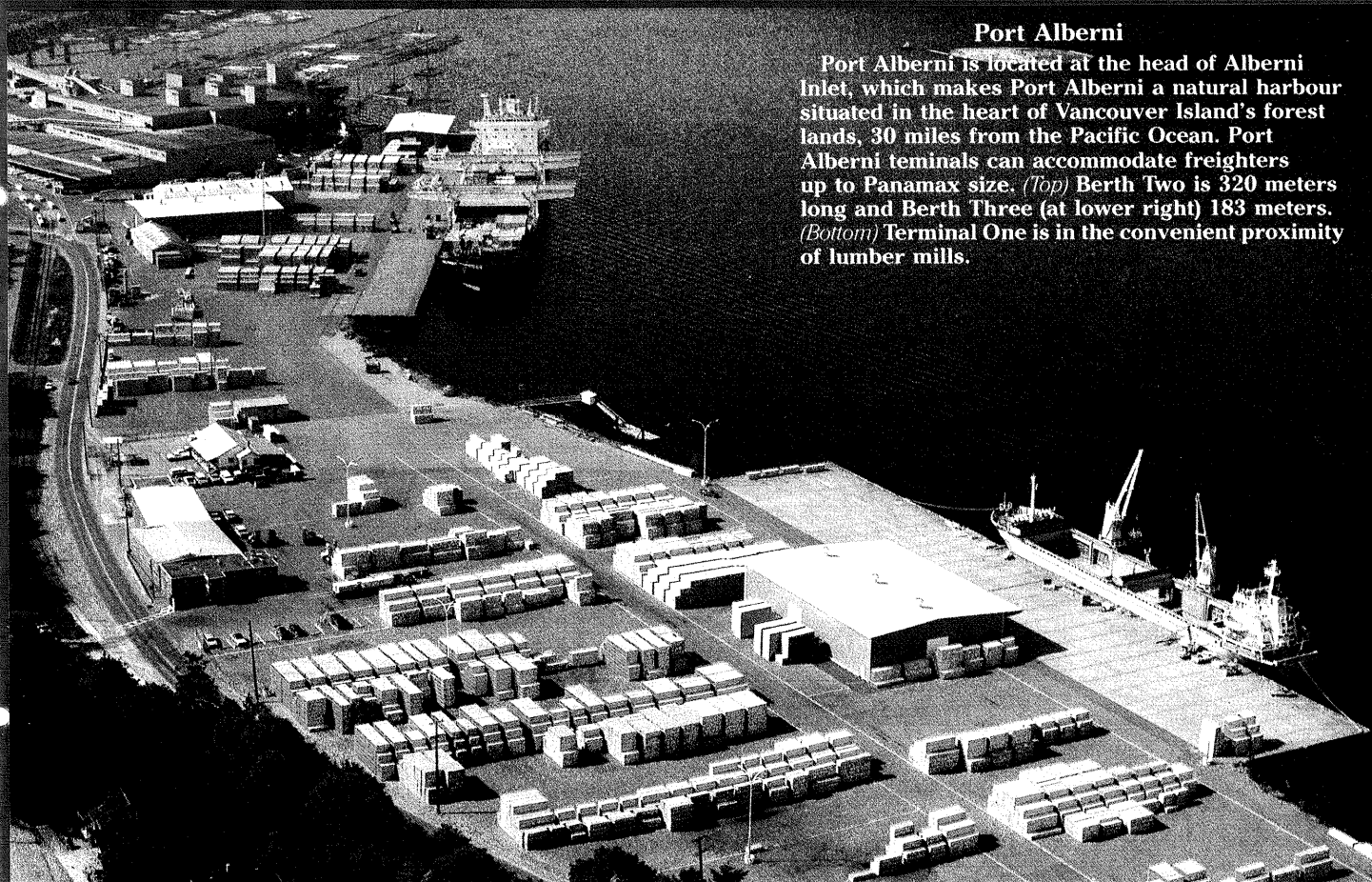


Ports & Harbors

March
1990
Vol. 35 No. 2

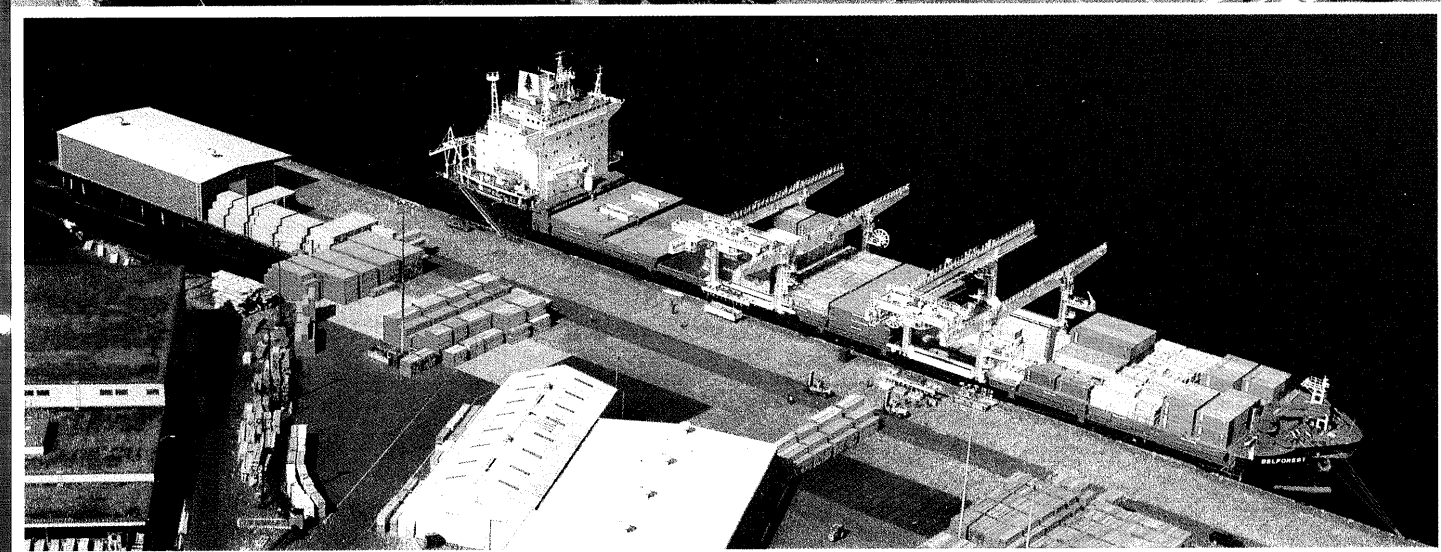


The Publisher
The International Association of
Ports and Harbors



Port Alberni

Port Alberni is located at the head of Alberni Inlet, which makes Port Alberni a natural harbour situated in the heart of Vancouver Island's forest lands, 30 miles from the Pacific Ocean. Port Alberni terminals can accommodate freighters up to Panamax size. (Top) Berth Two is 320 meters long and Berth Three (at lower right) 183 meters. (Bottom) Terminal One is in the convenient proximity of lumber mills.



**International Institute
for Hydraulic and Environmental
Engineering**

in close cooperation with the Port Authorities of Amsterdam and Rotterdam and with the support of the Netherlands Ministry of Foreign Affairs is organizing

May 7 - June 15, 1990

26th International Seminar on Port Management

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Study tours: Belgium and France.

Language: English.

Application and admission: The seminar is intended for qualified candidates who are confronted with port management problems in their daily activities. Applicants should have at least five years of practice. The number of participants is limited to 35.

Fellowships: A limited number of fellowships will be granted to participants from developing countries by the Netherlands Government. Fellowship applications should be submitted through the Netherlands Diplomatic Representative not later than March 16, 1990. Other fellowship granting organizations are: United Nations, UNCTAD, International Labour Organization (ILO), IMO, IAPH and several other semi-governmental maritime organizations. Candidates from developing countries professionally involved in development projects funded by foreign or multilateral aid (e.g. World Bank) are advised to inquire with the appropriate executing maritime agency whether their participation could be funded from a training component of the overall project budget. Nationals of countries associated with the European Economic Community may apply through the Delegation of the EEC in their country.

Fees and other expenses: Dfl. 4000, which includes tuition fee, travel cost for all study tours and lodging in Belgium and France.

