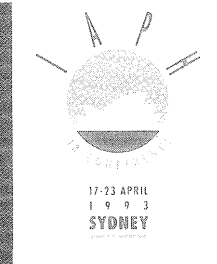
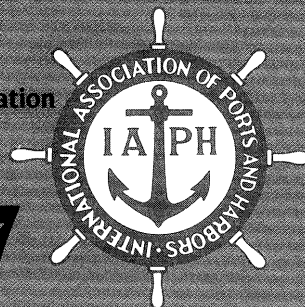


# Ports & Harbors



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The International Association  
of  
Ports and Harbors

September 7  
1992 Vol.37 No. 7



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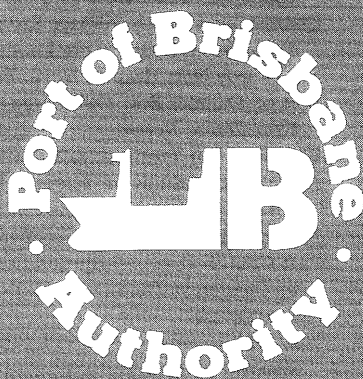
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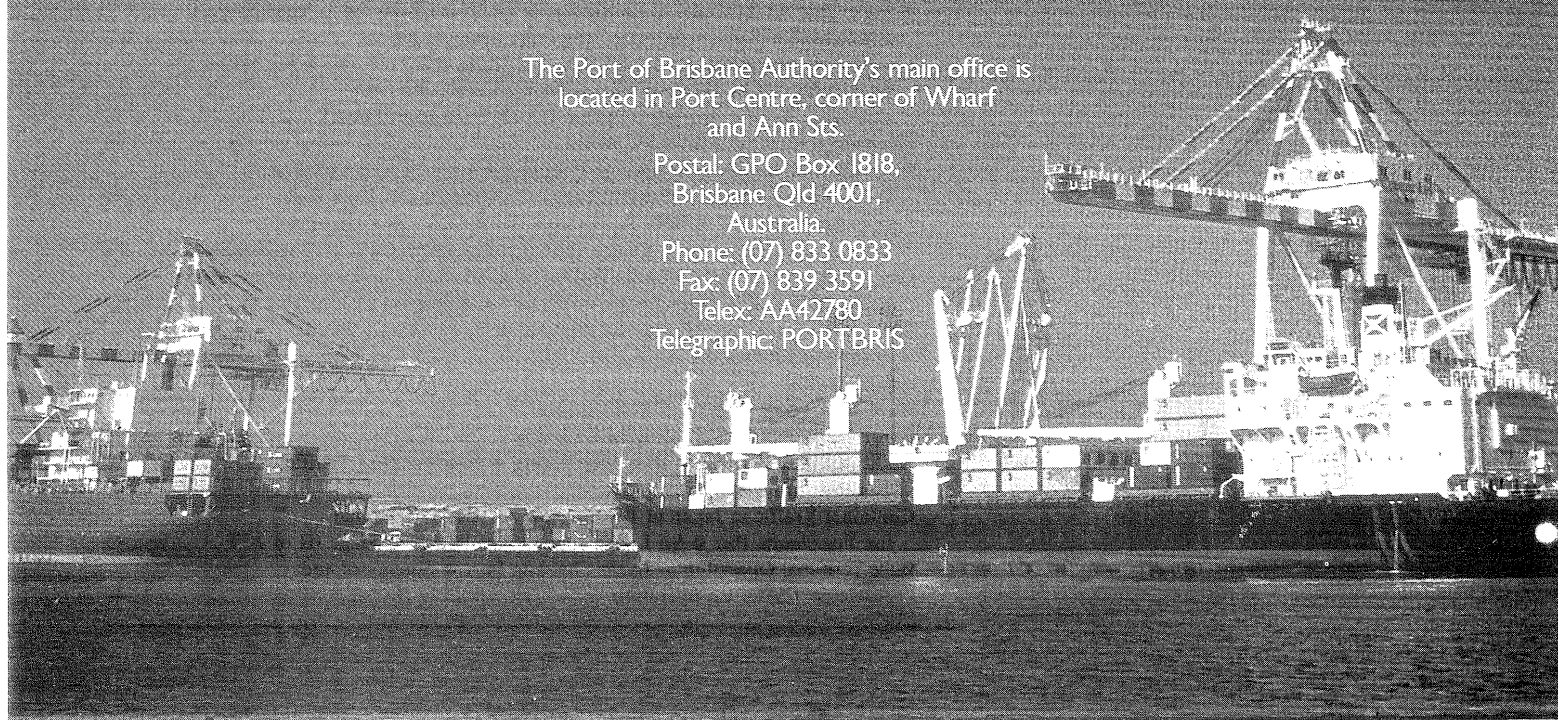
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# IAPH ANNOUNCEMENTS AND NEWS

## Mr. Falvey Represents IAPH at New York UNCITRAL Congress

Mr. Patrick J. Falvey, Chairman of the IAPH Legal Counselors, Special Council to the Port Authority of New York and New Jersey, has contributed a paper on the subject "Liability of Terminal Operations and Insurance Cover" which he submitted to the International Conference on Current Issues in Maritime Transportation held at the UNCITRAL (United Nations Commission on International Trade Law) Congress held during the period May 18-22, 1992 at the UN Headquarters in New York.

Mr. Falvey shared with the Conferees the knowledge, experience and insights gained through a forty year period as a port lawyer for New York on OTT (Operators of Transport Terminal) liability issues, as featured later in this issue.

## IPD Fund: A Fresh Start for Fund Raising

Following the close of the biennial fund-raising campaign for the term 1990-1992 in June this year, the IAPH Head Office in Tokyo has embarked on a fourth fund-raising campaign, which all IAPH members have been asked by the Secretary General to support by making voluntary contributions.

Against the targeted amount of US\$70,000, a total of US\$43,779 was contributed by 56 organizations and individuals. Furthermore, in response to the request made by President Mather, the IAPH Foundation, Japan has pledged a donation for the amount which covers the shortfall in the 1990/1992 term campaign. The generous commitment of the Foundation has thus enabled IAPH to conclude the campaign and to start the new term's campaign, which we hope will again be met by the favorable responses from as many IAPH members as possible.

The Secretary General's appeal to the members was as follows.

To: All IAPH Members

July 22, 1992

### Re: Biennial Fund-raising Campaign for the 1992-1994 Term Call for Contributions to the IPD Fund

As you are well aware, under the IAPH Bursary scheme

selected people from our member ports in developing countries have received assistance for training at advanced IAPH member ports and training institutions overseas. This program is funded by the voluntary contributions of the member organizations and individuals throughout the world.

Each call for voluntary contributions to the IPD Fund (the Special Port Development Technical Assistance Fund) has been made on the advice of the Executive Committee and in accordance with Sec. 45 of the By-Laws.

At the recent meeting of the Executive Committee held in May in Charleston, the situation concerning the campaign in the latest term (1990-1992) was reported. It was agreed by the Committee that, in spite of the difficulty in achieving the target set for each term, the general membership should not be assessed for the amount needed to cover the shortfall. Instead, efforts should continue to be directed towards sustaining the program from the resources to be accumulated in the IPD Fund through the voluntary contributions from IAPH member organizations and individuals as a result of the new (1992-1994) term campaign.

It is with profound appreciation that I can report that we were able to achieve the target set for the 1990/1992 term campaign because the IAPH Foundation has generously agreed to donate to the IPD Fund the amount necessary to make up the shortfall, which accounts for almost 40% of our target. Nevertheless, I believe that we should not overly rely on the goodwill of such third party benefactors as the IAPH Foundation whenever we need funds for our own programs if we are committed to assisting our friends from developing ports, but we should redouble our efforts to achieve the goal we set ourselves within our own ability.

Under the circumstances, please allow me to appeal to you once again for your generous contributions to the IPD Fund in supporting this important project of IAPH.

All developments in our fund-raising campaign will be reported through "Ports and Harbors" on a regular basis.

Any assistance you might be able to give us in this project will play a significant role in furthering the objectives of our Association.

With best regards,  
Hiroshi Kusaka  
Secretariat General

P.S.: Information on how to remit your contributions

1) By way of bank transfer: Please remit your contribution to the IAPH account at the following bank.

**The Bank of Tokyo Ltd., Uchisaiwaicho Branch,  
Account No.0664561 (Name of Account: Inter-  
national Association of Ports and Harbors)**

2) By means of check/bank draft: Please send your check/bank payable to:

**International Association of Ports and Harbors**

## IAPH Hopes for Many Contest Entries

On July 10, 1992, Secretary General Kusaka sent a letter to IAPH members at large reminding them of the approach of the deadline for the receipt of entries to the IAPH Essay Contest 92/93.

Since the announcement of the conditions for entry to the eighth biennial essay contest of IAPH early last December, the Head Office, in close cooperation with the CIPD Chairman Mr. Goon Kok Loon at the Port of Singapore, has been promoting the program through the journal and by circulating a poster (in English, French and Spanish) among IAPH members throughout the world.

The Secretary General emphasized in his reminder that IAPH looks forward to receiving as many papers from qualified applicants as possible by the deadline of September 1992.

As of July 10, 50 days away from the deadline, the IAPH Head Office in Tokyo has not yet received any entry papers, although the Head Office Secretariat anticipates that most entry papers may arrive towards the end of August, or at the last minute before the deadline, as has been the case with previous contests in view of the fact that many of the applicants have written such papers using their summer vacations.

In line with past conferences, the top prize winner will be invited to attend the 18th World Ports Conference to be held in Sydney, Australia from April 17 to 23, 1993, where he or she will receive a silver medal from the IAPH President in front of all the delegates present at one of the Plenary Sessions.

According to the conditions for entry, entries are invited from individuals employed by IAPH member organizations in developing countries on the subject "How the quality of port services could be improved". Entry texts not exceeding 20 pages (A4 size) in English, French or Spanish will be eligible as long as they are received at the IAPH Head Office by September, 1992.

We plan to announce the situation concerning the entries in the next issue after the closing date.

## Sydney Announces Details of Exhibition

Mr. John Hayes, General Manager, Port Co-ordination and Planning, Maritime Services of New South Wales, who serves as Executive Secretary of the Organizing Committee for the 18th World Ports Conference of IAPH, recently announced that his committee has completed the brochure outlining the details for the Exhibition to be held in conjunction with the 18th Conference and is ready to circulate copies of the brochure among IAPH members and non-IAPH members for their entries. For those interested in participation in the Exhibition, we reproduce below the information and entry form which are included in the brochure.



## 18th World Ports Conference

Of IAPH

## Official Trade Exhibition 18-22 April 1993

### The Opportunity

The IAPH Conference is one of the largest gatherings at any one time of port directors and other high level seaport executives. Participating at this prestigious event as an exhibitor offers an ideal opportunity for companies involved in the provision of maritime products and services to reach the decision makers of the International Ports Industry. It is an excellent way of meeting your target market.

### The Conference

The International Association of Ports and Harbors (IAPH) representing deepwater seaport interests with over 350 member organisations drawn from over 80 countries will hold its 18th World Ports Conference at the Sydney Hilton Hotel, Australia between 17 - 24 April 1993.

As part of this biennial conference, an exhibition has been organised which will feature products and services of interest to the Maritime Industry.

The theme of the conference is "Ports — The Impact of Global Economic Change". Topics to be covered in the working sessions will be:

- Ports and World Trade
- Ports in the 90s Management and Financing
- Ports and Trade Facilitation
- Bulk Loading Ports — The Australian Scene
- Ports and the Environment
- Ports and Human Resources

### The Delegates

Over 500 delegates from around the world are expected to attend the Conference. The delegates are the decision makers from Seaports, Shipping Companies, Consultant, Engineering Companies and Representatives from World Bodies.

### The Duration

Sunday 18 April — Thursday 22 April 1993	
Sunday —	Exhibitors moves in Delegates Registration Opening of Conference
Monday —	Official Opening of Exhibition Plenary & Working Seminars
Tuesday —	Exhibition & Working Seminars
Wednesday —	Technical Visit to a Coal Terminal — Newcastle
Thursday —	Exhibition and Working Seminars

### The Venue

The Exhibition will be held on level 9 of the Sydney Hilton Hotel, 259 Pitt Street, Sydney while the Conference will proceed on level 8. To ensure maximum exposure for the Exhibitors morning tea, lunch and afternoon tea will be served in the Exhibition area.



## The Exhibition

The Exhibition booths are based on the "Shell Scheme" measuring 3 m x 2 m at the price of \$A1,850

### The Package:

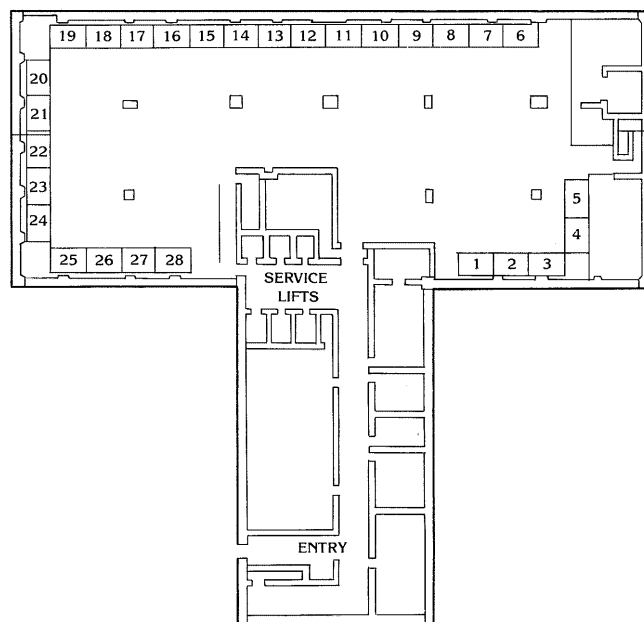
- Fabric lined walls and one fascia panel
- Carpeted floor throughout
- Adjustable spotlight
- Power point
- Table
- Two chairs
- List of all delegates registered
- Lunch for 2 persons on 3 days
- Special requirements by negotiation

### Book Early:

Allocation of space will be made on a "first come, first serve" basis. As booth space is limited we would urge you to make your reservation early to avoid disappointment.

For further information or reservation please contact:  
ICMS Australia Pty. Ltd.  
GPO Box 2609  
SYDNEY, NSW 2001  
AUSTRALIA

Telephone (612) 241 1478  
Facsimile (612) 251 3552



## Booth Application Form

We wish to reserve the following booth at the Trade Exhibition to be held at the Sydney Hilton in conjunction with the IAPH 18th World Ports Conference

### Preferred Site Position(s):

1st Site No(s): \_\_\_\_\_

2nd Site No(s): \_\_\_\_\_

Total Cost: \_\_\_\_\_

Deposit Enclosed \$A \_\_\_\_\_

It is understood that if the above sites have been reserved prior to this application the Organisers will contact the vendor to discuss alternative locations.

Enclosed is a cheque for \$A250 per booth being the initial deposit payable, the balance being due 28 days prior to the exhibition (10 March 1993).

It is understood that on receipt of this Booth Application Form a formal acknowledgement will be issued in respect of the space allocated.

Company Name \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Post Code \_\_\_\_\_

Telephone No. \_\_\_\_\_

Facsimile No. \_\_\_\_\_

Contact Person \_\_\_\_\_

Position \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Please forward this form together with deposit cheque made payable to the:

MSB/IAPH World Ports Conference  
c/- ICMS Australia Pty. Ltd.  
GPO Box 2609  
SYDNEY, NSW 2000  
AUSTRALIA

Telephone (612) 241 1478

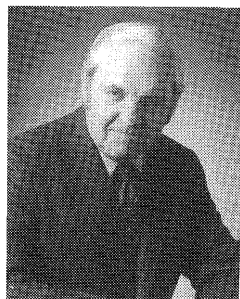
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# Liability of Terminal Operations and Insurance Cover

## Submitted by Patrick J. Falvey to the International Conference on Current Issues in Maritime Transportation

(During the UNCITRAL Congress in May 8-22, 1992 at the United Nations Headquarters in New York)

Distinguished Co-Chairmen of the Conference, the Distinguished Chair, Dr. Bonnell, for whom I have great respect by reason of direct professional experience, fellow rapporteurs and participating colleagues interested in the field of maritime transportation, I must first express the gratitude of the International Association of Ports and Harbors (IAPH) for the kind invitation to join in this important conference so propitiously planned in conjunction with "Colombo '92". Then if I may, I add my personal expression of great pleasure to participate and to visit here with esteemed colleagues including Dr. Bonnell, Professor Sweeney, Mr. Evans and Mr. Sekolec. In addition, as a North American it is obviously fitting to join in honoring Christopher Columbus.



Mr. Falvey

My subject essentially is: what insurance coverage issues are inherent in or are expected to arise as to the U.N. Convention on the Liability of Operators of Transport Terminals. I must at the outset disclaim any extensive expertise in insurance, particularly the critical underwriting and actuarial aspects of that important service industry. What I can share with you is the knowledge, experience and insights gained through a forty year period as a port lawyer for The Port of New York & New Jersey and, for 12 of those years, as the Chief Legal Counselor for the IAPH.

I served The Port Authority of New York & New Jersey for twenty years as its full time General Counsel and for the last 14 years as an Assistant or Deputy Executive Director having administrative and commercial responsibilities as well. Among other matters, I had primary responsibility for handling claims of and claims against the Authority which over time aggregated hundreds of millions of dollars. As to liability, the Authority was a self insurer as a practical matter.

I continue to provide advice to the Authority as its Special Counsel.

The Authority built and operates the largest container port on the Atlantic Coast of North America, the airports in the NY-NJ metropolitan area, the World Trade Center, a passenger railroad, the largest bus terminal in the world, the interstate bridges and tunnels and several industrial development projects, including a waste burning and conversion facility.

The IAPH is a not for profit voluntary association of

the port industry created 37 years ago to promote, to enhance, and to inform the international community concerning the interests and needs of ports. It consists of 235 regular members, primarily public ports, from 81 countries. It enjoys non governmental consultative status with IMO and the United Nations and its agencies UNCTAD, UNEP, UNCITRAL and ECOSOC.

I was privileged to act as an observer for IAPH at the initial UNCITRAL Working Group on the OTT Convention and thereafter as an adviser to United State delegations to UNCITRAL and to the 1991 UN Convention which adopted the OTT Convention. I am delighted that the U.S.A. signed the OTT Convention in April this year, and I will be supporting its ratification by the United States Senate in the next year as will the Association of American Port Authorities. It is appropriate to comment UNIDROIT for initiating the OTT convention process by drafting a proposed Model Law on Warehousing Liability. Mr. Evans made many useful contributions to the UNCITRAL deliberations.

Many of you have heard the learned and clear expositions by Professor Sweeney of the Hamburg Rules governing the Liability of Maritime Carriers and Mr. Sekolec on the OTT Convention itself. They are of great bearing and benefit to my presentation and I assure you that I will not repeat what they have said except as it might relate to the insurance issues.

The pertinence of the Hamburg Rules is that the OTT Rules are patterned upon the Hamburg Rules which themselves are modeled after international conventions relating to land and air carriage (CMR and Warsaw). Should Hamburg and OTT come into force, we would then have a comprehensive and virtually seamless international set of legal principles governing liability for loss or damage or delay to goods carried in international transport. As Mr. Sekolec explained, OTT would fill the liability gap often existing now when the goods are at rest with or are otherwise in the charge of a terminal operator.

This lineage has facilitated my analysis of the insurance implications of OTT for both Warsaw and CMR have in fact functioned effectively without intolerable burdens being imposed on any element of the transportation industry. Moreover, The Hamburg Rules themselves since their promulgation in 1978 have been the subject of detailed analysis, study and thorough debate and many judicial interpretations. Thus, as to my limited subject, I suggest that most of the legal framework has been established, and a forecast of impacts can therefore be given with a higher than normal level of confidence insofar as insurance is concerned.

Of special value to the subject is the Report by the UNCTAD Secretariat of 31 December 1987 entitled "The Economic and Commercial Implications of the Entry into Force of The Hamburg Rules" (TD/B/C4/315 Part One) I commend it to any who wish a more thorough analysis than I shall be able to provide in my limited time today.

Just as has happened with regard to The Hamburg Rules, there have been and there will be raised many objections



to the OTT Convention premised on presumed increases in costs of insurance cover for terminal operators. Such increases are usually attributed to the stricter liability regime, the greater flexibility which the Convention affords to terminal operators in their operations and administration, the purportedly vague and general ambiguous or uncertain terms of the Convention, the vicarious liability of operators for the acts of agents and servants and the breakability of the limits of liability.

On the other hand, any fair analysis of these contentions must include consideration of the existing unsatisfactory, in fact, chaotic state of the liability rules pertaining to goods in international trade which are taken in charge by a terminal operator. The UNCTAD study has done exactly that and, in terms equally applicable to the OTT convention in my judgement, stated the following conclusions:

- The coming into force of the Hamburg Rules will not diminish the need for cargo insurance;
- The Hamburg Rules may reduce cargo insurance expenses through greater use of recourse actions, and these probably will be resolved not through litigation, but through commercial negotiations;
- The slight increase in the liability of shipowners and terminal operators may result in a more cost-efficient insurance system, provided responsibility is accepted without expensive litigation;
- The amount of additional litigation is likely to be limited in the short term and may not increase in the longer term;
- When the Hamburg Rules come into force, the maritime industry will certainly be able to adjust itself to life with the new regime;
- The economic consequences of the entry into force of the Hamburg Rules will be minimal;
- The entry into force of the Hamburg Rules will result in a better protection of shippers' interests compared with the present system;

I note that the UNCTAD report emphasizes that: "While all efforts have been made to make the present analysis objective, these efforts have been hampered by the lack of data from the insurance industry."

Nevertheless, based upon independent studies referred to in its Report (pp 17, 18) the UNCTAD Secretariat concluded that the limited shift of more liability to the carrier "may result in either no change or a reduction in total insurance costs." In any event as the UNCTAD Report points out that freight claims and insurance premiums amount only to 5% of the average liner rate for freight.

I share the Report's view that shippers will continue to purchase cargo insurance, and the prediction that Hamburg and OTT by establishing presumed fault for loss, damage or delay on the carrier or operator will cause an increase in recourse actions by the cargo insurers against the carrier and terminal operators. Since the carrier and the terminal operator will continue to have liability insurance, we are in reality dealing with claims or litigation between or among cargo insurance carriers and liability insurers.

Since both Hamburg and OTT provide for arbitration, it is not likely that there will be extensive costly litigation on these recourse claims.

There probably will initially be a few cases brought to obtain guidance on significant disputes as to interpretation of provisions of OTT which are different from Hamburg.

Some of these differences are: -

- (i) OTT provides more clearly than Hamburg that the

limits of liability are breakable in the event that an operator's servant or agent causes loss, damage or delay by an act of omission done intentionally or recklessly and with knowledge that it will probably result in the loss, damage or delay;

- (ii) OTT does not include the fire exemption from presumed fault or neglect contained in Hamburg nor does OTT list any exemption for the operator other than providing that another cause produced all or part of the loss, damage or delay (for this reason, the U.S. delegation stated at the UN Diplomatic Convention its view that illegal strikes causing loss, damage or delay may exempt the operator from liability prima facie);

- (iii) OTT makes it clear that the operator may receive reimbursement for "all costs incurred" in dealing with dangerous goods not properly labelled or otherwise noticed/known as such to the operator (iv) OTT allows the operator to forebear from issuing its own document and, if agreed to, the document can be communicated electronically;

- (iv) OTT allows the operator to forebear from issuing its own document and, if agreed to, the document can be communicated electronically;

- (v) OTT allows the operator to retain goods for costs and claims due to it for services performed by it if there is no other guarantee or deposit posted; and, if allowed by the law of the state where the goods are located, to sell the goods to satisfy its claim provided reasonable efforts are made to notify the owner of the goods, the deliverer of the goods and the person entitled to receive the goods from the operator. Receipts of the sale exceeding the sums due to the operator plus the reasonable costs of the sale must be accounted for "appropriately";

- (vi) OTT provides for sustaining Hamburg limits where the goods are handed over to the operator "immediately after", or are delivered to the operator for handling over for, carriage by sea or inland waterway. While pickup and delivery within a port is deemed to be carriage by sea or inland waterway, the practice of packing or unpacking a container by a third party outside the operator's premises may not come within the term "immediately after", etc; and

- (vii) OTT provides for increasing or decreasing the limits of liability by a Committee composed of a member from each contracting State after considering stated criteria which are generally described and therefore potentially controversial.

