawi abounds with tales of yore that tell the sad fate of a Malay princess, the magical powers of a lake and a field of burnt rice. But Langkawi is legendary also for its natural beauty, her miles of golden beaches, parades of marine life and coves as well as rows of duty-free shops.

Rate: RM540 per person on twin-sharing room; RM855 single

Malacca (9-hour tour)

This is where our nation started – Historical Malacca, an enchanting place that has been strongly influenced by the Dutch and Portuguese. Experience the Baba Heritage, a blend between the Malay and Chinese culture. Visit the Cheng Hoon Teng temple, the country’s oldest Chinese temple, the Dutch Studhyus and Porta de Santiago. Explore the ruins of St. Paul’s Church where St. Francis Xavier was once buried.

You will depart for Malacca on a 2 1/2 hour coach trip. The tour is inclusive of lunch.

Rate: RM85 per person

Pahang National Park (5-day tour)

A large part of Taman Negara, Malaysia’s National Park, is located in the northern state of Pahang. The vast expanse of the park is covered by one of the oldest rain forests in the world, and is also home to a diverse range of wildlife. Most notable of all are the 250 species of birds recorded in the park. Take a 3-hour boat trip up the Tembeling River to the National Park. Enjoy the flora and fauna and the beautiful view from Teresek Hill. Go jungle-trekking, take a boat ride along the Tahan River to the Latah Berkon cataracts for swimming, visit an aborigines’ settlement and take a walk on the canopy walkway, noted as the longest in the world. An adventure you will never forget!

Rate: RM1435 per person twin-sharing room; RM2289 single

Mulu Cavez (4-day tour)

The Mulu National Park is acclaimed as the most extensive and spectacular cave system on earth. Proof of it is in the Sarawak Chamber, the largest natural chamber in the world and the Deer Cave, the largest cave passage known to man. You will also visit a Penan settlement as well as the Bat Observatory Building to watch thousands of bats flying out of the caves in the evening.

Rate: RM1400 per person twin-sharing room; RM1725 single

Note: All tour packages excluding the Malacca tour includes return air ticket, return transfers between airport/hotel/airport, accommodation at a 5-star hotel and daily breakfasts.

(Reprinted from IAPH ’99 Newsletter No.3)
Brief Notes on Meetings of the IAPH/IMO Interface Group

on 2 December 1998 in New York

1. Compulsory insurance

The Group endorsed a paper on Compensation for Pollution from Ships' Bunkers to IMO's Legal Committee in which the issue of compulsory insurance plays a significant role.

2. IMO meetings

The Group commented on reports prepared by Mr. Smith which had been circulated in advance.

2.1. Facilitation Committee, FAL26, 7-11 September 1998

The Group endorsed an IAPH submission on availability of tug assistance in ports and especially the view that it is not possible to design a globally applicable system for the assessment of required tug assistance. IMO intends to collect data on various systems used in ports in support of further discussions at the next meeting.

Ship/Port Interface Working Group

Important issues which were discussed in SPI were Reception Facilities for Ships' Wastes and Harmful Aquatic Organisms in Ballast Water. These issues are also dealt with by MEPC.

IMO has an increased tendency to develop new legislation on environmental protection and cargo handling, placing obligations on ports and terminals. Relevant IAPH Committees need to assess the nature and extent of these obligations.

IAPH will, with other relevant bodies, prepare a basic discussion document on training and education of port marine personnel. The Marine Committee is requested to prepare a first draft for discussion at the next meeting of the Group.

The Group expressed concern regarding certain parties in SPI wishing to develop a Port Safety Convention.

2.2. Legal Committee, LEG78, 19-23 October 1998

The Group endorsed an IAPH submission on Compensation for Pollution from Ships' Bunkers in support for the development of a free standing Bunkers Spills Convention.

2.3. Marine Environment Protection Committee, MEPC42, 2-6 November 1998

The new Chapter 11 of the Comprehensive Manual on Port Reception Facilities was finalised at this meeting. The chapter contains guidance on possible financing systems for reception facilities.

IAPH had submitted a position paper and actively participated in the discussions on the problem of adequacy of reception facilities.

The same applied to sessions on Harmful Aquatic Organisms in Ballast Water and Anti-fouling Paints for ships. Relevant IAPH Committees should consider to provide further input to the various correspondence groups which are to deal with a number of questions intersessionally.

2.4. Technical Cooperation Committee, TECH46, 19 November 1998

Mr. Smith reported that Ports Associations affiliated with IAPH should be aware of TECH's intention to thematic priorities for technical cooperation reflect the need to foster regional cooperation for the development, implementation and enforcement of relevant IMO instruments.

3. Port Guidance Documents

The Group considered three Port Guidance Documents submitted by the Committee on Port Safety and Environment:

• on the required level of VTS in ports, to be cross-checked against a revised IALA document on this issue.
• on Formal Safety Assessment for ports

The Group advised to remove this subject from the agenda of the committee.

• Education and Training Standards for Port personnel

Paper to be amended to reflect the submission that IAPH and others had agreed to prepare for FAL27 (see comments on FAL26)

The Committee on Port Safety and Environment was asked to comment on the extent to which submissions by IALA and IMPA on training and certification of maritime pilots take account of ports' interests.

4. Millennium Bug

The Group took note of circulated papers outlining the possible adverse impacts of the Y2K.

5. Environmental Guidance Manual for Ports and Harbours

HR Wallingfors is carrying out a research project for the UK Government with the aim of developing guidelines on the subject for ports and had asked for IAPH cooperation. It was decided to leave the matter in abeyance for the time being.

6. Application by IHMA

The Group discussed the application by IHMA for consultative status with IMO. It was felt that ports' interests were adequately represented by IAPH.

7. Advanced course in Le Havre

The Group discussed a request for sponsoring an advanced course on port operations and management, to be held in Le Havre.

The matter was referred to the Human Resources Committee.

8. Next Group meeting

The next meeting of the Group will take place in Kuala Lumpur on 15 May 1999.
Report of the Committee on Ship Trends
Rotterdam – 19 January 1999
by Bernard Coloby

The Ship Trends Committee has a long tradition within the International Association of Ports and Harbors to collect data on vessel characteristics and to present a biennial report in order to deliver the latest information on the trends of ships to the IAPH members.

Moreover, the report is similar to former ones. It starts with very general information on the trends of global maritime trade and summarises the economic development of various parts of the world and explains therefore where the main flow of maritime traffic is located.

Then we have chosen this year to consider four types of shipping activities (Container, Car Carrier, Solid bulk and Cruising) and to report on the consequences of their trends on ports.

The report is at present under finalisation between the Committee members so that it will be ready for the next IAPH Conference in May 99. But, at this stage, we can make the following observations.

GLOBAL MARITIME TRADE

The world seaborne trade has continued to grow at a faster pace than the world economy. The 3.3% growth in 1997 was the highest since 1990. Today there are nearly 5 billion tons of cargo exchanged annually by sea.

CONTAINER TRADE

The world container trade was estimated at 85 million TEUs in 1997 and is predicted to reach 100 million TEUs in the year 2005. Therefore Drewry states that 200 new container terminals will be required by the year 2005.

One critical point is the imbalance of the container trade leaving container operations with the endless management of empty boxes.

Regarding the fleet, the number of over-panamax vessels continue to grow. There are at present 52 vessels over 5,000 TEUs in operation and 40 on order.

Another fact is the concentration of container activity in the hands of bigger and bigger shipping lines. Today the 25 leading carriers control about 51% of the worldwide container carrier capacity: 2.8 M TEUs on a total of 5.5 M TEUs.

Speed becomes again a key factor. A 24 knot speed is necessary to maintain the schedule between various vessels operated by consortia members. But at present sailing faster than 26 knots seems difficult without dramatically increasing fuel costs.

The last point deals with the structure and the organisation of terminal operations. There is a tendency for big stevedoring groups to be more and more involved in container handling in several ports of the world (PSA Corporation, Hutchison, P&O Ports,...)

CAR CARRIER

It is estimated that, in 1997, 7.5 million cars were shipped, around 15% more than in 1996.

In July 1998, there were 69 car carriers on order around the world for delivery between 1998 and 2000. That represents the highest forward order for this type of vessel ever recorded and many of these new buildings are relatively large vessels with capacity for 6,000 cars and more.

DRY BULK

The capacity of transport was stable in 1996 but significantly increased in 1997 with 20 Capesize vessels, 55 Panamax vessels and 75 Handysize vessels.

Therefore as the demand of dry bulk transport is not forecasted to grow at the same pace, it can be expected that the freight rates will remain at a low level.

Meanwhile new international regulations, such as the ISM Code or SOLAS, will likely contribute in straightening out the supply imbalance by eliminating the substandard vessels.

CRUISE INDUSTRY

There are nearly 200 cruise vessels in the world. New orders will increase the number of vessels by around 20%, but capacity by more than 33% as almost 25 of the vessels ordered will carry more than 1,500 passengers.

The biggest cruise-ships are now over-panamax, with the following characteristics:

- Carnival Destiny: 272 m long, 35.3 m wide and a draft of 8.2 m,
- Grand Princess: 289 m long, 36 m wide and a draft of 8 m,
- Voyager of the Seas: 310 m long, 47.6 m wide and a draft of 8.6 m.

As far as the cruise market is concerned, there is clear evidence that – after many years of concentration in the U.S.A. and the Caribbean – it is expanding to other parts of the world, mainly Europe (North as well as the Mediterranean) and Asia (Japan and South-East).

There are probably 7 million people cruising every year in the world: 5 million Americans and 0.5 million Europeans.

Here again we can observe further consolidation of the cruise operators. The big three – Carnival, Royal Caribbean and P&O Princess – who control just under 50% of the market, are still continuing to grow.

New Appointment
Trade Facilitation Committee

On 25 January, President Smagghe officially appointed Mr. Marc H. Juhel, Senior Port Specialist of The World Bank, to serve on the IAPH Trade Facilitation Committee, with the recommendation by Mr. Emil Arbös, Chairman of the Committee.

Mr. Juhel had applied to join this Committee in his belief that trade and transport facilitation is an issue we are now focusing on with increased interest in the wake of the Bank's efforts to spur exports and external trade in his clients as the main vehicle for economic growth and poverty alleviation.

Mr. Juhel further comments in his letter recently addressed to Mr. Arbös that the port interface being a critical link – both physical and institutional – in international transport systems, his participating in IAPH work in this area definitely appears a worthwhile effort for the Bank.
## List of Contributors to the Special Port Development Technical Assistance Fund

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Total in US$: 26,508

As of 12 February 1999

## Correction

IAPH Seminar on Electronic Commerce at Barcelona World Trade Center

In the story with the headline above (Page 10, Column 3: Under the crossheading of Subject Area 3: Electronic Commerce: International Organizations Developments), the person who spoke on "UN/CEFACT Involvement in Electronic Commerce" was reported erroneously in the January-February 1999 issue of Ports & Harbors. The speaker was Mr. Kenji Itoh, Vice Chairman, UN/CEFACT, and concurrently Executive Director, JASTPRO, Japan, but not Mr. Ray Walker, Chairman, UN/CEFACT Steering Group.

Port of Yokohama Info Offered on Website

The first line of the third paragraph of the story with the headline above (Page 40 of the previous issue of Ports & Harbors) should read: From July 1998...

The seventh line of the accompanying table should read: Introduction to Port Related Industries (J/O)

We apologize to those concerned for our erroneous reporting and thereby causing much inconvenience, though inadvertently, in the course of writing, editing and proofreading.

IAPH Head Office
Community Systems in the Port of Banjul: The Approach of a Developing Country Port to the New Era of Electronic Commerce

By Abdourahman Bah

(This paper was presented by Mr. Abdourahman Bah, Director of Operations, Port of Banjul, Gambia, at the 1st IAPH Seminar, “Ports in the New Electronic Commerce Environment”, held in Barcelona, 5-6 November 1998.)

1. INTRODUCTION

Electronic commerce is not just the latest futuristic “tech-fiction”, it is happening the world over in the changing business environment and increasing global competition.

The concept can be defined as any business transactions undertaken by electronic means as opposed to direct physical exchange or contact, resulting from the convergence of new technologies (telecommunication and information technology) with a view to revolutionising the way business is conducted worldwide.

This paper has as its objective to analyse the impact of this concept on modern seaport operations. To this end, it shall also examine the response of the Port of Banjul to the challenges posed by electronic commerce with a view to delivering quality service to its customers.

1.1 The Gambia

Location: The Republic of The Gambia is situated on the West Coast of Africa, occupying an area approximately 12,000 km², with a population of about 1.2 million. The country is strategically located to serve the vast ECOWAS market of over 300 million people with trade valued at about US$250 billion per annum. Indeed the Gambia has earned the long standing and enviable position as a major trading and distribution centre to the sub-region.

Economy: Since its emergence from the recent crisis environment, the economic outlook of The Gambia has been remarkable. This is underpinned by firm resurgence of private sector confidence, the increasing favourable disposition of the international community and the recovery in tourism activities. The real growth rate of GDP continues to be positive.

In 1997, agriculture accounted for about 25 percent of GDP. The industrial sector comprising mainly manufacturing, utilities, construction and mining accounted for about 12 percent whilst the service sector (the largest contributor to GDP) accounted for 60 percent, indicating a new growth area of the future. This natural inclination of the domestic economy continues to be supported by Government policy to ensure that a service sector centred on transportation, telecommunications services, trade and financial services, logistics, tourism, information technology, and other such professional services hold a base in The Gambia. Accordingly, Government launched the Trade Gateway Strategy as the bedrock to its economic transformation policy in order to spearhead the realisation of the national Vision 2020 geared towards transforming The Gambia into an export orientated and service providing country.

1.2 The Gambia Ports Authority

The Gambia Ports Authority is a statutory corporation established in 1972 by an Act of Parliament known as the 1972 Ports Act. Within the provisions of this Act, the Authority is mandated to provide and operate in any Port, such Port facilities best calculated to serve the public interest, maintain, improve and regulate the use of the Port of Banjul and the Port facilities transferred to the Authority under this Act to such extent as appears to it expedient in the public interest. The Act also makes it mandatory for the Authority to conduct its affairs on sound commercial lines.

Since the establishment of the Authority, a further legislation was enacted known as the Public Enterprise Act 1989, whose principle objective is to regulate the powers and duties of Public Enterprises and to promote improved performance, profitability and efficiency.

Whilst operating within the two Acts of Parliament, Government also contracted with the GPA under a Performance Contract in 1987, providing a mechanism for the monitoring of Enterprise performance consistent with its role and objectives as a publicly-owned body.

Government has now introduced a new management contract in the form of a Memorandum Of Understanding (MOU) with effect from 1st January 1998, which also provides the mechanism for Government to access fairly the performance of the Authority.