For further information, please contact:
The IHE Registrar, P.O. Box 3015, 2601 DA Delft
The Netherlands

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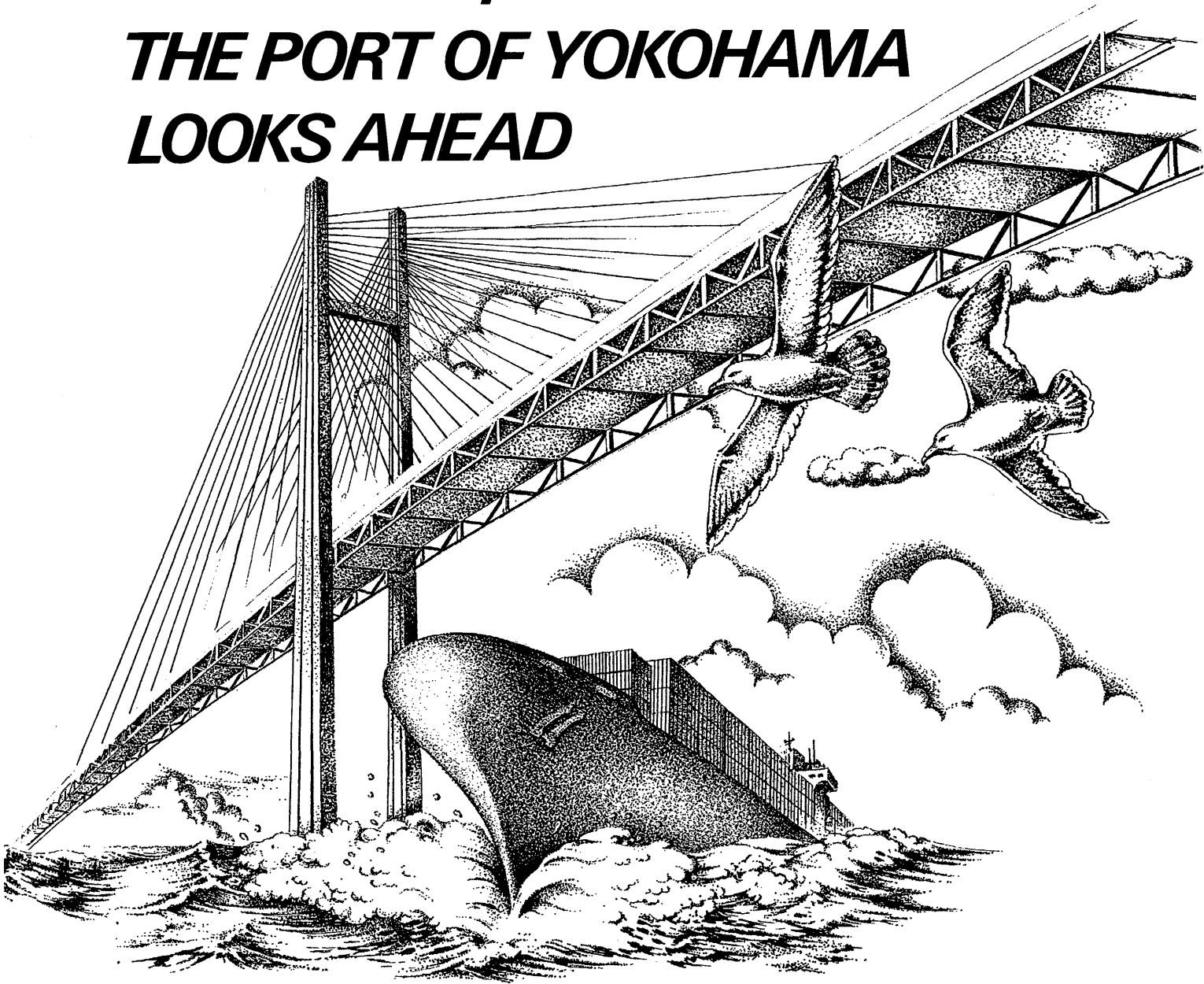
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The Port of Yokohama is at the hub of a steadily expanding worldwide network of shipping services and harbor facilities. Steady advances in port services technology has made it possible for us to increase cargo handling year after year. The Port of Yokohama has the combination of experience and a forward-looking development policy that guarantees fast, reliable and secure shipping services.



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PHONE 045-671-7241 FAX 045-671-7350

Stephen Berger,
Executive Director
Port Authority of
NY & NJ

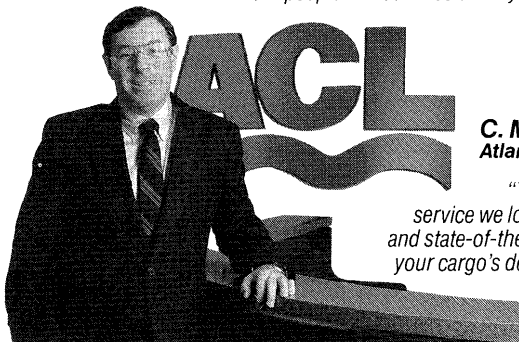
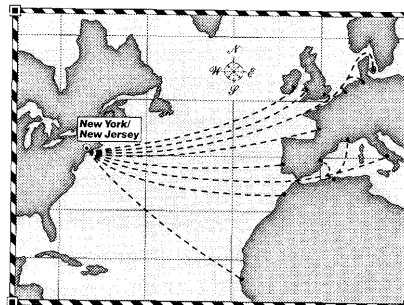
**"Geography
makes us first.
Our people make
us fast. Together
that makes us..."**



Lillian C. Liburdi,
Director
Port Department

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"Nowhere but in the Port of New York-New Jersey will you find the natural advantages of location and the very best facilities combined with solid experience and an unflagging commitment to the special needs of our customers. In the global marketplace, the road to business success passes first through the Port of New York-New Jersey. Let our people and services show you the way."



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"The Port of New York-New Jersey offers six intermodal rail yards with access to a rail network that completely blankets the eastern U.S.—all with double-stack capability! Daily departures, both near- and on-dock access and unlimited drayage keep your cargo on the fast track to the most lucrative consumer markets in the world!"

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Maher Terminals

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Thomas Adamski
East Coast
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ASIAN DEVELOPMENT BANK

Manila, Philippines

The **ASIAN DEVELOPMENT BANK**, a multilateral development finance institution, based in Manila, Philippines is inviting applications from highly qualified professionals for the following position :

PROJECT ENGINEER (PORTS)

The Project Engineer (Ports) is responsible for the engineering aspects related to the identification, preparation, appraisal, review and implementation of port and waterways projects including planning, design, construction and cost estimation with particular emphasis on general cargo and container facilities and port rehabilitation. The Project Engineer (Ports) will also assist in assessing port operations and management to identify required institutional strengthening. Candidates should have at least eight years professional experience in port and harbor engineering, waterways, navigational aids and port operations and management. Experience in project formulation and planning ; feasibility studies ; preliminary engineering ; detailed engineering design ; and construction supervision ; including tendering and procurement is required. Working knowledge of transport economics, transport planning, shipping, port operations, cargo handling and port management is desirable. Proficiency in written and spoken English is essential.

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Interested persons may send their curriculum vitae to : **REF. No. 9004-A, HUMAN RESOURCES DIVISION, ASIAN DEVELOPMENT BANK, P.O.BOX 789, 1099 MANILA, PHILIPPINES.**

Initial enquiries may be sent by telex (Numbers 63587 ADB PN ; 40571 ADB PN ; 23103 ADB PH) or Facsimile Number (632) 741-7961 or by telephoning International Telephone Number (632) 711-3851.



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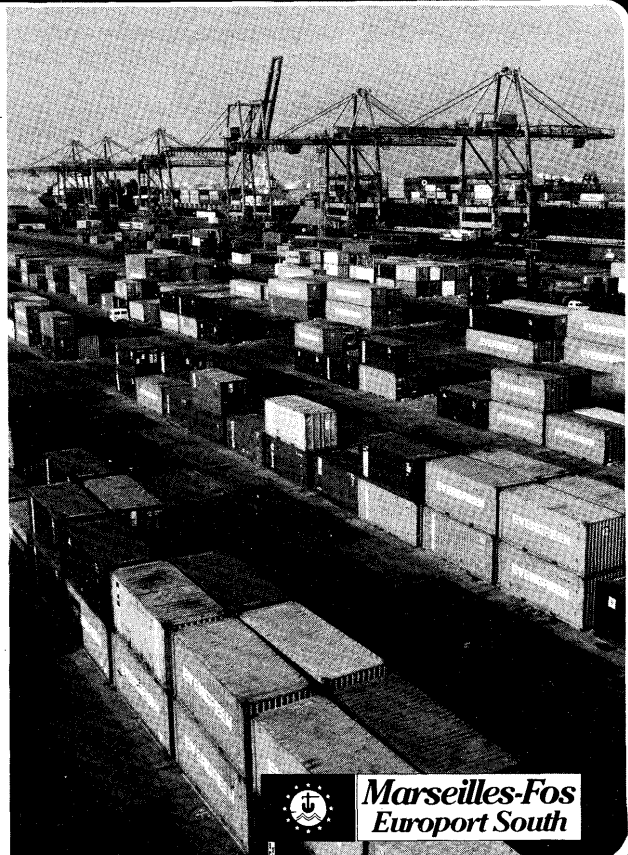
Marseilles-Fos: it is also the best place for your future investment in industry or transportation

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IAPH ANNOUNCEMENTS AND NEWS

EXCO Meeting in Fremantle Drawing Near

Mr. A. T. Poustie, General Manager of Fremantle Port Authority, host for this year's EXCO and other committee meetings, has recently circulated an official registration form to the members concerned. In his letter, Mr. Poustie states, "We look forward to welcoming you to Western Australia in May and to help us with the many and various arrangements, we ask that you send us your early response of your intention to attend, your accommodation deposit and advice of your wishes concerning post-conference activities."

All participants are required to send their registration forms by **March 1, 1990** and to send a deposit of \$100 confirming their booking by **March 15, 1990**. The completed form and check should be sent to the Fremantle Port Authority at the following address:

Mr. A T. Poustie
General Manager
Fremantle Port Authority
1 Cliff Street, Fremantle WA 6160

Accommodation

Rooms have been booked at the Esplanade Hotel - a favorite for visitors to Fremantle. This beautiful colonial style hotel was built in 1897 and extensively renovated and extended for the America's Cup in 1987. It is centrally located with easy access to all Fremantle attractions. The Fremantle Esplanade Hotel is renowned for its luxurious accommodation, excellent amenities and warm, friendly service.