I do not regard any of these issues as presenting insuperable obstacles to either the entry into force of OTT or its successful implementation thereafter. On balance, I believe that, over time, the certitude afforded by Hamburg-OTT will be welcomed by the insurance industry, which abhors uncertainty.

As to the current situation in the U.S., as a matter of information for you, federal legislation presently embodies a good deal of Hague-Visby and Hamburg (COSGO). The industry has utilized the so called Himalaya Clause permitted both by Hamburg and OTT, in my opinion, thereby making the terminal operator a carrier for purposes of Hamburg type coverage. In signing OTT, the U.S. declared its reliance on interpreting Article 15 thereof as allowing for continuance of this industry practice in the U.S.

The IAPH has supported the OTT Convention, although some of the members from common law jurisdictions ex-

pressed disquiet as to the vicarious breakability provision for acts or omissions of agents and servants. On balance, IAPH favors OTT believing that it will round out a uniform and certain regime of liability for damage to or loss or delay of goods which strikes a reasonable compromise between liability and the limits thereon and the varying interests of the shipper, the carrier, the operator and the economic viability of the international maritime industry. IAPH believes that OTT will facilitate trade and thereby enhance the prospect for increasing volumes of such trade, to the benefit of world ports.

IAPH appreciates the opportunity afforded it by UNCITRAL to comment on the OTT as it was being drafted and to seek in that process to protect the interests of world ports. IAPH has been afforded a similar opportunity by UNEP in regard to the RIO Environmental Charter proposals.

I suggest it is essential that UNIDROIT and the international bodies legislating or regulating in the area affecting ports and international transport continue to liaise with IAPH.

Lack of such liaison in the past has caused serious difficulties for ports. For example, the London Dumping Convention was drafted so broadly as to prevent ports from dumping at sea any materials dredged to maintain channel or slip depths if the material had any trace of toxic substances deposited in the channel or slip. The heavy cost burdens thus imposed on ports is belatedly being addressed by a proposed protocol under consideration now by IMO.

In this connection, I note that there is an increasing trend around the world toward privatization of port and airport facilities. The reasons for this are that the sale of these assets create badly needed funds for public budgets and that private operation is expected to be more efficient and economic, particularly in regard to labor costs.

However that may be and to whatever extent, it is clear that private operations may readily and speedily react to the imposition of unacceptable and intolerable cost burdens by seeking protection against creditors and/or suspending or going out of business. Such disruption of the flow of international trade is obviously less likely when ports and airports are publicly controlled. Nevertheless, New Zealand and Britain have privatized their ports, the Port of Clyde, Scotland is now a private company, the UK has substantially privatized Britain's airports and Australian governments are intensively considering privatization of ports.

Maritime legislators and regulators should take note of this important trend as they consider actions which have adverse cost affects on port or airport operations.

Respectfully submitted,  
Patrick J. Falvey

## Visitors to Head Office

\* On June 17, 1992, **Prof. H.J. Van Dongen**, Erasmus University, **Mr. J. van der Zande**, Director, Strategic Planning and Research, **Port of Rotterdam**, **Mr. Pim W.A. Galjouw**, Director, Organization Development and **Mr. Jaap P.M. Nooy**, Director, Operations Research, **KLM Royal Dutch Airlines**, visited the Head Office and met R. Kondoh, Dy Secretary General, to discuss the current situation concerning the EDI movement in Japan. The party also visited the Japan Association of Standardization for Trade Procedures to meet with experts on the EDI matters.

\* On July 16, 1992, **Dr. Yarslov Nichoevich Semenikhin**, President, **Far East Maritime Research Institute** (FERMI, Vladivostok) visited the Head Office and met R. Kondoh, Dy. Secretary General, to exchange views on recent port and maritime developments in the region. The FERMI is a Russian institute devoted to ports and shipping affairs in the Far East of Russia.

Since the collapse of the Soviet Union, according to Dr. Semenikhin, the FERMI has been planning to develop the shipping and port systems in the Russian Far East and make them compatible with and integrated them with the maritime transportation networks of the neighbouring countries and the Pacific.

He noted that such large-scale development projects as (1) the UNDP's Tumen River Port Development Plan (located at a strategic place where the borders of Russia, China and North Korea meet) and (2) the UNIDO's Greater Vladivostok Development, were the most vivid examples of regional development plans intended to promote both industrial and commercial activities by means of inviting foreign investment. Such plans formed a viable basis for integrating such newly opened/opening areas with the developed economies in the Pacific-Rim region.

During his two-week stay, he visited the Bureau of Ports and Harbours, MOT, Port and Harbour Research Institute, Japan Ports and Harbours Association, Japan Marine Science Technology Center, Japan Shipowners' Association, Japan Maritime Research Institute and Japan Development Institute (Engineering Consulting Firms Association), as well as the ports of Yokohama, Kawasaki, Tokyo and Niigata.

\* On July 24, 1992, **Mr. Roberto C. Aquino**, Project Manager, Project Development Department, **Philippine Ports Authority**, visited the Head Office to discuss the current situation concerning port development in the region. He was visiting Japan at the invitation of the JICA programme for senior port officials.

\* On July 25, 1992, during their study and research mission to the neighbouring countries, **Dr. Pil-Soo Jung**, Senior Research Fellow and **Mr. Yong-An Park**, Researcher, **Korea Maritime Institute** (KMI) visited the Head Office to discuss the current direction of port development in the region inclusive of privatization and investment.

## Membership Notes:

### New Members

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## Report By Bursary Recipient

### The 28th International Seminar on Port Management at the IHE, Delft, the Netherlands May 7 - June 18, 1992



**By Amadou Kane**  
**Civil Engineer**  
**Chief, Development Division**  
**Port of Dakar\***

*(A brief history of the Port of Dakar written by Mr. Kane is also included in the report.)*

#### Summary

- I — Organization
- II — Participants
- III — Lecturers
- IV — Study period in Delft
- V — Study period in Amsterdam
- VI — Study period in Rotterdam
- VII — Study tour in Germany
- VIII — Study tour in Belgium
- IX — Comments
- X — Annex: Certificate of attendance

#### I — Organization

The seminar was organized by the International Institute for Hydraulic and Environmental Engineering - IHE-Delft, in close cooperation with the ports of Amsterdam and Rotterdam.

IHE-Delft was established in 1957 to offer international post graduate education mainly to engineers from developing countries.

- The main activities of the Institute comprise:
- Regular diploma and M.S. programme

- Regular short courses
- Tailor made courses in Delft and abroad
- Consultancy
- Research

The port seminar (six weeks) belongs to the regular short courses and it is conducted in Delft each year and for this year the topic was Intermodal Transport and Logistics.

The seminar was held in English. A good working knowledge of this language was a prerequisite.

To attend this seminar I had a bursary granted by the International Association of Ports and Harbors (IAPH), Tokyo, Japan.

The airfares and the complementary living expenses were borne by the Port of Dakar.

#### II — Participants

There were 19 participants coming from 14 different countries: Cameroon (1), Gambia (1), Ghana (2), Indonesia (3), Israel (1), Jamaica (1), Kenya (1), Nigeria (1), Senegal (1), Singapore (1), Tanzania (3), the Netherlands (1), Tunisia (1) and Turkey (1). They were engineers, port directors and managers in charge of the planning and development of the respective ports.

#### III — Lecturers

For the study period in Delft, we had 17 port experts involved in port management, port planning and development, coming from four European countries: France (1), Switzerland (1), the Netherlands (13) and the United Kingdom (2).

#### IV — Study period in Delft

- A: Port Management (17 hrs.)**  
Introduction — Transportation scene — Port scene — Port assistance to ships — Cargo handling — Labor force — Port finance — Port of the future
- B: Aspects of Containerization (3 hrs.)**  
Containerization advantages — Containerization problems — Container dimensions — Oversized containers — High cube — World container ports — World Container transport — Full container vessels — Round the world container service — Quayside gantry crane operations — Terminal stacking space — Road transport — Rail transport — Barge transport — Cost/benefit equipment investment — Cost/benefit infrastructure investment — Future outlook
- C: International transport and the changing role of ports (4 hrs.)**  
Introduction — General overview — "What is intermodal transport? — A look at the details" — "The intermodal model" — "The Economics of Intermodal Transport"
- D: Hinterland connections (2hrs.)**  
Introduction — General Overview
- E: Systems approach to port problems (6 hrs.)**  
Steps in systems approach — The systems approach — Problems of integration — Steps in systems development
- F: Responsibilities and liabilities in port organizations (3 hrs.)**  
Introduction — Scope and organization of the computing services — Container control system — General cargo control system — Ships operational control system
- G: Decision-making in real estate operations (2 hrs.)**  
Introduction — Granting land: freehold, leasehold, tenancy — Final advice
- H: Handling of containers (2 hrs.)**

- I:** Maintenance dredging (2 hrs.)  
Planning of maintenance dredging work - cost minimization
- J:** Handling of dry bulk cargo (1.5 hrs.)
- K:** Handling of agribulk (2 hrs.)
- L:** Port tariffs in Rotterdam (2 hrs.)
- M:** Workshop on resource control management (40 hrs.)  
Theory of productivity — Input — Output — Method Study, Basic procedure — Decision-making, financial aspects — Break-even analysis — Relationship between quality and safety — Principles of planning — Manpower planning — Leadership, the role of the port manager — Work measurement
- N:** Human resources management, the port of Rotterdam (2 hrs.)  
History — Employment — Labor relations
- O:** Aspects of privatization and commercial risks in container terminal management (2 hrs.)  
Introduction — International containerization — Port management systems — Which is the best model of port management? — Privatisation — Final remarks
- P:** Port equipment (4 hrs.)  
Selection criteria — Maintenance aspects
- Q:** Principles of integrated port planning — New developments in **port planning and design (4 hrs.)**  
Introduction — Data collecting — The approach channel — Harbor basins — Breakwater/Harbour entrances — The motions of moored ships at berths — General cargo terminals — Container terminals — Specialized berths
- R:** Statements by participants (10.5 hrs.)  
Each country was allowed forty-five (45) minutes to present their port or organization and to answer the questions of their colleagues and of the course leader.
- S:** Visit to the fish auction of Scheveningen (3 hrs.)

#### **V — Study period in Amsterdam (3 days)**

Visit to the Port of Amsterdam — Viewing of a film on the breakwaters of IJmuiden at the Velsen Townhall — Visit to the terminals of VCK — Havenbe Drijf — Visit to the Amsterdam Airport Schiphol, Presentation of air freight handling — Visit to Wijsmuller Holding, introduction to heavy lift transportation and coastal harbor tug services of Wijsmuller/Goedkoop Havensleepdiensten — Visit to the locks system of IJmuiden — Visit to CTA combined terminals in Amsterdam — Visit to the terminal of OBA overslagbedrijf in Amsterdam

#### **VI — Study period in Rotterdam (3.5 days)**

Visit to the Port of Rotterdam, general introduction, relations between city council and private companies — Inspection tour of Distriparc, Eemhaven — Visit to the distribution center McGregor Cory — Visit to the Rotterdam Port Transport College (Dr Stakenburg) — Visit to IHC Holland and visit to the yard, viewing films "For dredging the world", "Trailing dredgers", attending a lecture "Dredge instrumentation and automation for the benefit of the Port Manager" — Visit to the Delta Terminal, Europoort at Europe Combined Terminal (ECT) — Visit to European Bulk Cargo Handling Company (EMO) at Mississippi Harbour/Hartel Harbor Terminal — Visit to an agribulk terminal (G.E.M. Consultants BV)

#### **VII — Study Tour in Germany (4 days)**

Visit to the Port of Hamburg — Visit to the Container Terminal Bremerhaven — Visit to the Bulk Handling Ter-

minal Nordenham — Visit to the inland port of Duisburg

#### **VIII — Study Tour in Belgium and the Province of Zeeland (the Netherlands) (3 days)**

Visit to the Townhall and the Port of Antwerp — Visit to the Port of Flushing (Vlissingen) — Visit to the Harbor Terneuzen, the Netherlands — Visit to the Port of Brugge/Zeebrugge.

#### **IX — Comments**

During these six (6) weeks, I attended interesting lectures about port management, port planning and port development; we visited many ports (public and private).

In particular, the lectures concerning the following subjects were most fruitful:

- Aspects of containerization
- Aspects of privatisation and commercial risks in container terminal management
- Principles of integrated port planning
- New developments in port planning and design

I was interested in experiencing "small ports" like Flushing (Vlissingen) in the Netherlands and Nordenham in Germany, which avoid competing with the "big ports" by handling traffic not accommodated by such ports.

The seminar was a real opportunity for me to update and sometimes deepen my knowledge of "port management"

I have brought back a series of very important documents on port management, port planning and port development which have been made available at the Development Division of the Port of Dakar.

For all this, I would like to thank Mr. H. Kusaka, Secretary General of IAPH, Mr. Goon Kok Loon, Chairman of the IAPH Committee on International Port Development and all the membership of IAPH.

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## **History of Dakar Port**

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Dakar Port Authority has grown into a vast complex and is a melting place for ships and the location for numerous transactions.

Cap Vert Peninsular forms the Western tip of the African continent, remnants of sailors from DIEPPES Anchoring found in the bay in 1364 and the first invasion of the island by the Dutch dates back to 1588.

Being an island and easy to defend, Goree\* became the trade center of Senegal and the subject of numerous battles between opposing naval powers of the time.

A port call was installed at Dakar in 1857 to improve ships' working conditions and a new program was undertaken from 1864 to 1866.

Thus a big jetty was built, dug in the east tip of Dakar (the actual south jetty), and the installation of Mamelles Almadies and Cap Manuel Beams.

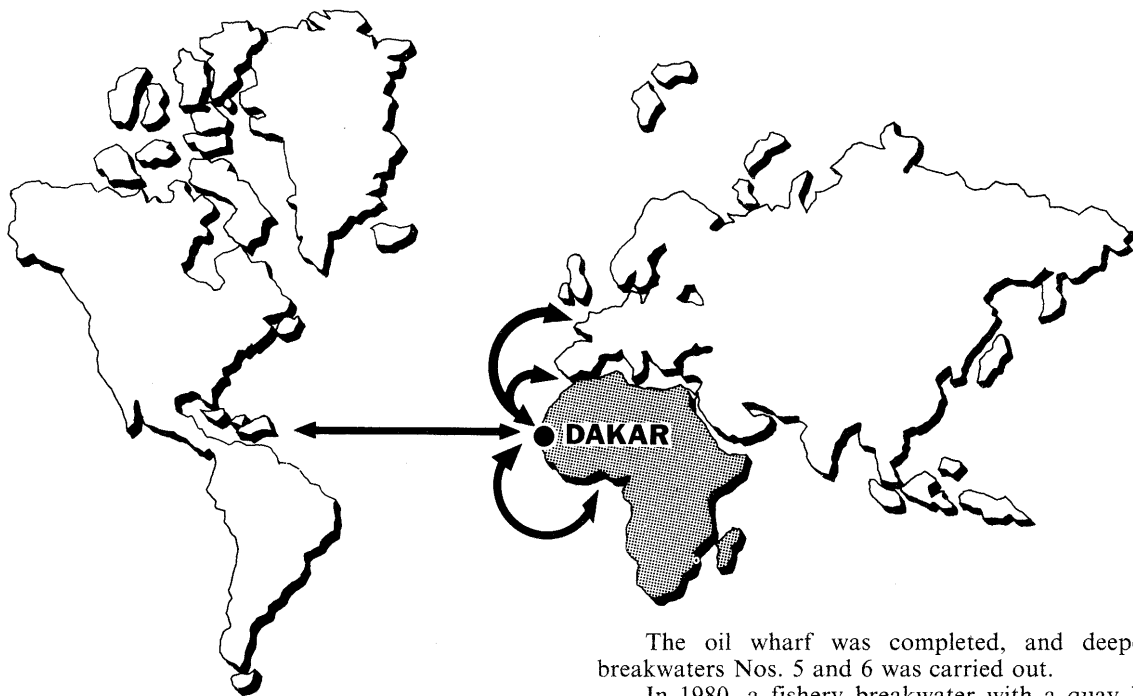
The 1898-1908 program consisted of the setting up of a war harbour and the construction of the dry dock which remains one of the most important on the west African coast.

The 1910-1926 program was for the provision of water supply and road and rail links to the port, the installation of sheds, the introduction of electricity and the purchase of cranes, tug boats and boats.

The 1926-1933 program comprised the building of the Nos. 5, 6 and 8 breakwaters and two refuelling berths adjacent to the north jetty, and important dredging works.

The 1933-1939 program involved the erection of





breakwaters Nos.2 and 3 and the completion of Dakar Goree pier, which would make possible an extension towards the ocean depths. Unfortunately, this project was shortened in 1943 because of lack of materials and money.

The end of the Second World War was marked by the construction of breakwater No.4 (1947-1951). Then came the oil wharf (1954), the first fishery breakwater in 1962 and a second one ten years later (1972). From 1955 to 1958, the access to the entrance channel was dredged to 11m draft.

The oil wharf was completed, and deepening of breakwaters Nos. 5 and 6 was carried out.

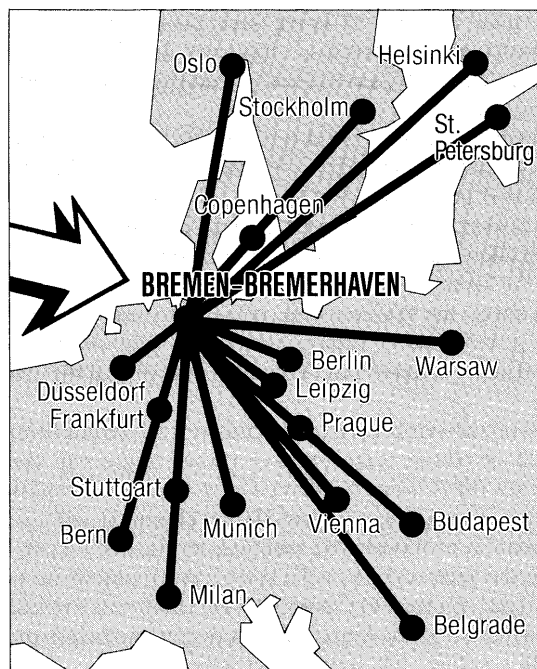
In 1980, a fishery breakwater with a quay length of 1,500m was built.

In 1983, the deepening of the west dock was done, involving an investment which will speed up the realization of the container terminal project, which was inaugurated in January 1988.

Since July 1st in 1988, the port has been a national company.

*\*Goree is about one nautical mile (1,215n.m.) from Dakar.*

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# OPEN FORUM

Keynote Address by HRH the Prince of Wales

## To The World Commission on Environment and Development

Wednesday 22nd April 1992



**HRH  
The Prince of  
Wales**

*(Portrait by courtesy of the  
Information Service, British  
Embassy in Tokyo)*

*Following the previous issue, in which we published the opening address by Norwegian Prime Minister Gro Harlem Brundtland to the recent meeting of the World Commission on Environment and Development in London, in this edition we take pleasure in featuring below the keynote address by HRH the Prince of Wales to the same gathering, which has been obtained through our European Representative Alex Smith. — IAPH Head Office*

Prime Minister, Commissioners, Ladies and Gentlemen, I think I must have taken leave of my senses when I accepted the invitation to speak at this gathering. At a distance of some six months it is easy to accept almost anything, but how many of you in this room know that feeling which creeps over you when, as the time approaches, you realize you have taken on a task that you cannot fulfil? You can't back out of it; nor can you claim you have contracted some obscure ecological virus which prevents your attendance. All you can do is to explain, as frankly as possible, why you care enough about the issues to risk being accused of exaggerating the problems, of being excessively gloomy, or of getting your facts wrong.

I happen to believe we live in dangerous times, and I think it worth listening carefully to all those intelligent observers of the natural environment who are increasingly speaking with one, agitated voice. The difficulty, of course, is that to the vast majority of lay observers everything seems to function perfectly happily in our immediate environment. On the whole, we cannot smell, feel, hear or sense anything particularly wrong with the world about us. We have only the scientists' word to go by — and, people will say, they have got it wrong in the past, haven't they? And anyway, when all is said and done, Nature's capacity to heal itself is infinite and we must not be panicked into hasty action.

Unlike the obvious threat of a nuclear holocaust, the

environmental threats we face are far from clear. And yet I believe they are only too real and that, to put it simply, if we don't manage to work out a sensible and far-sighted agenda for action at the Rio de Janeiro summit in June, then we will be sacrificing the future survival of our grandchildren and great-grandchildren for short-term gain. But I don't really need to tell all of you that!

There is little doubt that your Commission's report, in 1987, was the single most important document of the decade on this subject, bringing the phrase 'sustainable development' into all our vocabularies. It is therefore highly significant that you should have chosen to meet again now, in the run-up to the Rio conference, and I shall be fascinated to see the outcome of your deliberations.

There have certainly been some welcome changes in the last five years. Industry has begun to realise that more and more people not only care about their environment but will put their money where their principles are. This has led to the realisation (at long last!) that using energy and raw materials less profligately results in increased profitability as well as a cleaner world. Equally, more and more businesses are, to their credit, coming to recognise the crucial role they must play in the progress towards sustainable development. Instead of being seen purely as generators of environmental problems, they are beginning to see themselves, correctly, as essential participants in generating solutions.

Economists have started (at long last!) to grapple with the concept of sustainability, to question the way in which our national accounts are assessed, in order to value our natural resources, and to contemplate new market instruments to encourage changes in human behaviour.

At the same time, there has been a huge surge in public concern about the environment, often expressed in support for non-governmental organisations, not just in the rich industrialised countries, but in Eastern Europe and the Third World.

This in turn has helped to put pressure on the politicians, nearly all of whom seem to have turned a greener shade of pale since 1987! Many still have a long way to go in realising exactly what genuinely sustainable development will eventually mean in economic and political terms, but we can all welcome the acceleration in the use of development aid and international agreements (such as the Montreal Protocol) to give substance to sustainable development and help protect the Earth's natural life support systems.

Your commission also pointed out the crucial impor-

tance of democracy and individual participation in achieving a more sustainable world. Since 1987, we have seen momentous changes in Eastern Europe. But no less important is the shift towards elected and accountable government elsewhere in Africa, Latin America and South East Asia.

Of course, there are those who are inclined to compare today's developments with an earlier phase of environmental awareness in the late sixties and early seventies (with the cynical implication that today's will be equally short-lived!), I would remind them of one overwhelmingly important difference: the scientific case underpinning the Environment Movement twenty years ago was decidedly patchy and invariably controversial, resting as much on bold hypothesis as on hard-nosed empirical evidence. Now, I happen to be a firm believer in the precautionary principle—recognising that the systems which keep our Earth habitable are extremely complex and may operate in ways beyond human understanding. But the last twenty years have seen a welcome reduction in the margins of uncertainty. There is now almost total consensus within the international scientific community, as represented by the Intergovernmental Panel on Climate Change, that emissions of greenhouse gases are changing our climate. The ozone hole is a proven fact. The best biologists in the world agree that the world's biological riches—biodiversity, to use today's phrase—are being eroded at an unprecedented and alarming rate. Misuse of the land is threatening local climate, water flow and ecological stability over large areas and wasting irreplaceable assets of soil. We are undoubtedly in the midst of an ecological crisis, even though there is uncertainty about the precise way in which it will develop and the speed of that development.