In 1997, total cargo throughput was 703,000 metric tonnes, of which about 90 percent constituted imports. A significant proportion of these imports were reexported to neighbouring countries as the Port of Banjul’s hinterland extends beyond Senegal to Guinea Bissau, Mali and Mauritania.

Successive development phases of the Port of Banjul have witnessed a steady growth in port activities and improved profitability of the Authority.

The Port of Banjul is poised for growth and continued development in line with its mission:

“To Excel as a leading Maritime Centre for Trade, Logistics and Distribution”.

2. ELECTRONIC COMMERCE

2.1 Introduction

Electronic commerce impacts on the whole spectrum of the business chain – marketing, advertising and sales; supply and subcontracting; finance and insurance; ordering, delivery, invoicing and payment; product servicing, support and maintenance; transport and logistics, and accounting.

The impact of electronic commerce is not only changing the way business
operates, but also the way individual members of the society buy and sell products and services and interact with relevant government authorities.

Notwithstanding its potential gains, electronic commerce is not free of problem and constraint that need to be addressed at organisation, government and global levels.

2.2 Opportunities for Developing Country Ports

The rise of information rich nations is sending a clear signal to developing nations that those taking action today to build a robust information infrastructure are likely to enter the 21st Century with a competitive edge and increased social cohesion.

In the port and shipping industry, developments witnessed by the advent of containerisation, the use of specialised vessels and changes in cargo handling technology has brought many challenges to the efficient management of modern port operations.

The increasing complexity of port operations, as well as rapidly changing customer requirements necessitate new methods for information processing and systems.

Today, it is more important than ever that such information systems are well integrated and coordinated to provide the most effective service under given user requirements. This will improve the ability to plan and manage and consequently reduce costs, increase profitability and remove obstacles along the multimodal transport chain.

In the ports and shipping industry, the opportunities presented by electronic commerce stem mainly from:

- substantial cost savings – one of the major contributions of electronic commerce is a reduction in operational costs, especially in routine clerical processes
- increased speed information flow—the expensive plants and equipment of a terminal should be kept working continuously and not delayed by slow information flow, documentation and control procedures.
- improved efficiency – the electronic transmission of trade documents is of mutual benefit, gaining time for both parties and enabling more reliable and accurate reporting, and better decision making
- improved competitiveness and quality of services – electronic commerce can offer port operators the opportunity to become closer to their customers in terms of rapid response to enquiries, which corresponds to improved quality of service for the customer
- access to global markets – the boundaries of electronic commerce are not defined by geography but by the coverage of computer networks which are global in scope. This enables even the smallest business to achieve global presence, have access to global markets and exploit the convergence of diverse and parallel markets.

2.3 Problems/Constraints

With all its opportunities and benefits, electronic commerce does not operate on a foolproof system. Some of its problems and constraints include:

- Security – transmission of trade documentation over open networks needs effective and trusted mechanisms for privacy and security to provide confidentiality, integrity, authentication and non-repudiation. Electronic trade must be secure to ensure that other parties cannot inadvertently or intentionally gain access to confidential and potentially damaging information.

As recognised mechanism depend upon certification by trusted third parties (such as government bodies), global electronic commerce will require the establishment of a global certification system.

- Legal Issues – the two primary legal issues of electronic commerce are over the loss of authorisation control and that over the legality of electronic documents. Currently, there is a legal requirement for certain transactions to be supported by paper documents. The negotiable Bill of Lading is one such document. These are further compounded when electronic commerce crosses national boundaries using multiple networks and communication standards. However, with the rapid expansion of electronic commerce and pressure exerted by the electronic community, this will have to be resolved sooner rather than later.

- Costs – costs come early in the implementation of electronic commerce and are substantial
- Globalisation – whilst globalisation itself presents great potential to the global business community, it also has other areas of concern. How can a company gain an understanding on the unwritten business traditions, norms and conventions in other countries? and how can the diverse languages and cultures be respected and supported?

- Standardisation for Interconnectivity and Interoperability – realising the full potential of electronic commerce requires universal access to all systems regardless of geographical location or specific network connected to. This requires global standardisation to enable inter-system communication.
- Pro-competitive environment – governments will have to create a pro-competitive environment that facilitates public-private sector partnership and initiates reform agenda in relevant
3. ELECTRONIC COMMERCE IN THE PORT OF BANJUL

The Gambia has an excellent world-wide telecommunication facilities that is second to none in Africa which has been recently expanded to provide a gateway to the information superhighway, the Internet. The Internet can now be accessed from anywhere in the country. The use of computers and the internet in The Gambia is on the increase in both the public and private sectors.

Almost all core banking services are fully automated, further facilitating the development of a port community system.

At the Port of Banjul, the Authority is taking a leading and active role in spearheading an electronic port community system with its users as demonstrated by the diagram on the preceding page.

The GPA in collaboration with the Department of Customs and Excise, accepted the recommendation in 1999 to computerise customs and excise procedures in order to enhance smooth clearance procedures and to provide accurate accounts and statistics. This resulted in the ASYCUDA system an acronym for Automated Systems for Customs Data, a customs computer system development by the United Nations Conference on Trade and Development, UNCTAD on request from Economic Community of West African States, ECOWAS.

Liner agents such as Maersk (Gambia) already have in use round-the-clock online cargo tracking systems which enables tracking of all cargo and container movements. It also offers the benefit of participation in numerous electronic data interchange system and Maersk's Advance Information Concept, MAGIC enables tracking of shipments from the moment booking is received until the cargo reaches its destination.

With regards to the Port's customers, some already have in place or are planning to use computer systems to assist in their business operations.

Within the GPA, substantial investment in IT resources mainly comprising a FC-base Local Area Network (LAN) on which an accounting application, office automation applications, program development tools and desktop publishing are run. It also has access to the Internet and electronic mail.

The GPA was chosen as a pilot project for port computerisation by the Port Management Association for West and Central Africa (PMA WCA) in recognition of its capability and was the first regional port to develop an in-house port operations system. Given this situation and in a bid to exploit the strategic opportunities offered by IT, the Authority has recently pledged to maximise the utilisation of these resources by embarking on a series of programmes aimed at expanding the use of IT to improve and enhance quality of service to its customers. These programmes will include among others:

* full computerisation of port operations and support services
* presence on the Internet
* spearheading an electronic port community system

With an excellent national telecommunication network and a solid IT foundation, the Banjul Port Community is poised for the integration and development of its distributed information systems into an electronic port community system.

4. CONCLUSION

With the advent of multimodal transport and the concept of door-to-door service, the impact of electronic commerce on ports as links in the production supply chain becomes more pronounced.

The handling of cargo from production to consumption sites is thus inextricably linked with information systems that provide accurate and reliable data in transport and distribution.

In fact, one could argue that the establishment of mergers and alliances among transport operators, linking different segments of the transport chain should provide the basis for the adoption of electronic commerce with a view to enhancing information flow in the multimodal transport chain.

The use of electronic commerce on the entire transport chain will inevitably link customers and their suppliers, enhance planning and operations and improve the quality of service.

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Global Challenges for Ports and Terminals in the New Era

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The continuous process of change in international transport management in the last ten years, from a segmented modal approach towards a much more integrated transport concept tailored to better meet the pressing needs of customer industries, is resulting in an increasing pressure on ports to adapt their role and function to this more demanding operational environment. This entails the rethinking of national port development strategies, as well as far-reaching reforms in the legislative, regulatory, and managerial environment within which commercial ports have to operate.

In particular, the need to define new partnerships between the public and private sectors in port operations, investments financing and assets management, leads to a review of the respective roles of public and private actors, and specifically calls for a clarification of the mandate of the public sector, and simultaneously of the missions it would be well placed to undertake. These missions are likely to be more of a catalyst and facilitation nature, together with a stress on assistance to public statutory duties, with a particular attention devoted to transport safety and environmental protection.

Simultaneously, efficiency of inland transport to serve an increasing, and most often disputed hinterland, has become a critical factor of the ports potential future, as well as of overall trade growth prospects. Today's global logistics organization makes it mandatory for shippers worldwide to be able to rely on seamless transport chains, of which the port is a prominent node. Smooth interaction between the port and the city often surrounding it, in terms of transport networks requirements, environmental protection, and overall safety, therefore appears a prerequisite for effective delivery of integrated logistics services. Port authorities are likely to have a major role to play in fostering the development of an
effective cooperation between interested public and private players, which will be required to make it possible to achieve the expected benefits of integrated transport and logistic operations.

Finally, the institutional context, as well as the assets ownership and managerial framework, must be conducive to an optimal cost-effective utilization of port facilities. This supposes openness to competition in provision of port services, and establishment of appropriate regulation arrangements where market conditions make it necessary. Physical and regulatory integration of transport networks, as well as comprehensive provision of port services, and supposes openness to competition in issues, will also be required to allow national port systems to provide local and regional economies with the services they need.

A. The Elements of the Port Reform Agenda

1. The international support to port improvement schemes was generally straightforward during the 1960s and 1970s. As a common feature in the early years after independence, port infrastructure in most developing countries was badly maintained and often poorly managed. The immediate needs were therefore easily identifiable—ports had to be kept open as a key prerequisite for maintaining trade flows. The provisions for port assistance during that period were centered on engineering and related construction aspects, financing management issues, institution building, and manpower development. The scenario changed drastically from the early 1980s onward, when changing shipper practices, aided by rapidly progressing technology advances like cargo containerisation, induced the ocean transport industry to fundamental restructuring in service networks. Suddenly there was no longer any distinction possible between ports in developing countries and in industrialized nations. The same problems confronted all ports worldwide.

2. The key topics addressed under current port sector reform programs include:

- reformulation of national port system development strategies;
- reorganization of port management arrangements; and
- introduction of innovative financing and cost recovery schemes.

3. The need to reformulate national port system development strategies stems from the fact that the configuration of cargo generating hinterlands has changed, and that ocean transport networks have undergone restructuring. As a result, the nature and pattern of demand for services in many ports have become different. Quite often, there are cases where the physical layout of ports is not any longer in line with user requirements. Some of these ports will need to be adjusted to a changed role and function, for instance, by having lost importance as line-haul facility. In other, albeit more limited cases, ports with formerly low importance for international ocean transport have been confronted with unexpected direct service demand. Owing to these circumstances, governments in maritime nations have to reconsider their criteria for national port system development to ensure demand responsiveness to the changing needs of trade and transport. Since budget constraints and limits to capital market exposure are today common among both developed and developing countries, there is usually a stringent need to search for cost-effective solutions which minimize required investments.

4. Hand in hand with the need to reformulate national port development strategies went correspondingly required reforms in the legislative, institutional and procedural provisions for port systems planning and regulation. As regards planning, the main issue usually was overly concentrated decision-making in central government bodies with little participation of port managements, and mostly no consultation of port users. Concerning port sector regulation, the provisions were commonly obsolete, reflecting market conditions prevailing at the time of their promulgation, which sometimes dates back for more than a generation. Thus port sector regulations in many countries were critically ignorant of the special requirements of the changing trade markets and transport industry organization. These regulations often constituted severe impediments to trade performance.

5. Today, possibly the most debated issue within the public administrations and port communities in maritime countries relates to options for improving the provision of port services through reorganisation of port management. While there is the gradually increasing awareness of the need to adjust port system development strategies to the changing trade and transport market environments, a clear appreciation of the immediate requirement to make port service provisions more responsive to user demands has now become commonplace. The usual shortcomings entail cumbersome organization structures, complicated lines of command, lack of incentives and accountability, outmoded management practices, and excessive employment of port labor. The culture of public administrations, inherited legislative provisions, and ill-defined employment objectives are usually the root causes of these shortcomings.

6. There are two concepts which feature prominently in this debate: corporate management and privatization. Corporate management stands for plans to delink the administration of ports from central government. Various forms of proceeding along these lines can be observed. In some countries the management of regional ports is put under the jurisdiction of provincial or municipal governments, and substantial autonomy is granted to individual ports in arranging their day-to-day services. China is a case in point. In other countries, previously state-run ports are pooled and transformed into public corporations with full accountability for the conduct of their business, like in Indonesia. The World Bank has been much involved in helping these and other borrowing member countries through the various stages of putting national ports on a more business-oriented footing.

7. Possibly the most striking feature of rearranging port organizations is the growing participation of private parties in the provision and management of port services. Such arrangements have a long tradition in North American and West European ports which act as landlords while private concession holders organize and conduct a variety of services. Reorganization of port characteristics of such services have been superior and very beneficial to individual ports. Confronted with continued low productivity of their state-run ports and in view of the productivity gains among western
ports, after their operations had been put under the control of private management, a growing number of governments in developing countries considered adopting similar arrangements. Contracting a private consortium for the operation of the container terminal of Malaysia's Port Kelang was the first major initiative along these lines. It took place in the mid-1980s. Since then the organization of more than 100 ports in developing and transitional countries has been changed, with private parties participating to varying degrees in the operation and management of port services. This process has gathered its own momentum and new public-private port management and service contracts are reported each month. Such developments are particularly prevalent in East and Southeast Asia and now also throughout Latin America, whereas Africa begins to follow suit.

8. Justifiable port investment and recovering the costs of providing port services remains a principal concern worldwide. Many of the currently observed inefficiencies in ports can be traced to underlying weaknesses in financial management. But it would be unfair to exclusively blame port managers for such state of affairs. Very often their freedom to charge for port services on a cost basis was curtailed by central government decisions concerning the level and structure of port charges. Such predetermined charges frequently bear little relation to costs incurred, and thus ports run sometimes huge annual deficits. Conversely, port income statements may display apparently healthy financial results, when most of it stems from inadequate assets depreciation policies or systematically deferred maintenance, which will finally result over time in additional unwarranted outlays and add to transit costs. Eventually, ports still in natural monopoly positions can sometimes extract from their customers higher incomes than justified by the services they provide, and therefore balance their operating costs, again at the expense of final customers, national shippers and consumers. The incentives for facility managers to cut costs by streamlining the provision of services was usually undermined, either because they could count on their governments to provide subsidies if and when their annual performance record shows deficits, or because of their ability to raise tariffs without having to fear market retaliation. However, the growing fiscal crisis in numerous countries seems to dictate an end to these practices, harmful in terms of budget deficit or of economic hardships. Ports are thus losing their accustomed source of financial relief and have no other choice but to look internally for ways to cut costs, and to explore other sources of income.

9. Since the early 1990s, private sector participation in financing port improvement and expansion schemes in developing and transitional economies has greatly expanded. Substantial private funds are now flowing into port modernization programs in many Asian and Latin American economies. Actually, the amount of private capital directed at developing ports worldwide since January 1996 only approaches US$10 billion. These developments were facilitated through decisive deregulatory measures by local governments which were conducive to creating transparency and thus reduced perceived risks—stimulating private capital flows. The returns on private investment in ports have been attractive in many instances, particularly in the case of container terminals located in high growth markets. But even for smaller ports with still limited cargo volumes cases could be made for private sector involvement. The essential prerequisite was to give private parties freedom in decision-making as regards marketing and organization.