All meetings will be held in-house at the Esplanade Hotel.

Twin Room (2 single beds)	\$85 (per person) per room per night
(single occupancy)	\$130 per room per night
Double Room (1 double bed)	\$170 per room per night
(Prices include breakfast)	

Post Conference Tours

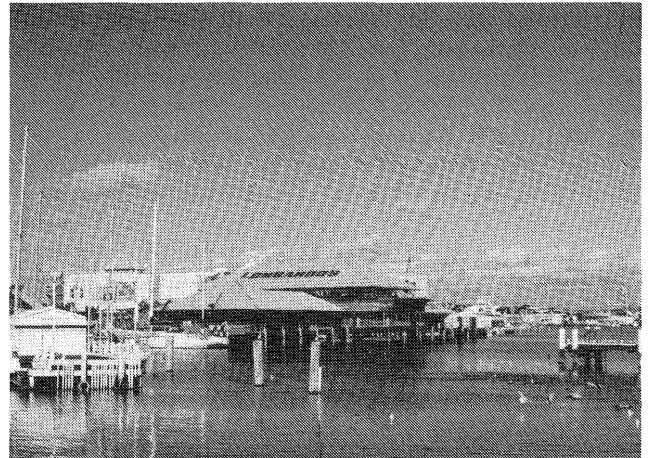
Set out below is a tentative programme and an estimate of costing for the post conference tours.

If you are interested in these tours, please indicate which tour would be preferred.

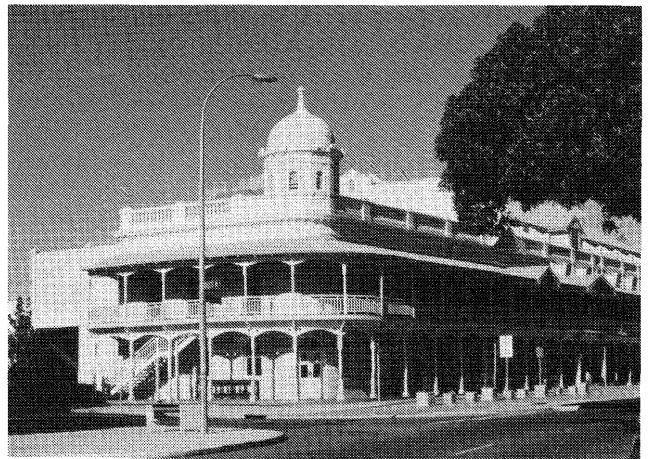
Visit to Southwest

Saturday – Sunday, May 12-13, 1990

Depart for Bunbury Saturday morning visiting the Bunbury Port Authority and Bunbury Art Gallery and



The New Port of Fremantle where the America's Cup events of Summer 1986/87 were held



The Esplanade Hotel



Dining at the riverside

enjoying a comprehensive view of Bunbury while travelling through the picturesque southwest to Dunsborough, Yallingup and the Margaret River. Overnight arrangements will be made at one of these venues. Participants will leave the hotel Sunday morning to be taken to view the coastline and caves, participating in wine-tasting at a vineyard in the Margaret River region. Lunch will be held at one of the vineyards, whereupon the party will return to Fremantle on Sunday afternoon.

Approximate cost \$200 per person including coach travel.

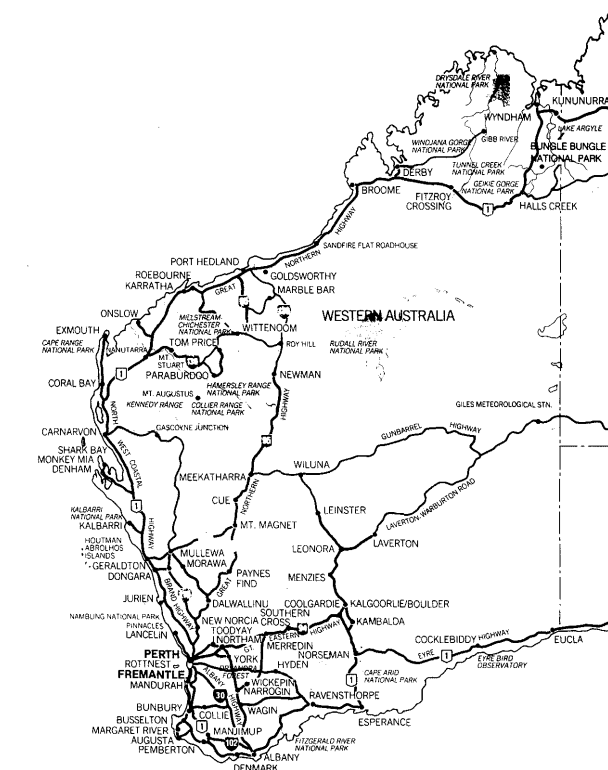
Visit to the Pilbara – Northwest Saturday – Sunday, May 12-13, 1990

Leave Perth Airport to visit the Pilbara District where you will visit the Port Hedland Port Authority and the Goldsworthy Mining Ore Beneficiation Plant at Finucane Island. Depart from Port Hedland for hospitality at the renowned Whim Creek Pub prior to proceeding to the old Port of Cossack where a barbecue luncheon will be held. Proceed to Karratha, where you will stay overnight at the Karratha International Hotel. Sunday you will proceed to the Woolside Petroleum – Liquid Petroleum Gas Project at Burrup, view the Dampier Port and the Hamersley Iron Ore Promotion Centre. Depart from Karratha Airport to return to Fremantle Sunday evening.

Approximate cost \$750 per person including air travel.

Goldrush Explorer 3 days/2 nights Monday – Wednesday, May 14-16, 1990

History abounds in gold-fever country. The interest and excitement starts as you step aboard the "Prospector". Your tour includes the town of Kambalda with its mining and industrial installations and the giant Lake Lefroy. Nickel ore samples are provided with an underground inspection of the Kalgoorlie and Boulder Hainalt Tourist Goldmine, the famous Golden Mile, Boulder Block, Fimiston, Kamballie, Lamington, the Flying Doctor Base, Hammond Park Wildlife Sanctuary, Mt. Charlotte Reservoir and the School of Mines. You will also visit the unique Bush Tow-Up School. On the final day you will tour Coolgardie with its magnificent government buildings. You can visit the Goldfields Exhibition, Fly Flat, the historic cemetery and the ghost suburbs of Toorak and Montana. Meet colorful gold prospectors



and pan for gold. Also visit a Camel Farm. You will depart for Perth in the afternoon.

Approximate Cost \$350 per person including train travel.

The map and pictures by courtesy of Western Australia Tourism Commission in Tokyo

CCC/IAPH Guidelines On Drugs Circulated

A 24-page (A4 size) document entitled "CCC/IAPH GUIDELINES ON CO-OPERATION BETWEEN CUSTOMS ADMINISTRATIONS AND PORTS AIMED AT THE PREVENTION OF DRUG SMUGGLING" was sent to all IAPH members in December from the Tokyo Head Office.

The document was primarily prepared by the CCC (Customs Cooperation Council – Mr. T.P. Hayes, Secretary General, Brussels, Belgium) with concerted actions taken by Mr. F.L.H. Suykens, IAPH Liaison Officer with the CCC, and Mr. J. Raven, IAPH Reporting Expert for the CCC. This is a product of the "Memorandum of Understanding on the Prevention of Drug Smuggling" exchanged between the CCC and IAPH in accordance with the IAPH Resolution adopted at the 15th Conference in Seoul in 1987. Mr. Hayes' indication made at the Miami Conference in 1989 was another element that contributed to the materialization of the document. The guidelines are still at working paper stage, to be further adopted by the Association at its Conference in Spain scheduled for May 1991.

The IAPH Head Office is already in receipt of comments from a number of member ports in support of the guidelines. For furtherance of the guidelines, this office welcomes more in-pu-t concerning the situations in their areas.



Perth, the capital of Western Australia, is 19 km from Fremantle

Environmental Priorities At IAPH Ports Surveyed

In October 1989, the Tokyo Head Office circulated a questionnaire to IAPH members surveying the environmental priorities at their ports. This survey was conducted at the initiative of the Committee on Port & Ship Safety, Environment and Construction (COPSSEC) chaired by Mr. Jean Smaghe of the Port of Le Havre Authority, France.

According to an interim report on the results of the survey, which the Head Office secretariat compiled and submitted to Chairman Smaghe, by January 25, 1990 altogether 150 members out of the 234 recipients of the questionnaire, representing 48 countries had returned the completed forms.

The 11 items listed in the questionnaire which the recipients were asked to number in order of priority were as follows:

- Air pollution
- Dangerous goods (identification, handling, storage, etc.)
- Industrial plant regulations (Seveso, Bhopal, etc.)
- Land/soil contamination
- Noise
- Port-City Relations and the restructuring of derelict areas
- Problems related to dredging operations
- Stench
- Visual contamination
- Wastes (MARPOL, etc.)
- Water pollution
- Other items (Please specify):

The interim report which the Tokyo Head Office sent to Chairman Smaghe, for basis of the Committee's further analysis of the matters at the coming meeting in Fremantle on May 8, 1990, included the following data on the outcome of the survey.