It is, of course, as I said earlier, difficult to accept the existence of problems which we cannot see. Equally, it is easy to suggest that the threat is somehow being exaggerated. But the gravity of situation was spelt out in the recent report of the Royal Society and the US National Academy of Sciences—the first issued jointly by the two leading scientific societies of the English-speaking world—and I quote, "The future of our planet is in the balance. Sustainable development can be achieved, but only if irreversible degradation of the environment can be halted in time". They set out with great cogency their reasons for thinking this way. Again I quote, "Unrestrained resource consumption for energy production and other uses, especially if the developing world strives to achieve living standards based on the same levels of consumption as the developed world, could lead to catastrophic outcomes for the global environment." What could be clearer or more authoritative than that?

Going on to address the underlying problem of population growth, the report's authors point out that the percentage of global population that will live in the Third World will increase from 77% today to 84% in 2020. Similarly, the World Health Organisation has recently stated that the most immediate problems relate to ill health and death caused by biological agents in water, food, air, and soil. They point out that millions, mostly children, die every year as a direct result of a contaminated or polluted environment.

None of these bodies is known for its tendency to exaggerate, rather the reverse. This makes it all the more amazing that so many people still prefer to turn their backs on the signs of planetary stress that are by now indisputable. The issues raised are never going to be comfortable subjects for polite conversation. (Apart from anything else, they always make you sound so intolerably gloomy—and I'd

much rather make people feel happy!) But I think we have to ask ourselves, firstly, whether we can continue ignore the prospect of a virtual doubling of the world's population—to somewhere approaching 10 billion—by 2050? Secondly, can we look forward to any kind of real security as the global gap between rich and poor continues to widen? If we compare the per capita wealth of Europe with China, or India, the ratio in 1890 was two to one. By 1940, that ratio was 40:1, today it is 70:1. With these statistics in mind, is it really any wonder that the "South" are approaching the Rio conference event with open economic demands? For them, it is essentially a conference about development and justice.

I do not want to add to the controversy over cause and effect with respect to the Third World's problems. Suffice it to say that I don't, in all logic, see how any society can hope to improve its lot when population growth regularly exceeds economic growth. The factors which will reduce population growth are, by now, easily identified: a standard of health care that makes family planning viable, increased female literacy, reduced infant mortality, and access to clean water. Achieving them, of course, is more difficult—but perhaps two simple truths need to be writ large over the portals of every international gathering about the environment: We will not slow the birth rate until we address poverty. And we will not protect the environment until we address the issues of population growth and poverty in the same breath. I do wish that these simple and incontestable truths could find greater prominence on the Rio agenda. Sadly, it seems that certain delegations are determined to prevent discussion of population growth. In so doing, of course, they deny everyone else the opportunity for constructive discussion of policies which would address the environment, poverty and population growth together, rather than in isolation.

I can well understand why your report called for huge increases in the rates of economic growth in the Third World. But the rigour that informed your analysis of just how unsustainable the world economy is today seemed, if I may say so, rather to desert you in your prescriptions for finding an appropriate way out of this all-encompassing dilemma. Is it really wise to call for such rapid growth until we can be certain that the growth which emerges will both serve the people most in need and (in your much used and much abused words) "not compromise the rights of future generations to meet their own needs"?

It is now widely accepted by economists that Gross National Product is merely a reasonably good indicator of the overall level of a nation's economic activity. It is a thoroughly misleading indicator of national well-being, let alone sustainability. We clearly need some measure of "green GNP", which calculates the nation's output after deducting the depreciation on nature's capital. No business can afford to operate by eating into its capital, and in this respect nations are no different. It's encouraging that several countries are now proposing 'green GNP' measures, or some other alternative indicators. But much more effort is needed in evaluating and promoting such concepts and I do most profoundly hope that this will feature large in your report to the Rio conference.

All the evidence from the environmental disasters of previous generations shows that the problems were often identified at a relatively early stage, but that nothing was actually done until the economic interests of a nation state were adversely affected in a visible and incontrovertible way. Quite simply, to trigger earlier action we need to show

politicians that the environment matters not just for itself but in economic terms. We can show the effects of soil erosion by looking at the value of the lost crops resulting from the erosion. We can look at the costs of preventing floods from sea level rise. We can look at air pollution damage to buildings, crops and forests. When we do these things, the results are often startling. I am told by Professor David Pearce and his colleagues at University College, London, that Mexico may be losing as much as 15% of its GNP through pollution and resource degradation. Even Germany could be losing 4% of its GNP, amounting to many billions of dollars, simply because of pollution. But the hardest thing in political terms, of course, is to persuade people that paying attention to the long term capital assets of our natural environment is worthwhile, or possible, or necessary, during a recession or when you are faced with famine and grinding poverty. It takes vision and, above all, courage to speak the truth.

Vision and courage are perhaps the two qualities which we would most like to see in evidence at the Rio conference, but I have to say that it is not, perhaps, entirely surprising that many developing countries seem, on the contrary, to be approaching the Conference with cynical, if not jaundiced, eyes. I speak with the inbuilt cultural bias of a resident in a northern developed country, but it seems that there are at least three strands which we need to recognize.

The first is that politicians and scientists of the developed world have been preaching 'environmentalism' for over twenty years, yet the world environment has continued to deteriorate overall, especially because of the pollution generated by those same countries. We are primarily responsible for the ozone hole and the greenhouse effect,

and for much of the contamination of the world's oceans. The developing countries know this, and they expect us to show that we mean what we now say by abating our own pollution, and especially that which goes beyond our own locality and becomes an international problem.

Secondly, they expect that we will at least remove the barriers in the world economic and trading system that make sustainable development in the Third World more difficult. They expect us to reverse the net flow of wealth which, contrary to popular opinion, has been going from south to north for most of the years of the past decade. They expect more liberal trading relationships that will allow products with added value to come from the developing world to the developed countries, and they seek an end to over-subsidization, particularly of agriculture, so that their own products have more chance of competing in the world market.

Thirdly, they expect us to share the best technology, so that the world really works together to achieve environmentally-sound development.

In passing, I do just wonder why, in the light of all the challenges we face, we can't get away from unhelpful accusations, and sensitivity, over what is referred to as 'eco-colonialism' and 'neo-imperialism' and recognise each other's strengths and weaknesses? Why can't we pool our resources and tackle the unfolding crisis together? Can't we accept, at this crucial stage in the world's history, that we need to deploy the best talents from wherever they are located to where they are so urgently needed? The North has accumulated managerial and technological experience and skills which could and should be utilised in the South. At the same time, our poverty of spirit in the North needs renewing and enriching from the great reserves of insight

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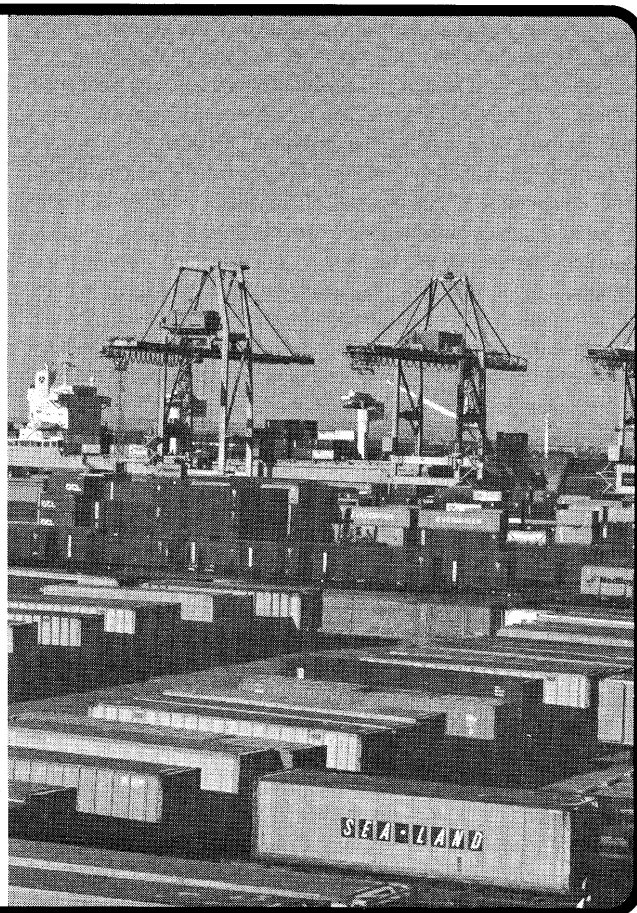
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Aster Paul Bertrand



and understanding in the South. Can we not also accept that the South has considerable justification for seeking to extract the best possible price for a commitment to the conservation and sustainable use of its own natural resources?

We shall have to wait and see how much will emerge from the Rio conference. The challenge is simply enormous, but we can at least derive a certain amount of encouragement from the recent reports on the preparations. There appears to have been real progress on the Declaration of Rights and Obligations, on Agenda 21, and on the institutions question. I have also heard that the NGOs have been providing impressive support to the European delegations.

Nevertheless, great problems remain. UNCED is but a step in a process, as was your report. That process is confronting the major challenge of our age, namely how our growing numbers and technological power can live in harmony with the natural world. Intertwined in this great debate are a number of difficult issues of management, government and science. The East-West agenda has happily changed. The North-South agenda has replaced it in importance. All governments have to come to terms with this. As is so often the case, progress will only come from a combination of resources and political will.

If the political will exists there is still time in the next few weeks for Rio to become a landmark in North-South understanding and cooperation, instituting a long-term process on a note of determined optimism. In the meantime, I hope I may be excused for returning to what I consider to be first principles.

For what it is worth, I have argued for many years the importance of the concept of stewardship in resolving some of our ecological dilemmas. For me, stewardship operates at two levels; firstly, at the level of good housekeeping; living thriftily, saving energy, repairing, re-using and recycling, not wanting by not wasting, accepting personal responsibility, and so on.

Secondly, it also operates at a level which recognises that we are as much a part of the living world as it is part of us. Good stewardship celebrates the beauty and diversity of the natural world. We should not, I believe, just be "managing the Earth's resources more efficiently" (relying on a traditional utilitarian ethic), but seeking to live in balance with the rest of creation, even if we cannot discern any direct and immediate material benefit to ourselves in that process.

This, of course, points to the need for a fundamental shift in attitudes. We have all been taught to think in a linear way; with a beginning, a middle and an end. Linearity is the concept we use to devise industrial processes in terms of inputs, processes and outputs, with waste and pollution as unintended (and, until recently, little considered) outputs. The solution to pollution is still, all too often, dilution. Our linear way of thinking has been a triumph in the relative short term. But now, with the doubling of world population in prospect, with increasing demands for a higher and higher material standard of living, and with the added need to strive for sustainability, we must surely start to think again.

We must in fact get back to Nature - not in any romanticised, drop-out, "under the greenwood tree" sort of way, but through the application of both science and philosophy. From very different perspectives, both disciplines teach us that the reality of the natural world within which we live is not linear, but essentially circular. There is no such thing as "waste" or even "pollution" in the natural interaction of different species within their different ecosystems. This is still understood—indeed, lived out in practice

—by those whom we so patronisingly describe as "primitive". As we thrash around with various theoretical definitions of the sustainability of today's economic orthodoxy — and some alternatives (as yet undefined) models of progress — it remains a sobering experience to encounter sustainability in action amongst tribal people, without any great fanfares or the assistance of voluminous reports.

Again (and I say this only to ward off those who might be inclined to misrepresent my respect for the traditional wisdom and stewardship values of tribal people), I am not advocating any kind of mass return to a 'hunter-gatherer' society. But the real challenge, as I see it, is to find the right blend of dynamic Western systems, in all their purposeful linearity, with the closed loop circularity of the natural world. In effect, to combine modern science with traditional wisdom.

The quiet revolution in photovoltaic solar cell technology may provide a good model of what can be achieved. Village communities in the semi-arid tropics — some of the most fragile environments on earth — can now be provided with a non-polluting source of electricity to drive the five great liberators of development (cooking stoves, refrigerators, water pumps, radios and electric lights). They release villagers, and especially women, from the tragic necessity to mortgage their future, for example by destroying the soil, in gathering fuelwood, and by running ever greater hazards of disease for themselves and their children in their search for surface water. At the same time we must get away from the idea that this is somehow a "second best" option in comparison to the Northern model.

There are enormous benefits to be gained by making the best of advanced technologies — particularly in using resources more efficiently — not just in the developing world but in the developed world too. In the United Kingdom it is estimated that energy demand could be reduced by at least twenty per cent immediately, simply through the application of existing technologies, and that efficiency improvements of thirty per cent could be achieved over the next twenty years from new technology in areas such as lighting, heating and transport.

There is now a pressing need to encourage the developing countries to introduce the right kinds of industrial structures and processes, and seek to deploy the technical wisdom of private sector in meeting these challenges. We must also recognize that much of the wealth that will fund these developments in the third world will inevitably have to come from the private sector.

Governments can provide the right atmosphere, infrastructure and economic incentives, and the security that a firm needs if it is to invest. Creating the right incentive is perhaps the most important of these factors. Once they are in place a new and creative energy is released. Positive incentives are important in enabling those companies which find the best environmental solutions to prosper in the market place, but so too are the dis-incentives which can be brought into effect through determined application of the 'polluter pays' principle against those who squander environmental assets or create pollution.

No speech about business and the environment would be complete without the now statutory reference to the proverbial 'level playing field'. In today's shrinking world, this is something that can only be created by governments, working together. My concern is that the levelness of the playing field sometimes seems to be given more consideration than the level at which the field itself is situated. To be effective the levelling must be upwards, not downwards!

And all the factors need to be considered when setting standards, otherwise we run the risk of solving one problem at the expense of creating or increasing another elsewhere.

Tragically, too many so-called solutions to environmental problems miss their mark because they fail to recognise the nature of the societies which have to put them into effect. Unless there is a really critical analysis of the roles of the different components of these societies — women as well as men, and young as well as old — there is every risk that the proposals will be unworkable, the development assistance projects will be on the wrong scale, and the communities will be left with inappropriate, imposed technology that they cannot operate.

In southern India, where I was in February, the simple act of giving people tenure over the land they work day in and day out, and secure access to water, has not only transformed the quality of their lives, but is also giving them an incentive to rehabilitate their environment. This simple formula of meeting basic needs, empowering communities and safe-guarding the environment — Primary Environmental Care — not only works; it is where the solution to everything else starts. Environment, much like charity, really does begin at home.

Things may be starting to improve, but the world is already littered with corroding bulldozers and mechanised farm implements, paid for by development aid yet unworkable under the circumstances of life in rural communities. Starting with people, analysing their needs, taking account of their culture and traditional practices, making certain that the roles of all sectors of the community are understood and, above all, asking people to frame their own, local, environmental goals are all pre-requisites to satisfactory solutions. This is not an approach which makes headlines, or reputations — quite the reverse in fact — but it does provide the long-term gains which are the very essence of sustainability. It also undermines bureaucratic and, if we are honest, sometimes corrupt, power bases which have benefited so much from the “top down” approach.

Establishing people as stake-holders in their own future sounds so simple, but millions still have no such stakes nor the responsibility that flows from the conferring of them. To have a stake in one's environment is to have an incentive or reason to protect it. I sincerely hope that the UNCED Declaration of Principles will make these points quite explicitly.

Of course, nothing in life is ever straightforward. Simple formulae hide complex conflicts. Somehow, a balance has to be struck between the opposite faces of the coin - between advantage and disadvantage. In the industrialised North we shall have to come to terms with the fact that there is much that can be done by improving access to markets, ensuring fairer pricing for commodities, and facilitating the flow of new capital and sophisticated technology to the South through private enterprise. But that is unlikely to be sufficient in itself. “Justice” is the cry rising up from the South, not charity, let alone aid for aid's sake. If we insulate ourselves from that cry, we cut ourselves off from the reality of life for a very significant proportion of humanity. But justice, in fair ness, also requires greater accountability and improved independent management in the South - and that is something with which the Southern half of the world will have to come to terms - or we shall get nowhere.

Such open-mindedness cuts both ways. Rightly, I believe, the British Government has taken the lead in making a much more explicit linkage between aid flows and the

establishment and maintenance of democracy, as well as compliance with international conventions on human rights. Here there is encouraging news. As I said earlier, democracy is starting to flower in previously barren lands. This is not, as such, a triumph of capitalism over communism, but rather a triumph of those who live with incentives over those who have had precious few. Of itself, the market system is not enough, for markets do not in themselves result in equity. They have failings that governments have to intervene to address, working both alone and together. But unless the human spirit is first unshackled, environmental protection and development will remain just a dream for many.

Above all, I hope, the Rio conference will set the context in which such issues can be debated and hopefully resolved. We all know that there are reciprocal obligations and expectations, North and South, that should be set against each other. What we have not yet comprehended is that sustainability can only be achieved by all of us working together, and that the noble but always rather forlorn humanitarian rhetoric about “one world”, has now become an inexorable ecological reality. Hard though it may be to grasp, there is today a very thin line between apparent altruism and realpolitik.

I offer these thoughts precisely because I know how hard it is for politicians in office to utter them! There will certainly be both winners and losers. But so many of the things that need to be done are, ultimately, components of a virtuous circle, in which everyone wins, that I think all but the most short sighted have good reasons for wanting to be involved in the process.

Commissioners, your chairman, speaking in Cambridge last year, argued with eloquence that a new triad should be recognised: environment plus development plus democracy. The challenge of Rio is to see how that triad can be put into effect. A first requirement will be a stronger commitment by one and all to create a balance, within nations, between nations AND between generations.

The Prince is the eldest son of Queen Elizabeth II and Prince Philip, Duke of Edinburgh. He was born at Buckingham Palace and is heir apparent to the Throne.

He was educated at Cheam School, Gordonstoun School in Scotland and Cambridge University.

The Prince took up his first Service duty in 1969 as Colonel-in-Chief of the Royal Regiment of Wales. He became Colonel of the Welsh Guards in 1975, in succession to the Duke of Edinburgh, and now holds a number of Service appointments.

His HRH takes a keen interest in all aspects of public life in Britain, in addition to his normal round of public duties and travels abroad. In particular he has focused on industry in Britain, the promotion of British trade and industry overseas, and the encouragement of foreign investment in Britain. The Prince pursues the welfare of the young and disadvantaged as President of various Prince's Trusts.

He undertakes more than 400 public engagements a year in Britain and abroad. There are regular meetings and discussions with government ministers, political figures and academics, as well as industrialists and trade union officials through which he keeps abreast of their thinking and of developments in major national and international issues. (Library Service, British Embassy in Tokyo)

# International Maritime Information WORLD PORT NEWS

## IMO Working on Manual Of Reception Facilities

The IMO's Marine Environment Protection Committee began work during the session on a comprehensive manual on reception facilities for ship-generated wastes. Work will continue at the next session, with the Netherlands acting as the lead country.

Reception facilities are required by four of the five annexes to MARPOL 73/78 — for oil, bulk carriers of chemicals, sewage and garbage.

In annex I, for example, regulation 12 states that Governments undertake to ensure the provision "at oil loading terminals, repair ports and in other ports in which ships have oily residues to discharge, of facilities for the reception on such residues and oily mixtures as remain from oil tankers and other ships adequate to meet the need of the ships using them without causing undue delay to ships."

In practice, however, reception facilities are inadequate in many parts of the world. The International Association of Independent Tanker Owners said in a paper that: "It seems that even eight years after the enforcement of MARPOL, tanker owners continue to suffer from the absence of reception facilities in major oil export and import ports, even in countries which are

parties to the MARPOL Convention."

In some countries, the paper said the costs for reception facilities which have been provided is exorbitant, although in others they are free.

A document submitted by Hong Kong showed a decline in garbage collection from ships from well in excess of 1,000 tonnes in 1973, when the service was free, to 414 tonnes in 1988, when a charge of US\$39 per cubic metre was levied outside inner harbour limits. The decline in the volume of domestic garbage from ships can be attributed to the increased use of incineration, grinding and comminuting systems and the quicker turn-around times of ships in ports, the document says.

## Continued Growth for Cruise Industry Forecast

A major new study\* from Ocean Shipping Consultants forecasts continued forward growth for the international cruise industry, although the pace of expected development is likely to be slower than in the recent past.

The following is a summary of the main findings of the 160-page Report.

### Summary: Current Cruise Fleet

\* The aggregate world fleet of cruise ships with an excess of 100 passenger

capacity currently approximates 224 vessels, with a combined berthage total of just under 158,000.

\* There are around 90 vessels with a passenger capacity of up to 500, with a similar number of vessels in the 500-1,000 passenger category. There are just 46 vessels with a larger capacity, only 6 of which with more than 2,000 berths.

\* For the 100-1,000 berth category of vessel, older tonnage plays a highly significant role in this sector, with tonnage built before 1960 representing just under 30% of the total fleet sector, with a further 25% constructed in the 1960s.

\* For the 1,000-1,500 passenger capacity category, the age profile is far more dominated by recent years' deliveries. Thus, vessels built before 1970 represent only one-third of the overall total, with tonnage constructed since 1980 accounting for half of the total vessel number.

\* For the largest capacity vessels in the world cruise ship fleet — those of over 1,500 berths — the relative significance of recent deliveries is inevitably high. Thus, of the sector total, vessels built since 1990 alone account for half of the total, with a further approximate one-third constructed in the 1980s.

\* For the fleet as a whole, some



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23% (in terms of vessel numbers) were built before 1960, with a further 25% constructed in the following decade, 19% in the 1970s, and 21% in the 1980s. Significantly, in the short period since 1990, newbuilding deliveries represent 12% of the total current cruise ship fleet.

\* There is a clear correlation between vessel size and average age, with the latter falling from almost 25 years for the <100 passenger vessels to just over 6 years for the 2,000+ capacity cruise ships. This therefore strongly highlights the significance of large cruise ship construction in recent years, and the strong trend during that time towards ever-larger vessels.

#### **Summary: Future Cruise Fleet**

\* There are 10 cruise ships still on order with delivery set for 1992, with a further 10 set to be completed in 1993 and 3 over the following two years. The aggregate is therefore some 23 vessels, these totalling a passenger capacity of 23,400. There are also a number of planned orders which as yet remain unconfirmed.

\* The overall berth capacity of the newbuildings is set to approximate 13,200 for 1992, and 12,300 for 1993 — this against the 10,900 level of 1990 and 8,100 in 1991.

\* The average new vessel size for the 1991-93 period exceeds 1,100 berths — this against the 600 level averaged in the previous three years.

For the 2,000+ passenger sector, the capacity now on order and under construction represents over 51% of existing capacity in this sector, with the level approximating 20% for the slightly smaller sectors and 6% for the 100-1,000 passenger group. For the fleet as a whole, the level equates almost 15%.

\* There is no other sector of the international shipping market that has seen such fleet growth — both in terms of individual size sectors and in terms of the overall aggregate fleet.

\* Despite the recent/current capacity boost, the extent of expected future passenger growth is sufficient to require extensive new vessel tonnage, even in the absence of vessel scrapping.

\* Amid cruise price discounting and newbuilding prices rising markedly, the incentive for new cruise ship ordering in the near-term is far from clear. Demand expectations, however, indicate

that a high volume of new cruise ships will be required in the second half of the 1990s. This will be potentially boosted by the scrapping of older tonnage in the interim period.

#### **Summary: Future Cruise Demand**

\* For North America, the outlook is for continued growth, albeit at slightly lower average annual levels than in recent years. From the 3.9m passenger level of 1991 therefore, the annual level is forecast to reach 5m by 1994, with some growth deceleration thereafter funding an eventual 2000 level of 7.3m passengers.