B. A New Public/Private Balance

10. The issue of effectively delimitating public/private boundaries in port activities is likely to be the prominent question in any reform process, since the intrication of public and private players tends to be greater here than in other transport modes. It involves a clear definition of the public sector mandate and of its relationships with its private partners, with a view to fostering private-sector led investment and development capacity. This requires a comprehensive understanding of the interests at stake, so that public and private partners can be in a position where they can provide each other with the services they are the best placed to deliver: an efficient and clear regulatory environment and a basic set of well-interconnected infrastructure networks for the public sector, a cost-effective transport system for the private sector.

11. It seems consequently possible to identify some main areas for public sector intervention in this part of the transport sector, which may be displayed as follows:

(a) to provide financing for some basic infrastructure components, to pave the way for increased private financing of operational facilities;
(b) to promote better physical and operational integration of sea and land transport networks;
(c) to ensure appropriate safety conditions in port and navigation activities, and to monitor the environment protection policy;
(d) to contribute to the trade facilitation process at the sea/land interface, thus helping ports to act as creative partners in international trade development.

12. The prospective public sector's role in these areas can be described in a more comprehensive manner by defining it under three different natures of mission: the catalyst mission, the statutory mission, and the facilitation mission.

The Catalyst Mission:
13. The public sector's role here would be twofold, with the aim to help Governments:

(a) to finance transports assets which very unlikely would get access to private or alternative financing sources, and whose completion clearly appears on the critical path of transport development programs. Such investments would be primarily aimed at inducing the private sector in providing resources to cover operational investments, including infrastructure, once the public action has helped creating a physical enabling environment. Specific intervention would regard in particular basic protection and access infrastructure (breakwaters, channels) and access connections with inland transport networks (road, rail, waterway);
(b) to create a regulatory enabling environment for private participation, by being a guarantor of public order and ensuring an appropriate social climate. This would entail implementing an appropriate legal and regulatory framework to
ensure fair competition, avoid monopolies and rent-seeking activities, and assisting port authorities in dealing with labor redundancy issues, possibly in financing socially adequate redundancy schemes.

**The Statutory Mission:**

14. The public sector's role here would be to help Governments take care of some of their statutory duties as national authorities: this will deal mainly with transport safety, environmental protection, coastal management, and port/cities relationships. Specific intervention would regard in particular:

(a) Navigation safety: navigation aids, vessel traffic services, hazardous cargoes transit management;
(b) Environmental protection: compliance with international conventions on maritime environment, on dredging and exploitation of marine resources, adherence to regional agreements to enforce and monitor international regulations and agreements;
(c) Coastal management: shore and coastline stabilization, beach nourishment and coastal defence structures, shoreline defence policy;
(d) Fostering common development policies between ports and cities: helping in setting up common planning boards or consultation committees on land development issues, assisting in designing port relocation operations and relating legal and financial arrangements for the disposal of redundant port facilities.

**The Facilitation Mission:**

15. The public sector's role here would be to assist Governments implement measures aiming at improving the effective use of all modal transport networks, primarily by addressing the basic issues relating to the ports' nodal position in the international trade pattern. Specific intervention would regard in particular the trade facilitation process. The Public sector's facilitation mission may therefore include the following tasks:

(a) Strengthening public governance: improving institutional ability to monitor new public/private partnerships and oversee operations without interfering in the commercial sphere, helping devise and implement clear mechanisms to manage transactions between public and private bodies without hindering open competition;
(b) Helping the trade facilitation process: improving customs regulations and practices, assisting in designing and implementing efficient enhanced communication systems, assisting in trade documentation harmonization efforts;
(c) Spearheading initiatives conducive to trade integration: assisting design and implementation of first development initiatives to induce value-adding activities to settle in port areas, helping finance facilities aiming at attracting distribution and logistics services within the port complexes, assisting in financing the first development phases of potential dry ports facilities and related intermodal connections.

**C. Issues and Challenges**

16. Assets ownership and assets operations are two distinct matters. However, there are combinations of ownership and operations structures which have proved over time to be more or less conducive to cost-effective use of assets and to overall efficiency in the delivery of port services. Moreover, the corporate structure of the port enterprise itself can have a significant bearing on the assets management policy.

17. A 1997 world review of the top 100 container ports thus demonstrates that 88 out of 100 conform to the Landlord Port model, in which the Port Authority owns the basic infrastructure only, land and access and protection assets, and leases it out to operators, mostly on a long-term concession basis, while retaining all regulatory functions. This is the standard we will consider from now on.

18. Port enterprises, once they are separated from Governments' administrative departments, and whatever their operational pattern may be, can basically adopt two main corporate setups:

- **Public institution financially autonomous**, with a Board comprising representatives from central and local public powers, and from port users/customers, working with commercial accounting principles;
- **Joint-stock company**, with a Board comprising representatives from public and private shareholders, working under common commercial law.

19. The public institution formula makes quite explicit the separation between statutory public management and monitoring duties on one hand, and commercial activities left to the private sector on the other. Port users/customers would have to be represented in the Board, with the shortcoming that nobody having a direct financial stake in the port enterprise itself, parochial interests can sometimes prevail over long-time interest of the port community at large, which in some cases may include a significant part of the national economy.

20. The joint-stock company formula presents at first sight the distinct advantage of setting up a more businesslike corporate framework, where shareholders will indeed have a financial stake in the port enterprise. Even if the shareholding structure has to be predetermined in order to meet the public ownership criteria—meaning a majority of shares would have to belong to public bodies, either central, regional or municipal—one can expect this corporate setup to instil a more direct sense of financial responsibility among shareholders. An associated issue will then relate to private shareholders. To keep up with the principle of separation between public monitoring duties and private commercial activities, private port operators would have to be barred from owning shares in the port enterprise, as the port enterprise would not be allowed to own shares in any private company operating within its dedicated area. Alternative arrangements providing for cross-shareholding possibilities are by no means impossible, but would require strong, and likely difficult to implement, conditionalities to prevent any weakening of the port's capacity to further its long term public management objectives, while maintaining equal access and treatment to all port users. In cases where port operators will be prevented from owning shares of the port enterprise, a complementary body would have to be set up, in the form of a
Port Council, to allow port users to voice their views and concerns to the Port Authority. The role and functions of this Port Council will have to be explicitly spelled out in the Port Authority’s by-laws.

C.2 Competition and Contestability

21. The Landlord-type Port Authority, which now tends to become the prevailing model of port operational organization, leaves the commercial operational field entirely to private operators. Since this formula is now being implemented even in ports with limited traffic levels, this raises the issue of competition conditions.

22. The concession formula, which entails allocation of a determined portion of the port area to an operator for a specific period of time, with or without the requirement to build or develop new facilities, physically affects on a continuous basis the organization of operations in the port: to establish a context for fair competition within a single port under these conditions—competition in the market—means being able to set up several operators with equivalent handling capacity to serve the same traffic. While this may be possible in large multipurpose ports, this may prove difficult in most of the ports the Public sector may have to deal with.

23. In fact, concessions will generally be implemented mostly in the cases of homogeneous traffic, which lend themselves more easily to rationalization of the operational environment: unitized cargoes (containers, roll-on/roll-off traffic), industrial bulks (ores, cement, grain, petroleum products and other liquid bulks). Industrial bulks terminals will generally be part of integrated industrial processes, which makes them natural candidates to be concessioned to the main industrial operators: actual competition takes place at another level, on the output side. Container or roll-on/roll-off terminals are much more subject to direct competitive pressures at the transport level, provided, however, there is enough traffic through one single port to set up a competitive environment, as in Rotterdam (The Netherlands), Hong-Kong (China), Buenos Aires (Argentina), or Laem Chabang (Thailand).

24. Where the traffic level is such, at least at the time when the concession is considered, that it would just support a single operator to ensure financial viability—100,000 teus/year or below for container terminal operations, for instance—the situation comes close to a natural monopoly situation, where competition for the market can take place. This will require a clear regulatory framework to be enforced by the Port Authority. However, even in this case, two kinds of situation may occur:

- either there is competition between alternative transport routes involving different modal combinations, and possibly using foreign ports (Baltic Countries/Finland/Russia, Poland/Germany), in which case the lack of competition within the port itself is not so much of an issue, and the corresponding regulatory framework needs not being overly developed;
- or the traffic is actually captive, which creates a monopoly situation which will require careful regulatory action, including productivity and tariff controls, to avoid rent-seeking development. In addition, the concession contract should be open again for rebidding at regular intervals, the time frame being defined according to the depreciation period of the assets the concessionaire has been requested to finance.

25. In this latter case, the role of the Port Authority, as far as the growth in traffic would allow for it, would be to make room for another competitor to step in as soon as the traffic level would make it viable. Usually the first concessionaire will try to protect itself against this eventuality by building safeguards in his concession contract, and the Port Authority will have to carefully check that these proposed safeguards do not go over what can be considered as a reasonable protection to start up a new operation, without granting exclusive traffic rights. On a complementary fashion, it would be highly advisable to foster the development of a countervailing power among port users and customers, on the ground that the formation of a monopsomy-like interest group in front of an existing monopoly is about the closest proxy to a competitive market. To institutionalize this countervailing power, participation of port users and customers to the Board of the port enterprise, when possible, should be encouraged, and when not possible because of the corporate structure (see para.20), a Port Council made of port users, with specific attributions and powers spelled out in the port enterprise by-laws, should be set up.

26. However, concessioning is not the only way to bring the private sector into commercial port operations, in particular in the case of medium to small scale multipurpose port facilities. These ports will generally handle limited levels of general cargo traffic, sometimes mixed with a small proportion of containers or unitized cargoes. Assuming 250,000/300,000 tons of general cargo would be a minimum for an independent cargo handling company to be financially viable, including heavy equipment costs, this would put the floor for possible competitive concessioning around one million tons of general cargo per port. Below this level, the Tool Port formula may appear appropriate in such instances, meaning the Port Authority would remain responsible for providing the main ship-to-shore handling equipment—usually light to medium multipurpose cranes—while cargo handling would be carried out by private companies under licenses given by the Port Authority.

27. Under this operating scheme, the port operational areas remain open to all licensed operators, who may just rent warehouse spaces according to variations in their customer base. The private operators, who own and operate all yard equipment, will compete for cargoes through contracts negotiated with the ships or shippers’ agents, and the Port Authority will have to ensure that safety regulations are complied with. In granting licenses, the Port Authority should refrain from spelling out operational technicalities, such as number and type of equipment to be used, which should be left to the operator’s choice. However, the Port Authority would grant licenses under conditions of minimum productivity performance, and reasonable financial guarantee. To maintain the competition viable, the Port Authority may also decide to limit the number of licensees, as long as the productivity remains acceptable.

28. The public Service Port itself can actually offer a scope for private provision of services. Although the combination of low traffic and the social requirement to keep the transit cost low will usually preclude any short-term financial profitability, public authorities can still look for private operation of the port facilities under a management contract, whereby the operator will be paid a management fee to operate the
In the port area, and market the port facilities to attract new investors;
- the private operating companies carry out commercial activities related to cargo traffic management and handling.

C.3.2 Legal Framework for Private/Public Partnerships:
30. To ensure credibility, openness and transparency in the transformation process, a sound and precise legal framework defining how private/public partnerships can be set up and organized appears as a prerequisite to get international participation and long-term financial commitments from potential investors. In particular, prior to any kind of Build-Operate-Transfer (BOT) operation, a concession law spelling out the principles of the process and establishing rules and responsibilities for each party, possibly complemented by a set of regulations describing the practicalities of the approach, will be a significant step towards the success of forthcoming concessioning operations.
31. Since there are also other ways than concessions of securing private participation in port activities (see para. 26), the national legal framework for private/public partnerships must also incorporate these formulas, or at least establish which entity will be responsible for monitoring them. The basis of the licensing process, for instance, must be made clear in the law, which can specify that port authority regulations will further specify implementation criteria, along the lines mentioned in para. 27.

C.3.3 Regulation Policy:
32. Regulation typically involves both economic and technical issues. Economic regulation, which usually aims at monitoring tariff and pricing policies, is all the more necessary than competition is weak or sometimes still inexistent. But conversely, as soon as competition develops, either internally or externally (see paras.23-24), the need for strong economic regulation decreases. Indeed, when competition pressure is well established, there is no reason to maintain any constraining pricing regulation, other than a timely monitoring of tariff practices to assess the soundness of market processes and prevent any potential collusion from developing among competitive service suppliers.
33. Technical regulation is required to ensure compliance with generic safety, labor, and environment protection standards, as well as to implement what the Port Authority may believe to be appropriate minimum performance requirements, in particular when competition is weak. Traffic safety is a major concern with ship movements in and around port mooring and berthing areas, and with cargo handling operations ashore. Dedicated provisions for handling and storage of hazardous cargoes must be spelled out in port regulations, based on international conventions (International Maritime Dangerous Goods-IMDG Code) and making allowance for specific local conditions.
Environmental protection standards will have to address the different potential environmental risks pertaining to local port activities, among those listed in para.
34. An issue of particular importance in getting the balance right between explicit regulation and implicit market forces has to do with public information disclosure policy. Traditionally, there is in almost all cases a natural asymmetry in information between operators, public authorities and port customers, at the expense of the latter. And since public pressure, when based on reliable information on costs and service quality, has always proved to be quite a strong incentive to perform efficiently and to eliminate rent-seeking practices, an explicit public disclosure policy, making mandatory the release by port operators of relevant productivity and cost-effectiveness indicators, may well help in keeping with optimal efficiency in commercial port operations, without having to rely only on heavy-handed economic controls. These information disclosure requirements should therefore be included into all concessioning and licensing agreements.
35. Other critical decisions in regulatory design are from where to regulate private port activities-central versus local authorities-, and where to locate specific regulations—universal administrative regulation versus contract-based regulation. While it would seem logical to have the nationwide policies on traffic safety, environmental protection, labor and competition rules, designed and adopted at the central level, their implementation would as logically be the mandate of the local landlord-type Port Authorities. These Port Authorities would also design and implement locally warranted operational regulations depending on specific traffic or local constraints. In the case of
medium to long-term concessions, contract-based regulation, where rules, implementation and enforcement means are provided for in the concession contract itself, seems to be the more adequate vehicle to ensure and monitor compliance, under the supervision of the Port Authority. For more short-term contract or authorization, like working licenses, the standard regulatory set enacted at the ministerial level, possibly locally completed by the Port Authority, would apply.