Interim Report on the Survey on the Eleven Environmental Priorities

1. Number of Questionnaire Forms Dispatched: **234**
2. Number of Completed Questionnaire Forms Returned: **150**
3. Geographical Distribution of Respondents:

Algeria	1
Australia	24
Belgium	1
Cameroon	1
Canada	9
China	4
Cyprus	3
Denmark	3
Finland	1
French Polynesia	1
France	6
Gabon	1
Gambia	1
Germany, Fed. Rep. of	1
Greece	2

Hong Kong	1
Indonesia	1
Ireland	3
Israel	1
Japan	8
Kenya	1
Korea	1
Kuwait	2
Malaysia	6
Maldives	1
Netherlands	2
New Zealand	6
Oman	1
Pakistan	1
Panama	3
Portugal	1
Puerto Rico	1
Senegal	1
Singapore	1
Spain	2
Sri Lanka	1
Sudan	1
Sweden	3
Tanzania	1
Thailand	2
Trinidad and Tobago	1
Turkey	2
UAE	4
UK	4
Uruguay	1
USA	25
USSR	1
Yemen, People's Democratic Republic of,	1
Total: (48 countries)	150

4. Tables on the item that is considered to be the most important

Table I

(Total number of respondents assigning priority No.1 to each item)

Item	Priority No 1
Dangerous goods	40
Water pollution	35
Problems related to dredging operations	23
Port-City Relations & restructuring of derelict areas	21
Air pollution	13
Land/soil contamination	8
Wastes (MARPOL, etc.)	7
Other items	6
Visual contamination	5
Industrial plant regulations	4
Noise	2
Stench	2
Total	166

Table II

(Total number of respondents assigning priority Nos. 1 & 2 to each item)

Item	Priorities 1	2	Total
Water pollution	35	30	65
Dangerous goods	40	8	48
Problems related to dredging operations	23	22	45
Port-City Relations & restructuring of derelict areas	21	15	36
Wastes (MARPOL, etc.)	7	19	26
Air pollution	13	10	23
Land/soil contamination	8	13	21
Industrial plant regulations	4	10	14
Other items	6	3	9
Visual contamination	5	4	9
Stench	2	3	5
Noise	2	2	4
Total	166	139	305

Table III

(total number of respondents assigning priority Nos. 1, 2 & 3 to each item)

Item	Priorities 1	2	3	Total
Water pollution	35	30	19	84
Wastes (MARPOL, etc.)	7	19	26	52
Dangerous goods	40	8	0	48
Problems related to dredging operations	23	22	2	47
Port-City Relations & restructuring of derelict areas	21	15	10	46
Air pollution	13	10	20	43
Land/soil contamination	8	13	9	30
Industrial plant regulations	4	10	10	24
Visual contamination	5	4	11	20
Noise	2	2	10	14
Other items	6	3	3	12
Stench	2	3	5	10
Total	166	139	125	430

Note:

Several respondents assigned Priority No.1 to more than one item, bringing the total number for Priority No.1 to 166, while the total number of respondents was 150. On the other hand, a number of respondents did not rank all the items in order of priority, bringing the total for Priority No.2 to 139 and that for Priority No.3 to 125.

Description of "other items" given Priority Nos. 1, 2 or 3 are reproduced hereunder:

- 1) Destruction of intertidal and riparian habitats
- 2) Handling and storage of liquid chemicals
- 3) Balance between the development of coastal areas and the conservation of nature (conservation of the ecosystem: tidal flats, benthos, migratory birds, etc.)
- 4) Pests (flies)
- 5) Trucking and traffic conflicts
- 6) Truck operations in residential zones, loss of wetlands
- 7) Oily waste disposal from workshops of ports
- 8) Traffic congestion
- 9) Traffic

Note: Three respondents did not specify anything under "other items" ..

IPD Fund: Contribution Report US\$15,000 yet to be raised

The on-going campaign which started 20 months ago has reached the 80% level, with contributions from members totaling US\$55,351 as of February 10, 1990. To achieve the targetted amount of US\$ 70,000, we still need to raise US\$14,649. Thus we appeal to all members of IAPH for their generous support of the project, which it is hoped will be brought to fruition before this year's Exco meeting in Fremantle, scheduled for May 6-12.

Contributions to the Special Fund (As of February 10, 1990)

Contributors	Amount Paid: (US\$)
Associated British Ports, UK	3,000
South Carolina State Ports Authority, USA	1,000
Cyprus Ports Authority, Cyprus	700
Japan Port & Harbor Association, Japan	450
Toyo Construction Co., Ltd., Japan	234
Toa Corporation, Japan	500
Port Alberni Harbour Commission, Canada	200
Korea Dredging Corporation, Korea	300
Port Authority of New York & New Jersey, USA	1,000
Vancouver Port Corporation, Canada	1,000
Klang Port Authority, Malaysia	200
Saeki Kensetsu Kogyo Co., Ltd., Japan	250
Penta-Ocean Construction Co., Ltd., Japan	1,000
All French Ports by UPACCIM*	1,560
Shimizu Construction Co., Ltd., Japan	390
Taisei Corporation, Japan	390
Japanese Shipowners' Association, Japan	390
Port of Redwood City, USA	100
Puerto Autonomo de Barcelona, Spain	991
Port Authority of Thailand	100
Port Rashid Authority, UAE	500
Japan Cargo Handling Mechanization Association	390
Obayashi Corporation, Japan	400
Port of Copenhagen Authority, Denmark	1,000
Clyde Port Authority, UK	1,000
Public Port Corporation II, Indonesia	150
Toyama Prefecture, Japan	420
Georgia Ports Authority, USA	1,000
Port of Oakland, USA	350
Kuantan Port Authority, Malaysia	200
Port of Seattle, USA	1,000
Kajima Corporation, Japan	420
Port of Reykjavik, Iceland	500
Canada Ports Corporation, Canada	250
Nigerian Ports Authority, Nigeria	250
Port of Montreal, Canada	1,000
Ports Public Authority, Kuwait	1,000
Tanzania Harbours Authority	200
Junta del Puerto de Gijon, Spain	500
Sharjah Ports Authority, U.A.E.	500
Port of Yokohama, Japan	4,950
Port of Long Beach, USA	1,000
Mauritius Marine Authority	200
Chiba Prefecture, Japan	403
Dr. Frederik K. DeVos, Canada	100
Tokyo Metropolitan Government, Japan	3,941

IAPH members in the Netherlands**	3,209
Mr. Robert W. Innes, Canada	250
Autorite Portuaire Nationale (APN), Haiti	100
Hiroshima Prefecture, Japan	666
City of Kobe, Japan	4,438
Port of Houston, USA	1,000
Port Authority of Fiji, Fiji	300
Osaka Port Terminal Development Corp., Japan	697
Port of Halifax, Canada	300
Nagoya Port Authority, Japan	3,033
Kawasaki City, Japan	1,444
Port of Nanaimo, Canada	200
Niigata Prefecture, Japan	362
Maritime Services Board, N.S.W., Australia	390
Kobe Port Development Corp., Japan	698
Solomon Islands Ports Autho., Solomon Islands	100
Gambia Ports Authority, Gambia	100
7 Ports of New Zealand***	1,000
Cyprus Ports Authority, Cyprus ****	700
Port of Hakata, Japan	985
Total:	US\$ 55,351

* Union of Autonomous Ports & Industrial & Maritime Chamber of Commerce

** Directorate-General of Shipping & Maritime Affairs, Port Management of Rotterdam, Port of Vlissingen, Port of Delfzijl/Eemshaven, Port Management of Amsterdam

*** Ports of Auckland, Port of Napier, Northland Port Corporation, Southport (NZ), Port Taranaki, Port of Tauranga, Port of Wellington

**** Contribution made for the second time in this fund raising term

IAPH Foundation Greets Its 17th Anniv.

The IAPH Foundation was established as a Japanese Corporation on January 31, 1973 to assist IAPH activities financially when IAPH ran into a difficult situation arising from what became known as the first oil shock. The financial



Mr. Shizuo Asada
President
IAPH Foundation

support from the Foundation under the agreement with IAPH continued until IAPH was able to become financially self-sufficient in 1982.

Since IAPH succeeded in achieving financial independence effective from 1982, the Foundation, under the new Agreement, has been continuing its support and assistance to IAPH through its various undertakings, which include the publication of both the Japanese and Spanish versions of IAPH News and Announcements for members in these areas, financial assistance for the IAPH Award Scheme and the dissemination of literature and material on ports from Japan to foreign countries and vice versa.

In recent years the Foundation has been sponsoring seminars for IAPH members in Japan, inviting speakers who represent the host of the following IAPH World Ports Conference. The Foundation plans to organize this year's Japan seminar for sometime in October and intends to invite the key persons from our host for the forthcoming IAPH Conference in Spain, which is scheduled for the first week in May 1991.

In brief, the New Agreement which was concluded on the closing day of the 1981 Conference held in Nagoya stipulates that the Foundation, within the scope of its Articles of Incorporation and its financial capacity, will, upon the request of IAPH, cooperate with the Association to achieve its objectives whenever the Association is affected by circumstances beyond its control, such as financial crises.

The Foundation's current President is Mr. Shizuo Asada (a former President of Japan Air Lines), who took over this post from Mr. Toru Akiyama two years ago.