\* Forward period growth is thus set to slow almost continuously throughout the forward period and lie with a 5-9% range — this against the 10% averaged since 1980. This growth deceleration is likely to result from a number of factors, including the decline noted in first-time cruisers in 1991, and the expected slowing of the trend towards greater significance for 3/4-day cruises.

\* For Japan, a number of factors peculiar to the Japanese market complicate the real outlook for cruise volume potential — these including the length of vacation taken by the majority of the population, the general image of cruising, the different requirements and tastes of Japanese passengers, and the high costs of Japanese vessel operating expenses and of air transfers.

\* These negative factors are gradually being overcome — with introductory one-day cruises currently enjoying massive growth in popularity. Furthermore, the potential size of the Japanese cruise market is massive — current cruisers represent little more than 0.5% of the overseas travelling total.

\* Whilst the market will continue to expand, the pace and scale will continue to be restricted by the factors mentioned above. The annual volume is forecast to rise from the approximate 70,000 passenger level of 1991 to 150,000 passengers by the year 2000.

\* Elsewhere in Asia, forward cruise market growth is most likely to be witnessed in the more developed economies — such as Singapore, Korea, Hong Kong, with Australia also a potential growth market.

\* Market development will be helped enormously by the existence of a volume of cruise ships home-ported

within the region — the recent development of Singapore as a cruise base is of great significance in this regard.

\* The opening-up of China and potentially, of Vietnam and North Korea will also fund greater market interest.

\* In general, the Asian market is set to continue to grow, although sustainable rapid expansion rates may not be attained until the latter part of the current decade.

\* In Europe, there is still considerable scope for expansion in the largest market — the UK. Given the prevalence of fly/cruises here, greater volumes of Caribbean cruises are expected, whilst the liberalisation of the Soviet Union and East European countries will fund continued growth in this area.

\* A programme of active marketing and updating of the cruise image, as well as significant investment in cruise terminal facilities at major ports, will thus facilitate growth from the current 180,000 annual passenger level to just under the 300,000 level by the middle of the decade, with further expansion to around 0.45m passengers by the end of the 1990s.

\* In Germany, given the likely continuation of current economic problems, the outlook at least in the short-term is not particularly positive, although here again the renewed interest in visiting ex-Soviet Union and East European destinations may fund growth in this sector.

\* Generally, whilst the Caribbean and the Mediterranean have been the main cruise areas for European passengers, Asia and the Far East are likely to figure increasingly in the cruise destination profile. In the short-term however, the large-scale expansion of vessel capacity in the Caribbean is likely to prompt the major cruise lines to increasingly target West European markets to fill available berths.

The extensively detailed 160-page Report contains analysis of all the main aspects of the cruise shipping industry, and is essential reading for all parties with an involvement in any part of the cruise business.

The Report also incorporates a full listing of the current world cruise ships fleet, this including details such as ownership, size, age, name, and passenger capacity.



\* *CRUISE SHIPPING: Industry Prospects 1992/2000* available from:

Study Sales Department  
Ocean Shipping Consultants Ltd  
Ocean House  
60 Guildford Street, Chertsey, Surrey  
KT16 6BE, England  
Tel: 0932 560332 (international + 932 560332)  
Fax: 0932 567084 (international + 932 567084)  
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Price £760 or US\$1,325.

## **Positive Influence on Newbuilding Demand**

Though current freight rates are giving many shipowners and financiers cause for concern and orders for new-buildings have slowed down, the medium to long term outlook for both the shipping and shipbuilding industries is encouraging. Not only is world trade expected to expand, albeit modestly, but the current age of the world fleet plus the increasing influence of environmental and safety legislation must during the remainder of the 1990s be a positive influence on world newbuilding demand and raises questions as to whether the industry will be able to grasp the challenge of meeting the needs of the world's shipowners, and also as to whether shipowners will have the ability to raise the required finance.

### **Newbuilding Demand**

In the period up to 2001 total newbuilding demand is estimated to be almost 160 million compensated gross registered tonnage (cgrt), with 75% of this total expected to be delivered in the period 1996-2001. Current shipbuilding output is running at about 12m cgrt per annum and estimated current annual capacity is 15.0m cgrt per annum. On the surface, with demand in the late 1990s expected to be in excess of 23m cgrt per annum, there appears to be a shortfall. But, given advances in shipbuilding technology and hence productivity, the widespread return to series production and also the doubts surrounding the validity of using cgrt as a realistic measure of shipbuilding capacity (the current coefficients were set in 1983), the latest Drewry Report "*WORLD SHIPBUILDING — The next ten years: Can the challenge be met?*" concludes that

the industry will be able to cope with the anticipated increase in demand without recourse to constructing new "greenfield" yards or reopening dormant facilities.

The major driving force for increased newbuilding demand will be the ageing world fleet together with the tightening up of environmental and safety legislation which will shorten the "economic" life of a significant volume of tonnage. Shipping is now well and truly back in the political arena. As well as reviewing the age structure of the world fleet and assessing replacement demand and demand generated by the growth of world seaborne trade, the Report also considers regional construction patterns, advances in shipyard productivity, the role of government subsidies and the development of newbuilding prices. Drewry expects prices to harden considerably throughout the forecast period and does not foresee the emergence of any new significant shipbuilder with the ability to destabilise the newbuilding market as occurred in the early 1980s when South Korea entered the world scene and "bought" market share by offering knock-down prices at a cost of over \$5 billion in red ink. Drewry assumes that the newbuilding market will be demand-driven during the 1990s rather than supply-driven, as was the case ten years ago.

### **High-risk Newbuilding Finance**

The Report also addresses the crucial question of newbuilding finance. Given the volume of fleet replacement and rising real prices for new ships, where will shipowners find the huge sums necessary? Shipping finance is expected to become significantly tighter as the decade progresses and, with commercial banks becoming less generous, owners will have to become more inventive at raising funds for newbuildings and will almost certainly have to provide more equity. This will require freight rates to be increased to take account of higher newbuilding prices and also higher costs brought about by changes in the operating environment. The yards themselves will have to become even more involved in financing if they wish to exploit the potential market.

The OECD is under strong pressure from the USA to abolish all newbuilding subsidies, including government-

backed export credit. If governments take the opportunity to disengage from ship subsidisation altogether, this popular form of finance would disappear. The EC is also committed to the reduction and ultimately the abolition of subsidies.

The shipping industry as a whole has limited access to capital markets because it is capital intensive and mainly in the hands of private companies. Shipowners have become heavily dependent on long term loans related to the market value of assets rather than true equity. This is why it is important that the market should become demand driven, which would result in higher freight levels.

The volatile nature of freight markets and ship values has classified shipping finance as "high risk". Without a major, long term upswing in the freight market, it is difficult to see how the obstructions to the establishment of a substantial properly capitalised publicly quoted shipping sector can be overcome.

Banks active in shipping finance will harden their attitudes still further in the short term because of the scale of losses incurred from loans to developing countries, Eastern Europe, real estate speculation, etc and the current low level of freights. Banks are having to broaden their diversification of risks and focus more closely on earnings in the use of equity. The Basle Agreement, which comes into force at the end of 1992, will oblige banks to demand 8% equity for each shipping loan which they grant. Many banks will have to restrict their level of lending in shipping finance.

Leasing is a valuable potential source of newbuilding finance and is clearly in favour among some prominent owners, but there needs to be greater co-operation between lessors and lessees for this form of financing to increase substantially. Other means include mezzanine finance, which is a way of bridging the gap between a bank loan and owner's equity.

Because of the high risk factor, the few banks which remain active in this capital intensive market in the 1990s will stick more closely to conservative lending policies. They will strictly apply the same criteria to marine financing as to their other long term activities. Undercapitalised one-ship companies and financially weak owners will find it hard to persuade banks to grant loans.

At the end of the day most owners will have to provide more equity which will be dependent on the health of the market.

At current prices the financial implications of the newbuilding demand estimated in the Report indicate that by 2001 shipowners will have to raise around US\$355 billion.

*"WORLD SHIPBUILDING — The Next Ten Years: Can the Challenge be Met?"* is published by Drewry Shipping Consultants Ltd. Individual copies of the Report are priced at £350 post paid.

For further information, please contact:

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## The Americas

### Mr. Tessier Reappointed Ports Canada President

The Honourable Jean Corbeil, federal Minister of Transport, recently announced the reappointment of Jean Michel Tessier as President and Chief Executive Officer of Ports Canada for a four-year term. Mr. Tessier had held the position since July 1987.

### TCIEG Proposes Guide For Manifest for EDI

(Canada Ports Corporation Press Release dated June 17, 1992)

The Transportation Community Information Exchange Group (TCIEG), a worldwide grouping of ports and port community EDI systems, has prepared a detailed draft implementation guide for the transmission of sea cargo manifests in electronic format. The proposal was presented at a meeting held in Halifax, Nova Scotia on June 14 held in conjunction with the fourth Ports Canada Computer Conference.

The guide has been produced as a draft for discussion. The TCIEG announced that it is seeking and will pursue the comments and support of other concerned parties — the ocean carriers, shipping agents, Customs authorities and terminal operators — both individually and through the respective international associations and bodies. Interested organizations are invited to

obtain copies for comments from the TCIEG secretariat.

The manifest guide uses the Customs Conveyance Report Message, CUSREP, of the United Nations EDIFACT standard as a basis for specifying how to implement the data contents of the International Maritime Organization's General Declaration. A second part of the guide, conforming to the data of the IMO Cargo Declaration, uses the IFTMCS message. The approach taken is that a series of IFTMCS messages together with an associated CUSREP constitute a manifest. Part I — CUSREP — is ready now, while part II — IFTMCS — will be completed by the end of August 1992.

The manifest is designed to be usable for exchanges of data between carriers and shipping agents, and between shipping agents and Customs authorities, port authorities and terminal operators.

The significance of this proposal is that it gives the maritime industry a tool to minimize the customization or individualization of implementation between trading partners anywhere in the world. Potential trading partners will be able to concentrate on the exceptions, or additional data, that may be required, rather than starting from a blank slate when doing an implementation. The potential benefit is made more evident by the fact that the manifest represents the greatest volume of documentation data in international ocean shipping.

This is the first tangible product of the TCIEG, which formed in Los Angeles in 1991. The TCIEG, whose membership is on an ad hoc, voluntary basis, operates under the umbrella of the International Association of Ports and Harbors. Currently, there are 28 members from North America, Europe, Asia and Africa. The TCIEG's mission is "..... to improve the efficiency and speed of moving goods through the trading chain by the widespread introduction to the global trading community of a comprehensive range of paperless trading services".

At its meeting, the group also expressed support for the EDIFACT BAPLIE or user guide produced by the Ship planning Message Development Group in Europe for transmission of container stowage data between shipowners and terminal operators. TCIEG members have observed or participated

in several implementation projects in Europe and North America and believe it to be an excellent basis for eventual worldwide adoption. Several members intend to forward specific suggestions to the SMDG for enhancing its usefulness.

In other business, the TCIEG decided to serve as a communication vehicle for community systems in different parts of the world to exchange lists of their users or subscribers. The object of this action is to stimulate contacts that will lead to EDI exchange between international trading partners. The TCIEG expressed its strong interest in achieving interconnection of community systems or their supporting value added networks. In order to do this, issues like inter-community addressing, pricing principles and service levels must be resolved.

Members of the PROTECT group of north European ports (Hamburg, Antwerp, Bremen, Felixtowe, Rotterdam and Le Havre) presented an implementation guide for the dangerous goods notification from liner agents to port authorities. This guide is in an early stage of development and will be discussed further in future meetings. The TCIEG expressed a great interest in encouraging the rapid development of a guide for dangerous goods that could be used worldwide by port authorities.

For further information, contact:

Attention: Mr. Jean Lesperance

TCIEG Secretariat, c/o Canada Ports Corporation

99 Metcalfe Street, Ottawa, Ontario, Canada K1A 0N5

Tel: 613-957-6752, Fax: 613-995-3501

**Notes by the Head Office:** TCIEG comprises the membership of ACIS/UNCTAD, Canada Ports Corporation, Dakosy GmbH, EDICOM, EDI Port Atlantic, Halifax Port Corporation, INTISITS B.V., Maritime Cargo Processing, Montreal Port Corporation, Office d'Exploitation des Ports du Maroc, Port Authority of New York and New Jersey, Port Autonome du Havre, Port Autonome de Marseille, Port of Houston Authority, Port of Long Beach, Port of New Orleans, Port of Santander, Port of Seattle, Port of Singapore Authority, Ports of Philadelphia, The Association of Australian Port and Marine Authorities, Port of

*Antwerp, The Port of London Authority, Tradegate Australia, Limited, Transport Data Network International Inc., Vancouver Port Corporation, World Port LA., and Seagha, Antwerp*

## COMMENTARY

### **Costly Pilotage Services Dampen Competition**

**By Victor Bayne**

**Executive Director**

**Halifax-Dartmouth Port**

**Development Commission**

The decision by the Canadian Ship-owners Association to cease payments to the Laurentian Pilotage Authority for compulsory pilotage services in the St. Lawrence River is a courageous act, and one which clearly arises from a high level of frustration with federal government inaction.

As a result of this action by the association, we can expect the Laurentian Pilotage Authority to run up greater deficits — adding to the more than \$14 million shortfall already paid on its behalf by the federal government between 1986 and 1991.

Everyone agrees that safety on Canadian waterways is paramount. The association contends that pilotage services are exorbitant and often unnecessary, and it argues for non-compulsory pilotage services, permitting a vessel's master, who is experienced and qualified in the Canadian waterway system, to operate without the services of a pilot. One shipping line has reported that the cost of a single pilot is greater than the cost of an entire vessel's crew, including the master and the chief engineer.

Pilotage authorities are required by the federal government to operate on a full cost recovery basis. But the Laurentian Pilotage Authority (St. Lawrence River) has met strong resistance to its rate increases from powerful lobby groups in Quebec. As a result, it has not succeeded in its attempts to generate the revenue it needs to cover its costs. The federal government has had to bail it out.

On the other hand, the Atlantic Pilotage Authority (Atlantic ports) has been meeting its full cost recovery obligation by operating on the back of the Halifax operation. The exception to full recovery occurred in 1991, when Halifax posted a profit of only \$11,000.

The earnings did not cover losses at the ports of Sydney (\$177,881), Canso (\$87,996) or, indeed, ports in New Brunswick (total losses of \$76,000). And so, for being efficient and financially responsible, Halifax will be penalized by a 4.7 per cent increase in pilotage rates.

Even if it were not locked in a fierce, to-the-death competition with U.S. east coast ports, there is no good reason why Halifax must cross-subsidize other ports in the Atlantic region.

*(Port of Halifax)*

### **Montreal: Ships Will Get One More Foot of Water**

The Port of Montreal announced that it has signed a formal agreement with the Canadian Coast Guard to finance a maintenance dredging project that will increase by one foot (0.3 metres) the navigational depth of the St. Lawrence channel before the end of October.

"This additional foot of water can mean up to an extra 1,000 tonnes of cargo per vessel, or 100-120 boxes per containership," said Mr. Dominic J. Taddeo, president and chief executive officer of the Port of Montreal. "For our largest containerships, this can translate into \$150,000 of extra business per voyage."

The maintenance dredging project involves cleaning high spots along the bed of the channel and will increase the recognized minimal water depth between Montreal and Quebec to 36 feet (11 metres) from 35 feet (10.7 metres).

"The extra foot will not only benefit the larger containerships calling at Montreal but will also make the port much more attractive to dry bulk and grain ships of 50,000 tonnes capacity," Mr. Taddeo said.

"In essence, this maintenance dredging project will increase the competitiveness of the entire Port of Montreal system," said Mr. André Gingras, chairman of the board of the port.

The Port of Montreal is the main financial contributor towards the project as it is at the upstream end of the channel, Mr. Gingras explained. "Our board of directors has approved a budget of \$1.15 million to cover the port's 75-per-cent financial share of the project," he said.

Other contributors are the Canada Ports Corporation for the Port of Trois-Rivières, the Becancour Industrial Park and Port Corporation, and the Coast Guard, which will be responsible for all work related to the maintenance dredging.

The decision to proceed with the maintenance dredging follows a recommendation of a Ports Canada board of directors committee on the St. Lawrence River water depth. "We are hopeful that a strong action regarding the water depth in the St. Lawrence will send a clear signal to the industry in North America about our commitment to maintain and enhance our ports' competitiveness as viable gateways to every corner of this continent," said Mr. Jean Michel Tessier, president and chief executive officer of the Canada Ports Corporation.

The recognized minimal water depth is based on the average of the lowest water levels, but the total water level for navigation is usually higher. For instance, over the last 25 years, the average water level in the Port of Montreal has remained close to 38 feet (11.58 metres), three feet (0.91 metres) above the minimum water depth of 35 feet (chart datum) established in 1952.

The maintenance dredging will thus provide an extra foot of navigable water in all conditions, including low-water periods.

### **Other Recent Improvements**

In February of this year, the Canadian Coast Guard presented new standards for underkeel clearances. For security and maneuverability purposes, vessels are required to maintain this clearance, which is the distance between the ship's keel and the river bottom.

These underkeel clearances were reduced and now provide between six and nine inches of extra navigable water depth for the larger ships calling at the Port of Montreal.

The maintenance dredging project combined with the reduced underkeel clearance standards will permit the biggest of vessels calling at the port to load more cargo in all conditions and means the port will be able to accommodate vessels with deeper draughts.

Meanwhile, the Port of Montreal has contributed \$200,000 towards the installation of 13 tide gauges between Montreal and Quebec which will measure and communicate water levels



# ANNOUNCING THE XXIst ICHCA-INTERNATIONAL BIENNIAL CONFERENCE, MIAMI, FLORIDA MAY 3-7, 1993

77 Moehring Drive, Blauvelt, NY 10913-2093

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Lee di Paci, Exhibits Director



ICHCA

International Cargo Handling Co-ordination Association

*"The ONLY Worldwide Organization Representing ALL Transport Modes"*

ICHCA International will hold its XXI Biennial Conference and Exhibition, May 3-7, 1993, at the Intercontinental Hotel, Miami, Florida.

Port officials, stevedores, terminal operators, air-land-sea intermodal carriers, agents, cargo handling manufacturers and suppliers will be registering in large numbers. Importers and exporters will also be in attendance to determine the latest in cargo handling techniques.

This Biennial meeting offers you a rare opportunity to exhibit your products and services to a management audience, from all over the world, at a time when they are thinking about their cargo handling requirements and infrastructure. The enclosed exhibit order form and floor plan will supply details.

ICHCA was established in London, in 1952 by people within the cargo handling industry, for people in international trade. With an influential membership across 90 countries. ICHCA's basic aim is to improve the efficiency of the movement of cargo by any mode of transport. This is achieved by generating an exchange of information through a network of members involved in all aspects of the industry.

Providing a worldwide network of influential contacts, ICHCA is also a truly intermodal association, with an interest in, or assistance available for every aspect of cargo movement. Access to an extensive Database of Cargo Handling Information and Technical Advisory Service is open to service members' inquiries on an individual and confidential basis.

All members of ICHCA receive trade journals, as well as quarterly bulletins and technical publications dealing with specific cargo handling subjects.

Don't miss this opportunity to address this unique audience through your exhibit booth. All breakfasts, cocktail receptions, coffee breaks and refreshment centers will be located in the exhibit area to ensure maximum exposure and activity. Space is limited. Reserve Now.

## **"TEAMWORK IN TRANSPORTATION"**





# ICHCA

ICHCA International Cargo Handling Co-ordination Association

## EXHIBIT SPACE RESERVATION FORM

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May 3-7, 1993, Intercontinental Hotel, Miami, Florida USA

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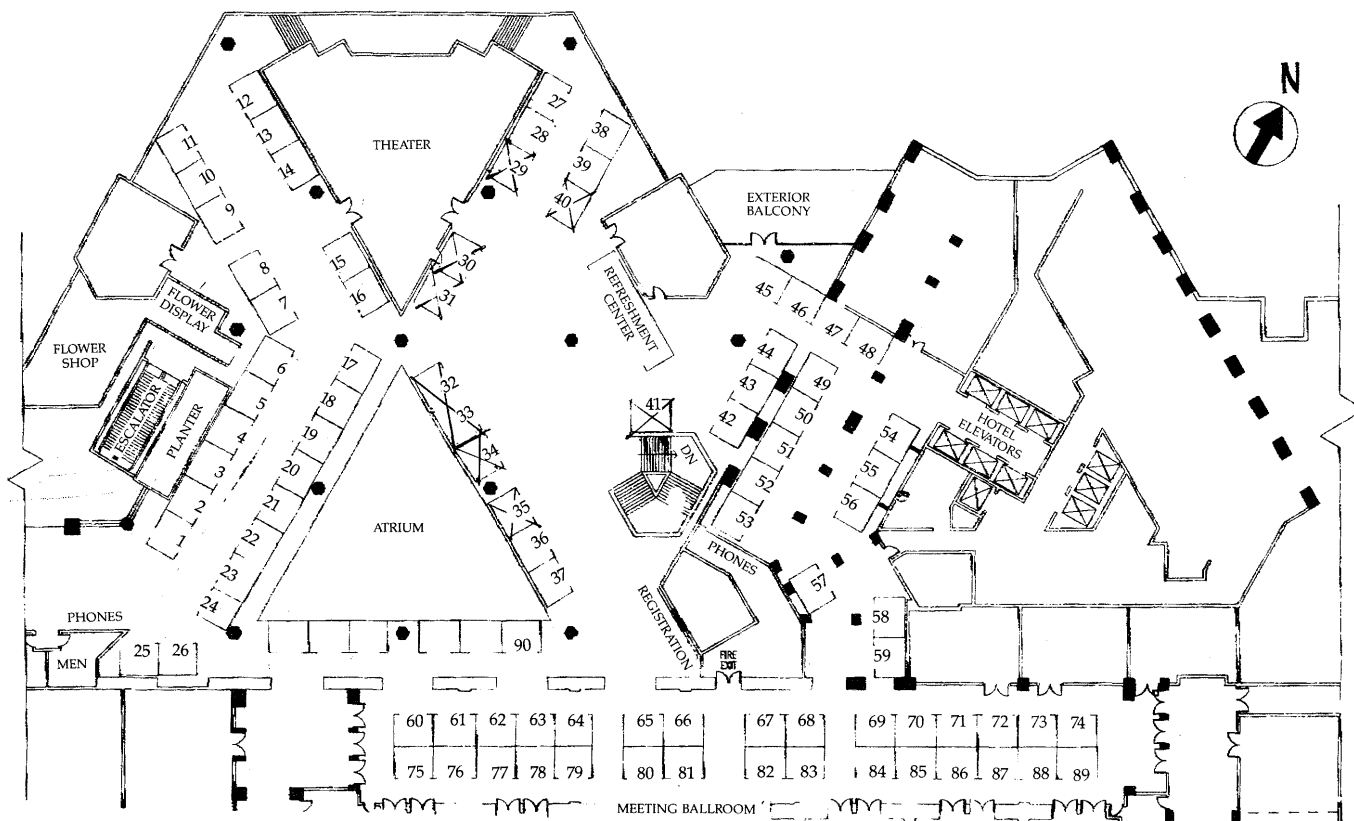
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All exhibit space will be reserved for a period of ten days. Return of contract with your 50% deposit will guarantee position of choice. Please Fax reservation form to ICHCA-USA (914) 359-1938. Send payment to - WWS/World Wide Shipping, 77 Moehring Drive, Blauvelt, NY 10913-2093.

at all times for the better utilization of available water levels.

The tide gaugers will also permit the compilation of computer data, the goal of which will be to develop mathematical models in order to establish better water level forecasting.

## Mr. Milroy New Head Of North Fraser Port

Mr. John Milroy, a senior business consultant, was recently appointed Chairman for the North Fraser Harbour Commission. In addition to his years as comptroller with Straits Towing Ltd., he was Vice-President of the B.C. Development Corporation and part of the management team of both Spear & Jackson Ltd. and MacDonald Dettwiler and Associates.