C.4 Trade Globalization and Transport Networks Integration

36. Globalization of trade and the development of larger trade areas has led to shipping and intermodal alliances to handle the global nature of the supply chain. Shipping companies have merged, with P&O/Nedloyd and Neptune Orient Lines/American President Lines just the most recent, expanding their geographic reach to create global service networks. Similarly, terminal operators have kept pace, globalization operations to offer their shipping customers consistent services over diverse trade routes. Hutchinson Port Holdings (HPH) operates terminals in Indonesia, China, the Bahamas, both sides of the Panama Canal, and the UK. P&O either through the mother company or the Australian subsidiary is operating container terminals in Australia, the Philippines, Malaysia, China, Argentina, Mozambique, and the UK. The Port of Singapore Authority (PSA) operates in China, Cambodia, Indonesia, Thailand, Vietnam and Yemen. Stevedoring Services of America (SSA) operates terminals in Mexico, Panama, Thailand, India and Indonesia.

37. Activities of such companies as P&O, HPH, SSA and International Container Terminal Services (ICTSI) are a clear indication of a new trend towards increasing internationalization of terminal operations. In terms of number of containers handled worldwide, HPH counts among the largest operators in the world with more than 7 million TEUs handled in 1996. Actually, the top ten private terminals operators handled 14% of the world container traffic in 1994. In 1997 it is estimated that almost 15% of the world container traffic has been handled by the top five private terminals operators alone. Hence the thrust towards enhanced global network management practices by shipping and terminal operators alike, which is putting increased demands on intermodal land interfaces so as to make available as large an array of transport routes as possible, and to benefit from the resulting increased flexibility in management of international transport operations.

38. Modern and efficient ports are necessary and powerful tools for facilitating and fostering trade and development and more so at a time of globalization of trade. Nowadays, ports must offer efficient and reliable services to ships and cargo, including communication systems, documentation and customs procedures, to allow the timely flow of goods through the transport chain which has, in fact, become a production chain. To assist in this flow, some countries have developed distribution or logistics centres in the port area which are used for the storage, preparation and transformation of cargo. Therefore, ports are no longer simply a place for cargo exchange but are a functional element in the dynamic logistics chains through which commodities and goods flow. An efficient transport system is also a prerequisite to attract foreign direct investment. Ports can be a crucial element in developing a competitive advantage for a country and therefore governments and port authorities need to adopt suitable port policies to allow the nation to reap this potential benefit.

39. The intermodal integration of distribution activities is consequently utilized to facilitate business transactions that move goods from origin to destination. The major objectives of intermodalism are to increase the speed of goods distribution and reduce the amount of unproductive capital, whether in inflated inventory levels, inactive railcars or vessel delays at ports. Intermodal operations make use of long-distance inland transport services which greatly extend the hinterlands of ports. For example, American President Lines (APL) offer shippers in Asia and the US an intermodal system over the land bridge across the United States using articulated railway wagons that permit the carriage of containers stacked two high. This arrangement allows containers to be delivered to destinations on the east coast of the US 72 hours after being discharged from vessels on the west coast, which is four to six days faster and less costly than the all-water route. In 1986, there were 62 double-stack container trains, each carrying 400-560 TEUs, departing ports on the west coast of the US on a weekly basis. Today, 100 depart the Seattle-Tacoma area each week, and this is expected to grow at approximately 8% per year. The stack train and EDI systems developed in the US provide a technological basis for intermodal operations, but the institutional framework which is evolving in Europe to facilitate the uninterrupted movement of goods between countries with different legal regimes will probably lay the groundwork for its rapid extension throughout the world.

40. More generally, ports today are called to play an economic role which proves to be far more extended than it used to be previously. UNCTAD describes this evolution in defining what it called the "third generation ports": after having been at first merely an interface location for cargo between land and sea transport, next a transport, industrial and commercial service center, the "third generation port" is a dynamic node in the international production/distribution network. Port management appears therefore switching from a rather passive policy of the mere offer of facilities and services to that of active concern and participation in the overall international trade process. These efforts are therefore directed towards promoting trade and transport activities which, in turn, generate new revenue-making and value-adding businesses. As a result, ports are more and more turning into integrated transport centres and logistic platforms for international trade. But, as experience already shows, this is easier said than done, and the public sector responsibility in helping this happening—or in hampering it—must not be overlooked.

C.5 New Trends in Shipping and Logistics

41. Simultaneously, efficiency of inland transport to serve an increasing, and most often disputed hinterland, has become a critical factor of the ports potential future, as well as of overall trade growth prospects. Today's global logistics organization makes it mandatory for shippers worldwide to be able to rely on seamless transport chains, of which the port is a prominent node. Smooth interaction between the port and the city often surrounding it, in terms of transport networks requirements, environmental
protection, and overall safety, therefore appears a prerequisite for effective delivery of integrated logistics services. Quick and safe access to port facilities from inland transport networks becomes a basic requirement to be met in all cases. But this does not happen without calling into question the way both the port and the city are organized, managed, and the way public transportation infrastructure is planned and financed.

42. The transport chain is today fully integrated within the production system, and as far as international trade is concerned, within the trading pattern itself. This is a concept under which the transportation/distribution activities are considered as a subsystem of the whole production system. In a traditional industrial society the transportation chain of goods from the producer to the final user was normally divided into several parts. Shippers rarely cared about onward transport matters in the receiver’s country and receivers paid little attention to the pre-forwarding costs before their goods reached the ship’s rail. This is no longer the way people look at their cargo transportation today. It is now the integrated transportation chain which matters. From the buying of raw materials at the production site to the delivery of products to the receiver’s warehouse, production, transportation, storage, distribution, information, are all integrated into one unique network.

43. This production-driven need for an integrated transport chain has led to intermodalism. The major objectives of intermodalism are to increase the speed of cargo distribution and reduce the amount of unproductive capital, whether in inflated inventory levels, inactive railcars, or vessels delays at ports. Since new trade patterns require quicker, cheaper and safer transport of goods than in the past, the main obstacle was found to be at each transport mode interface, which caused delay and increased the cost of the whole transport chain. This is a point where the interaction of ports and cities traffic management policies can make a difference, and we will get back to it later. Modernized port facilities themselves are only part of the solution, and inland distribution networks have to be improved and well integrated with ports at the same time, both at the local level for efficient direct access connections, and nation or regionwide.

44. The concept of logistics is now widely accepted. Logistics, in short, is a procedure to optimize all activities to ensure the delivery of cargo through a transport chain from one end to the other. In order to optimize the whole system, the logistic approach is to decide where, when and how actions should be taken. The key elements to develop an advanced logistics strategy will usually include:

- Understanding the cost behavior of the entire logistics systems and incorporating it into off-shore sourcing and manufacturing decision making;
- Promoting strong relationships with carriers and vendors that include quality certification procedures;
- Designing a flexible transportation system that allows for quick routing and mode selection changes;
- Developing a supportive logistics information system that is effectively integrated with manufacturing and purchasing processes.

45. Implementing an efficient logistics system will first call for some basic characteristics of the main infrastructure facilities to be met. On the port side, the main requirements of modern traffic will be:

- Direct and rapid access to the sea;
- Quays with long berths, deep water and large back areas;
- Direct, easy and safe connections to main inland transport networks, highways, railways, waterways.

46. On the city side, these demands will usually translate into additional constraints, coming on top of sheer urban management issues:

- Direct access to the sea may come in conflict with other uses of the seashore, for housing or recreational purposes;
- Large operational areas may conflict with land-use plans for city expansion or modernization of public services;
- Direct connections with inland transport networks will require close cooperation between port management and city managers in charge of urban traffic infrastructure; furthermore, port industrial traffic often does not merge easily with urban road traffic, and safety and environmental issues may be at stake.

47. Should physical limitations make the situation unsustainable, a drastic move by the port can be to consider the possibility to relocate its facilities altogether, moving further away from the city center to find a more appropriate location where the previous requirements would be more easily met. Some ports have already begun to address this issue by considering, or implementing, relocation programs away from burgeoning city centers. This kind of move usually offers new development opportunities for both the port and the city, the latter being often in a position to recover former port operational areas, while the former can set up new facilities better tailored to modern trade requirements in terms of ship handling and connections with inland transport networks. Such a situation is usually more commonly found in estuary ports, where the historical part of the port, virtually trapped at the core of the city, does not lend itself to significant structural changes. The port then will try to move closer to the mouth of the river, where it can expect to find deeper water, easier access, and more space available at an affordable cost. Examples of this scheme can be found in the United States (New York, Baltimore), United Kingdom (London, Bristol), Australia (Melbourne), Denmark (Copenhagen), Sweden (Gothenburg), India (Bombay/Nhava Sheva), Pakistan (Karachi/Port Qasim), Thailand (Bangkok/Laem Chabang).

48. Obviously, following this course will also involve close consultation with the city, which may have much to gain from such a move:

- moving port traffic away from the city center will significantly improve inhabitants’ daily living conditions, and will make it easier to manage urban traffic;
- former port facilities made redundant, close to the city center, will usually provide very valuable land to develop new urban activities, including shopping centers, hotels, and public recreational activities;
- the port will usually not move that far away from its previous location, so that the benefits in terms of induced activity and employment for the city will remain, without the urban drawbacks of industrial environment.

49. However, the relocation option is definitely an expensive proposition—even when existing
facilities can be somewhat traded with the city against new land—and is not by far implementable everywhere. So in most cases port and cities will have to face together the two main problems of space and accesses.

Beyond their original need for large operational areas, stemming from the technological evolution we mentioned earlier, space will have to do in the first place with the new logistical functions ports have now to undertake to keep up with the requirements of international trade. There is a significant number of activities which can be classified as value added services in the field of logistics. It is therefore useful to give an overview of these activities and an insight into their functions and relations. Value added services can roughly be divided into logistics activities strictly speaking, and general value added services. The logistics activities themselves can fall into two categories:

• **General Logistics Services:** storage, loading/unloading, stripping/stuffing, groupage, consolidation, distribution
• **Value Added Logistics (VAL):** repacking, customizing, assembly, quality control, testing, repair

General value added services will include such services as equipment maintenance, equipment renting and leasing, cleaning facilities, tanking, information/communication, safety, security services, offices.

A sustained tendency can be observed towards a growing importance of VAL activities. Producers are concentrating on their core business in line with customers' demand for high quality specialized products. New players in this field appear: the logistic services providers. These parties take over parts of the production chain (assembly, quality control, customizing, packaging, etc.) and of the after-sales (repair, re-use). Undoubtedly, containerized and general cargo have the highest VAL-potential. The challenge for ports is to offer the possibility to welcome these activities and services.

What is grouped together in a common dedicated area, General Logistics Services and Value Added Logistics activities become what is sometimes called a Distripark. Rotterdam in the Netherlands, Wakefield in the United Kingdom, Verona in Italy, Bremen in Germany are examples of this kind of arrangement.

General cargo ports are generally a preferred choice to set up distriparks, since they are already intermodal transport nodes and main traffic gateways. But such a facility demands significant space: actual requirements will obviously depend on the traffic nature and volume, but usual figures show existing distriparks ranging from 50 to 100 ha, with 20 to 50 separate companies, the average company plot size reaching 24,000 square meters. So when considering the implementation of this kind of facility, the port and the city must obviously work together to find out the most adequate land-use plan meeting both the port logistical objectives and the city development concerns.

53. But logistical services are dynamic activities, and they generate significant traffic flows. Average truck movements per day in European distriparks range between 3,000 and 4,000. So accesses to the distripark, and connections between the distripark and the port, must be properly designed to accommodate such flows. Needless to say, it would be highly advisable to make every attempt to keep this traffic from merging with local urban traffic on city streets. This objective will again call for close cooperation between the port and the city on access design and implementation.

54. On the management side of these logistics facilities, it would seem that port authorities, now evolving worldwide towards the landlord port model, and therefore withdrawing from direct commercial operations to concentrate on their core public statutory duties, could well be the most suitable body to initiate the planning and implementation, then the marketing and the management of distriparks. Due to obvious common concerns, port authorities and municipalities could also form together specific companies to develop and promote these activities.

55. As has already been mentioned, accesses are critical to the success of any logistical center. As a matter of fact, accesses are critical for the port itself, with or without a distripark. This is indeed a pervasive issue today in many ports worldwide. A few years back, the US Congress allocated US$28 billion to a multi-year program aiming solely at improving road accesses to US ports. In many countries, to make things worse, priority in land access to ports was often given prominently to railways, at the expense of road traffic. This was specifically true in former centrally managed economies, like in Eastern and Central Europe. So with the pronounced shift towards road transport now taking place in these countries, the limitations in road access to ports quickly became one of the most conspicuous bottlenecks of the transport sector.

56. A potential way for cities and ports to address together the space constraint, while still offering the global logistical services the market expects, could be to manage space and accesses in a more dynamic way than was previously thought possible. Most logistics services, if they can benefit from being carried out close enough to the port, do not need to take place physically in the port itself. In fact, it will often be preferable to set up the logistics services area outside the port itself, where it will be easier to find adequate land available at a reasonable cost, the main criteria being easy connections with the different land transport modes. Of course, the connection with the port will remain the critical issue to make the whole system work, but in many instances solving this specific connection problem may well prove to be cheaper, or to make more economic sense for both the port and the city, than to try to expand port land at high cost: the traffic generated on this expansion would require higher capacity accesses anyway, and would just concentrate the traffic management problem a single port/city interface.

57. This consideration leads to the development of inland logistics centers, or dry ports, inland container deposits (ICD), where all logistical operations not strictly requiring to be carried out in the port itself can take place. The concept relies therefore on the possibility to shuttle goods between the seaport and the dry port as efficiently as possible. Examples of this arrangement include the Virginia Inland Terminal from Virginia Port Authority in the United States, the recently opened Manila Inland Container Depot and rail link of ICSTI in the Philippines, the Harbin Inland Port and Harbin-Dalian rail link in China. Of course, beyond the sheer physical link between the two locations, the concept also supposes appropriate regulatory arrangements, in particular with customs, to allow for quick removal of imported goods from the port grounds, final clearance procedures taking place at the dry port, or even later at the receiver's place.

58. So it is surely fair to say the future of ports will hinge more and more on...
their capacity to develop their offer of logistics platforms, associated with their regular transit operations. And as we just mentioned, this capacity will likely depend in turn on the arrangements ports can reach with their home cities in order to provide adequate infrastructure connections between the port area and the inland platform.

59. Laying the groundwork for these logistics activities to develop will definitely remain within the public sector, as part of what we can call the facilitation mission of public transport authorities. It would consist first in planning, designing, and financing the basic infrastructure, mostly connections and maybe land preparation to make it possible for private logistics providers to settle down and operate. Since we mentioned earlier that Port Authorities may be well-suited to take the technical lead in these operations, and since cities are obviously their privileged partner in these undertakings, a mixed port-city company could be a vehicle to implement this kind of program.