5th African Port Symposium of the Port Management Association of West and Central Africa

By A.J. Smith
IAPH European Representative

Introduction

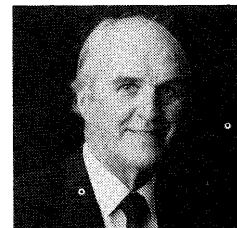
The Port Management Association of West and Central Africa (PMAWCA) is an organ of the Ministerial Conference of West and Central African States dealing with Maritime Transport.

Now 17 years old, PMAWCA is an authoritative and highly respected organisation, as might be expected, in that its membership comprises the leaders of the Ports in the

Sub-Region's 16 Maritime States.

PMAWCA's Symposia provide a forum for the mutual exchange of ideas, experiences and expertise. They are also a medium, as the Association's President says, for "setting things right"!

It was therefore both a privilege, a pleasure, and a most valuable learning experience for me to be able to be present at PMAWCA's 5th African Port Symposium held in Lagos, Nigeria, from 23-27 October 1989, as the official representative of IAPH. From its formal opening in the impressive



Mr. A.J. Smith

National Arts Theatre, Iganmu to the final leave-taking ceremonies at the Palace of the Akran of Badagry the 5th Symposium was an undoubted success.

The credit for that success was due, primarily, to the meticulous preparations of the Organisers, notably the Managing Director of the Nigerian Ports Authority, Major General A Shelleng (Rtd), Mr J M Moulod, President, and Mr P N Njie, the Secretary-General, PMAWCA, and their respective staff. These preparations, in turn, generated an atmosphere in which positive encouragement was given, and readily accepted, for the total involvement of Symposium participants in all of its facets.

Discussions, for example, were remarkably frank and fruitful. There was a confidence — very apparent — that points would be well taken, fully considered and lead to positive conclusions.

In his goodwill message, read to the 5th Symposium, Mr Hiroshi Kusaka, Secretary General, IAPH, stressed the close links already in place between IAPH and PMAWCA. His expressed hope that the two organizations would co-operate even more closely to deal with the many challenges to be faced in the next decade, received a warm, ready and positive response.

Mr Kusaka's wish is very likely to be the father of action, particularly when placed in the context of the theme of the 5th Symposium: "African Ports in the 1990s: Coping with Challenges"; and the conclusions reached in the discussions of the papers presented. Joint efforts will feature significantly in future action programmes.

The Substance of the 5th Symposium

As a general comment, there was unanimous agreement that the presentations were of a high standard. Speakers spanned the so-called North/South divide. That, in turn, allowed an effective, practical and realistic balance to be struck in the extrapolation of respective experiences.

The selected topics of the 5th Symposium were closely interlinked. They reflected current concerns of the ports in the Sub-Region, and the fact that their managements see it as essential and urgent, that they get the right answers to questions which follow, in most cases, from actions which have taken place outside the Sub-Region, but whose effects at local level could be potentially serious and severe. Topics presented were as follows:

Containerisation

Papers included reference to Future Trends in Containerisation with special reference to Post Panamax Era and Multi-modal Transportation; Commercial Risk Factors in Container Terminal Operations and how to share the risk; African Ports confronted with Containerisation Development.

Accepting that containerisations is currently the most efficiently effective cargo packaging system, and that it will be in use for the foreseeable future, the question to be addressed is how to deal with constraints to its facilitation of improved traffic throughout and productivity generally.

Constraints noted, included inadequate facilities and equipment, lack of trained personnel, and the inhibitions of customs, public health and security procedures/ requirements.

There was confirmation of a desire to appraise local circumstances and needs realistically and be flexible in response. It was seen as of the utmost importance that all interested and affected parties should be aware of the ports

underlying objectives in pursuing a policy of containerisation, the better to ensure that their actions and commitments were in furtherance of that goal.

Close and effective cooperation is vital in circumstances where the solutions to problems lie beyond the capabilities of port managements. In these respects dialogue between the parties concerned — even, sometimes, the intervention of outside interests or agencies — can be a positive help.

Port Management and Operation in a Depressed Economy

Papers were presented on the World Bank's Perspective on the Challenges facing the Ports of Less Developed Countries; the Problems of Overcapacity and Obsolescence; Adapting to new Traffic Patterns; and Current Trends in International Trade and their impact on Ports in West and Central Africa.

The Sub-Region's Ports must contend with economic reforms and liberalisation within and between the world's trading nations and blocs; changing trade patterns; advances in local industrialisation; competition; and commodity recessions.

The effects of national and international strategies must be taken account of as, for instance, with Nigeria's own Structural Adjustment Programme, wherein Ports, as public sector enterprises are crucial to the Programme's success.

In this public sector context the search is on for increased efficiency, financial viability and accountability in the use of public funds. Consideration needs to be given to the allocation and utilisation of limited resources and organisational change in the management of same. Corporate planning, with its targets and indicators, is seen as a most important management tool in this regard.

Pollution and Environment Protection

Papers dealt with Sub-Regional Pollution Control; the Dumping of Toxic and Chemical Waste via Ports; French Ports experience in the field of Environmental Protection; and External Cooperation in the case of an Oil Spill Disaster.

The maritime transport industry's decision takers, wherever they are, are becoming increasingly aware of their inescapable commitment to include anti-pollution and environmental protection factors in their development balance sheets.

Moving from their previous defensive and reactive postures, ports are now in the forefront of those best placed to initiate and implement positive steps to mitigate, even eliminate, the possibility of pollution and to protect their environments.

There is recognition that the solution of basic problems will need concerted national and international action. UN and other Agencies, organisations such as PMAWCA and IAPH are key factors in that regard.

At the same time, it is to be expected that the maximum use is made of port operational expertise, of both a judicial and technical nature, in the search for the most effective solutions to the Sub-Region's problems.

In that last regard, there was an emphatic agreement to a proposal made by the writer, in an intervention, that PMAWCA, IAPH and other Port Management Associations should join together, urgently, with UN agencies notably UNEP, IMO and UNCTAD to develop environmental training programmes for developing countries; set standards; establish guidelines for sustainable development; develop accident contingency plans; and give guidance on the se-

lection of pollution control or waste treatment techniques.

Management of Human Resources

The subject matter of the papers presented were wide-ranging and robustly realistic. The 5th Symposium discussed Modern Tools of Personnel Management; Dock Labour Productivity; Retraining and Redeployment in the fact of Rapid Technological Changes.

It was clear that the Port's objectives will determine the nature and direction of the effort put into the management of the Port's human resources. In a narrower context there was particular interest in an approach to maintenance

training and the establishment of what could become more widely known as a Maintenance Culture.

Commercialisation of Ports

Discussions on each of the foregoing subject areas pointed, it seemed to me inexorably, to the need at some level for the application of factors associated with the Commercialisation of Ports.

That in fact appeared to me to be generally regarded as the single most significant issue to be addressed by the

(Continued on Page 12)

Membership Notes:

Membership Notes:

New Members

Regular Members

Port of Wellington Limited (New Zealand)

Address: P.O. Box 794, Wellington

Tel: (04) 728-912

Fax: (04) 499-0720

(Mr. Griff Page, Managing Director)

North Carolina State Ports Authority (U.S.A.)

Address: P.O. Box 9002, Wilmington, NC 28402

Tel: 919/763-1621

Fax: 919/763-4020

Telex: 510 937-0351

(Mr. James J. Scott, Jr., Executive Director)

Changes

Port of Geelong Authority [Regular] (Australia)

Chairman & Chief Executive:

Mr. P.G. Morgan

Deputy Chairman: Mr. R.J. Robb

Commissioner: Mr. M. O'Leary

Harbour Master: Capt. I.S. Edwards

Marketing Manager: Mr. R. Conder

Human Resources Manager:

Ms. G. Rooney

Commercial Manager: Mr. V. Tremaine

Engineering Manager: Mr. J. Murphy

Mechanical Services Manager:

Mr. M.J. McKane

Stevedoring Manager: Capt. K. Kinloch

Secretary: Mr. D. Price

Port of Launceston Authority [Regular] (Australia)

Tel: 003 820 111

Fax: 003 821 695

Telex: AA58640

* They have located at Mobil Road, Bell Bay, Launceston recently. Their postal address remain unchanged as P.O. Box 257C, Launceston, Tasmania 7250

Nanaimo Harbour Commission [Regular] (Canada)

Commissioners: Mr. J.K. (Jack) Fyfe, Chairman

Mr. John R. Deelman

Mr. Arthur W. (Bus) MacDonald

Mr. Gino Sedola

Mr. Alan L. Vance

Port Manager: Mr. W.E. (Bill) Mills

Director of Marketing and Sales:

Mr. A.A. (Andy) Shaw

Business Administrator: Mr. Ian Marr

Harbour Master: Captain Larry Wilson

Nanaimo Assembly Wharf Operations Supervisor:

Mr. Wayne Erickson

Port Alberni Harbour Commission [Regular] (Canada)

Port Manager/Chief Executive Officer:

Mr. D.J. White

Harbour Master: Capt. D.C. Drewe

Administrative Assistant:

Ms. Linda S. Kelsall

Property Administrator:

Mr. D.G. Andow

Treasurer: Ms. Cindy Mah

Terminal Manager: Mr. K.W. Fertuck

Marine Transport Authority [Regular] (Ethiopia)

Planning, Research & Programming:

Mr. Bisrat H. Michael

Assab Port Manager: Mr. Mekonen T. Abe

Massawa Port Manager: Mr. Tsegaye Tegene

Engineering Service: Mr. Tesfaye W. Selassie

Maritime Management (Acting):

Mr. Samson Shiferaw

Legal Service: Mr. Israel Tekle

Tana Transport Office: Mr. Desta Mehretu

Abaya & Chamo Lakes Transport Office:

Mr. Tamerat Teruneh

Baro & Acobo Rivers Transport Office:

Mr. Tadesse Belayneh

Public Relation & Training:

Mr. Teshome Kumlachew

The Swedish Ports Association [Class B] (Sweden)

Address: Nybrokajen 5, 111 48 Stockholm

Department of Maritime Studies, University of Wales

College of Cardiff [Class D] (U.K.)