Mr. Milroy is committed to the community and has served as treasurer of the local Neighborhood Services Association and also as a special corporations solicitor for the United Appeal.

"We may be a small Commission, but we are committed to the effective, efficient management of the North Arm," stated Mr. Milroy.

*(The Working River)*

## Vision for North Fraser

The North Arm of the Fraser is a river of change. Steeped in the traditional uses of fishing and log transportation, its shores still contain elements of the lumber and construction industry.

But it is changing. Residential and commercial developments are replacing industries in a slow march along the north banks of the North Fraser from Vancouver to New Westminster.

It remains a significant economic player in the Lower Mainland, with industries located along the North Fraser accounting for over \$1.1 billion in gross revenues and direct employment of over 5,800 person years.

The North Fraser Harbour Commission was established in 1913 to safeguard the traffic and development along the North Arm of the Fraser. Today, facing burgeoning growth along the river the Commission has developed a new strategic plan to anticipate future changes. It is a simple plan based on the foundation of an all-encompassing mission statement.

The rationale for the strategic planning exercise was to first look back to the past and to the present to prepare for the future. The key step in this was for the Commission to undertake its first economic impact statement. This was done to establish the real economic value of the North Fraser and its business to the surrounding communities of Richmond, Vancouver and Burnaby.

Coupled with its commitment to anticipating the economic future of the North Arm is its equally strong commitment to the ecological health of the river. It made its first formidable step in this area with the establishment of the Environmental Management Plan in 1988, which already has gained it international recognition. The Commission has chosen to be an active participant in the future of the North Arm of the Fraser River.

## Strong Foundation

The foundation of the North Fraser rests on its economic impact. With over \$1.1 billion in annual gross revenues, nearly 60% of the total output impact is attributable to forestry-related manufacturing. Sawmills alone account for 40% of the total economic impact — the remainder being attributed to plywood plants, panelboard and paperboard plans, etc.

Iron and steel, fish processing, administrative support, ready-mix aggregate, trucking and retail services

comprise the other principal industries on the river.

Direct and total employment is estimated at 5,871 and 17,544 person-years respectively. The employment multiplier of 2.99 means that for every one job on the river, nearly two additional jobs within the B.C. economy result from the indirect/induced multiplier linkages.

Total government revenues from river-related jobs are estimated at \$302 million — 62% of which is comprised of personal taxes, with indirect taxes accounting for 23%, corporate taxes for 8% and royalties for 7%.

Overall, approximately 80% of the economic impacts referred to above derive from organizations which require water access and exhibit dependency on the river in terms of their location.

## Economic Impact

The NFHC's economic impact assessment was undertaken by Deloitte and Touche from a B.C. perspective because many of the North Fraser industries have linkages with primary industries throughout the province.

Input-output analysis was used to assess the economic significance to B.C. of industries on the North Arm of the Fraser River. This analysis provided estimates of the direct and "multiplier" impacts on the provincial economy.

The multiplier impacts included the

## The North Fraser: Impact on Employment & Provincial GDP (Impact of Direct Industries within NFHC Jurisdiction)

Industry Classification	Direct Employment Impact (Person Years) (1989)	Direct GDP Impact (\$Millions) (1989)	Total Employment Impact* Within BC (All industries)*	Total GDP Impact**
Sawmills & Planing Mills	1,707	\$107.7	6,660	\$385.7
Plywood, Panelboard, & Paperboard & Wholesale wood products	1,024	104.5	2,930	218.2
Iron, Steel & Related	365	33.9	1,119	72.7
Fish Processing & Fish Products	324	15.2	1,516	71.4
Administrative Support	648	40.9	1,325	74.8
Ready-Mix, Aggregate	238	16.7	894	50.2
Trucking	488	38.5	971	63.4
Restaurant Accommodation & Retail	543	31.9	1,019	38.2
Other Industries	534	31.9	1,110	61.4
<b>Total</b>	<b>5,871</b>	<b>\$403.3</b>	<b>17,544</b>	<b>\$1,036.0</b>

\* (Includes Marine Towing industry which had a total employment impact of 560 person years in 1989)

\*\* (Includes Marine Towing industry which had a total GDP impact of \$34.9 million in 1989)

indirect impact of industries supplying goods and services (inputs) to direct industries on the river — and the “induced” impact associated with the consumer responding of wage incomes of the direct and indirect workforce.

The impacts assessed included: industry output, gross domestic product, employment and government revenues.

(*North Fraser Harbour Commission: Annual Report 1991*)

## Port of Thunder Bay: 1991 Cargo Analysis

Final cargo figures for shipments through the Port of Thunder Bay were up 21% for the 1991 navigation season at 17,363,153 tonnes. Domestic trade accounted for 85% of port throughput. U.S. shipments made up 10% and overseas trade totalled 5%. The total economic impact on the local regional and national economy, generated by the Port of Thunder Bay was \$825,820,735 most of which accrued to Thunder Bay and a \$164 million increase over 1991.

**GRAIN:** Grain shipments were up with all trading partners and totalled 12,962,313 tonnes, a 43% jump over 1990. A very good prairie production and a late season grain sale to the then Soviet Union are credited with much of the season's success. Of the port's total grain movement, 11.8 million tonnes were shipped in the Canadian laker fleet, most of which went to St. Lawrence River ports for further shipment to overseas markets. Direct overseas grain shipments accounted for 529,849 tonnes while 550,223 tonnes were shipped to the United States.

**GENERAL CARGO:** The general cargo trade boomed in 1991. A total of 357,952 tonnes moved through the port, 270,000 of which was forest products, up 17% over the previous year. Cargoes moving through Keefer Terminal increased 30% and kept longshoremen busy throughout the season. Shipments of lumber for the United Kingdom and steel pipe from Denmark were quickly followed by an excavator from Germany coupled with an outbound drilling component from an offshore oil rig destined for Norway. Massive units for a fertilizer plant in Saskatchewan were transhipped through Keefer and included the heaviest single unit ever shipped through the port. Another unique cargo

was three gas plants destined for the National Iranian Gas Company. Also in 1991, bagged flour for Food Aid was loaded at Keefer Terminal, the first in many years. The removal of the “At and East” rail subsidy allowed for competition by the marine mode. These cargoes totalled some 40,000 tonnes and went to such countries as Yemen, Syria and Egypt.

**OTHER BULK:** Coal shipments to Ontario Hydro's generating station in Nanticoke were up just slightly from last year, ending the season at 2.35 million tonnes. Metallurgical coal destined for U.S. steel mills dropped 48% from last season to 213,488 tonnes. This was largely as a result of some direct rail shipments out of western Canada into the U.S. mid-west.

Potash shipments declined 20% in 1991 with a total movement of 1,095,061 tonnes. Of that, 768,521 tonnes went to fertilize fields in the U.S., 234,741 tonnes were shipped directly overseas and another 91,799 tonnes went to eastern Canada. The decline is attributed to a number of factors including direct rail shipments, a tight farm money supply and cost and product degradation concerns related to the handlings. In other dry-bulk movement, cargoes such as salt and limestone accounted for 200,000 tonnes.

Liquid bulk cargoes totalled 194,000 tonnes, most of which was petroleum products. Caustic soda and calcium chloride made up the remainder.

**SHIPS:** Ship visits totalled 969 up from 827 the previous year. A breakdown of registry is as follows: Canada (898), U.S. (9), Bahamas (2), Belgium (1), Cuba (1), Cyprus (16), Czechoslovakia (2), France (1), Germany (1), Greece (5), Isle of Man (1), Japan (1), Liberia (10), Malta (1), Netherlands (2), Norway (1), Panama (1), Philippines (6), Poland (3), St. Vincent (4), United Kingdom (1), Yugoslavia (2).

The 1991 navigation season opened March 26 and closed December 31.

(*Transport of Thunder Bay*)

## US Port Development Expenditure Report

By the U.S. Maritime Administration Office of Port and Intermodal Development. (Washington, D.C.: May 1992). 16 pages. Tables. Appendix. Order from: Office of Port and Inter-

modal Development, Maritime Administration, MAR-830, Room 7201, U.S. Department of Transportation, 400 Seventh Street, S.W., Washington, D.C. 20590. Tel: (202) 366-4357. Fax: (202) 366-5522. No charge.

U.S. public ports spent more than \$2.0 billion for capital improvements in 1988-90 and plan to spend almost \$5 billion for the same purpose over the next five years, according to the Maritime Administration's (MarAd) latest *United States Port Development Expenditure Report*. The latest numbers indicate that public port capital expenditures amounted to \$668 million in 1990, down from \$689.2 million in 1989 and \$684.8 million in 1988. The 1990 figures bring to \$11.2 billion total spending by U.S. public ports for facility construction and modernization since the end of World War II. They do not include spending by the private sector for the same purpose.

The South Pacific accounted for the greatest share (31.4 percent in 1990), followed, in order, by the South Atlantic (25.3 percent), North Atlantic (17.4 percent), Gulf (14.6 percent), and the North Pacific (9.0 percent). The remaining funds were spent by ports on the Great Lakes (7 percent) and in Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands (1.5 percent).

The three-year pattern is reflected in Table 1.

### 1. U.S. Public Ports Capital Expenditures 1988-90

(Millions of Dollars)

Region	1990	1989	1988
North Atlantic	116.4	156.0	178.4
South Atlantic	169.3	146.4	135.6
Gulf	97.9	97.1	82.1
South Pacific	209.9	149.3	176.4
North Pacific	60.4	106.1	75.0
Great Lakes	4.3	2.6	.8
AK, HI, PR, VI(*)	10.2	17.0	23.1
Guam	—	14.8	13.4
Total	\$668.1	\$689.2	\$684.8

(\*) Alaska, Hawaii, Puerto Rico, Virgin Islands

Source: U.S. Maritime Administration, *United States Port Expenditure Report* (May 1992), p. 4.

Top spenders in 1990 were the ports of Long Beach (\$104.7 million), Los Angeles (\$83.1 million), New York/New Jersey (\$65.6 million), Miami (\$56.5 million), Port Everglades (\$55.7 million), Houston (\$38.7 million), Georgia (\$20.7 million), Tampa

(\$20.6 million), Maryland (\$19.7 million), and Jacksonville (\$16.2 million). These 10 ports accounted for 72.1 percent of total expenditures in 1990.

By facility type, "specialized general cargo" accounted for \$335.7 million (51.4 percent) of reported 1990 expenditures, general cargo for \$88.7 million (13.6 percent), bulk for \$48.6 million (7.4 percent), and "other" for \$180.2 million (27.6 percent). Included in the cargo facility categories are pier or wharf structures, storage facilities, and handling equipment. The "other" category includes "structures, spaces, and fixtures not directly related to the movement of cargo, such as maintenance and administrative facilities, passenger terminals, and dredging..." "Specialized general cargo" refers to container, ro/ro and similar facilities.

Port revenues and revenue bonds were the predominant source of funds expended in 1990, with shares of 35.2 and 40.1 percent, respectively. Of less significance were general obligation bonds (8.8 percent), loans (1.5 percent), and grants (8.8 percent).

The MarAd study also reports that proposed capital expenditures by U.S. public ports will total some \$5.4 million for the years 1992 through 1997. The lion's share will be spent in the South Pacific region as indicated below:

## 2. U.S. Public Ports Capital Expenditures 1992-97 (Millions of Dollars)

Region	Expenditures
North Atlantic	\$650.7
South Atlantic	938.9
Gulf	496.2
South Pacific	2,206.0
North Pacific	712.8
Great Lakes	71.6
AK, HI, PR, VI(*)	263.9
Guam	
National Total	\$5,340.1

(\*) Alaska, Hawaii, Puerto Rico, Virgin Islands

Source: U.S. Maritime Administration, *United States Port Expenditure Report* (May 1992), p. 5.

Almost half of the planned expenditure will go for specialized general cargo facilities. Port revenues and revenue bonds will be the primary funding sources, accounting for 84.3 percent of the total. By contrast, just 10.5 percent will come from general obligation bonds, 2.2 percent from grants, 0.1 percent from loans, and 2.1 percent

from miscellaneous sources such as state transportation trust funds and state and local government appropriation.

## 3. U.S. Public Ports Capital Expenditures by Facility Type 1992-97 (\*)

(Millions of Dollars)

Facility Type	Expenditure
General Cargo	\$780.9
Specialized General Cargo	2,594.0
Bulk	441.8
Other	1,523.4
National Total	\$5,340.1

(\*) Excludes \$15 million not broken down by facility type.

Source: U.S. Maritime Administration, *United States Port Expenditure Report* (May 1992), p. 9.

MarAd's findings are based on data collected by AAPA capital expenditure surveys of its U.S. Corporate members over the past few years and earlier MarAd reports. (*AAPA Advisory*)

## Barbour's Cut Terminal: A Study in Adaptability

(Reproduced from "The Port of Houston Magazine")

When Barbour's Cut Container Terminal was dedicated 15 years ago, Houston port executives buried a time capsule at the terminal. The capsule contained 70 letters from port executives around the world who were asked their predictions about the ports of the future.

No one knows what the industry will be like when the capsule is opened in the next century. But one thing is certain: The success of container facilities like Barbour's Cut Terminal will depend on their ability to adapt to changing demands.

"All segments of the transportation industry are having to operate more efficiently today," says Jimmy Jamison, manager of the terminal. "I think the secret of Barbour's Cut Terminal's



## Dramatic Increase in ILA Man-hours

Bagged commodities such as this shipment of corn, beans and sorghum bound for Africa have accounted for a dramatic increase in ILA man-hours at the Port of Corpus Christi over the past three months. According to union officials, hours increased from 1,629 in April and 4,869 in May to 16,000 hours during June. Port and union officials attribute the gain to an in-

tensive coordination effort by the Corpus Christi Public Elevator, United States Department of Agriculture and the ILA. In addition, the port's proximity to the area's grain sorghum crop (normally the nation's highest producing) and a climate that allows year-around loading all favor increased shipments.



continued success will be our ability to grow, to address problems as they come up and to find more efficient ways to handle cargo. That is what's being asked of the industry as a whole, and I think the Master Plan for Barbours Cut will move us in that direction."

Keeping pace with the industry is critical for the terminal, which has posted tonnage increases almost every year since it opened. Last year more than 3.9 million tons of cargo moved through the facility now known as the Fentress Bracewell Barbours Cut Container Terminal. Containerized cargo totaled 433,200 TEUs.

### **A Master Plan**

How does the Port Authority intend to keep up with the increasing demand for container facilities? The Master Plan, as it is commonly called by PHA staff, outlines a list of major capital improvement and expansion projects for Barbours Cut Terminal. Developed in 1990, the plan is a blueprint for maintaining the competitive edge of the Port Authority's primary container facility.

"We recognize that the shipping business is changing and the demands on terminal operators are changing, and we've tried to address those changes in our Master Plan," says Jamison. "We're already seeing the results of ideas that were developed just a few years ago. In the next five years, more of the projects outlined in the plan will begin to take effect."

One of the first—and most significant—phases of the Master Plan is construction of a fifth berth at Barbours Cut Terminal. The berth will add another 1,000 feet to the terminal's 4,000 feet of continuous quay. Construction of the wharf has been completed, and work is under way on the pavement and utilities for the wharf apron and the assembly of two Davy-Morris dockside cranes for the berth.

### **Improved Infrastructure**

With berth 5 nearly finished, additional acreage on the south end of Berth 4 will be paved to accommodate wheeled containers and refer units. Next on the list of major improvements is the addition of grounded pads—concrete runways that will be added to the north side of Berth 4 to accommodate grounded containers.

"We plan to eventually put grounded pads at each berth," Jamison says. "Tying the container pads into one another from Berths 1 through 5 will give us better utilization of the terminal and its equipment. The volume will then be spread evenly throughout the facility."

### **Berth 6 Is Next**

Also included in the Master Plan is the development of Berth 6. It will be located between Berth 5 and the terminal's rail ramp.

The terminal expansion and the increase in cargo traffic have necessitated the addition of new cargo-handling equipment at the facility. Four new yard cranes were added at the terminal recently. The Port Authority plans to pursue bids for four additional yard cranes late this year.

### **Personnel Changes**

Barbours Cut Terminal has also undergone personnel changes in recent months. Terminal manager John Horan was named deputy operations director in May. Upon Horan's promotion, Jamison moved up from assistant manager to manager of Barbours Cut Terminal.

Jamison's perspective is unusual in that he has worked at Barbours Cut Terminal as a Port Authority manager and as a customer. Before joining the Port Authority staff in 1987, he was manager of Barbours Cut Terminal stevedoring operations for Fairway Terminal Corporation.

"My work in the stevedore industry and my experience as assistant manager of Barbours Cut Terminal, where I worked closely with both steamship lines and the trucking industry, have given me a balanced understanding of the demands placed on our terminal," Jamison says.

### **Keeping in Touch**

Maintaining contact with private industry must be a priority if Barbours Cut Terminal is to maintain its customer base, Jamison says. Though the terminal already boasts one of the highest productivity rates in the country, Jamison and his staff are looking for ways to make terminal operations even more efficient. On one Saturday in May, the terminal staff hosted an open house for truck drivers to familiarize them with aspects of the terminal that

they don't usually see. The staff also organized a seminar for local truck dispatchers. About 80 dispatchers attended the program.

"We're trying to give the drivers and dispatchers a better understanding of the workings of Barbours Cut Terminal," says Jamison. "This gives us an opportunity to let them know how they can help us and to find out how we can help them."

"The dispatchers' seminar and truckers' open house were a formal way for us to meet," he adds. "However, daily communication with various segments of the shipping industry is a necessity and an ongoing process."

### **Each Line Is Different**

The growth of Barbours Cut Terminal is due in part to its ability to serve a wide range of volume carriers, Jamison says. Twenty container lines call regularly at Barbours Cut Terminal. Some of them are large lines, some are smaller carriers, and all have needs that vary.

Barbours Cut Terminal is one of the largest publicly operated terminals in the country. Larger container facilities exist in the United States, but many of them operate on a landlord basis, leasing property to large lines that operate their own terminals. One carrier—Sea-Land—runs its own operation at Barbours Cut Terminal, but the remainder of the lines that use the terminal count on the availability of a publicly operated facility.

"One reason Barbours Cut Terminal has been successful is because we operate our terminal and handle cargo for steamship lines with widely differing needs," Jamison says. "Many of them have volume levels that fluctuate from day to day. By maintaining a large pool of labor from all crafts, we are able to serve all customers cost-effectively. We feel this approach will continue to foster growth for the entire steamship community."

### **Adapting to Needs**

Barbours Cut Terminal is a primary example of the Port Authority's ability to respond to the changing needs of shippers. When the terminal was dedicated, two wharves were completed and two more were under construction. The terminal has been evolving since the day it opened—literally.

"Barbours Cut Terminal has,

throughout its 15-year history, continued to grow steadily," says Jamison. "The terminal is young and still growing. It is far from complete."

### **Joint NY&NJ Study on Terminal Development**

The New York City Economic Development Corporation and The Port Authority of New York and New Jersey will jointly sponsor a study of development alternatives to maximize the economic potential of the New York City Passenger Ship Terminal, the two agencies announced on June 11, 1992.

The consulting firm of Cooper, Robertson and Partners of New York City will undertake the \$300,000 study, which will analyze physical and market conditions, project the cruise industry's future in this port, and propose detailed scenarios for development that would enhance cruise ship activity in New York. The Port Authority's contribution to the study of \$112,500 was approved by the bistate agency's Board at its monthly meeting.

Cooper, Robertson was selected following a competitive RFP process. The study will be completed in about a year.

EDC President Carl Weisbrod said,

"Redevelopment of this site, with the cruise industry as an anchor, will be a critical first step in reactivating Manhattan's West Side waterfront. One of EDC's most important goals is to bring new vitality to our precious waterfront. The planning process for the Passenger Ship Terminal encapsulates our vision for the working waterfront as an active, accessible and lively economic engine for the city."

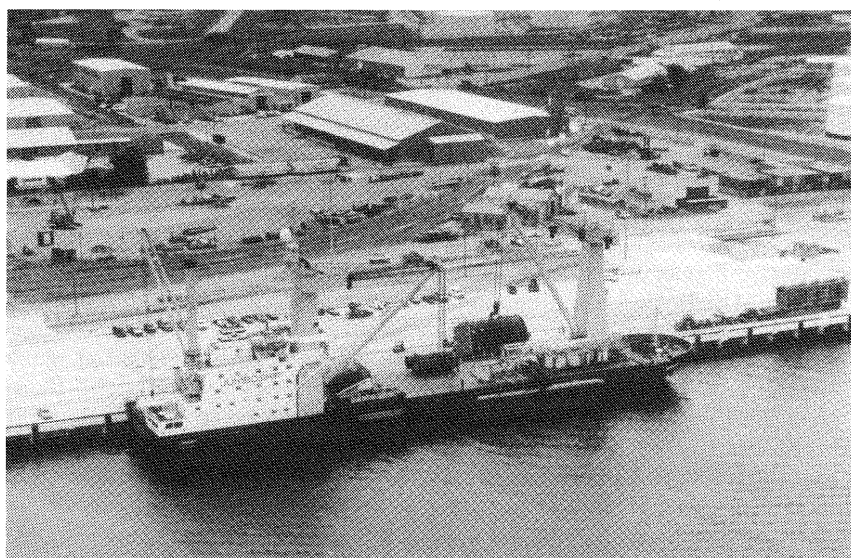
EDC Board Chairman Arthur Levitt, Jr. said, "With the Passenger Ship Terminal, we have an opportunity to restate the city's commitment to the maritime industry. Our goal, along with the Port Authority, is to help ensure that the cruise industry remains a vital contributor to New York's position as a world capital. This study is a necessary step in realizing the potential of this valuable resource on our waterfront."

Port Authority Chairman Richard C. Leone said, "Although the number of cruise passengers from New York has declined in this era of trans-Atlantic jet travel, the cruise industry is still an important asset for the region. It adds 1,300 jobs and generates some \$150 million in economic activity in the region; and the cruise ships themselves add luster and excitement to our great international city. The study announced today will help protect and increase the future economic viability of the cruise industry in New York."

Port Authority Executive Director Stanley Brezenoff said, "The Port Authority's operating agreement with the city for the Passenger Ship Terminal expires at the end of 1994. This timely study will help explore viable development options for the site, and gauge the interest of the private sector in developing it with the goal of maximizing future cruise ship activity in this port."

Constructed by the city and the Port Authority in 1973 from existing finger piers, the Passenger Ship Terminal (PST), consisting of Piers 88, 90, 92, and Pier 94, a cargo pier, is located between 48th and 54th Streets along the Hudson River. The piers, comprising six ship berths, are owned by the City of New York and have been operated by the Port Authority since 1974 under a 20-year lease.

When it was built, the PST consolidated all cruise ship activity along the west side of Manhattan, helping make New York City the pre-eminent East



### **New Cargo Dock Premiers in Corpus Christi**

Just two months after it opened for business, the Port of Corpus Christi has already handled three heavy lift projects and its first shipment of containers over its new \$17 million multi-purpose dock.

Cargo Dock 8, touted as one of the premier cargo handling facilities on the Gulf of Mexico, hosted its first shipment in early May when the *M/V Fairmast* (shown above) became the first vessel to load project cargo. The heavy lift project consisted of copper processing equipment bound for Chile. Dock 8 hosted its second ship in early June when the *M/V Baltimar Euros* also loaded cargo destined for Chile. This shipment consisted of heavy lift cargo and a total of 73 containers, the first to move over the new dock. In late June, the *M/V Barde Team* discharged 2,000 tons of cargo, including a 225 metric

ton heat exchanger bound for Mexico.

In late June, the port's new Manitowoc M250 mobile crane began arriving at the port. The crane has a lifting capacity of 275 tons (250 metric) and a productivity rate of up to 20 container moves per hour for offloading. Workers began assembling the huge crane in early July and it lifted its first cargo, empty containers which were subsequently loaded with bagged agricultural products and shipped to Haiti, shortly after.