60. In fact, municipalities are already becoming much more directly involved in port management worldwide, through implementation of the decentralization reforms taking root in many countries. The new Port Authorities, either public authorities or joint-stock companies modelled after the corporate setting of private businesses, make room today for the cities as one of their main partners in long-term strategy and decision making. Whether municipalities sit as a shareholder at the board of the Port Authority, or as a partner in the Port Council, they are now at the core of the development strategy of the port, and, as we just said, this strategy today clearly must look beyond the port’s gates, and be included in the overall local community’s development plans.

61. Undertaking such a strategy requires an effective cooperation between public and private actors, in particular when implementing the first steps of the program. While the private sector can bring in its professional knowledge in setting up integrated logistics and transportation systems, including its own assets financing capacity, public authorities, at both national and municipal levels, have to provide an appropriate legal framework, and sometimes also a basic set of adequate infrastructure, to spearhead the process and make it possible for the private operators to play the part it is expected to play.

62. Therefore, the need to address the issue of transport as a major element in a country’s external trade competitiveness makes it mandatory to take a comprehensive look at the interfaces management between transport modes. The port usually being a critical node in international transport systems, its integration in a country’s transport networks supposes that the following questions, very much of a public nature, have been appropriately taken care of:

63. Physical Integration: the quality of road, rail, and inland waterway connections are critical factors of port efficiency. Whatever the institutional setting is for management and operations of port facilities, the responsibility for provision of these physical accesses will normally remain with the public authorities, local or national. Beyond immediate access to port areas, integration of the sea-land interface with inland transport modes may also entail setting up of dry terminals inland, like inland container depots (ICD), which will also require appropriate intermediate transport infrastructure, and, may be as if not more importantly, adequate regulatory setting, in particular for customs procedures. Port Authorities, having withdrawn from direct involvement in commercial operations, may well become prominent actors in fostering the development of these inland terminals, which will help in making efficient use of the port facilities themselves: by increasing transit speed through the port area, and transferring clearances and dispatch operations to an inland site usually less expensive to set up and operate, it will reduce the need to expand operational capacity at the sea-land interface itself, which requires in most cases significantly greater investments than an inland location. As a node in the transport system, the Port Authority is also likely the best possible player to investigate the needs for these developments, including inland access connections, and would have to stimulate actions from the public authorities to spearhead appropriate investments programs and corresponding regulatory amendments.

64. Regulatory Framework: trade facilitation aspects, such as streamlining export/import documentation, simplifying and adapting customs regulations and procedures so as to allow traffic flows to make efficient use of infrastructure facilities, instead of having to expand facilities to cope with procedures, developing electronic data interchange (EDI) and associate facilities, are among the prerequisites for a seamless international freight transport pattern to develop. Updating existing legal frameworks, to give recognized legal status to professions like freight forwarders or multimodal transport operators, is also sometimes required to allow efficient intermodal operations to be implemented. In this respect, port customers and representatives of the transports community should be given the possibility to become members of the Board of public Port Authorities or of the Port Council, as the case may be, which would ensure the availability of a statutory channel to forward to policy makers the views and concerns of the professional community.

65. Performance Standards Information: the public authorities, and in the first place the Port Authorities, must collect and update on a regular basis international operational data on port activities, and establish their own performance standards accordingly. Main reference indicators, which should in particular be used to monitor private concessions, shall include cargo handling productivity by cargo categories, average cargo dwelling time in port—in particular for containers—, and as far as efficient use of infrastructure is concerned, congestion rate of berthing facilities, illustrated by ship waiting rates (waiting time/time at berth). All concession contracts must include provisions making mandatory the transmission of comprehensive operational statistics to the Port Authorities on a regular basis, as part of the public information disclosure policy referred to in para.34.

C.6 Strategic Planning

66. Forward looking planning will remain a critical responsibility of Governments in the transport sector in general. To ensure that national economies can achieve optimal competitiveness on external trade markets means implementing and maintaining a cost-effective transport system, with the port interface ranking high in international trade-related issues. The central body described in para.29 would be in charge of taking this long-term view when devising national waterfront development plans.

67. However, following on the physical integration requirements mentioned in para.46, allocation of land not only for prospective development of port facilities, but also for
establishment and expansion of transport corridors linking ports to inland transport systems, must be at the forefront of public authorities’ agenda when devising future land-use programs. And this will have to include as well the need to reconcile the various stakeholders’ interests in the long-term development of coastal areas within the framework of a national Integrated Coastal Zone Management (ICZM) policy.

68. In summary, ports and terminals are facing nowadays quite different challenges than the ones they used to deal with twenty years ago. The new distribution of roles between public and private actors, in particular, calls for an appropriate allocation of duties and responsibilities, of risks and rewards, to make the global transportation system work to its best efficiency.

69. Commercial terminals handle the operational side of the business, attract and serve the traffic, manage commercial risks, relying in doing do on extended transport networks allowing them to market their services within the framework of an increasingly integrated transportation and logistics sector. Operational investments policy, transport chains organization, intermodal combinations, remain under their control, in cooperation with transport operators, which are themselves sometimes their clients and sometimes their shareholders.

70. Public port and marine authorities handle all statutory duties relating to transport operations, in particular traffic safety issues and technical regulatory matters. Furthermore, they have to make it possible for the commercial operators to unfold their activities by providing the basic infrastructure assets required, in terms of access, protection, and connection between networks. In addition, a main public responsibility remains the establishment of transparent and reliable administrative framework to handle official trade documents processing, together with the implementation, when needed, of trade facilitation improvement programs. Against this background, port authorities will also likely become major players in helping develop new logistical multimodal platforms outside the ports boundaries, by playing the catalytic role they are best placed to assume between the various public bodies involved and the private transport operators.

**Antwerp Municipal Port Authority:**

**Public and Private**

**A Combination Which Works**

The port is administered by an autonomous municipal body with a separate corporate identity, called Antwerp Municipal Port Authority. It owns the docks and the sites used by port operators and industry which lie within its territory, and also owns and operates some of the port’s superstructure. The Authority is moreover responsible for the management of the port on the Left Bank, located in the Waasland area, thus ensuring the application of uniform policies on both sides of the river.

Until the Second World War all the equipment and installations of the port were provided and operated by the City of Antwerp. The municipal port authorities leased the equipped berths to private enterprise on a short-term basis. These were mainly shipping agents, shipowners and cargo handling companies, who in consequence were able to carry on their business without having to make major investments in port equipment.

After the Second World War ports activities were greatly influenced by a growing specialisation in transport technology, cargo handling and warehousing. It was this specialisation, and the considerable capital expenditure it entailed, which spurred the port authorities not only to continue modernising and developing infrastructure but also to lease the unequipped “bare” quays and sites on long-term concessions to private enterprise. For its part private enterprise was prepared to provide the facilities needed for specific trades such as containers, Ro-Ro, cars, fruit, fertilisers and other neo-bulk cargo such as iron and steel, forest products, and so on. The duration of the concession was made dependent on the size of the investment made by the holder of the concession.

So as not to put smaller companies unable to invest major sums in port equipment at a disadvantage, the port authorities decided that the port equipment renting service had to be continued for the existing, largely conventional berths. This co-operation between the port authorities, private enterprise, and local authorities is further facilitated by an ongoing dialogue between the parties concerned in bodies such as the Consultative Council.

**The private sector: diversity and co-operation**

The organisation of the private sector is largely dependent on the activities of the various professional associations. These organisations act as spokesman vis-à-vis the various authorities and with other industries. A brief description of the various professions active in the port and their federations is given in the following.

Antwerp’s shipping agents watch over the interests of the 300 or so shipowners whose ships make use of the port. Their tasks include booking a berth, clearing the ship inwards and outwards through customs, arranging for pilots, tugs, and settling bills. They also deal with all the paperwork and pay the harbour dues, make the necessary arrangements with the stevedores, and keep an eye on all cargo handling operations in order to ensure that the ship is not unduly delayed. The agent furthermore takes cargo bookings and maintains commercial contacts with customers, attends to any intermodal transport requirements before and after the sea voyage on behalf of the shipping company. He prepares the documents relating to the goods to be loaded or discharged, as well as checking, signing and/or initialing cargo documents (such as delivery orders, invoices for reception costs, freight charges and related costs, booking notes, shipping permits, bills of lading, manifests, letters of indemnity, applications for hazardous goods permits, etc.) and collects invoices. Finally the agent takes a part in settling any disputes or claims and obtains a final settlement of the costs of calling in the port from the shipping company.

Working alongside the agents are the shipbrokers and ship operators. The shipbroker is the middleman who charters vessels and acts as ship’s consignee for the many tramp ships calling at Antwerp.
Left Bank

On the Left Bank, the Antwerp Municipal Port Authority's powers are restricted to the port area as such. General land development and industrialisation policy on the Left Bank is in the hands of an intermunicipal corporation.

This Company for the Management of Land and Industrialisation on the Left Bank of the River Scheldt acquires the land, prepares it for development, and makes it available to industrial investors, or to the Municipal Port Authority when it needs land for the management and operation of the port.

In order to ensure coherent and efficient administration, the board of this development corporation includes representatives from the Waasland area, as well as from the municipalities of Beveren and Zwijndrecht, the Flemish Region, and the City of Antwerp.

Together with the other services and bodies involved in the development of the Left Bank, the corporation plays an important role in developing new infrastructure and industry, and providing broadly based and effective promotion.

In many cases this actually generates more traffic for the port. There are about 150 shipping agents, shipbrokers, and ship operators active in Antwerp. They are represented by the Antwerp Shipping Federation (ASV).

A second large group is made up of the close to 300 forwarders and factory agents in Antwerp.

The forwarder acts either on his own behalf or for a third party. He ensures that the goods are sent from the place of departure to the destination. Depending on price, voyage time and reliability he may make use of one or more modes of transport. He will also book cargo space on the selected means of transport, attend to the details of the journey prior to and after transport, and prepare the required transport documents. He is responsible for ensuring that all the customs regulations are complied with and that import and export rules are not breached, as well as seeing that the customs formalities are properly handled. The forwarder will also make sure that the conditions of the documentary credit and insurers are strictly observed. He will moreover arrange for warehousing, if necessary, and carry out any consular formalities.

Furthermore, it is the forwarder who pays the freight charges of the carrier and any supplementary charges on behalf of his principal. In other words he finances the entire transport operation. The forwarder is thus in control of the entire transport chain and for this reason is often called the architect or organiser of the transport operation. He may also act as a combined transport operator or as a multimodal transport operator. Antwerp's forwarders are represented by the Antwerp Freight Forwarding and Logistic Association (VEA).

Factory agents differ from forwarders in that their primary function is to act as the permanent representatives of both foreign and local industrial companies. They are represented by GAMU (Association of Shipping Agents for Industry).

The cargo-handling companies are responsible for loading and unloading ships. This work proceeds on the basis of the stowage plan and calls for considerable expertise, loading in particular.

Consultative Council

The port has every interest in promoting mutual understanding and a healthy social climate. The Consultative Council therefore fosters co-operation between all parties involved in the work of the port. On the Council sit representatives of trade unions, trade and industry, the Port Authority, the City Council, and the Company for the Management of Land and Industrialisation of the Left Bank. It meets at regular intervals to discuss matters of interest relating to the policy, management and the running of the port.

The Consultative Council has advisory powers.

Organisation of the private sector

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Primary concerns include ensuring that the ship remains stable at all times and that the ship's capacity is used to the full. Another concern is to load cargo so that the ship's capacity is used to the full and that the ship remains stable at all times and that the ship's capacity is used to the full. Another concern is to load cargo so that the ship's capacity is used to the full and that the ship remains stable at all times and that the ship's capacity is used to the full.

The goods handlers have to invest heavily in storage facilities, cargo-handling and transportation equipment, such as warehouses, cranes, straddle-carriers, tractors, forkifts, trucks, weighing and sorting machinery, and similar.

As a result, large integrated companies have emerged, which operate vast port terminals on sites given in concession to them by the municipal authorities. Typical examples are the container terminals, roll-on/roll-off terminals, iron and steel terminals, and terminals for timber and paper, fruit, chemical products, bulk liquids, cars, and so on.

Two organisations represent the goods handling specialists. These are ABAS (Professional Association of Antwerp Master Stevedores and Port Operators in Antwerp) and the KVGB (Royal Association of Traffic Flow Controllers).

Maritime transport (whether deep-sea or coastal) is the task of the shipowners. Here a distinction can be made between the liner trade and the tramping companies. Liner ships keep to a fixed timetable of sailings comparable to flight or train departures. In principle, liner services provide carriage under the terms of a bill of lading or on the cargo conditions specified in the liner terms. Tramp ships, on the contrary, are generally engaged for the carriage of large, homogenous cargoes. These ships operate in response to market conditions and there is not necessarily any regularity in their sailings. The maritime carriage takes place under the conditions of the charter party. Charters may be for a single voyage or for a period of time.

In order to achieve greater competitiveness and improving the terms of trade many Belgian ships have been flagged out to Luxembourg. In early 1998, the merchant fleet counted 30 ships with a gross tonnage of 682,610 GT and a deadweight capacity of 571,021 t. This tonnage can be broken down as follows: 8 ships representing a total of 5,273 GT and 1,194 dwt sailing under the Belgian flag; and 22 ships representing a total of 677,337 GT and 969,877 dwt sailing under the Luxembourg flag.

The Belgo-Luxembourg mercantile fleet is in fact one of the youngest in the world. It is moreover highly diversified and customer-oriented. Conventional general cargo ships have long been displaced by OBOs (ore-bulk-oil carriers), bulk carriers, container ships, product and gas tankers, Ro-Ro ships, car carriers, reefer ships, and so on. Among the coasters there is a trend towards further specialisation with the use of ships designed to combine coasting and inland navigation, a class sometimes known as sea-river ships. Belgium's marine shipping companies are represented by the Belgian Shippers' Association (BRV).

Other areas of the transport industry are also well represented in Antwerp. In Belgium both inland navigation and road haulage are highly fragmented with, apart from a few large companies, numerous small owners. Many of the larger firms are established in and around the port.

Apart from the above, numerous other trades play a part in port operations, such as the dock pilots, the marine packing firms, lashing and securing companies, salvage companies, ship repairers, cleaning and fumigation firms, towage companies, specialised laboratories and cargo surveyors, shipchandlers, shipping information services, bunkering firms, watch services, container repair and leasing firms.

The insurance industry is also well represented in Antwerp with numerous insurance companies and brokers, average commissioners and loss adjusters, classification societies, nautical surveyors and others.

A good 40 banks have offices in Antwerp's urban district. They are closely involved in the international commercial activities of the port. By supplying letters of credit they help minimise the risk of foreign trade. A letter of credit is an instrument whereby a bank guarantees the vendor that the bank - or its correspondents - will pay for the purchased goods upon the presentation of specified documents. Antwerp's banks also serve all levels of port business as financiers or as suppliers of credit.