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Tel: (0222) 874000

Fax: (0222) 874301

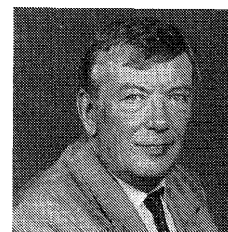
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* Dep. of Maritime Studies, University of Wales Institute of Science and Technology has been changed its name to the above.

OPEN FORUM

European City of Culture Transforms Its Riverside

By **John Mather**
Managing Director
Clyde Port Authority
First Vice-President of IAPH



Mr. J. Mather

(The following article was originally prepared for The Journal of the Glasgow Chamber of Commerce.)

The development of the Clyde as a river of commerce has so intertwined with that of Glasgow down the ages that the fortunes of both have become inseparable. It should be no surprise, therefore, to find that at the same time as Glasgow is receiving the accolade of European City of Culture the river, too, is emerging in a new role.

Before the city was created out of no more than a collection of villages, the Clyde was a salmon river which could be forded in several places: a picturesque area, judging by paintings and prints of the day.

Then came enterprise and industry. Merchants flourished, Glasgow emerged as the nation's second city after

London and the Clyde became the workshop of the Empire with shipbuilding and heavy engineering which were world renowned.

For generations, the upper reaches of the river were a workplace for thousands: a ribbon of dirty water which the majority of the population merely glimpsed from train or tram.

Dereliction followed as traditional riverside industries contracted, or simply disappeared altogether, and large areas of dockland became, as we euphemistically put it, "surplus to operational requirements."

We, in the Clyde Port Authority, had for long recognised the tremendous potential of the river as a focal point for new development, not only to provide jobs but also to create a new and attractive environment in which people could live

African Port Symposium—

(Continued from Page 11)

5th Symposium.

Relevant papers included reference to Going Commercial, the Nigerian Port Authority's Experience; Changing the Mind and Structure in line with Commercialisation; the Experiences of a Commercialised Port in a Developed Country; Experience of a Commercialised Port in the Sub-Region—the Dakar Experience; a Marketing Approach and Diversification of the Revenue Base; the Maghrebion Experience.

By all accounts, the concept of Commercialisation is at least flexible in definition. What was generally agreed was that it was necessary to introduce it in the light of local circumstances.

In the evolution of the concept locally, it was seen as imperative to establish and maintain a dialogue with the port's clients and also with the broader community of parties interested in securing the port's success. It was possible, in doing so, to eliminate misunderstandings and gain the widest possible acceptance for projected action.

Concluding Remarks

I would be remiss were I not to include in this report my personal thanks and sincere appreciation of the kindness and courtesy of all who were associated with the 5th Symposium.

My especial thanks go to Major General A Shelleng (Rtd) and his staff at the Nigerian Ports Authority, Mr P

N Njie and his staff at PMAWCA and particularly to Mr J M Moulod, President of PMAWCA and Managing Director of Abidjan National Port Authority for allowing me the pleasure of participating in the 5th Symposium.

The message in the box below has been received from Mr P N Nijie, Secretary General of the PMAWCA.

Motion of Thanks to Interprofessional Association I.A.P.H.

The Council of the Port Management Association of West and Central Africa (PMAWCA), meeting in Douala, Republic of Cameroon, from 30th November to 6th December, 1989,

- considering the increased interest that IAPH is continually showing towards the PMAWCA,
- considering the effective and more and more regular contribution of IAPH in PMAWCA's activities,
- having noted with satisfaction the message addressed to the 15th Council of the PMAWCA and the effective attendance of some representatives during these meetings,

expresses its satisfaction with the commendable collaboration efforts made and extends its profound gratitude to IAPH.

Done in Douala, 6th December 1989.

as well as work.

The first new riverside development was the construction of the Scottish Exhibition & Conference Centre on the site formerly occupied by Queen's Dock. But credit for focussing much wider attention on the river must go to the Glasgow Garden Festival which allowed countless visitors, and local people alike, to see the Clyde in a completely new light.

And the result has been an explosion of activity on both banks: housing, leisure and business-park facilities fast taking shape on the former festival site to the south; housing at Anderston and Carrick Quays on the north, where the vast Broomielaw office and housing development is also now under way.

The Authority has recently lodged a planning application for a 14-acre site at Yorkhill Quay where we hope to create a business park with high-amenity buildings, suitable for offices and high-tech research and development facilities, set in a landscaped environment.

Several companies have already expressed interest in locating in this area which will be able to accommodate an office population of between 1,000 and 1,500.

There is a jobs potential of almost twice that number at Braehead Riverside, the major site on the south bank between Govan and Renfrew where the Authority, in collaboration with Tarmac Construction, is planning to provide housing, shopping, an "ice world" leisure facility, warehousing and accommodation for businesses.

A public inquiry into our proposals was held last Spring and, at the time of writing, an announcement of the Secretary of State's decision is believed to be imminent.

Together, these projects are transforming the riverside on a scale which has not been witnessed for several centuries. And, thanks to the efforts of the Clyde River Purification Board, even the river itself is coming alive again, too.

Against this background, the role of Glasgow in the world of shipping and shipbuilding has certainly declined in recent years, but these industries remain of considerable importance.

Kvaerner Govan, Yarrow Shipbuilders and UIE are centres of excellence in constructing special-purpose merchant ships, warships and rigs for the offshore oil and gas industries, and Clydeport's remaining operational facilities are providing services which are vital to local importers and exporters.

Demands on our berthage at King George V Dock and Shieldhall Riverside Quay are such that the Authority decided last month to undertake a programme of refurbishing sheds, improving roadways and extending quayside crane rails to increase its capacity.

Steel, project cargoes and bulk cement are the principal commodities handled at this dock complex in Govan.

Across at Clydebank, Rothesay Dock is handling nearly 300,000 tonnes of coal, scrap and salt each year and the throughput looks set to increase.

Meadowside Granary, which closed for lack of traffic a year ago, is being partially re-opened for imports of maize for distilling.

Enquiries from shippers are running at a higher level today than for many years because, since the ending last summer of the Dock Labour Scheme, our new workforce of dock operatives need now be engaged only when their services are required whereas, in the past, dockers had to be paid regardless of whether or not there was work for them to do.

The up-turn in port activity is repeated at Greenock

where our deep-water terminal, constructed originally for container traffic, is now handling an increasing volume of timber and woodpulp from Canada and South America.

Here, too, the Authority has decided to make a substantial investment in new shed accommodation.

At our furthest-seaward facility, Ardrossan Harbour, a £750,000 programme of refurbishment is nearing completion. This will enable the harbour to handle more ro/ro and trailer traffic, as well as greatly enhancing its environment.

Against this background of increasing port activity, coupled with increasing awareness of the port which, because of its extensive land holdings, the port can play in the rejuvenation of Clydeside, the Authority decided two months ago to embark upon its most significant development yet: the promotion of private legislation to change its status from that of a public trust port to a limited company.

This decision was the culmination of a year-long study by a strategic policy group within the Authority who, along with Hill Samuel Bank as Advisors, had been given the task of charting Clydeport's best course for the future.

Their conclusion, supported unanimously by our board, was that the legislation under which Clydeport was created nearly 25 years ago had become an anachronism, no longer suitable for the present day needs of the business.

Quite simply, the framework of the Order of 1965 which defines the Authority's purpose, powers and duties is very restrictive and does not provide us with scope to broaden our business base.

This means, for example, that if we redevelop one of our sites for purposes other than port activities, we should then have to dispose of it, regardless of whether or not it would make better business sense to retain the asset and derive income from it to the benefit of the port.

Two years ago, the Government indicated that it was unwilling to allow public trust ports to increase their commercial powers without, at the same time, increasing their accountability.

So we have taken up this challenge by proposing that we acquire the powers of a limited company and become accountable to shareholders.

Contrary to some press reports indicating that Clydeport shares would be available to the public what we envisage is, in fact, a private company.

I hope that our 350 employees will become shareholders and that we shall have support from Scottish financial institutions, for I believe it is important that decision-making should be focussed here so that we can best serve the needs of our customers and develop the business in the best interests of our employees and the local community.

The legislative procedures by which we hope to achieve the change of status began in November when we lodged a Provisional Order with the Scottish Office. By Spring, the House Authorities at Westminster will have decided on the route it must follow, most likely as a Private Bill.

The timetable thereafter cannot be predicted, but we anticipate that the whole process will take at least 18 months.

Clydeport made history when, back in 1966, it became Britain's first estuarial port authority and we hope that it will do so once again by becoming the first public trust port to be converted to a limited company through Private legislation.