The new dock is 865 feet by 188 feet, and has 163,000 square feet of open concrete. It boasts an allowable deck strength of 1,500 pounds per square foot, ideal for large, heavy project cargo. In addition to containers and project cargo, Dock 8 can handle military cargo, Ro/Ro cargo and other types of break bulk cargo.

Coast cruise ship port.

Since that time, there has been an overall decline in the numbers of ships and passengers sailing from the port, and the terminal currently operates at a loss. The deterioration of cruise activity in the region is attributable largely to the growth of the airline industry, which virtually eliminated trans-Atlantic ship travel, and the dramatic growth in cruise ship activity at Florida ports and in the Caribbean. Cruise travel through New York City declined to 315,000 passengers in 1991 from a high of about 800,000 in late 1960s.

Cruise ships use the PST primarily during the summer. During the remainder of the year, operators of trade shows and other events use the terminal's large exhibition space. The adjacent Pier 94 is an underused cargo pier with a very large, column-free space, "a rare commodity in the city," according to Alexander Cooper of Cooper, Robertson. "The available space, the nucleus of activities already present at the piers, and their potential for wider use make the terminal and Pier 94 an excellent development opportunity," he said.

Cooper, Robertson will develop a plan for a financially self-sustaining facility that will maintain and enhance the cruise ship industry, create jobs and provide public access to the waterfront. The consultant also will consider the potential for expanding current activities as well as identify other complementary uses for the site, especially maritime and water-related uses.

The New York City Economic Development Corporation is a not-for-profit corporation created through the merger of the Public Development Corporation, established by a Mayoral Executive Order some 25 years ago to serve as a flexible instrument to promote and assist economic development, and the Financial Services Corporation, the city's economic development financing arm. EDC is the city's lead agent for commercial, industrial and waterfront development. EDC can structure and administer transactions, serving as the city's financing arm for economic development and having the capacity to package various federal, state and city financial assistance programs.

The Port Authority of New York and New Jersey, founded in 1921, is a self-supporting agency of the two states

charged with developing and operating airports, seaports and transportation facilities vital to the bistate metropolitan region, and promoting the commerce of the Port. In addition to the Passenger Ship Terminal, it operates John F. Kennedy, LaGuardia and Newark International airports; marine terminals in Newark, Elizabeth and Brooklyn; the George Washington Bridge; the Lincoln and Holland tunnels; three bridges joining Staten Island and New Jersey; the PATH interstate rail transit system; two bus terminals in Manhattan; and the World Trade Center.

### **NC State Ports Authority Certified as AMS Center**

"In today's society, we must strive harder to provide improved, accurate service to our customers in a timely manner. To remain competitive in the market, we have to ensure that all facets of our operation are up-to-date," said N.C. State Ports Authority (NCSPA) Director of Business Development, Mr. Robert G. Jacobi. And that is exactly what the North Carolina ports are doing.

In mid-June, 1992, U.S. Customs certified the North Carolina Ports as an Automated Manifest System (AMS) Service Center. It took many hours of hard work to achieve this service, and a series of tests had to be completed before certification. The Information Systems department and the NCSPA Executive Director, Mr. James J. Scott, Jr., want the port to be the best that it can be and automation is a major factor. "Our goal at the NCSPA is to speed up cargo movement and to streamline the flow of information within the shipping community," Mr. Scott said.

According to Mr. Cris Mowrey, NCSPA Director of Information Systems, the availability of AMS will benefit North Carolina ports customers as well as optimize the ports' operation.

"We have used new technology, 'off the shelf' software, and the latest industry standards to put together an AMS capability which is fast and flexible, without tremendous investment in a proprietary port system," Mr. Mowrey said. "We are using General Electric Information Services (GEIS) EDI\*Express as our third party EDI network. Ocean/AMS from NY-

NEX World Trade is the software which communicates with AMS."

"Customers linked to the U.S. Customers AMS can obtain quick cargo release information," Mr. Mowrey added.

"The addition of AMS to our growing list of automation services definitely enhances the North Carolina ports electronic data interchange to its customers," said Mr. Jacobi. "We can also act as an AMS Service Center for our customers which are not AMS certified."

"Manifest data download to the NCSPA will reduce key entry and improve accuracy," Mr. Mowrey concluded.

### **Customer Support For Perishables Facility**

Key customers support the perishables handling and chiller facility at the North Carolina State Ports Authority's Wilmington Terminal, where construction has begun to ready the operation to receive 3 to 4 million cases of imported fruit for the 1992-1993 Chilean fruit season.

Customers who indicate they will bring their business to the perishables handling and chiller facility at Wilmington, North Carolina range from Chilean fruit importers to wholesale food service distributors, brokers and supermarket chains. These customers are located not only within North Carolina, but throughout the United States.

"We are in the process of coordinating the necessary logistics to accommodate and implement discharging of Chilean fresh fruit in the Wilmington Terminal for the upcoming season," said Mr. Andreas P. Economou, General Manager for Unifrutti of America, a Chilean fruit import company out of Philadelphia, PA.

"The decision of the Port of Wilmington, N.C. Board of Directors to complete construction of a Cold Storage facility at the Terminal for the 1992-93 season," he continued, "is of the utmost interest for our continued success in fulfilling our business objectives in North Carolina and the immediate geographical areas."

Unifrutti is a supplier for several supermarket chains in North Carolina and the surrounding area. Support for the Chilean fruit import terminal at

Wilmington has been expressed by the supermarket chains as well.

"With the strong growth in fresh fruit exports from the Southern Hemisphere to the U.S., and the population shifting to the Sunbelt, Food Lion will have better access to all parts of the world and easier distribution by using the import fruit terminal at Wilmington," said Mr. Tom E. Smith, President and CEO of Food Lion. The Salisbury, N.C. based supermarket chain has 880 supermarkets in 12 states.

While customer support grows for the new facility at the Wilmington Terminal, construction also is underway to retrofit 30,000 square feet of an existing warehouse into the chilled products storage facility.

The work began after the N.C. State Ports Authority Board of Directors recently approved contracts totaling \$1.2 million for general construction, refrigeration and electrical work.

The general contractor for the project is Clancy & Theys Construction Company of Wilmington, N.C. The Haskell Company, Jacksonville, FL, will install the refrigeration. Watson Electric Company of Wilson, N.C. was awarded the electrical contract.

In addition to refrigerating 30,000 square feet of warehouse space, plans for the facility at Wilmington call for preparing a dockside warehouse for fruit discharge, fumigation, truck loading and other associated operations.

### **Port Contribution to Redwood City Increased**

The Port of Redwood City is substantially increasing its 1993 voluntary contribution to Redwood City.

Based on solid financial projections, the fiscal year 1993 Port budget provides \$150,000 to be paid to the City's general fund. This 20 percent increase helps reduce the tax burden for all Redwood City taxpayers. It is in addition to the approximately \$600,000 in state and local taxes paid annually by Port businesses.

The increase was announced at a Redwood City Council meeting where Port Commissioner Guy Smith presented the final installment check for the Ports' FY1992 contribution of \$125,000. This will be the third consecutive year in which the Port has increased its voluntary "subvention"

to the City and will increase total contributions to \$800,000.

Lead by record-setting exports of recycled metal, overall Port tonnage topped 420,000 tons at the end of FY1992, the second highest tonnage in 10 years. Bulk cement tonnage rose over 100 percent and the number of ocean-going cargo ships calling at the Port doubled over last year.

Financially, the Port continues to be in the black with a projected net income of \$640,000, representing nearly 26% return on revenues and over an 14% return on land value. The Port also decreased its long term debt by 17.1% or \$502,000. It is budgeted to decrease another 20.8% in FY1993.

*(Currents)*

### **Daniel Island Purchase by Charleston Okd**

**By W. Don Welch**  
Executive Director

The South Carolina State Ports Authority Governing Board has approved the purchase of an 827-acre site on Daniel Island for the location of "Terminal X", the Port of Charleston's fifth seaport terminal.

Following the Authority Board's May 15 decision to acquire the property from the Harry F. Guggenheim Foundation for \$7 million, Authority Board Chairman Robert V. Royall, Jr. described the purchase agreement as "fair to all concerned and one which allows both the Port community and the Guggenheim Foundation to work together for the good of the entire state."

Daniel Island has remained undeveloped in spite of its location in the center of Charleston Harbor because of its inaccessibility. The June opening of the I-526 highway will connect the island to the mainland.

After initial resistance to a port presence on the Island, the Guggenheim Foundation planners included the Port terminal in their development design.

Mr. Royall said, "It is important for us to function as a team with the City of Charleston and the Guggenheim Foundation in the development of this island."

Construction of the new terminal will begin following approximately three years of environmental and engineering studies. The SPA plans to

build the Daniel Island Terminal in stages as the press of business requires. The facility will probably be built in 2,000-foot increments until 8,000 feet of continuous berthing space has been completed over a 15-20 year period.

The Daniel Island terminal property, consisting of 651 acres of high ground and 176 acres of marsh land, will meet the Port's physical expansion and development needs into the 21st century.

The necessity of the new terminal was emphasized to the Authority Board by consultants as early as 1986.

With the Port of Charleston's present annual throughput level of more than 7 million tons already exceeding all consultants' original growth projections, the building of Terminal X is a clearly mandated priority for the Ports Authority. Current throughput projections indicate that more than 20 million tons of cargo will be handled annually at the Port of Charleston by the year 2015, when Terminal X is in full operation.

*(PORT NEWS Port of Charleston)*

### **Africa/Europe**

### **Flying Start for Antwerp; Iron Star Performer**

The port of Antwerp has got off to a flying start in 1992. During the first quarter more than 24.7 million tonnes of goods were handled, 3.5% more than in a comparable period in 1991. Remarkable progress was achieved both for the general cargoes, up by 4.4% and for bulk, up 2.8%.

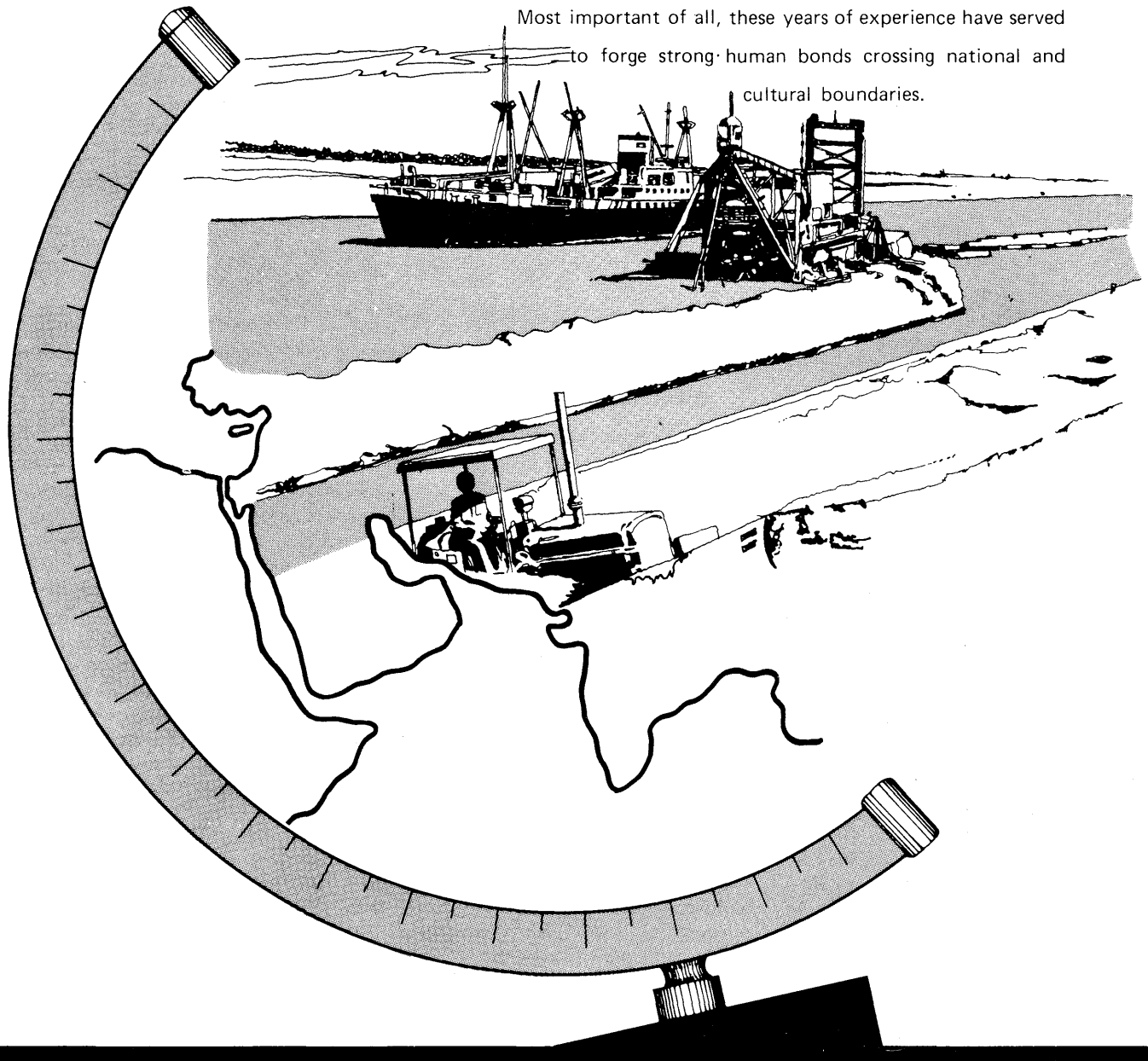
Star performers among the general cargoes include iron and steel, where the 2.4 million tonnes of traffic represents an increase of 14.4% over the first quarter of 1991 and fruit handling where volumes rose a spectacular 23.9%. Forest products (up 12%) and wheeled equipment (up 8.7%) also did extremely well. On the other hand bagged grain plunged by 61.8% and there was a fall of 26.1 in the fertilizer and chemicals trade. Container traffic continued the strong growth of 1991, with a rise of 6% for the quarter.

Turning now to the bulk goods we see a slight decline of crude oil imports (down 6.2%), which, however, is balanced by an equivalent rise in oil der-

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ivates.

Ores weakened by 5.5% while fertilizers slipped 11%. Fortunately these falls were more than compensated for by rises for grains (up 22.7%), coal (up 16%) and tank storage (up 22.1%)

## New Version of Antwerp '51 Rules Now Effective

On June 1992 a new version of the well-known Antwerp 1951 Rules for delivery by lighter to liner vessels, will come into effect. The changes are by and large a modernization and updating of the conditions so that they take account of the technical and commercial developments of recent year. As in the past the Antwerp port community has taken steps to ensure this valuable element in the package of services offered by the port does not fall behind the times.

In recent years it has been noticed that in certain cases the official text of the 1951 Rules was being routinely ignored in ad hoc negotiations between parties. It was also the case that some shipping lines were no longer interested in automatically accepting the general application of the 1951 Rules as such.

It is hoped that the new text will put an end to this situation. The amendments are the result of extended discussions between the local representatives of all parties concerned. In so doing account was to be taken of the legitimate demands of maritime shipping, Rhine shipping and shippers. The result is a package which seeks to strike a harmonious and equitable balance between frequently divergent interests.

## Bordeaux Board OKs Revised '92 Program

The Administrative Board of the Port of Bordeaux Authority met on the 22nd of June under the chairmanship of Mr. Bernard Hanquitez, assisted by the Director General, Mr. André Combeau.

**INVESTMENTS:** Following a major report on the important handling dossier, the administrators were informed of the results of the 1991 financial exercise. In the present difficult context (conjunctural fall in traffic and repeated dock worker conflicts, from October onwards), only very careful management of the company enabled the very heavy investments policy (100



## Six Port Chief Executives in the Same Boat!

No, these IAPH members were not rescued at the last minute from the 17th Conference! Pictured (from left) are D. Jeffery (London), F. Suykens (Antwerp), D. Behrendt (Hamburg), G. Wennergren (Gothenburg), H. Molenaar (Rotterdam) and J. Smagghe (Le Havre), who are also members of an informal working group called North East European Ports. (E. Bruyninckx, the newly-appointed General Manager of Antwerp, who does not appear in the picture, joined the meeting later.)

On the occasion of the annual meeting, they met in Le Havre last May. That was a good opportunity for

Mr. J. Smagghe to present the Port of Le Havre's facilities and to take his guests to the building site for the world's largest bridge, the "Pont de Normandie", under construction on the River Seine estuary. (This bridge will have a span of 856m between two 210m height piles.)

This working group enables its members to exchange views on economic, technical and strategic points, but as all these ports are members of IAPH, some items on the agenda obviously deal with our Association.

(Port of Le Havre News Release of July 3, 1992)

MF/annum) to be continued without recourse to borrowing. The Board then approved a revised 1992 programme which accords priority to access channel improvements at the different port sites and to the renewal of craneage.

**ENVIRONMENT CHARTER:** The Administrators then concentrated on the Port's environment policy. This policy provides, notably, that a synthesis of the studies carried out in the estuary should be drawn up together with an environment charter, the creation of a college of scientific experts, the setting-up of an Environment

Commission to be chaired by an administrator, the introduction of a specific fund and improved concentration with the Public Services. The Board stressed the interest in processing with preventive measures for the protection of sites rather than to palliate alterations to the natural milieu and countryside.

**NEW TRADES:** The members of the Board then gave their approval to the construction of an unloading facility for oil products at Ambès, to be used by the new storage farm, (81,000 m<sup>3</sup> capacity) of a group of independent

oil companies that is due to be brought into service at the end of the year in this sector.

The Administrators also approved the construction of a cement import terminal at Bassens. This project, submitted by the dutch company, NANIP INTERCONTINENTAL will manage a new traffic, initially of 50,000 t/annum, which is expected to increase to 100,000 t over the next two years. It will consist of the construction, alongside the multi-bulk terminal at Bassens-aval, of a flat silo of 2,500 m<sup>2</sup> (7,500 t approx.) capacity, completed by a silo for loading lorries and a bagging station. The shed will be linked by an underground pipeline to a pneumatic cement unloader. Work on the new installations is due to begin this summer while the bringing on stream of the facility is scheduled for early 1993.

### **K Line Opts for Terminal at Le Verdon**

The commercial drive by the Bordeaux Port Community to attract trade to the port is beginning to show results. K LINE, the second Japanese ship-owners (6th worldwide) has opted for the container terminal at Le Verdon, where its vessels are to call weekly, from July 1st.

This is a major event not only for the Port of Bordeaux but equally for the whole of South West France. This decision effectively provides shippers in the region with a regular high quality service to Japan, Hong Kong, Taiwan, Singapore and various ports in South East Asia, via Rotterdam with a very favourable transit time for exporters in Aquitaine.

The new regular link, introduced with German shipowners Rhein Maas und See (RMS) will be provided with three containerships and enable a number of other major ports in Europe (apart from Rotterdam, Bilbao, Lisbon, Leixoes, Felixstowe, Bremerhaven, etc...).

According to Mr. O. Ward, responsible for commercializing the K LINE's intra-European feeder services: "The introduction of calls at Bordeaux constitutes a logical development in our European network and enables us to offer shippers a better service and a direct access to new markets".

By attracting a new line in this way,

to a region of the world that is a leader in respect to economic growth, the Bordeaux Port Community continues to play its role as a privileged tool of the trade in the development of Greater South West France.

### **Le Havre Partners to Mull Docker Agreement**

At the Port of Le Havre, the enforcement of the Law of June 9th, 1992 altering the labour terms in maritime French ports has brought about numerous meetings between industrial partners.

As a conclusion to these meetings, during which the prevailing will was to bring Le Havre's competitiveness into line with that of Antwerp and Rotterdam and to take into account the social aspects related to the problem raised, an agreement was signed on July 10th, 1992. In the short term, this agreement results in a scheme of early retirement or retraining to other jobs for about 950 dockers.

In addition, industrial partners have committed themselves to discussing a new docker collective agreement specific to Le Havre. Their working conditions will be reviewed according to a detailed schedule. The objective aims at implementing the whole scheme on October 1st, 1992.

This agreement was submitted in due course to the Sea Secretary of State. His favourable answer is expected very soon. It is the proof of the will of the Le Havre's port community to reach a successful end. In doing so, the essential economic part played by Le Havre in France and Europe will be strengthened, owing to the high skills of the people working in Le Havre and to the high quality of the port facilities.

### **Russian Mission Inks Engineering Contract**

A large Russian delegation from Arkhangelsk and St Petersburg stayed in the Port of Le Havre on June 1, 2 and 3, inst. After three very busy working days, an engineering contract was signed by the Port of Le Havre Authority which is going to enable the port of Arkhangelsk to enjoy its know-how.

MORFLOT, a Soviet State Company of navigation has split into several independent companies owing to the

events at present undergone by the Commonwealth of Independent States. The North Navigation Company (120 ships) which is based in Arkhangelsk port thus took its direct management in hand. Within this scope, this company plans to develop an oil terminal in the port of Arkhangelsk. There is a twofold purpose to this facility:

- providing fuel supplies to the company fleet,
- making it possible to export Russian oil products.

The main oil terminals being at present located in Baltic ports, Russia wishes to keep its independence in this field which is very significant for its foreign trade, and, the planned facilities thus take on a very particular interest, under these conditions.

The Russian research bureau LENTEP (a branch of the French company TECHNIP) based in St Petersburg, in charge of the engineering aspects of this project, rapidly turned to the Port of Le Havre Authority to appeal to its know-how as far as oil ports are concerned, as the competence of this port in this field is widely acknowledged beyond our borders.

A first agreement was thus signed on June 3rd in the premises of the Port of Le Havre Authority in order to set up a PAH-LENTEP Group.

A second agreement was signed that very day between this Group and the North Navigation Company in order to complete a feasibility study for the planned project. The Russian Shipping Company being in a hurry, for the reasons mentioned earlier, the study is to be carried out within a very short time of 2 month.

These signing sessions took place after three days spent in Le Havre, by the Russian Delegation, during which they were shown round the oil facilities of Le Havre. Numerous working sessions with the PAH technicians were also held in order to study the problem raised. Finally, it is worth noting that several French companies were included in the working sessions of these days in order to present their know-how. This is a good start which, we trust, will be followed by many contracts on export.

These days have also offered the opportunity of developing commercial contacts with Arkhangelsk's representatives especially for future trades of timber and hydrocabons.

## Le Havre Remains No. 1 Port for External Trade

The breakdown of the results published by the Customs Board for the year 1991 confirms that Le Havre remains the biggest French port for external seaborne trade with a share of the total trade through the 6 French large autonomous ports increasing from 43.3% in 1990 to 45.2% in 1991.

The Port of Le Havre is thus the only French port recording a continuous rise in its results, for the last five years: 158 billion francs in 1987, 165 billion in 1988, 177 billion in 1989, 182 billion in 1990 and then 194 billion francs in 1991.

Le Havre is also the biggest French port as far as good value is concerned for all the imports (107 billion francs), for imports excluding oil (84 billion francs) and for exports (87 billion francs).

Considering the whole seaborne external trade of France, the Le Havre's share reaches 22.7% in terms of value of goods whereas that of the other five autonomous ports globally reaches 27.6% and the other French ports reaches 22.4%.

These figures will not leave all the world trade operators unconcerned, especially shipowners.

## Catamaran Liner Makes Call in Port of Le Havre

The *Radisson Diamond*, a catamaran liner, was delivered this year, by Rauma Shipyards, in Finland. She is owned by a group of shareholders including the American hotel chain Radisson, the Japanese shipowners Mitsui-Osk, Rauma Shipyards, Finnish and Japanese financial organizations and insurance companies.