Antwerp also has a growing number of trading houses which, with the assistance of specialised bankers, help to bring trading agreements and joint ventures into being, and are also involved in counter-trade deals (international barter).

Private enterprise in the port has set up a number of bodies which form a framework for consultation and co-operation. These include the Port of Antwerp Employers Association (CEPA) and the Employers' Association of Trade and Shipping Offices, both active in the social sector. The Institute for Vocational Training of Port Employees (BIHBP) provides port employees a chance to improve on their computer skills and language knowledge, and further familiarise themselves with various

Keeping up safety standards

A number of initiatives relating to safety and emergency medical aid have been adopted at the insistence of the Port of Antwerp Employers' Association (CEPA).

The Joint Service for Prevention and Protection carries out daily checks on activities on board ships, on the dockside, in warehouses and stores, and in workshops. Port firms are given practical advice on and assistance with improving working conditions. The Joint Service is also responsible for preparing instructions and safety regulations.

Achieving safe working by preventing accidents is also the prime objective of the Joint Committee for Prevention and Protection. This is a body in which employees and employers are equally represented. Its safety policy is aimed at preventing industrial accidents, improving technical equipment, and fostering a safety mentality among employers and employees.

Medimar is a medical service organised by private sector companies and monitors the health of dock workers and the operation of the first aid services. These services are provided by the Social Institute of the Employers of the Port of Antwerp (SIWHA) in association with the Port of Antwerp Red Cross.

There are various permanent and mobile first aid centers in the port, as well as a central first aid station equipped with a radio dispatching centre at berth 142. The Red Cross operates a medical centre fully equipped for emergency action, which is also located at berth 142.
aspects of transport and port technology. The Dangerous Products Information Centre (INPRO) is a help desk for firms needing information about the storage, transport and handling of dangerous products.

SEAGHA (System for Electronic Data Exchange in the Port of Antwerp) is a standardised system of digital communication among port companies and between these companies and all other parties involved in port activities. The organisation that represents business interests in the port is the Antwerp Port Federation (AGHA). The first task of AGHA is to work out suitable economic policies, which essentially means that AGHA looks at ways of responding to changing external and internal conditions. By keeping in close contact with all the parties concerned and adopting a strategic approach to potential developments and established trends it tries to create a positive climate in which port companies have a chance to function in the best possible way.

Another basic function of AGHA is to promote the image of the port via good public relations, promotion and information. This task is carried out in close consultation with ASSIPORT (the promotional division of AGHA) and the Antwerp Municipal Port Authority.

A third aspect of AGHA's activities is research. SEA is AGHA's research service and examines and analyses the functioning of the port and the factors influencing its operation.

Training for all occupations

Antwerp's force of registered dockworkers numbers about 5,900. The quality and efficiency of these men is very much appreciated by all port users. Although in the past the dockworker's task could be learned entirely on the job, the complexity and diversity of modern cargo-handling is such that special training is essential. For this reason a Dockworkers Training Centre was established in 1980. The prospective dockworker must attend a compulsory three week training course and become familiar with the theory and practice of every aspect of port work. The aim is to increase safety. Potential operators of forklifts, cranes and other lifting gear are taught good working practices.

Apart from the dockworkers there are some 11,000 administrative workers employed by the 500 odd companies involved in port operations. After completing secondary education these persons attend further training in daytime or evening courses organised by the Institute for the Vocational Training of Port Employees as well as by various specialised establishments for secondary and higher non-university education.

At the university level, Antwerp has two faculties of economic and management, both of which give special attention to port and transport problems. The Antwerpse Handelshogeschool (Antwerp Business Polytechnic) organises business training courses which pay a great deal of attention to transport matters.

Postgraduate courses leading to a qualification in "Maritime Sciences" or in "Maritime and Inland Navigation Law" are also on offer. Essentially this means that Antwerp is an excellent place to recruit trained personnel at all levels of skill and qualification.

In order to encourage young people to pursue careers in the port, the Provincial and Municipal Authorities joined with the private sector to establish the "Lillo Port Centre". A permanent exhibition is set up in the center, which is equipped with a lecture hall, a permanent exhibition, a number of classrooms and a cafeteria. This makes it possible to put a trip round the port into an interesting and attractive context. The Center, which also attends to the organisation of port tours, offers schools the guarantee that groups of sixth-form pupils will experience a balanced and educational day in the port.

The public sector: Caring for infrastructure, in the widest sense

All kind of public services are involved in the activities of the port. Like the private sector these services are major employers. The Antwerp Municipal Port Authority alone has a workforce of 1,900. The Port Authority owns and manages docks, berths, locks, and so on. It is responsible for planning, expanding, modernising and maintaining the infrastructure of the port, and is also responsible for operating its own equipment, including warehouses, floating cranes, shore cranes, tugs and dredgers. The Authority also leases sites and land and is responsible for the distribution of electricity in the port.

The Administration for Waterways and Marine Affairs of the Flemish Community is responsible for the maintenance, lighting and buoying of the fairways of the Scheldt. Other services falling under the purview of this administrative department are the river and marine pilots, the tonnage service and the marine inspection service. Other public services include the Water Bailiff's Office, the River Police, the Port Brigade of the Gendarmerie, the Health Inspectorate and the Customs Service.

All the railways in the port are the property of the NMBS/SNCB (Belgian Railways). Roughly 1,900 people are employed in operating them.

Regulations and rates

A complete summary of the various regulations applicable in the port of Antwerp are to be found in the book "Regulations and customs of the port of Antwerp" (1). Here it is important to make a clear distinction between the rates implemented and applied by the authorities and those of the private sector.

The port authority's rates are published officially and apply mainly to port dues, the use of berths and sheds, the provision of towage services and the hire of cranes. Those applied by the regional government are those charged for the pilotage services in Belgium's territorial waters and on the Scheldt.

No fixed rates exist for cargo-handling, storage, forwarding, the completion of formalities and other services provided by private firms. These prices tend to differ from firm to firm. Port operators usually negotiate their terms on an individual basis, taking account of factors such as local and foreign competition, the type of cargo involved, the volume, unit weights, quantities and so on.

The flexibility with which private rates are applied also goes for Antwerp's regulations, usage and provisions. These are revised to accommodate new technical and organisational conditions as needs dictate.

Examples of rules which help to encourage smooth port operations in Antwerp include:

- The resolution which governs the actual delivery of goods to seagoing vessels and the transfer of the costs and risks of the goods between the maritime carrier and the cargo interests and which expressly takes into account the developments in the fields of cargo handling and transport economics.
- The Antwerp 1951 Rules governing the delivery of cargo by lighter to liner vessels. These aim at protecting shippers in the hinterland from unanticipated costs. These regulations have been supplemented by conditions for the delivery of goods by barge onto the quay when no date for delivery along-side has been agreed.
- The regulations dealing with recep-
10 Top Tips to Combat Costs of Container Crime

That its most recent claims and loss prevention publication, Door to Door, the TT Club has published a concise and practical summary of anti-theft measures transport operators might like to adopt in order to safeguard their containers from theft.

The summary has been compiled by the industry's leading insurance and theft investigators. The Club suggests that these anti-theft practices should be embraced by all transport operators across the transport chain. John Nicholls, director of loss prevention at the TT Club says:

"This is a concise but not exhaustive list. It follows on from the Cargo Theft Deterrence Act introduced in the USA last year. Here at the TT Club we endeavor to educate members that loss prevention practices are a necessity and must be in place and adhered to if you want to beat theft.

"Theft costs companies and consumers dearly. It hits your reputation as a secure operator, it affects the market price of a product as well as influencing your insurance premium. A combination of the above can affect a company's competitiveness and severely hit the balance sheet.

"Loss prevention should always be viewed as a proactive science, not a reactive art."

The following examples suggest low technology methods and practices which, if implemented, can help in the battle against box theft:

1. Never hire temporary personnel for logistics planning.
2. Allow only trusted supply chain managers to know the location of high value stock.
3. All new employees, at all levels, should be security screened as a condition of their employment. (This may not be possible in some jurisdictions.)
4. Do not employ anyone that refuses to provide names and phone numbers of previous employers.
5. Provide secure employee parking areas off the main site, making it more difficult to move illicit goods from the site to private cars.
6. In a warehouse, keep high value cargo in a well-lit central area under 24 hour 'manned' security. (All too often video cameras fail as deterrents, showing only masked thieves removing cargo.)
7. Keep blank forms locked away when not in use, limiting access to those forms to authorized personnel only.
8. Do not allow unauthorized personnel around computer workstations.

Nimble fingers can extract desired data from an unattended keyboard in less than one minute.

9. Following loss of cargo, advise police and insurers immediately - every hour counts when trying to recover the cargo.
10. When securing containers remember that padlocks are not always adequate.

For further information, please contact David Cheslin or Claire Dexter on tel: +44 171 480 0600.
E-mail: info@dunelmpr.co.uk
Website: www.dunelmpr.co.uk

Port Management Seminar
March 22-25 in Kent

A seminar with a theme on "Advanced Strategies for Port & Terminal Management" will be held March 22 through March 25 at Brands Hatch Place, Kent, England.

This residential course for senior port and terminal personnel is specially structured to provide an interactive working forum offering a detailed insight into advanced strategies for port and terminal management. Emphasis is placed on achieving a greater return from existing resources, developing pragmatic com-
petitive strategies for strong organic growth and the application of modern management techniques and systems in assessing the viability of business diversification, acquisitions or disposals.

For additional information or to register, please contact Port Development International/Euromoney Seminars at +44(0)171 779 8793.

**TransMed '99 Scheduled For April 28-30 in Malta**

TransMed '99 - Globalisation of the Mediterranean Conference and Freight Exhibition" will be held April 28 - April 30 at the Westin Dragonara Resort, Malta.

First held in 1987, the TransMed event is the established meeting place for all those involved in container, ro-ro and general cargo trade, transport and handling in the Mediterranean. At a time of major structural change, the event will provide a comprehensive evaluation of the impact of the new liner groupings, feeder operations, transhipment activity, port competitive strategies, intermodal operations and an overview of the trading climate in the Med up to the millennium and beyond.

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**CORRECTION**

**New Publications:**

**Port and Environmental Issues**

On page 25 of the previous issue of this journal under the heading "New Publications", the above publication was introduced. In the article the price was indicated as US$8.00, whereas it should have been US$80.00, including surface mailing charge.

Order from: Professor Fujio Chisuna
Hiroshima National College of Maritime Technology
4272-1, Higashino-cho, Toyota-gun, Hiroshima, Japan
Fax: +81 08466 7 3009

We apologize to the above publisher for our erroneous report of the price and for any resulting inconvenience caused.

IAPH Head Office

**Capt. Llewellyn First To Win 3 Canes in Montreal**

BEFORE The Honourable Lucienne Robillard, minister of citizenship and immigration, and numerous guests and representatives of the business and port communities, the president and chief executive officer of the Montreal Port Corporation, Mr. Dominic J. Taddeo, officially marked the beginning of a new year of activity at the Port of Montreal by presenting to Capt. Roger Llewellyn, master of the OOCL Belgium, his third Gold-Headed Cane. He is the first and only ship's master this century to register such a "hat trick."

The British captain won the famous trophy for the third time when his brand-new containership, the OOCL Belgium, crossed the port’s limits at 12:38 a.m. on January 1, 1999. The ship arrived directly from Le Havre, France. Capt. Llewellyn won the Gold-Headed Cane in 1997 at the helm of the OOCL Canada and in 1993 aboard the OOCL Assurance. The OOCL Belgium is regis-
Prince Rupert Benefits From Diversification

T he focus has been on diversification for the Prince Rupert Port Corporation over 1998 and these efforts are beginning to show success. The year saw the introduction of steel imports with nearly 100,000 tonnes passing across Fairview Terminal for the year. Wood pulp was also up 15% in 1998 to 114,000 tonnes, setting a new record for the Port. Agreements were also signed in 1998 that will see Sulphur Corporation of Canada Ltd. build and operate a sulphur-handling terminal on Prince Rupert’s Ridley Island.

First Meeting to Discuss Savannah River Deepening

O n December 9, 1998, the Georgia Ports Authority (GPA) held the first in a series of public information meetings to discuss the status of the proposed deepening of the Savannah River navigation channel.

In addition to the periodic public information meetings, the Georgia Ports Authority will be implementing additional ways in which to ensure effective two-way communications. The GPA will be providing project status information on the Authority’s web site and inquires about the project. The telephone number is (912) 963-2511. Attendees also had an opportunity during the meeting to submit questions for responses through a moderated panel discussion.

During the meeting, GPA representatives presented plans for the ensuing project tasks that will determine the specific details of the channel configuration, effects on the surroundings and specific costs of the project’s construction. The attendees learned more about the methods proposed for involvement in specific interest areas – environmental, design/engineering and cultural. Attendees also had an opportunity during the meeting to submit questions for responses through a moderated panel discussion.

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Charles F. Griffen, GPA director of port planning and harbor development, will serve as the key contact for technical information related to the project. For legislative information, James C.

Recreational Boaters Like Port of Nanaimo

During the summit months the Nanaimo Harbour Commission’s Boat Basin is a popular destination for recreational boaters moving through the Strait of Georgia. The attraction for many boaters is our mainland location on Vancouver Island and the close proximity of all shops and services within walking distance of the marinas located on the doorstep of the City’s downtown.

Many of the boaters are repeat visitors to Nanaimo and the Port’s Visiting Vessel Pier has become a draw for the large luxury yachts, providing both safe moorage and full service facilities to accommodate their requirements. Recreational boaters frequently stop in Nanaimo en route to their destinations along the British Columbia coast or Alaska and on the return to their home ports.

A recent survey conducted by the Port during July and August 1998 indicated that the Boat Basin ranked very high among boaters in comparison to other Vancouver Island marinas, and the summer staff were rated as excellent.

The Nanaimo Harbour Commission has a tradition of employing students to assist during the busy summer season and are gratified at the quality of the young people we employ and the success of the summer hiring program.

(Harbour News)

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(Harbour News)
McCurry, GPA manager of legislative affairs, will be the primary contact person. Patricia S. Reese, GPA manager of communications and external affairs, will serve as the point of contact for general communications inquiries.

"It is our obligation not only to the local community but to the state of Georgia to maintain viable, competitive ports in order to continue to serve the interests of Georgia and international commerce while, at the same time, ensuring the natural quality of Georgia and the Low Country coastal and river environment," stated David A. Schaller, GPA deputy executive director. "The Georgia Ports Authority is also committed to utilizing as many methods as possible to ensure an effective, two-way communication of information so that the public can remain informed on the project's status and that questions and concerns can be thoroughly addressed and resolved in a timely and accurate manner."