Determination to adapt in a changing world has seen Glasgow flourish and, with it, the Clyde down the ages. That same spirit will secure a prosperous future for both.

Chemical and Physical Approaches for Assessing the Bioavailability of Contaminants in Sediment

Remarks of Willis E. Pequegnat, Ph.D, IAPH science consultant in dredging at the International Seminar on the Environmental Aspects of Dredging, Nantes, France, November 28, 1989

**By Willis E. Pequegnat, Ph.D.
Science Consultant in Dredging**

ABSTRACT

It is becoming increasingly difficult to convince some environmental regulators that the mere presence of a toxic chemical in marine sediments does not necessarily mean that it will adversely impact the biota. Three categories of factors responsible for this lack of serious impacts are related to (1) characteristics of the sediments, (2) characteristics of chemical contaminants, and (3) characteristics of the biota. Details of the factors in each category are presented and their relationship to bioavailability and bioaccumulation are discussed. Also, a brief discussion and critique of recent attempts in the United States to develop numerical sediment quality criteria is provided at the end of the paper.

Introduction

It is becoming increasingly difficult to convince some environmental regulators that the mere presence of a toxic chemical in marine sediments does not necessarily mean that it will adversely impact the biota up to and perhaps including man. Three fundamental factors provide the reasons why such pervasive impacts generally don't occur in such circumstances. The first consideration is how the relationships between contaminant and such constituents of the sediment as clays, humus and metallic hydrous oxides are structured. Generally speaking, we expect these relationships to bind the contaminant to the solid phase and thus reduce its availability. Reductions in bioavailability of this type are primarily accounted for by the characteristics of the sediment, and to a lesser extent by the properties of the contaminant. The second consideration notes that even when the above relationships reduce bioavailability to a low level, it is likely that because of its fugacity some of the contaminant will escape into the liquid phase where it is more available. The degree of this partitioning is ultimately determined by the characteristics of the contaminant under observation. Finally, when the contaminant is bioavailable as a result of partitioning into the aqueous phase, the resulting bioaccumulation may not result in toxicity to the organism or its predator. The physiological controls of the degree of accumulation and impact reduction are accounted for largely by characteristics of the organism and to a lesser extent of the contaminant.

It is manifest from the above that the principal objectives

of this paper should be (1) to describe and evaluate in some detail those characteristics of (a) chemical constituents of dredged sediments, (b) of inorganic and organic contaminants often found in these sediments, and (c) of the biota that account for and control contaminant bioavailability, toxicity, and ultimately bioaccumulation; and (2) to advance the contention that even though huge amounts of dredged material by weight are disposed into the marine environment, its chemical impacts upon the biota of the world ocean have been and continue to be minimal. There are two basic reasons for this lack of demonstrable adverse impacts: first, much of the bottom sediment dredged from channel bars and channels is not considered to be contaminated and, second, even when it is contaminated to ordinary degrees, the factors to be discussed below preclude the occurrence of serious impacts upon the biota.

Perhaps the paramount reason for preparing this paper is the belief that assessments of the status of bioavailability and the potential for bioaccumulation of contaminants in dredged sediments are required for performing evaluations of the ecological impacts of dredging operations. And even more to the point is the belief that no longer should environmental and legal personnel in regulatory positions dealing with dredging be allowed to function without having a basic understanding of the concepts related to bioavailability and bioaccumulation.

Properties of Sediments Controlling Bioavailability

The components of estuarine sediments that reduce the partitioning of contaminants into pore waters are certain clay minerals, humus acids, iron and manganese hydrous oxides, and sulfides. Because many organisms take up chemicals directly from water by a process called bioconcentration, reduction of partitioning results in reduced bioavailability. Reducing bioavailability can control bioaccumulation since that process involves the uptake and storage of chemicals by organisms from food or water. In turn the controlling actions of sediment components and pore waters upon contaminant concentrations will be modified by both pH (acidity/basicity) and Eh (oxidation-reduction potential).

Generally free ions having maximum bioavailability are present in greater abundance at low pH and under high Eh. Under reducing conditions, metals are combined as insoluble sulfides and thus are not bioavailable. Since trace metals are cations, they can also be sorbed to some of the silicate clays, such as montmorillonite, to an extent determined by the cation exchange capacity of the clay. So long as the Eh is reducing and the pH is near neutral, the sorption will persist and the cations are not bioavailable. These are the conditions generally found in sediments to be dredged and after they have been disposed. At the same time and under these conditions, iron and manganese are soluble. If however the sediments are oxidized, hydrous iron and manganese oxides are formed that are insoluble and have

great capacity to adsorb contaminants, reducing their bioavailability. Simultaneously when insoluble sulfides of toxic metals existing under low Eh are oxidized, sulfate is formed and it produces acidic conditions (low pH) that result in freeing of the metal ions. But the process does not end there. The mobilized cations of the metals will be sorbed by the insoluble hydrous oxides, as noted above. The hydrous oxides form amorphous aggregates that contain larger amounts of water and have surface areas for sorption of contaminants that are equal to or larger than those of such expandable clays as montmorillonite. These oxides are effective adsorbers of metals and when sediments are low in humus, they will also adsorb organic contaminants.

Another important contaminant sequestering component of dredged material is the organic complex called humus. It is a heterogeneous mixture composed largely of products resulting from microbial and chemical transformations of organic debris. This is the principal source of sediment's organic carbon where it may constitute anywhere from 1 to 4 percent of harbour sediments. Humus is primarily responsible for sorption of neutral, hydrophobic (limited solubility in water), organic chemicals such as PCBs and PAHs. The humus structure has a very large surface area and, like the clays, bears negative charges that will bind the positive cations of organics. Its sorptive action is extended also because it coats the large inner surfaces of clay particles. Humic compounds are the principal component of the total organic carbon (TOC) measurement made in sediments. This organic carbon acts as an organic solvent and in a sense competes with an animal's lipids for control of any neutral organic compounds present in the sediments. Hence high TOC in the sediment reduces the bioavailability and bioaccumulations potential of contaminants that are lipid soluble.

Properties of Contaminants That Affect Bioavailability

It was noted above that due to fugacity contaminants will partition themselves between solid and liquid phases of a solution complex. Partition coefficients represent the partitioning difference in concentration between the two phases at equilibrium (a dynamic but equal exchange of molecules between the two phases). When the chemical accumulates to higher concentrations in animal tissues, often lipid depots, we speak of the potential difference as the bioaccumulation potential and the actual increase as the bioconcentration factor or BCF for the given compound. For example, the n-octanol/water partition coefficient (Kow) is a constant that describes the difference between the solubility of a chemical in water and its solubility in octanol, which is an organic solvent. Neutral organic compounds like PCBs, which are soluble in animal lipids will be soluble in octanol to about the same extent. In other words, such compounds shun the aqueous phase and concentrate in the octanol phase, as a result of which they are called hydrophobic. Accordingly, the Kow measures hydrophobicity from which we can estimate the BCF up to a log Kow of 6.00 or less. In other words, BCFs increase with increasing hydrophobicity, resulting in greater bioaccumulation. On the other hand, increasing water solubility tends to result in reduced bioaccumulation.

The United States EPA recommends that compounds for which the log Kow is greater than 3.5 be considered potentially harmful to the environment. The organic compounds with the greatest potential to accumulate are

the polynuclear aromatic hydrocarbons (PAHs), the polychlorinated biphenyls (PCBs), pesticides, and some phthalate esters. These have Kow values of 3.00 or more. The toxic metals that would tend to bioaccumulate based on available BCF data are methyl mercury (log BCF = 4.602), copper (log BCF = 3.073), zinc (log BCF = 2.762), arsenic (log BCF = 2.544), cadmium (log BCF = 2.513), lead (log BCF = 2.253), and chromium (IV log BCF = 2.190); III log BCF = 2.104), and inorganic mercury with log BCF of 2.00.

One might deduce from the above that as the water solubility of contaminants increases, bioavailability and thus uptake by organisms increases, but bioaccumulation decreases. And such is the case. However, this generalization seems not to apply to heavy metals that are bioaccumulated in spite of their water solubility. In fact, it does apply in a general way, but those metals that do bioaccumulate are bound into tissues and enzymes, not dissolved in the lipid depots. Another generalization can be made at this point, viz., that organics whose structure prevents hydrolysis tend to be bioaccumulated. This is true of the PCBs wherein the chlorine molecules prevent hydrolysis. On the other hand, those organics that are easily hydrolyzed, such as phosphate ester pesticides (malathion) and PAHs in some animals (fishes), do not bioaccumulate. In regard to environmental matters, it is interesting to note that PAHs that can be hydrolyzed (made more water soluble) by many fishes are not easily hydrolyzed by clams and amphipod crustaceans that are recommended for bioassay of dredged materials.

Characteristics of Organisms That Affect Bioavailability and Accumulation

Those who are unfamiliar with body functions of marine organisms tend to assume that when a toxic contaminant is taken into the body it is almost certain to have adverse effects. The fact is that seldom do such adverse effects result from the uptake of contaminants by marine organisms.