The *Radisson Diamond* forms part of a new generation of ships: catamaran ships, whose waterline is reduced compared to standard lines, are built on the SWATH principle ("Small Waterface Area Twin Hull"). Owing to this new design, the *Radisson Diamond* can sail at a speed of 12.5 knots in stormy sea.

132 metres long and 32 metres wide, this ship has a draught of 7.5 metres. She can accommodate 192 crew members and 350 passengers in her 177 cabins.

With Inchcape SSL Shipping Services as Agents, she made a call in the Port of Le Havre on June 20th and 21st, inst., having mainly American passengers on board.

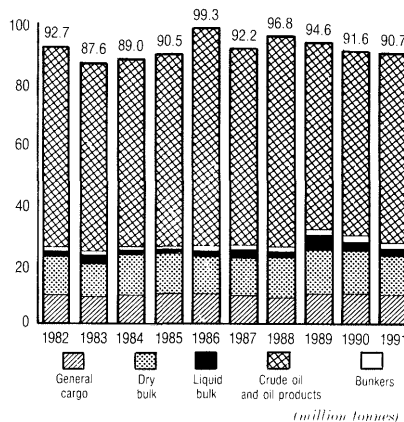
The *Radisson Diamond* which was sailing from Tilbury was due to leave for another cruise between Le Havre and Nice. During this trip, the liner was successively calling in at Saint-Malo, Jersey and Bordeaux.

## Port of Marseilles Results 1991 at Glance

**Global traffic:** With nearly 90.7 million tonnes, Marseilles, first French port and 3rd European port, retains an essential role in European and world trade.

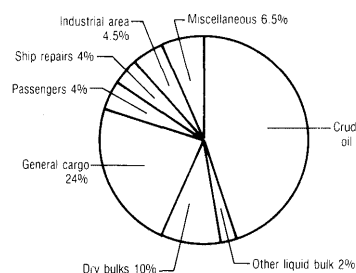
8,909 calls from ships of all kinds link the port to 130 countries, with the aid of 211 maritime services with regular lines (+2%) and numerous tramping calls.

### Evolution of goods categories



**Receipts:** The net turnover of the Port of Marseilles Authority reached 907 million francs, an increase of approximately 1% on 1990.

### Analysis of turnover

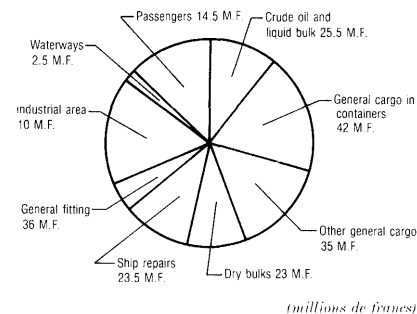


**Investments:** Expenditure on investments has continued to grow in 1991,

reaching 212 million francs.

They have been divided among all sectors of activity, with priority given to containers.

### Analysis of investments



## New Operating System CT III Expansion Phase

Commencement of the Bremerhaven Container Terminal expansion project is scheduled for this year. Work is also to be begun on the deepening of the outer Weser River to 14.5 meters below sea-level. Both measures in combination are intended to secure and to improve the long-term competitiveness of the Bremen ports in the area of container transport.

The extension, of the terminal over 700 meters, corresponding to two berths for large container ships, and the expansion of traffic and stacking area over 800,000 square meters will meet the demand of growth expectation of the future. The deepening of the outer Weser should guarantee super container ships of the 4th generation access to Bremerhaven independent of tidal conditions.

Within the planning process for the CT III expansion phase and with regard to the superstructure, the question of the future operating system was also an especially significant point of focus. The essential requirement outlined by the BLG-Bremer Lagerhaus-Gesellschaft Planning Team was absolute operational flexibility, in order to accommodate over the long-term the exceptionally diverse customer structure of the Bremerhaven terminal.

For the purpose of preparing an optimal operating system for the situation in Bremerhaven, the CT III Planning Team spent two years examining more than 40 possible system options. Shortly a decision was made for what the planners call ISS (Indi-

vidual Service System).

For the planners it was a question not only of securing a rapid running in and out on the water side, but as well, of guaranteeing optimal provisions for truck and rail transport on the land side. In view of these requirements the number of basic operating system conceptions was reduced considerably.

The remaining possibilities were examined in close cooperation with the University of Bremen on the basis of computer simulation and evaluated by a cost model computer program developed by the BLG Planning Team.

The processed result constitutes the Individual Service System (ISS) with van carrier operation on both sides — ship and land — in contrast to the combined system used currently in Bremerhaven which utilizes van carriers and terminal tractors.

ISS offers the possibility for operations tailored to the individual customer and based on the particular need. All van carriers receive their orders per data radio using an advanced development of the previously tried and tested Van Carrier Operating System (VCOS). Cost intensive intermediate handling procedures and waiting periods are reduced considerably. Integral components of the CT III operating system are the newly developed high-performance gantry cranes in the post-panmax format which will be

equipped with two trolley systems.

Eight gantry cranes are planned for the final CT III expansion phase. The new gantry cranes will be equipped with a technical data acquisition system (TDE), with systems for electronic oscillation damping, operationally optimized movement control, and automatic laser monitoring of the stowage profile.

The cranes are directly linked via glass fiber to the central technical supervision system. In addition, updated three-high van carriers will be put into action at the terminal.

These will also be equipped with a technical data acquisition system (TDE) facilitating automatic remote monitoring and diagnostic services by the department of Engineering Operations. In this way a very high level of operational readiness can be attained — essentially, a 24-hour service-free operation.

Furthermore a completely reworked lift system is in the developmental stages. It will work with cable pulls instead of chains — a further contribution to reducing maintenance expenditures. In the past BLG technicians, in cooperation with the manufacturers, have repeatedly accomplished pioneering work toward improvement of the van carrier.

Included here is also a complete reworking from the perspective of environmental protection considerations,

in particular a distinct reduction of fuel consumption as well as progress toward low-noise production.

Bremerhaven is a railway port. About 75% of all transport in long-distance traffic are effected per rail — especially significant in view of environmental aspects. For this reason, extensive investments in the port railway facility are planned for CT III.

In the terminal a 700-meter long, six-track loading zone will be constructed, a system which can, if required, be expanded without problem to eight tracks.

The loading tracks will be linked to the German railway network on both ends. This guarantees a rapid supply and removing within the framework of the direct railway network planned by the German Railways, without shunting delay, regularly scheduled direct trains will then provide Bremerhaven with quick connections to all business centers.

This means not only fast, individualized, customer-oriented operations at the terminal itself but also further optimization of the preliminary and end run transports.

In regard to shorthaul transport, the truck will in future also play a strong role. Within the process of the general growth of container transport via Bremerhaven, truck transport will likewise increase. With a view to this prospect, a new type of so-called Pregate/Truck Yard Facility will be constructed in the area of the entrance to the Overseas Port.

Here customs transactions and central BLG dispatching, including gate service, will be effected. In this way waiting delays and unnecessary truck movements will be avoided.

The truck yard will also be equipped with comfortable rest and refreshment facilities for the truck drivers. In the pregate area delivery and pick up orders for truck transport can already be coordinated. When the truck then takes its chassis place at the terminal, it can be served without delay.

Rounding off the comprehensive service in CT III, a Packing Center with 40,000 square meters surface area will be erected in the terminal. In close operation with the Distribution Centre Bremerhaven offers, as supplement to container handling, an extensive, integrated Distribution Service directly connected to the terminal.





## Neustädter Harbour Proves Its Worth

The "Neustädter Harbour" is the most modern section of the free port in Bremen. Its importance has grown steadily during its 25 years of existence. Even before it was officially opened, containers were being handled in the harbour. Nowadays the Neustädter Harbour is known for high performance handling and distribution of valuable goods and all kind of general cargo.

On 8 June 1967, the Bremen Senate announced: "The Neustädter Harbour, which has been built during the last six years at a cost of 18 million Marks and which will expand the capacity of Bremen's general cargo facilities an additional 30 percent, will be officially opened next Monday." Five hundred guests were expected, in particular consignors from Denmark, Finland, Luxembourg, Norway, Austria, Sweden, and Switzerland.

Bremen's mayor Wilhelm Kaisen had given the go-ahead for construction in November 1960. Planning was based on the steady growth of shipping and cargo volumes toward the end of the fifties. Since space was becoming scarce on the right bank of the Weser River — Germany's economic boom made itself noticeable — a site on the left bank was chosen. Three years after construction began, the entrance of new harbour basin was opened to the river, and the first ships were handled in December 1964.

The port business and the city government had a "good nose" for coming developments and has recognized early on that containers would become increasingly important. This was at a time when some other ports were still dismissing containers as a passing fad. The trend toward containers, which has decisively shaped transportation history since then, was taken into account from the first in the Neustädter Harbour. Thus container handling began there as early as 1 October 1966, when the first container gantry in a German port was put into operation. At the time the first containers began arriving in Bremen in May 1966, it had still been necessary to handle them with the ships' own loading gear.

The following years were marked by continuous expansion of the Harbour, first toward the west, then toward the east. New berths for seagoing ships were built. Warehouses, open storage space, and handling areas were added over the years. At the end of the eighties, the first stage of construction of the Foreign Trade Centre (AHZ) at the end of the Neustädter Harbour was formally opened.

This facility has been planned especially for the distribution of high quality import goods throughout Europe. After completion of the second stage of construction in March of this year, the Foreign Trade Centre now includes a total of 60,000 square metres (over 14.8 acres) of warehouses and around 120,000 square metres (almost 30 acres)

of outside handling and storage space.

In addition, in the last few years the quays and the corresponding superstructure in the Neustädter Harbour were extended to meet rising needs. Almost one million square metres (nearly 250 acres) of outside space, 2.5 kilometres (1.5 miles) of quays, and over 250,000 square metres (over 60 acres) of warehouses now belong to the harbour. Six container gantries, two yard gantries, and 39 cranes guarantee quick and efficient handling. The city of Bremen and the Port Operating Company BLG have invested over 700 million Marks in these facilities.

A major factor determining the success of Bremen's Neustädter Harbour is certainly that it was planned as a multi-purpose terminal. This idea has been and still is the basis of the harbour's high flexibility. The facility provides fast handling of containers and conventional general cargo as well as the transport of complete turnkey industrial plant projects and quick handling of large quantities of general cargo.

## Distribution Facility in Bremen Expanded

The Port Operating Company BLG offers a wide range of services for import and export trade in the Distribution Centre in front of the Neustadt port basin located in Bremen: Distribution is the key word.

Distribution services offered directly in the seaport have become an important competitive factor. These special services have grown at a much higher rate than cargo handling in the ports in general. In order to develop this profitable trend even further, the Distribution Centre has been expanded to cover an area of almost 140,000 square metres.

When the first phase of the Distribution Centre was opened in May 1989, it quickly became evident that BLG's distribution concept was right on target. The market for this service was excellent. So within a few months BLG decided to expand this facility. This expansion has now been complete.

The Distribution Centre now includes buildings covering 60,000 square metres, another 60,000 square metres of outside work areas, and 20,000 square metres of handling area.

Flexibility was a central concept in





planning this special facility. That means that the individual needs of the customers can always be accommodated. The Distribution Centre includes seven different sections for storage, handling and delivery of all kinds of goods.

Some sections are equipped with high stack storages while others have various sizes of conventional shelves. In addition, there are open areas in the Distribution Centre that can be used for processing, packing, or sorting goods.

Asian firms and the German automobile industry are major users of the Distribution Centre. The products distributed here range from high quality computers, TV's, stereos, and car parts to toys, furniture, and consumer goods.

BLG co-operates closely with other companies in the Bremen port business to offer a very wide range of services. Bremen centrally co-ordinates all aspects of transport — from the overseas production plant right up to the European point of sale or the final assembly line. Since every phase of transport is precisely planned, delivery just in time for assembly is common practice. The customers thus save the costs of in plant storage.

Not just the movement of cargo, but the entire data communication for transport is managed centrally in Bremen as well. The computerized logistics system STORE (Stock Report) was developed specially for distribution. With its "TELEPORT" service, the Bremen EDI Service Company dbh guarantees efficient exchange of data worldwide.

### **First Block Trains from Bremen to Prague**

The end of April brought a first in European transportation: the first block train to connect the German ports Bremen and Hamburg with their natural hinterland in the CSFR and Hungary. It was not only the first block train in Eastern Europe, but also the first train to carry swap bodies and trailers as well as containers.

This project took less than seven months from planning to realization. The managing Combined Cargo companies, in this case Kombiverkehr and Hungarokombi, together with the railways DB, DR, CSD, and MAV, were able to put together a competitive offer.

A first, the block train will operate three times a week, but it will be possible to increase the frequency up to daily runs.

Departures from Bremen and Hamburg are planned for Monday, Wednesday, and Friday evenings. Consignments for the Prague region can be picked up at Melnik by noon the next day. The trains will reach Sopron and Budapest early in the morning of the second day after departure.

### **Positive Trend Continues In Container Traffic**

Despite the continuing recession in the world's leading industrialized nations, the Port of Hamburg achieved remarkable growth in container traffic in the first quarter of 1992. 540,244 TEUs were handled in the first three months of this year — an increase of 7% or 35,157 TEUs on the same period last year. The increase in outgoing traffic of loaded containers was a staggering 18.2%.

The most positive developments in container traffic were on the routes to and from the Gulf and Red Sea (exports up 64%), India and Pakistan (imports up 7.1%, exports up 15%), South-East Asia and the Far East (exports up 14%), Scandinavia (imports up 27.3%, exports up 26.3%) and Canada and the Great Lakes (imports up 5.8%).

The end of the Gulf crisis brought a stimulus to the entire Middle East. Some shipping lines have reinforced their presence in the region or established new port calls. Increased demand for machinery, equipment and food has boosted the volume of trade.

The boom in Far Eastern traffic has been brought about by increased exports of chemicals, ironware and industrial goods. Here, too, in recent months new services have been set up or existing services expanded by the introduction of larger ships (incl. some fourth-generation container ships). On the India-Pakistan route the Euro-Asia Consortium increased the frequency of their departures from every 14 days to every 8 days in 1991. The volume of trade received an enormous boost from increased sales of Indian textiles in Germany.

The growth in traffic with Australia was mainly accounted for by food.

Despite the recession in Scandinavia,

Hamburg further strengthened its position as the transit port for this region in the first quarter of this year.

The Port of Hamburg expects another positive development in 1992 with an increase in the volume of cargo handled. However, this will not be as much as the very high growth rates achieved last year.

Nevertheless, in the medium and long term the prospects for the Port of Hamburg are very favourable in view of the imminent creation of the Single European Market, the establishment of a European Economic Region and the increasing integration of Central and Eastern Europe into the international economy.

### **General Cargo Growing Faster Than Bulk**

Hamburg's sea-borne cargo-handling sector continues to grow. In the first quarter of this year the volume of goods handled was 2.1% up on the same period last year. 16,592 m t of cargo passed through the Port of Hamburg in these three months, up from 16,253 m t in 1991. This year's good results are mainly accounted for by strong growth in suction cargoes and container traffic.

In the first quarter of this year grain exports shot up by 273.6% to reach 0.725 m t. Consequently, the suction cargo sector increased by 30.4% to 1.833 m t. Exports of fertilizers (grab cargoes) also grew significantly — by 38.6% to 0.79 m t.

Although the lion's share still comes from western Germany (with around two thirds from Hesse), it is eastern Germany that has played a significant role in this growth. In the liquid cargo sector imports of petroleum products increased by 7%, one result of German reunification. Imports of "other liquid cargoes" (e.g. chemicals and liquid wax) rose by 20.2%.

In the general and bagged cargo sector a total of 7,486 m t was handled, up 3% on last year. The engines of growth were automobiles and containers. The volume of cars handled doubled in the first quarter of this year with the lion's share accounted for by imports from European manufacturers and feeder traffic from Amsterdam.

Imports of timber (up 6.5%) and tropical fruit (up 17.8% — again a result of reunification) also developed fav-

ourably. Container traffic increased to 5,395 m t or 397,556 TEUs, an increase of 9.8% and 6.4% respectively.

A noticeable feature of the increase in container traffic was the 16.7% rise in exports of loaded containers. Each year since 1987 container traffic via the Port of Hamburg has grown faster than the world average. The port on the Elbe is planning for 4 m TEUs by the year 2000.

### **Amsterdam: Increase in Bulk Transshipments**

The first quarter of this year saw an increase in transshipment in the Port of Amsterdam of 21% compared to the first quarter of 1991. In total, 8.6 mln. tons of goods were transshipped.

According to Port Management this growth was mainly due to a substantial rise in the transshipment of dry bulk goods of 56.4% to 5.1 mln. tons.

During the past quarter, 2.7 mln. tons of liquid bulk were transshipped, a difference of -7.8% compared to the first quarter of 1991. General cargo decreased by 14.8% to 756,000 tons.

During the quarter 1,261 sea-going vessels called at the Port of Amsterdam with a total gross capacity of almost 8.9 mln. tons. This meant 11 vessels fewer than the same period last year, but an increase in gross cargo of 0.9 mln. tons.

### **New Opportunities for Romania's Constantza**

Romania's Ministry of Transport is moving quickly to position the Port of Constantza for future opportunities. Constantza has been a major bulk port in the past, serving Romania's steel and chemical industries. These activities are expected to continue. In addition, substantial growth is anticipated in container traffic as Romania's level of containerisation has heretofore been limited.

During the 1980s Constantza ranked amongst the top five ports of Europe (equal to Hamburg in terms of total tonnage). The economic downturn subsequent to the 1989 revolution, however, has severely impacted the port.

Now a number of factors offer considerable promise for Constantza. A national industrial strategy plan envisages the recovery of a number of

Romania's traditionally strong economic activities. New port and shipping legislation has been drafted including provisions for privatisation. And external market prospects are enhanced by the recent creation of a Black Sea zone of economic cooperation and by the completion of the Rhine-Main-Danube Canal in September of this year. (The new trans-European waterway which will result terminates in Constantza harbour.)

To respond to these events, Romania's Ministry of Transport, with financial assistance from the Government of the Netherlands, has commissioned Frederic R. Harris, the international firm of engineers, planners, economists and consultants, to undertake strategic planning for Constantza Port. The Harris team, which also includes the Port of Rotterdam and Coopers & Lybrand Management Consultants, has already presented its initial findings concerning port performance and organisation. It will shortly be submitting recommendations concerning operations, maintenance, spatial allocation, environmental protection and training needs in the Constantza North Port.

Simultaneous with the evaluation of the existing port, new market opportunities are being investigated, including foreign investment in the Free Trade Zone planned for the new southern portion of the harbour. The development of Constantza South Port commenced under the previous government, and the current focus is to optimise the marketability of those berths already completed as well as to define additional strategic investments which may be warranted in order to service new markets and to attract new industries.

The full plan will be completed in early 1993, but neither the Ministry nor prospective port users are hesitating to pursue individuals opportunities as they are identified.

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### **Twin-hulled Cruising Ship Calls at Gothenburg**

The *Radisson Diamond*, a twin-hulled cruising vessel recently delivered by a Finnish yard to US owners, called at Gothenburg during her first week of cruising. The radically-designed, 354-passenger ship berthed at the port's special cruising berths at the Stigberg quay. The *Radisson Diamond* will be heading for the Caribbean cruising market later this year. The ship has a catamaran-type appearance not often seen among ships this size.

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## Gothenburg: First Four Months Promising

The first four months of 1992 reveal promising statistics for the Port of Gothenburg, Scandinavia's No. 1 deep-sea port. The good results are found in traffic statistics as well as in the profits and loss account.

Trade statistics show a six-per-cent increase in general cargo shipments through the port compared with the first four months of 1991. The increase is enjoyed in both imports and exports, but the increase is stronger in exports. Oil shipments are down, however: the tonnage is nine per cent lower than last year, due mostly to a mild winter and stable oil prices (market unrest traditionally increases oil shipments).

Economically, the first four months were a success. Last year, the Port company enjoyed its first year in the black since the mid-80s. The development continues through the first four months of 1992, and it is accentuated as well: the four-month profit was Swedish Kronor 11 million (£1 million, US\$2 million) compared with a loss of 8.9 million for January-through-April last year.

While no dramatic increases are expected in cargo turnover this year, the profit is expected to rise. An important factor behind the economic progress in the company is the decreasing inflation rate in Sweden. Under a sale/lease back agreement, the Port pays a fee for the disposal of 'its' land, quays and buildings, a fee that is based on the prevailing inflation rate. But even if you take away the inflation effect, the Port company is now making a profit.

The Port of Gothenburg is a tax-paying limited company, owned by the City of Gothenburg and operating under the same laws as privately-owned companies. The Port is operated on generated income and receives no subsidies from nation, state, or city.



*Port of Gothenburg machinery surveyor Lennart Wartig showing the location and tiny size of the box-like optical device that aligns container spreader to container on a Port of Gothenburg straddle carrier.*

## Straddle Carrier Operation Made Easier

A prototype of an automatic spreader adjuster is currently being tested on Port of Gothenburg straddle carriers. The device is facilitating the manoeuvring of the lifting spreader and, above all, minimizing body twisting for the driver.

The application is based on an idea by Lennart Wartig, a machinery surveyor with the Port of Gothenburg technical department, and the construction of the prototype has been carried out in-house.

The device is speeding up operations for the experienced driver and facilitating it for the learner. It includes a light-emitting component on the spreader which activates automatic lateral adjustment.

A typical "grabbing" situation sees the driver move the straddle carrier in over the container, adjusting the carrier's position so that he be able to sink the spreader's front twist-locks into the containers' corner fittings. The driver then has to look backwards to the rear end of the spreader to adjust it to that part of the container, an operation that is now being automated. A neck-and-back twisting of nearly 180 degrees is being avoided at each container grabbing.

According to the port's technical department, the system could take care of front end spreader adjustment as well, should this be judged desirable.

## New Fruit Terminal For Port of Southampton

Associated British Ports (ABP) signed a long-term contract with Geest PLC as a result of which Geest will use the port of Southampton for all their imports of bananas into the United Kingdom. Geest are at present located at ABP's South Wales' port of Barry.

Geest will have priority use of the new 9-acre purpose-built terminal to be constructed by ABP alongside deep water at 101 Berth in Southampton's Western Docks. The berth will accommodate the new vessels ordered by Geest, which are too large to use Barry. The move to Southampton will enable Geest to exploit mainland European markets, in addition to the UK, while minimising vessel operating costs.

The new terminal, which will be ready for use early in 1993, will incorporate the latest technology for the temperature-controlled handling and storage of Geest's bananas.

ABP's Managing Director Stuart Bradley said:

"ABP are delighted with Southampton's success in winning this business in the face of strong competition from other ports.

"Geest have been a long-established and valued customer in Barry where they currently enjoy a high standard of service. We shall ensure that this high standard of service is continued, following their move to Southampton.

"Geest's decision to relocate will

obviously be a disappointment to Barry and to ABP's other South Wales ports. ABP remain committed to developing all aspects of our activities at Barry. We shall be seeking new customers for the port, in association with Barry Stevedores Limited, the independent stevedoring company which handles the Geest traffic.

"As a former Manager at Barry, I have every confidence in the future of the port."

## Research Consultancy Moving Its Premises

Associated British Ports' (ABP) wholly-owned research subsidiary, ABP Research Consultancy Ltd., is moving premises to a specially commissioned site at Southampton.

Work has begun on a new office and laboratory complex on the ABP Southampton estate close to Ocean Gate, the port administration building. Construction and design is being handled by Brazier Design and Build who were also responsible for the Ocean Gate building completed last year.

Covering 4,500 square metres, the complex will comprise office and laboratory space, including large open tanks for experimental marine research projects.

ABP Research & Consultancy Managing Director, Mr. David Cooper, comments:

"ABP's investment demonstrates the Company's commitment to research, particularly in physical and numerical hydraulic modelling. We also provide hydraulic, dredging and research services from project appraisal to detailed design and look forward to developing these activities at our new premises.