Los Angeles: Ground Broken on Rail Project

In December last year public officials broke ground on a 10-mile-long trench — the first major construction phase of the $2.4 billion Alameda Corridor expressway project. Among the dignitaries on hand were Gov. Pete Wilson, U.S. Transportation Secretary Rodney Slater, Long Beach Mayor Beverly O'Neill, Los Angeles Mayor Richard Riordan, and the members of the Long Beach Board of Harbor Commissioners, and members of the Alameda Corridor Transportation Authority. They wielded crowbars and pried spikes out of a railroad track that will be improved and re-built below street-level.

Work is beginning on the $712 million mid-corridor trench — the most expensive and most critical part of the corridor project. Construction of the corridor will speed cargo between the ports of Long Beach and Los Angeles and inland rail yards. By lowering the track into the trench, the project will eliminate many street-level railroad crossings where motorists are often blocked by passing trains. The crossings also require trains to slow for the motorists. After a bypass track is completed to give trains an alternate route during construction, excavation of the trench will begin in mid-1999. Completion of the entire project is scheduled for early 2002. (tie lines)

Long Beach First to Move 4 Million Cargo Containers

The Port of Long Beach at 11 a.m. January 19 will celebrate a record-breaking 1998, as Long Beach became the first seaport in North America to move the equivalent of 4 million cargo containers in a single year. The port increased its cargo volume by more than 15 percent during the past year, which enabled the Long Beach to maintain its title as America’s busiest container port for a fifth consecutive year. Only one other U.S. port has topped the 3 million container count — and that is Los Angeles, which went over the 3 million mark for the first time in 1998.

Long Beach Mayor Beverly O’Neill, members of the Long Beach City Council, the Board of Harbor Commissioners and other dignitaries will join in the festivities in front of the port administration building, 925 Harbor Plaza. The port’s tenants and customers, who move the cargo through Long Beach, will be honored.

Seattle Handles Huge Drums for Oil Refinery

How do you unload four 250-ton steel drums each the size of a jumbo jet fuselage? Very carefully, using the combined skills of veteran longshore workers, stevedores and barge operators at the Port of Seattle.

The mammoth project cargo, destined for ARCO’s Cherry Point Refinery near Bellingham, was unloaded at the Port’s Terminal 37 in the third week of January. The drums, which came from Kobe, Japan, and were manufactured by Sumitomo Heavy Industries, were lifted off the Project Arabia, a vessel owned by Arabia Shipping N.V. from the Netherlands Antilles.

Three of the drums were mounted to the vessel’s deck and one was stored in the hold. Lifting each drum was a painstaking process, because it required the Project Arabia to adjust its ballast constantly. The entire operation took three days.

From the Port, the drums will be barged to Bellingham, where they will be used at ARCO refinery to process petroleum coke for the aluminum industry. The drums replace a set of aging containers at the refinery.

The oversized cargo shipment was a good example of what the Port can handle at its terminals. The Port is investing in a $26 million renovation of Terminal 91 with an additional $24 million of proposed improvements under consideration.

Tacoma: $58 Million Budget for 1999 OK'd

PORT of Tacoma Commissioners have approved a 1999 budget that projects revenues of $58 million and reduces the Port tax rate for Pierce County property owners.

The 1999 revenue projection is 7 percent higher than the $64 million in revenues the Port expects to generate in 1998. Total operating income in 1999 is projected at $9.3 million, or 21 percent higher than the $7.67 million operating income the Port saw in 1998.

"I think that kind of revenue and income growth is healthy and sustainable over the long-term," said Port Commission President Dick Marzano. "This budget demonstrates that our overall financial position remains strong and provides the foundation for continued growth and investment."

Port Commissioners decided to reduce the millage rate for Port taxes paid by Pierce County property owners, but increases in countywide property values will result in total tax revenues of $6.5 million — $200,000 more than in 1998.

The owner of a $100,000 home in Pierce County will pay $18.59 in 1999 Port taxes, compared to $18.61 in 1998. The money raised by the Port’s tax levy is used exclusively for payment of principal and interest on general obligation bonds and on capital improvements. None of the levy funds are used for operating expenses.

Over the past 10 years, the Port’s tax rate has dropped by more than 50 percent, while collections have remained nearly even.

"The stability of our tax levy helps us maintain a good bond rating and reserves capacity for possible future needs," said Marzano. "That’s critical when it comes to financing the Port’s capital spending, which brings jobs and economic growth to Pierce County."

The Port’s five-year $294 million capital improvement program calls for $54 million in capital expenditures in 1999. Half of that $54 million will be aimed at improvements to maritime facilities. Major projects include anticipated expansion of Evergreen Line’s facility at Terminal 4, upgrades to several container cranes, expansion of the berth at the Sea-Land Terminal, and navigational improvements on the Blair Waterway.

Improving road access and intermodal rail capacity are important elements in the capital budget for 1999. The Port has allocated $13 million to help pay for projects such as the construction of an overpass to raise Port of Tacoma Road over
such as Andre Ferre Asia -crisis". Several sectors showed
interest in road and rail projects, along with the $2.4 billion allocated by voter approval of Referendum 49 in November, is expected
to improve freight mobility throughout
the Puget Sound region.

In addition, $10 million in capital fund­
ing has been set aside for industrial
development and community economic
development initiatives. Those initiatives
include new warehouse development,
research on development opportunities
for the east side of the Thea Foss
Waterway, and legislative efforts to cre­
ate an International Services
Development Zone in downtown
Tacoma.

The budget also contains a cargo fore­
cast for 1999, which projects growth in
containerized cargo and auto imports.

Total container cargo volumes are pro­
jected to grow from 1.09 million TEUs in
1998 to 1.24 million TEUs in 1999, an
increase of 7.3 percent.

Much of that growth will be a result of
the opening of the new container termi­
nal leased and operated by Hyundai
Merchant Marine. The 80-acre terminal,
which includes a 12-acre dockside inter­
modal rail yard, is scheduled to open
early in the year and will see three ves­
sel calls per week.

Auto imports are expected to remain
strong, driven by a stable economy in
the United States and weakness in
Asian currencies. Approximately 115,000
vehicles are projected to cross the Port’s
docks in 1999, a 4.5 percent increase
over 1998.

The budget’s economic outlook recog­
nizes the reduction in U.S. exports that
have resulted from the downturn in
Asian economies and accounts for it in
both the cargo and revenue forecasts.

Grain exports for instance, are expected
to continue the decline begun in 1998,
which saw tonnage plummet by 42 per­
cent to 2.6 million short tons. The projec­
tion for grain exports in 1999 is two mil­
lion short tons, a decrease of 23 percent.
Exports of logs and wood chips are
expected to decrease by 4 and 2 percent,
respectively.

"This budget will help us realize our
vision of being a global magnet for com­
merce that creates success for our cus­
tomers, enthusiasm for our employees
and vitality for our community," said
Marzano.

In the liquid bulk sector, the unload­
ings of basic materials from sea-going
vessels were up whereas the turnover
of derivatives decreased.

Despite the satisfying final total,
December results were affected by the
"Asia-crisis". Several sectors showed
lower turnover than in December 1997,
though it must be kept in mind that
December 1997 was an exceptional
month.

Inland navigation

Final results are also available for inland navigation. For the first time,
more than 60 million tonnes of cargo
was transported to and from the port of
Antwerp by barge. Incoming cargo was
stable at 23.8 million tonnes, whereas
outgoing cargo grew by 7.5% to 36.4
million tonnes.

Less steel was delivered in the port
for overseas exports, but significantly
higher volumes of oils and seeds, coal
and chemicals were transported from
the port to the hinterland.

Container volume transported by
barge was, in both directions, about 8%
higher than in 1997, and stands at more
than 11 million tonnes. In units, these
are about 1.1 million TEUs (or the equiv­
alent of at least 550,000 trucks).

Port 2000 Project: Rails, Le Havre Sign Agreement

WITHIN the scope of the Port 2000
project, an agreement has just been signed between
SNCF (The French Railways) represent­
ed by Jean-Jacques Henry, Director of
the Rouen Region, RFF (Réseau Fer­
de France, the French Railway
Network) represented by Jean-Pierre
Pronost, Managing Director in charge of
the network, and the Port of Le Havre
Authority, represented by André
Graillot, Managing Director.

Being able to use high-performance
inland and especially rail connections
which allow to link terminals in a ratio­
nal way, on the one hand, in order to
foster the consolidation of trade flows,
and, on the other hand, to enlarge the
hinterland of the port towards the East
of France and Europe, is an essential
element of the operational and econom­
ic competitiveness of Port 2000.

Achieving this objective especially
means increasing the modal share of
container rail transport which now
amounts to 14% and which is expected
to reach more than 20% in 2005.

New infrastructures will be likely to

Africa/Europe

Antwerp in 1998: Record
120 Million Tonnes

LAST year 16,122 sea-going ves­
sels called at the port of Antwerp.
Loading and unloading opera­
tions for these vessels totalled
119,788,549 metric tonnes of cargo.

With this result, maritime cargo
turnover stands at the highest point
ever at 8.9 million tonnes (or 7%) over
the previous record of 1997. Main factor
was the strong growth of incoming
cargo to 71.8 million tonnes (+14%).
Outgoing cargo was, with a total of 48
million tonnes, slightly down on last
year.

Container turnover rose by 10% in
units (to 3,265,750 TEU) or by 6% in ton­
nages (35.4 million tonnes). The mas­
sive shipping of empty containers to
Southeast Asia accounts for this differ­
ence in growth rates.

In the non-containerised general
cargo, Antwerp confirms its market
leadership in the turnover of non-containerised fruit, paper and
steel. Significantly higher volumes were
handled: 4.6 million tonnes of paper
products (+12%), 1.9 million tonnes of
fruit and 9.7 million tonnes of steel
(+9%).

The volume of 1.2 million tonnes of sugar (+32%) proves that Antwerp is
back in competition for this trade.

Unloadings of raw materials such as
coal and ore grew significantly. About
9.3 million tonnes of coal (+25%) and 9.8
million tonnes of ores (+22%) were han­
dled. Antwerp strengthened its position
in Europe as a dry bulk port significant­
ly at a time when growing coal imports
into Europe are to be expected.

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than 11 million tonnes. In units, these
are about 1.1 million TEUs (or the equiv­
alent of at least 550,000 trucks).
be constructed. Some of them concern the immediate service links to and from the future port terminals and are included in the port scheme considered by the Minister of Equipment, Transport and Housing, Mr. Jean-Claude Gayssot, and publicized on 5 December last; the necessary studies have to be completed in four months’ time.

Others concern the close connections with the terminals and will be placed under the responsibility of “Réseau Ferré de France” (RFF), as the contracting party.

Finally, some concern the distant connections with the terminals, with, among other things, the project of upgrading of the rail section from Motteville to Montérolier-Buchy which would facilitate the traffic of block trains, to the East of France and Europe.

Within the scope of the objective being the increase of the modal share of rail transport, PAH requested RFF and SNCF to initiate a study on the improvement and development of the rail links of Port 2000 and the port industrial zone of Le Havre.

Consequently, the agreement signed between the three partners, with the support of the Equipment Regional Division, aims at:

- studying the forecast development of trades, the operating conditions and the consequences on the nature and cost of the rail investments likely to be implemented, and
- suggesting a concerted and consistent strategy on the commercial aspects of rail operation and investment.

The whole study will include four stages:
- the working-out of a statistical reference table about trades and their development
- the analysis of the existing rail systems, both as regards operation and infrastructure
- the identification of the requirements and the possible responses, both as regards operation and as regards infrastructure and the assessment of their consistency
- the infrastructure studies

The study will be co-ordinated by a research manager appointed by SNCF who will rely on a study group made up of the various departments of PAH and SNCF.

A steering committee chaired by the PAH’s Managing Director, and including RAH, RFF, SNCF and the Equipment Regional Division will work out the detailed programme of the studies within the framework of the agreement, will follow and supervise the progress of these studies and will validate the various alternatives proposed.

In reality, numerous studies have already been carried out on the overall topic of the rail services to and from the port of Le Havre. This mission will provide these various studies with the cement allowing the implementation of a real “rail project” as a complement to Port 2000.

**BLG Tops Million Mark At Bremerhaven Terminal**

AFTER over 970,000 vehicles last year, BLG Automobile Logistics surpassed the million mark for the first time at its terminal in Bremerhaven at the end of December. The one millionth automobile was a Mercedes of the new S class. With the launch of the Mercedes BLG at the same time, officially opened its new automobile warehouse at the Export Terminal in Bremerhaven.

It was a festive moment for Bremerhaven when Hans-Heinrich Weingarten, head of the Bremen Mercedes plant, gave the starting signal for shipment of the one millionth vehicle this year. Together with Manfred Kuhr and Bernd Kupke, managing directors of BLG Automobile Logistics, he also officially opened the new high-bay warehouse, which was specially built for the export of Mercedes automobiles.

The investment volume is around 24 million DM. The high-bay warehouse, which was constructed in a period of eight months, offers space for over 7,000 passenger vehicles on five levels. This increases the capacity of the covered storage areas available to BLG Automobile Logistics to 30,000 vehicles. Another 42,000 automobiles can be kept on outdoor areas.

Two objectives were pursued through the construction of the automobile warehouse: more effective use of the basic area through storage on several levels as well as qualitative aspects. Cars are treated worldwide as unpacked goods, i.e. they are particularly sensitive cargo. Such a covered and thus protected temporary storage as provided by BLG is not offered at any other European port.

Bremerhaven’s terminal managers attribute their success in automobile business in particular to the high quality certified in accordance with ISO 9001. Bremerhaven is the market leader in Europe for international import and export of vehicles. Additional aspects
explaining this strong position include automobile logistics, the high transport frequency of automobile ships with over 1,100 departures a year and the complete service, including up to three technical centers that operate around the BLG Auto Terminals.

Around 4,000 jobs in Bremerhaven and the surrounding region are connected with this all-round automobile service. Due to continuing growth, BLG Automobile Logistics recently hired 40 new employees, increasing the permanent BLG Terminal staff to over 400 persons.

**Port of Rotterdam: Y2K Questionnaire for Shipping**

The Rotterdam Municipal Port Management (RMPM) wants shipping lines and charterers to sign a declaration that their sea-going vessels using the port during the turn of the century are millennium-ready. They will be asked to fill in a questionnaire for this purpose. The Port Management has already drawn up a draft questionnaire.

It is hoped that this will eventually lead to a nationally and internationally approved questionnaire that can be used for as many ports as possible. Consultations are already in progress in this respect. Many ports have indicated that they would like to take part in this initiative. The Port Management expects to be able to submit the final list to eligible customers around May.

Pieter Struijs, executive director, Shipping, RMPM, announced this today (January 26) at the conference "Turn of the Century in the Port of Rotterdam" held at MarineSafety Rotterdam. At this conference local authorities and nautical assistance services presented proposed measures related to the turn of the century in the port.

**Questionnaire**

The questionnaire concerns three specific aspects: the nautical equipment of the ship, the cargo facilities and equipment related to the safety of the ship. The aim of the questionnaire is to determine whether the ship and the electronic equipment on board are millennium-ready. The term millennium-ready means that:

- it has been ascertained that the equipment contains no electronic components, or that
- the shipping line has declared that

the equipment will cause no date-related problems, and that
- a contingency plan is available in the unlikely event of the equipment nevertheless causing date-problems: sufficient crew need to be available for this situation.

The Port Management will in principle carry out random checks on 10 percent of the forms received to see whether they have been filled in truthfully.

**Open**

On 3 November 1998, Mr. Struijs already announced that the port would remain open during the turn of the century. He also said at that time that the Vessel Traffic System (VTS) and the data handling system (IVS/DHS) would be millennium-proof at the beginning of 1999. These are the port’s crucial systems from the point of view of safety and order in the port. These systems are now almost ready. The only aspect still requiring attention concerns the integrated communication networks.

**VTS**

The hardware of the VTS includes 31 radar stations, many automated radar units, integrated communication networks and a network of computers. Current and ‘historic’ information on every ship calling at the port is collected in the DHS, including draught, the last and next port, cargo, berth and agent.

The most important hardware was recently either modernized or replaced within the framework of the so-called midlife conversion that began in 1994. This midlife conversion is currently in its final phase.

The Port Management expects bridges, locks and patrol boats that are equipped with hardware and software also to be millennium-proof by the summer.

**Study Highlights Need To Protect Port of London**

- Worth £2.7 billion a year to Thameside communities
- Generating 37,000 full-time related jobs
  - £536 million paid annually in wages to local people
  - £178.8 million spent on buying local goods and services

The vital importance of the Port of London to the economy of Thameside communities and the urgent need for local planning authorities to protect and develop its terminals, has been highlighted in a new economic impact study.

The study, carried out for the Port of London Authority (PLA) by economic development consultants Segal Quince Wicksteed Ltd (SQW), shows that the Port generates £2.7 billion a year for London, Kent and Essex. More than £178.8 million is spent on buying local goods and services, while £536 million is paid in net wages.

It also shows that Port operators plan to invest more than £1 billion during the next five years on new Port equipment, along with expansion development and restructuring of their facilities which is expected to lead to a growth in jobs, turnover and cargo tonnage. This in turn will further increase the value of the Port to local communities.

A total of 37,000 full-time jobs are supported by the Port in London, Kent and Essex with 31,000 of these directly related to terminal operations, associated services, marine agents and suppliers.

More than 4,000 jobs in the same area are supported by the local spending of incomes earned from the Port, the survey shows.

A quarter of the terminals interviewed said they will need extra land for the development or expansion of their facilities over the next five years. To cope with this organic growth the survey suggests an extra 394 acres will be needed.

A number of the operators warned that if additional land was not available, they may have to consider moving out of the Port of London altogether, affecting up to 600 jobs. A clear majority of the terminals want a strategy to safeguard port-related sites with some even advocating a blanket form of protection on sites.

The report concludes that the Port makes a "significant contribution to employment, wealth creation, related businesses, household incomes and investment. The impact of the Port may not always be fully realized because it is spread along the whole length of the tidal Thames through various different local areas ... Nonetheless, the potential of the Port of London for future investment and growth is considerable."

David Jeffery, chief executive of the PLA, said: "This study shows the importance of the Port of London to Thameside communities, and why it is important that its terminals and wharves are protected, nurtured and given room to grow in the future by local authorities to provide more jobs and opportunities for those communities."
1997/98 Highlights of Port of Brisbane Corporation

The Corporation has successfully embraced a year of challenges and achievements. Growth in container trade exceeded all expectations with a 16% increase in container trade to 316,549 TEUs. Operating revenue reached record levels of $75 million with a "bottom line" net profit of $11.9 million.

Other key highlights of the 1997/98 year at the Port of Brisbane included:
- Completion of the Fisherman Islands’ $28.5 million Wharf 7 and associated terminal.
- A third major terminal operator, SeaLand (Australia) Terminal Services Pty Ltd, set up at the port.
- The Corporation entered into a number of commercial arrangements resulting in over $21 million invested in new trade facilities at the port.
- Throughput through the port's intermodal facility, the Brisbane Multimodal Terminal, increased 5% to 63,102 containers for the year.
- Fertilisers passed through the port in record volumes, and major distribution facilities were established by Pivot Limited and Summit Fertilisers.
- The Corporation moves its head office from the Central Business District to Fisherman Islands to be closer to the port's activities and major customers. (Annual Report)

Quality Management by South Australian Ports

An integral part of the South Australian Ports Corporation's business strategy of providing higher and more efficient levels of service to our clients, the Corporation is currently preparing for quality management accreditation.

The Corporation's role and performance are key to the effectiveness of South Australia's trading links with the rest of the world. We aim to be a leading port manager by continuous improvement and innovation throughout the organisation. Our standards will be supported by operating a Quality Management System which meets the requirements of the International Quality Assurance Management Standard ISO 9002 (1994).

Accreditation will provide tangible commercial benefits to our clients through ensuring that Ports Corp continues to be able to provide efficient, reliable and responsible service.

We believe such accreditation will be to the benefit of the total port and provide opportunity for other port service providers to strive for better productivity, higher service delivery and world competitive costs.

GPA Now Provides Pilotage Services

Evolution of Queensland's marine pilotage service now allows employment of pilots by regional port authorities. GPA recently took over Gladstone's nine marine pilots previously employed by Queensland Transport.

In line with government requirements, GPA is presently running the pilotage service on a three-year trial, with the port collecting pilotage dues for the government, which will then reimburse costs to GPA.

Chairman Leo Zussino is hopeful that after the three-year period, the service will remain part of GPA activities and will not become a separate entity.

"The safety of the vessels in the harbor is paramount," Mr. Zussino said.

"If there is any commercial advantage in the new system, we would look to reduce the cost of pilotage to the customer."

He added that Gladstone now has a pilot transfer arrangement with the Port of Townsville to handle any gaps in rosters.

Navigational services, port control, emergency response and the role of the Harbor Master remain with Queensland Transport. (Port-Talk)
With the additional responsibilities given to PPC as the FCZ Authority and with its extension of powers to Port of Teluk Ewa, PPC will continue to ensure its port services and facilities remain at the highest standard while its productivity is increased to meet future growth. PPC is committed to providing port services that are at par with world standards. By offering competent and reliable services at all times, Penang Port Commission is set to maintain the momentum of a nation on the move.

PSA Exceeds Target Volume of 15 Million TEUs

South East Asia. Our efforts have borne fruit, and we enjoy high double-digit growths from these new and other markets. The US traffic and European traffic have also done well. "PSA would like to thank all our customers for their support in making us their port of call. We anticipate greater challenges in the years ahead. As the region works out its recovery, PSA will continue to provide value to our customers with its fast, flexible and reliable services. We will work closely with them to weather the economic slowdown through our Total Customer Support programme, bringing the total resources of PSA to support, help and service our customers in their business." Our growth in 1998 is also due to the efforts put in by our dedicated and disciplined staff; their high productivity and strong commitment to meeting all the needs of our customers have contributed in no small measure to our customers' satisfaction with our services. Efficiency and service reliability played an important role in PSA achieving its target container throughput of over 15 million TEUs in 1998. Operating as a single fully integrated facility, PSA's container terminals, namely Brani, Keppel, Tanjong Pagar and Pasir Panjang, have been achieving outstanding vessel rate performance of more than 100 moves per vessel hour in their daily operations. As the world's largest container terminal operator, PSA has built up unique expertise to handle large container volumes per ship call and the attendant complexities of transshipment.

As the region copes with the economic climate, PSA helps the region in its recovery by running an efficient transshipment hub, enabling importers and exporters from Singapore and the region to receive from or ship to global markets their goods and products speedily, reliably and at the lowest possible cost.

Port Zayed: Phenomenal Growth in 9 Months of '98

Port Zayed: Phenomenal Growth in 9 Months of '98

The history of Port Zayed is synonymous with the history of the United Arab Emirates' Federation. Exactly 30 years ago, the vision of UAE President H. H. Sheikh Zayed Bin Sultan Al Nahyan to turn Abu Dhabi into a metropolitan and commercial centre, had led to the construction of an international port which became operational on December 2, 1971, the date of the nation's birth.

Seaports have been a major priority of development in the UAE and no doubt the directives of President H. H. Sheikh Zayed Bin Sultan Al Nahyan, the full support of Abu Dhabi Crown Prince and Deputy Supreme Commander of the Armed Forces H. H. Sheikh Khalifa Bin Zayed Al Nahyan and the dynamic guidance of Chairman of Abu Dhabi Seaport Authority - Port Zayed, H. H. Sheikh Saeed Bin Zayed Al Nahyan, have led to constant development and expansion of the Port's facilities and services.

The Port witnessed a phenomenal growth in throughput during the first nine months of 1998, showing an increase of 40% in comparison with the corresponding period of 1997. The Seaport's Management has embarked on a massive expansion programme which incorporates the acquisition of new container handling equipment, the building of new berths and eventually the construction of a second container terminal.

Port Zayed's facilities are contained in a total area of 510 hectares, including 41 hectares occupied by the container terminal which can process 15,000 TEUs at any given time. There are 21 berths for
handling all kinds of containers and general cargo including bulk cargo, Ro-Ro, project cargo, reefer cargo and petroleum products.

A second container terminal with four ship-to-shore cranes is being planned adjacent to the existing facility, on the eastern side of the port as all the major shipping lines are calling at Port Zayed with their vessels.

Looking further ahead, the port development plan envisages that its target will be achieved to cater the needs of increasing business.

While Port Zayed's modern container terminal facilities and its advanced methods of operation have won it wide praise amongst shipping lines and shippers, the Port's general cargo operations have been equally lauded for their efficiency, speed and customer-oriented approach.

The Port has 13 general cargo berths and four marine unit berths with a total quay length of 3,380 m and a quayside depth of 13 m. The facilities are backed up by over one million sq metres of paved storage and almost 139,000 m of warehouses, including a 5,250 sq m shed for sea-air cargo. There is also ample space for breakbulk cargoes, forest products and machinery handling as well as a 60,000-tonne grain silo.

Chilled cargo is catered by a 5,000-tonne capacity cold store. A second large cold store with 15,000-tonne capacity is nearing completion and is expected to be operational by the beginning of 1999.

A professionally managed stevedoring company takes care of loading and offloading operations through a well-trained labor force which accomplishes all operations smoothly utilizing the equipment provided by the Port's Traffic Department.

Owners of ships calling at Port Zayed have an added incentive in the form of saving substantial amount of money from the competitive rates offered for bunker fuel, which is supplied by the Abu Dhabi National Oil Company (ADNOC) in co-ordination with the Port.

To complement its growing operations at Port Zayed, the Seaport Authority is also focusing its attention on the development of project and general cargo facilities in the new outport at Mussafah. A special terminal, with a capacity of 300,000 to 500,000 tonnes of cargo a year is expected to be operational by the end of 1999.

Alert 24 hours a day, the Pilotage Department controls all traffic along the navigation channel. The Department is fully computerized and this facilitates swift monitoring of information such as the ship's ETA, draft, nationality and type of cargo.

The Port's Engineering Department is responsible for the implementation of the tasks related to the development of ports and navigation channels in Abu Dhabi. The development of the Port and the navigation channels is based on a master plan covering the years 1993 to 2013. The long-term development plan is for the years 2000 to 2013. Among the major projects under the development plan which have already been executed or in the process of being completed by the Department are reconstruction of berths, dredging, construction of new buildings and workshops, cold store, developing of the main channel of the port, construction of the port of Mussafah, new container terminal, and other facility projects.

The Port's Traffic Department, the highly-qualified team of computer professionals develop special application software for each Department of the Port, using Relational Database Management System and GL development tools. The systems developed for the Port are: Container Terminal Operations Systems, Marine Operations System, General Cargo System, Statistics/Management Information System, Stock Control System, Fixed Assets System, Purchase Order System, Revenue System, Personnel System and Marketing Information System.

The goal of the EDP Department is to help in the co-ordination of operations in Port Zayed through the introduction and control of tailor-made systems until the Port reaches the optimal level of operations.

The Department runs a local area network, which enhances the officer work of the various departments in the Port. There are more than 40 terminals connected to the EDP main computer which has the advanced software to provide all the information required by the departments.

All warehousing operations are also computerised so that customers can have access to any required data. Importers are offered the facility of partial deliveries from stored goods which then can be stored in secured lockers.

Port Zayed's cold store facility is of immense help to the importers and exporters of cold and chilled cargo. The complex consists of 24 individually temperature-controlled rooms with a total storage capacity of 5,900 cubic metres in an area of 2,795 sq m.

The increasing demand for chilled cargo storage has prompted the addition of a new 15,000-tonne multi-compartment frozen and chilled goods store which is scheduled to start operation in the last quarter of 1999.

The Dhow Harbor in Abu Dhabi, which is located in close proximity to Port Zayed, has been developed as a Free Port for traditional Arab dhows and launches for prompting active trade between Abu Dhabi and the Gulf countries, the Indian Sub-Continent, East Africa and most parts of the Middle East.

The facilities at the free port include 34 berths, with 6 metre water depth totaling 2,000 metres of quayside for offshore supply boats and barges. All the berths have independent fresh water connections. Three fuel stations owned and administered by ADNOC-Fod provide necessary fuel for the users.

The Free Port operates round-the-clock and is fully equipped with all the necessary equipment essential for normal handling of goods in the harbor. Handling equipment, if required, is supplied by the Seaport Authority.

Any success realized in the Port's activities is due to the philosophy adopted by the Abu Dhabi Seaport Authority's management which has been able to make appropriate decisions and react with flexibility to changes taking place in the field of maritime transport. The motto adopted by Port Zayed is illustrative "Do not ask us what facilities we have, tell us what facilities you need".
-Integrated Road Network

Taking full advantage of its strategic location, the Port of Nagoya provides you fast access to every part of Japan.

The three Meiko Bridges enhance the integrated road network around the port by connecting major national highways.

-Efficient Cargo Handling

With 8 Over-Panamax gantry cranes, our container terminals offer you prompt and efficient service.

The Port of Nagoya container terminals welcome vessels 24 hours a day.

-Expanding Capacity

In addition to our newest berth, opened in 1997, construction of another four berths is planned.

To meet the needs of increasingly large container vessels, two berths are being dredged to 15 meters.

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Journey into the world of magical Malaysia... a world enshrined in the beauty of nature, a tapestry of attractive and vibrant colours. We cherish this gift and in preserving this treasure, we take every step and measure to ensure that its splendour endures through the journey of progress, a legacy bequeathed unto generations to come.

Like our dedication to the preservation of our natural flora and fauna, we constantly strive to provide you, our esteemed partners and customers - services and facilities of international standards.

Discover The Journey - IAPH'99
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