"Southampton is a modern and progressive port and the continued development of the Waterfront will be enhanced by the new research centre."

## Export Grain Boom At Port of Immingham

The reputation of Associated British Ports' port of Immingham as the UK's premier grain-shipping port has been confirmed recently with the loading of 23,000 tonnes of grain for Poland onto the vessel, *Philippine Express*. The cargo brings the aggregate for the 1991/92 shipping season well past the port's record grain tonnage throughput

of 1,413,000 tonnes achieved in 1986/87.

Ferruzzi Trading (UK) Limited operates a 12,500-tonne capacity silo facility at Immingham's 2/3 Quay. Additional holding capacity, in the shape of an 18,000-tonne flat store, was recently added to this facility by leading grain co-operative, Lingrain Limited.

Wm. Gleadell & Sons Limited, a company which pioneered direct over-side loading to large vessels, operates a mobile ship loading facility at Immingham's Berth 7. The company recently acquired two new shareholders — A C Toepfer and SIGMA, the leading French grain co-operative.

Coupled with Wm. Gleadell shipments at Grimsby, the two ports will have, by the end of the current season, handled in excess of 1.5 million tonnes.

Stevedoring for the grain shipments is being carried out by Swallow Stevedores Limited, the company also responsible for the handling of the other bulk traffic at the port.

## Asia/Oceania

### Australian Ports: Reform & Performance

(Reproduced from "AAPA  
ADVISORY")

Maritime reform of Australia's shipping and waterfront industries, including its ports and port authorities, is the focus of a major policy initiative by the Australian Government. This initiative stems from realization that the efficiency and performance of these industries are vital to the economic health and competitiveness of the country's export- and import-dependent sectors.

Of particular concern to the Commonwealth (or national) government when it launched the three-year reform program in June 1989 were "the underlying inefficiencies of the waterfront industry." Among the stated goals was the "pursuit of port authority reform in consultation with the states."

Port authorities in Australia are units of state and territorial government. They range from stand-alone port authorities such as Brisbane and Gladstone in the State of Queensland to more centralized entities such as those

in New South Wales where the major ports authorities (Hunter, Illawarra, and Sydney) are corporate subsidiaries of the State's Maritime Services Board. Thus, ultimate responsibility for port authority reform in Australia rests with the states rather than the Commonwealth government, which has an essentially advisory role.

Late in 1989, a Waterfront Industry Reform Authority was established as an independent public body responsible for development and implementation of an "In-Principle" Agreement negotiated between the Commonwealth Government, stevedoring employers and unions, and the Australian Council of Trade Unions. The Authority Chairman, appointed by the Governor-General, is supported by a secretariat (consisting of nine staff members) and four consultants. Under the agreement, the Authority is required to make periodic progress reports until the termination of its mandate.

Supporting these efforts is the Australian Transport Advisory Council (ATAC), a body established in 1946 by state and Commonwealth governments to review and coordinate various aspects of transport development and administration. ATAC is made up of Commonwealth, state, and territory ministers responsible for transport, roads, and ports and maritime matters.

One product of the ATAC's work has been the development and publication of a series of port authority "performance indicators" designed to assess "the outcome of measures undertaken by state and Northern Territory governments to improve the financial and operational performance of their port authorities." ATAC notes that "the primary purpose of the indicators is to enable the performance of each port to be measured against itself over time." It also warns that, given the differing physical and legal mandates of each port, "comparisons ... using these indicators should be undertaken with extreme caution."

These indicators fall in two general categories:

(1) Financial management indicators that focus on a port authority's utilization of assets and financial stability indicators which "parallel those... provided under normal company reporting provisions"; and

(2) Efficiency indicators "designed to demonstrate the impact on users of

## MAJOR AUSTRALIAN PORTS IN PROFILE

1990/1991 data

PORT	STATE/TERRITORY	PORT AUTHORITY	PORT AUTHORITY REVENUES (1)	PORT AUTHORITY EMPLOYEES	SHIP CALLS	CONTAINER TEUs	TOTAL CARGO (2)	LEADING CARGO COMMODITIES
Adelaide	South Australia	Department of Marine and Harbors of South Australia	\$54.29	454	786	42,600	3.88	Oil products, motor parts and materials, general cargo, livestock, wheat, barley, iron/steel scrap, beer, wine, wool, gypsum, soda ash, cement clinker
Brisbane	Queensland	Port of Brisbane Authority	\$54.70	245	1,607	183,380	16.12	Oil products, metal ores/scrap, transportation equipment, general cargo, grain, paper products
Dampier	Western Australia	Dampier Port Authority	\$2.70	11	1,382	—	51.20	Petroleum products, iron ore, slat, gas condensate, LNG
Darwin	Northern Territory	Darwin Port Authority	\$7.54	77	1,560	3,050	0.84	Petroleum products, cement clinker, sulphur, lead & zinc concentrate, uranium, livestock, frozen meat
Fremantle	Western Australia	Fremantle Port Authority	\$40.76	625	1,495	120,650	16.33	Oil products, chemicals, raw materials, general cargo, mineral fuels
Gladstone	Queensland	Gladstone Port Authority	\$54.71	300	651	—	31.85	Oil products, bauxite, caustic soda, coal, alumina, grain, cement clinker
Hobart	Tasmania	Marine Board of Hobart	\$11.42	60	467	38,190	2.53	Gas/oil products, metals/ores, general cargo, wood, chemicals, paper, vehicles
Melbourne	Victoria	Port of Melbourne Authority	\$144.99	1,366	2,543	648,570	11.38	Oil products, newsprint, cement, general cargo, petroleum products
Newcastle	New South Wales	MSB Hunter Ports Authority	\$ 50.23	233	1,217	3,800	44.84	Iron ore, timber, alumina, coal, wheat, iron/steel, woodchips, aluminum, steel-making inputs
Port Hedland	Western Australia	Port Hedland Port Authority	\$10.93	31	585	67,000	43.09	Iron ore, salt, fuel oil products, general cargo
Port Kembla	New South Wales	MSB Illawarra Ports Authority	\$24.24	106	603	100	24.15	Iron ore, steel-making inputs, coal, coke, wheat, iron/steel
Portland	Victoria	Port of Portland Authority	\$9.56	57	152	—	2.23	Alumina, petroleum products, phosphate rock, grain, woodchips, aluminum ingots
Sydney/ Botany Bay	New South Wales	MSB Sydney Ports Authority	\$123.06	451	2,541	477,400	20.39	Coal, containers, bulk liquids, petroleum products

Notes: (1) Millions of Australian dollars. (2) Millions of "mass" tons.  
Abbreviation: MSB = Maritime Services Board of New South Wales

measures being undertaken to improve the efficiency of port authority operations."

"Financial management indicators" include: (1) Profit Margin; (2) Gross Return on Assets; (3) Debt to Equity Ratio; (4) Current Ratio (e.g., the ratio of current assets at the end of the financial reporting period divided by total current liabilities, which "provides an indication of short term assets available to meet short term liabilities"); (5) Revenue to Assets Ratio (showing total sales generated by each dollar invested in assets); and (6) Gearing Ratio ("the ratio of a port authority's long term debt, consisting of non-current borrowings, financial leases and loan liabilities, divided by total equity including capital, reserves and retained funds... Measures the extent to which the authority is financed by interest bearing debt and hence the "risk" borne by lenders.").

The three "Port Authority Efficiency Indicators" are:

- (1) Operating Cost per Unit of Cargo;
- (2) Operating Cost per Ship Visit;
- and

(3) Average Charges per Unit (a weighted average port authority charge for ISO 20-foot containers, including empties.)

Also developed were a series of "port indicators," which "measure overall port performance in meeting user needs for a speedy, reliable, cost effective transfer point for ships and cargo and ... measure improvements in efficiency and effectiveness of operations in an individual port over time." These indicators address port effectiveness in terms of cargo and ship turnaround, and port efficiency based on the rate of throughput and cargo processed.

These criteria are discussed in greater length in an ATAC report, Port Performance Indicators, which also reports extensive 1990/91 operating data for 28 Australian ports collected and collated by the Association of Australian Port and Marine Authorities. These reports are to be updated every six months. A long-term goal of the ATAC and The Australian Association of Port and Maritime Authorities is to compile March 1992 by the Waterfront Industry Reform Authority.

### Reform Update: Port of Geelong Authority By Peter Morgan

"In common with other Government Business Enterprises, PGA is actively involved in the implementation of a broad economic policy comprising deregulation and liberalization, with emphasis on improving efficiency and reducing costs.

"There is no doubt that considerable potential still exists for improving the contribution that port managers can make to the domestic and international trading section of our economy. "PGA has recently submitted to Government a comprehensive draft corporate plan aimed at forming a new fully incorporated port company by the middle of 1993.

"The Government would own 100% of the shares of that company and would have the option of either partially or completely selling those shares, provided that such action would achieve the end objective of minimum overall costs of moving cargoes through the



port.

"Corporatization is merely an event in the whole process of port reform. PGA happens to believe that it is a very important event and an integral part of our reform activities.

"The vision is to achieve an efficient and competitive port community, with secure, well paid employment for a highly skilled and motivated permanent workforce.

"It all adds up to being cost effective and above all highly productive, thereby optimising the use of both our physical and human resources.

"We in PGA believe that our vision is achievable within the next two years.

"We are well into the reform process, with the potential for real and tangible benefits to our users within our grasp".

*(Portside)*

### **Ability Enhanced to Curb Drug Trafficking**

The ceremony for the conclusion of the Memorandum of Understanding on the Prevention of Smuggling of Drugs (MOU) was held at the Ministry of Finance in Tokyo on June 10, 1992. Mr. Michihiro Yoshida, Director General of the Customs and Tariff Bureau, and representatives of four associations signed the MOUs. Mr. Tsutomu Hata, the Minister of Finance, attended the ceremony to give a congratulatory speech. In his speech the minister said, "Conclusion of the MOUs between the Customs Admin-

istration and leading associations in the areas of sea and air transport, freight forwarders and customs broking will significantly improve Customs' ability to target illicit drug trafficking, and also contribute to strengthening internationally coordinated anti-drug actions."

Following the signing, a message from Mr. T.P. Hayes, Secretary General of the CCC, in honor of this occasion was read out.

The four associations are the Japanese Shipowners' Association (166 members), the Scheduled Airlines Association of Japan (11 members), the Japan Air cargo Forwarders' Association (169 members) and the Japan Customs Brokers' Association (920 members).

The main measures to be taken by the traders are to give more information to Customs, to improve security to prevent the conveyance of drugs, to make it difficult for cargo, etc, to be used for drug smuggling and improve their employees' awareness of drug problems, while Customs will give advice to the traders to encourage and promote their cooperation.

This initiative follows a project of the Customs Co-operation Council (CCC). At the London Economic Summit in July 1991, the Heads of the Group of Seven Governments invited the CCC, which represents 113 Customs Administrations, to "strengthen its cooperation with associations of in-

ternational traders and carriers.... to improve the capacity of law enforcement agencies to target illicit drug movements without hindering the legitimate circulation of persons and goods, and to produce a report before their next Summit." In response to this invitation, the CCC has undertaken the project in collaboration with member administrations and international traders and carriers, to promote and improve cooperation in this field. The consensus of all the parties is that co-operation between Customs and the traders through MOUs is the most effective and appropriate, and this will be indicated in the CCC's report to the next G7 Summit.

### **Nagoya: New Traffic Control Info System**

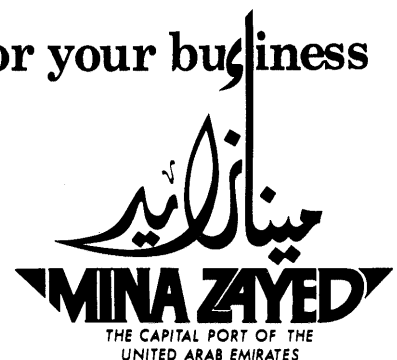
Construction of a new high-tech traffic control information center monitoring the maritime traffic conditions around the port will commence this year on Kinjo Pier. The center, a glassed triangular pyramid-like structure, is scheduled for completion in 1994.

At present, ship movements are monitored visually from two signal stations near the high tide breakwater. When the center is completed, monitoring by remote-operated cameras and a comprehensive information service by computerized data control will become possible. Signals will be indicated on a large electrical board.

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## Container Traffic in Japan in 1991

Source: Planning Division, Bureau of Ports and Harbours, MOT, Japan (August 1992)

Port	TONNAGE (Freight ton)			NUMBER OF BOXES (TEU)						
	Total	Export	Import	Total	Export	Import	Export Loaded	Import Loaded	Export Empty	Import Empty
Tomakomai	341,220	151,580	189,635	32,627	16,019	16,608	11,181	14,282	4,838	2,326
Muroran	20,063	8,664	11,399	1,634	755	879	669	879	86	0
Hitachi	60,673	33,397	27,276	6,559	3,268	3,291	3,268	2,697	0	594
TOKYO	21,897,535	10,237,936	11,659,599	1,528,759	737,729	791,030	610,865	712,942	126,864	78,088
YOKOHAMA	25,289,439	14,061,700	11,227,729	1,782,242	929,097	860,145	780,859	742,146	141,238	117,999
Shimizu	2,755,806	2,014,088	741,718	188,191	99,084	89,107	94,644	57,626	4,440	31,481
NAGOYA	17,397,520	10,213,410	7,184,110	1,001,055	506,631	494,424	441,720	387,238	64,911	107,186
YOKKAICHI	253,223	79,968	173,255	14,803	5,357	9,446	3,739	7,247	1,618	2,199
OSAKA	9,786,612	4,343,073	5,443,539	560,081	268,691	291,390	207,829	275,893	60,862	15,497
KOBE	38,925,825	20,818,366	18,107,459	2,428,286	1,206,117	1,222,169	1,056,730	1,084,702	149,387	137,467
Hiroshima	286,398	254,762	31,636	23,001	10,227	12,774	10,199	1,285	28	11,489
Imabari	11,200	5,636	5,564	447	230	217	230	217	0	0
Niigata	231,055	109,612	121,443	15,639	7,347	8,292	5,224	5,510	2,123	2,782
Fushiki-Toyama	132,623	79,197	53,426	8,741	4,509	4,232	3,990	2,599	519	1,633
Kanazawa	36,740	17,353	19,387	3,380	1,825	1,555	1,392	1,340	433	215
Tsuruga	12,802	8,344	4,458	890	501	389	429	230	72	159
Maizuru	36,373	10,833	25,540	2,215	1,158	1,057	622	1,057	536	0
Sakai, Tottori	31,198	29,507	1,691	3,866	1,976	1,890	1,972	172	4	1,718
Tokuyama-Kudamatsu	133,836	112,275	21,561	9,167	5,223	3,944	5,196	1,117	27	2,827
Mitajiri-Nakanoseki	198,349	176,594	21,755	18,385	9,250	9,135	8,007	1,243	1,243	7,892
Shimonoseki	777,501	234,620	542,881	43,210	20,393	22,817	9,737	21,519	10,656	1,298
Kitakyushu	2,716,248	1,266,836	1,449,412	168,793	80,698	88,095	57,664	77,355	23,034	10,740
Hakata	2,470,524	1,010,611	1,459,913	114,802	52,975	61,827	37,362	53,081	16,613	8,746
Shibushi	28,520	13,815	14,705	1,917	1,041	876	1,041	876	0	0
Naha	747,410	114,940	632,470	51,292	19,603	31,689	5,751	31,626	13,852	63
Ishigaki	3,019	103	2,916	217	6	211	6	211	0	0
All Japan	124,581,712	65,407,225	59,174,487	8,010,199	3,982,710	4,027,489	3,360,326	3,485,090	622,384	542,399
1000 Ratio over prv YR	1084	1050	1126	1092	1090	1094	1070	1118	1214	0960
MAJOR PORTS*	113,550,154	59,754,453	53,795,701	7,315,226	3,646,622	3,668,604	3,101,742	3,210,168	544,880	458,436
10 x % against all Japan	911	914	909	913	916	911	923	921	875	845
1000 Ratio over prv YR	1071	1036	1112	1081	1079	1084	1061	1108	1189	0942
Export/Import Ratio	100.0	52.6	47.4	100.0	49.8	50.2	49.1	50.9	54.3	45.7
Local Ports	11,031,558	5,652,772	5,378,786	694,973	336,088	358,885	258,584	274,922	77,504	83,963
10 x % over all Japan	89	86	91	87	84	89	77	79	125	155
1000 Ratio over '90	1247	1217	1280	1218	1225	1208	1189	1258	1416	1076
Export/Import Ratio	100.0	51.2	48.8	100.0	48.4	51.6	48.5	51.5	48.0	52.0

Notes: (1) Inclusive of transshipment and tramp services as well. (2) Data was collected from the ports concerned by the MOT hearings.

\*: Ports are listed in the order as adopted by the traditional practices (from north to south, in short). The names of ports in the 3 Bay Areas—the Bays of Tokyo (TOKYO and YOKOHAMA), Ise (NAGOYA and YOKKAICHI) and Osaka (OSAKA and KOBE)—are capitalized in the list.

Since a considerable number of ships, including large vessels, navigate in the Kinjo Pier area, the completion of the center is expected to contribute greatly to further safety assurance.

(Nagoya Port News)

### New Air Cargo Terminal For Yokohama Pier

In August 1992, a new Yokohama Air Cargo Terminal (YAT) will open on Yamashita Pier. It will be the port's first facility exclusively for air cargo. Yokohama City invested ¥2.5 billion on the construction, which has been in progress since 1991.

When opened, YAT will consist of sheds for customs clearance, storage and cargo sorting and offices for processing customs data using the Air-NACCS (Nippon Automated

Cargo Clearance System) computerized network. It will be a major base linking the New Tokyo International Airport at Narita with the hinterland.

The Port of Yokohama began air cargo operations at Shinko Pier in April 1989, taking the port city at one leap into a comprehensive air cargo operation. Over the ensuing three years, air cargo volume has increased steadily.

More than 20 customs brokers, airlines and air cargo agents, including the Yokohama Air Cargo Terminal Corporation which will be responsible for administration of the facility, will have offices in the center.

In 1991, 12,000 tons of air cargo passed through the Yokohama Air Cargo Terminal.

The opening of the new facility at Yamashita Pier is expected to increase

this figure three to four times.

With a large consuming population in the hinterland, with leading industries adjacent to the port, and with expanding globalization providing added stimulation, much is expected of YAT in the future. Specifications: Land area — 6,172 square meters. Structure — Steel frame, 4 stories (sheds) and 7 stories (office building). Construction area — 3,102 sq meters. Total floor space — 9,690 sq meters. (Port News)

### Sri Lanka Inaugurates Work on Stage III of JCT

(Excerpted from the address made by Mr. Frank Wickramasinghe, Chairman, Sri Lanka Ports Authority)

In the annals of SLPA and more

specifically the Colombo Port, this is indeed a historic occasion. The first step is being taken to augment the facilities now available at the JCT by the construction of an additional berth of 360 metres plus 160 metres of the Stage IV. This deep water berth and the back up yard area will enhance the present handling capacity by another 350,000 containers.

Berth No. 1 of this terminal became operational in August 1985 and Berth No. 2 was commissioned in March '87. This fully equipped multi berth terminal has enabled the Colombo Port to serve the fast growing demands of container traffic and function as a pivotal port handling transshipment in the region. It is with the completion of these two berths that the container volumes increased rapidly culminating in the Colombo Port achieving a throughput of 628,485 TEUs in 1988.

The year 1989, beset with internal unrest, was a lean one at 551,810 TEUs. 1990 was a year of recovery but unfortunately the events in the Gulf affected performance, ending the year at 595,356 TEUs. As of now the indications are that we will surpass the 1988 performance. As at end of September Colombo Port has handled 500,353 TEUs, which is more than for the corresponding period in 1988, the peak year.

It is the facilities that you see around us that enabled the Port to achieve this progress - this performance. For the construction of these facilities, the funding was through long term loans provided by OECF Japan, which is a prominent factor in the development of this Terminal. OECF has had and continues to have confidence in the SLPA as a credit worthy borrower. In this respect I wish to mention here the note worthy financial performance of the SLPA in the recent past. During the year ended 1990 the operational revenue at Rs. 3.204 billion was an increase of 24% over 1989 and 36% over 1988 and this year too this trend is continuing.

The SLPA is a self-financing Institution functioning on a commercial basis without recourse to funds provided by the Central Government. The income generated by the SLPA, in addition to meeting the wages and salaries of the workforce, maintains the ports and harbours under its authority,

providing the necessary equipment and facilities.

The Development Projects undertaken by the SLPA at present include Port Access Road at a cost of Rs. 400 million, paving of the QCT at Rs. 268 million and the construction of Stage 111 of the Jaya Container Terminal at Rs. 4,948 million, which adds up to Rs. 4,616 million in capital investment. The Master Plan for the development of the Galle Port is being finalised with assistance from JICA and it is envisaged that the construction of a 1200 metre breakwater to enclose the Galle Bay of 370 hectares will commence when funding arrangements are finalised.

In this context, it is necessary for the SLPA to increase its revenue in order to meet its commitments and continue the development of the commercial ports of Sri Lanka. It is a known fact that an efficient Port attracts its own business and Colombo Port today is acknowledged as an efficient port in this region. We are confident that with the additional facilities now under construction we will achieve our objective. Today, in the Colombo Port, demand has overtaken capacity and, with the liberalized shipping policy, Colombo Port continues to attract business and new Lines are waiting knocking at the door.

With regard to the efficiency of the container handling operations, JCT has handled about 200,000 TEU's at each berth annually and this figure is more than the average handled by container terminals in neighbouring countries.

The inauguration of the construction of the JCT 111 is opportune and augurs well for the future and there is no doubt that the Port of Colombo will enhance its position as one of the leading container ports of the world.

*(Sri Lanka Ports News)*

### **Bulk Terminal Operation At Laem Chabang Port**

Port Authority of Thailand (PAT) has reached agreement with two companies on the two bulk terminal operation at Laem Chabang Port.

According to PAT's director-general Vice Admiral Somnuk Debaval, R.T.N., the two companies are the Ao Thai Warehouse Co and the Universal Coal Co. Ao Thai Warehouse, which is a group of many sugar manufacturers and trading firm, will concentrate on

sugar exports at Terminal VI. Universal Coal will focus on importing coal at Terminal VII. They are allowed a lease of 25 years and expect to handle the cargo volume of 400,000 tons and 800,000 tons at the first year and increase to 700,000 and three million tons respectively within the concession period.

The two companies accept all conditions offered by PAT, which comprise increasing their minimum payments in exchange for the rights to operate the terminals and giving additional profit if the actual cargo volume surpasses the minimum volume expected. Moreover, they also agreed to follow the pollution control and environment protection measures set by the National Environment Board. Contracts are expected to be signed soon.

### **Singapore and Adelaide: Closer Co-operation**

The PSA and the Port of Adelaide have signed a Memorandum for closer Co-operation to promote the Port of Singapore as the International Transport Hub and the Port of Adelaide as Australia's Regional Transport Hub for containerised cargo.

The Memorandum was signed by CDRE (Res) James Leo, Executive Director, PSA and Hon. R J Gregory, Minister of Marine, South Australia at the PSA Building on 27 Jul 92 at 12.30pm.

It defines the basis for co-operation of the two ports on two counts:

(i) the promotion of direct Adelaide-Singapore shipping links for the movement of relay cargo through the Port of Singapore to/from the Port of Adelaide. This will be promoted through PSA's Market Development Scheme, which comprises a rebate programme to encourage shipping lines to start new point to point container shipping services between Singapore and Adelaide.

(ii) the establishment of electronic data interchange (EDI) links to exchange Ship Arrival and Departure Information as well as Container Loading Information.

With this closer co-operation between the two ports, shippers can look forward to just-in-time shipping as well as more shipping services between Singapore and Australia in the near future.



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