We have already mentioned that some organic compounds are broken down by hydrolysis and that metals may be bound away from sensitive enzyme centers by various tissues and substances. Hydrolysis tends to make the organic materials water soluble and thus susceptible to depuration. Toxic metals are dealt with by the organisms in a different manner. Low molecular weight sulfur-containing proteins called metallothioneins are produced in the kidneys, liver, gills, and digestive organs of most aquatic organisms. Although these compounds are normal and regulate the metabolism of essential metals, they do protect against the toxic effects of either excesses of essential metals, like Cu and Zn, or the damaging effect of nonessential metals such as cadmium, mercury, and lead. For example, when the nonessential cadmium (no known uses in the body) is absorbed by marine fishes, it is transported to the liver where it is partitioned away from the liver enzymes by conjugation with metallothionein.

Marine animals absorbing substantial levels of synthetic organic compounds, such as PCBs, initially partition them into lipid pools, and then metabolize some PCBs with mixed function oxidase systems (MFO). MFOs are cytochrome P-450-dependent intracellular enzymes that facilitate the first phase of detoxification of foreign organic compounds. These actions transform lipid-soluble chemicals (e.g. PAHs) into water-soluble compounds that can be removed (depurated) by kidney function. Obviously, increasing the water solubility of such lipid-soluble compounds increases the ease with which

the animal can depurate them. Interestingly, low-level acute or chronic exposure of organisms to toxic metal ions or to PCBs and PAHs induces production of metallothioneins and synthesis of appropriate MFOs for detoxification. The first of the above inductions increases the tolerance of the organism to the toxic effects of the metal and the second increases the capacity of the organisms to eliminate the chemical and thus reduce bioaccumulation.

The rate of depuration of toxic substances absorbed into the body is not uniform. It generally occurs in two phases. The first phase involves removal of contaminants in the blood and in those areas of the body having high blood flow. Then the lipid depots and even muscle tissue may be involved. The elimination rate for nonmetabolizing neutral organics is inverse to hydrophobicity, being very slow in high molecular weight hydrophobes.

In summary of biotal characteristics, we can say that organisms have developed mechanisms for tolerating natural environmental contaminants and are able through modifications of these mechanisms to cope with the ever increasing presence of synthetic contaminants.

Recent Attempts to Chemically Evaluate the Quality of Dredged Sediment

For years we have had chemical numerical criteria for evaluating water quality, but not for sediments. In the United States the only legal way at the present time of evaluating the toxicity of sediments proposed for dredging is by means of various bioassays involving appropriate species of aquatic organisms. For some years there has been a concerted effort to develop simple numerical criteria for contaminants in sediment that will permit evaluation of the quality of the sediment. Recently several methods purported to achieve this objective have been developed and advertised by various environmental consulting companies and some environmental protection groups. In spite of the fact that there are obvious flaws in the two most prominent of these attempts, viz., the Apparent Effects Threshold (AET) and the Sediment Quality Triad, there is increasing concern among various managers of U.S. ports and harbors that some environmental regulators in several government agencies are quietly using unsound technical approaches to rate the potential toxicity of dredged sediments with the result that permits are delayed or denied.

Beyond doubt, one can establish a cause-and-effect response of an organism in a liquid system comprised of a single chemical in otherwise pure seawater, but it is equally apparent that as soon as dredged material or other bottom sediments are added to the system a chemical cause-and-effect relationship can no longer be established with certainty. Both AET and Triad are presently unsatisfactory in part because they cannot compensate for the mitigative properties of bottom sediments that were discussed above. It is these properties that managers of shipping ports maintain make most dredged materials safe to dispose in the aquatic environment.

It is quite likely that eventually we will see the development of a simple technique for evaluating sediment quality, but it is unlikely that it will be adapted from any of the complicated and very expensive methods presently being discussed.

References

McFarland, V.A., C.H. Lutz, and F.J. Reilly. 1989. Factors influencing bioaccumulation of sediment-associated

The Port of Djibouti: Positive Stance Towards Requirements of Users

By Captain W. Nute

General Manager of the Central Operating Unit of the Beacon Consortium

The Port of Djibouti Authority held a conference and luncheon at the Tower Thistle Hotel, London, on 8th November, 1989. The conference was arranged to open a forum of discussion with its potential customers and to make them aware of the range of services the Port is able to provide and of the latest developments and plans for the future. Mr. A.J. Smith, our European Representative, represented IAPH at the meeting, and he has sent the following paper for the benefit of all members and readers of this journal.

In my capacity as General Manager of the Beacon Container Lines Operational Unit, I have been asked to address this conference on the subject of "What does the ship operator require from the Port of Djibouti? It could be argued that the ship operators requirements can be covered by the statement "fast turnaround at minimum-cost." However, I believe that this is too simplistic an answer. There are many things that are required to ensure that a ship progresses through a port efficiently, some of which are frequently taken for granted. In order to address this subject it is probably easiest to look at what is required for an imaginary vessel proceeding through a port. Inevitably my views will be directed towards the operation of a container vessel but many of the points covered apply equally to all types of vessels. In the same way, many of the points will be directed towards the Port of Djibouti but could apply to most ports.

Too many ports, especially when the port has no competition, tend to treat the ship operator and cargo shippers not as a customer, whom they should aim to please, but rather as a captive market that has to accept the port's conditions. Several ports have found their cost that this attitude can lose them business and it is pleasing to note the Port of Djibouti does not take this approach. As far as Beacon is concerned as the major container operators (in 1988 we had a throughput of 9,220 TEUs out of the total port figure of 28,957 TEUs, or 38% of total throughput), the Port of Djibouti has always been willing to listen to the ship operator's point of view and has, wherever possible, endeavoured to meet their requirements. Now the Port has

contaminants by aquatic biota; factors related to sediment and water. EEDP-01-18, US Army Engineer Waterways Experiment Station, Vicksburg, MS.

Pequegnat, W.E. 1985. Some suggested new Annex Allocation Criteria of LDC related to the toxicant binding properties of dredged material. Special Report addressed to the Scientific Group of the London Dumping Convention by the International Association of Ports and Harbors.

gone even further by arranging this conference to open a forum of discussion with its customers.

Network of Agents Required

Let us now look at the requirements of a typical ship operator for the transit of his vessel through a port. The items to be covered are not exclusive but will aim to cover the main points.

Before the vessel arrives, a lot of groundwork is needed to prepare for the arrival. For this a well established network of agents is required to look after both the operator and cargo owner's interests. They should also be backed by independent surveyors who can be called in to protect principals' interests. In order to prepare for the vessel's arrival the agent needs detailed information in the form of vessel details, cargo manifests, etc. and since there are, in some cases, very short transit times between the port of loading and Djibouti, there needs to be an efficient communication system with the rest of the world. This includes not only the normal lines of communication such as telephone, telex and fax but also, ever increasingly, data transmission by computer. The agents need to ensure that they have sufficient documentation to comply with local requirements for cargo to be discharged or to be transhipped — including, of course, the cargo to be loaded. This is especially important where hazardous cargo is involved as they have to ensure that the port regulations are complied with. They must liaise with the port and terminal to ensure that there is a berth available and that pilots, tugs, etc. are available as well as ordering labour where this is an agency function rather than the port authority.

The ship operator needs an approach to the port that is safe and preferably allows 24 hour a day movement of vessels. It is up to the Port Authority to ensure that their waters are adequately surveyed, buoyed and lit. The Port Authority must update the International Charting Authorities with any changes so that the charts used by the vessel can be kept corrected. The port should also ensure that immediate changes or dangers are broadcast by the port control radio at regular intervals to warn approaching vessels.

Pilots should be available on arrival and should be well trained and capable of piloting the type of vessel using the port. It is often overlooked that the Master's first and last impression of a port is the service that he gets from the pilots and tugs and this naturally tends to colour his views of the port which, in turn, produces good or bad publicity for the port in the nautical world. Tugs and mooring boats should be sufficiently powerful to handle the types of vessels that pass through the port.

Full Information for Ships

Once alongside, the vessel should be cleared with a minimum of fuss. Here the ship's command can be greatly assisted by the agent who should not only be familiar with the port's procedures but should also have a good working relationship with the officials concerned.

Also on arrival, the stevedores should board the vessel and discuss operations with the ship's command. They should have available the discharging information which has been provided by the agents and this should be checked against the ship's information. They should advise the vessel of their loading plan with special reference to any special cargo such as dangerous goods, out of gauge containers, break bulk or heavy lift cargo. The ship should be given a list of all containers to be loaded along with weights, operators,

discharge port and stowage position.

This is necessary so that the vessel can put the information into its stability computer to check the vessel's stability during operations and on completion. Regrettably this is one area where we get complaints from our vessels — frequently we are advised that they are provided with insufficient information with regard to cargo being loaded and that it is only by their own actions that a proper cargo plan can be drawn up. Meanwhile, at times the relevant information is only produced just prior to sailing, which makes any changes required by the vessel difficult to arrange. Perhaps this is an area where the Port Authorities and agents could get together to ensure that full information is available to the vessel on arrival.

Container vessels and container handling equipment are both capital intensive so both the ship operator and the Port Authority need to utilise their equipment to the maximum. As far as the vessel is concerned it should have the minimum port stay possible. This can be achieved by good pre-planning and maximum utilisation of labour and equipment. As long as the terminal is not fully utilised the port should be able to allocate maximum equipment to a working vessel even at the expense of receiving and delivering within the terminal. This work can be carried out once the vessel has sailed. In Djibouti, Beacon achieves a production rate of approximately 17 moves per ship port hour which is higher than other East African ports in our service.

35 Moves Per Hour

However, this still leaves room for improvement when one considers that our vessels regularly achieve up to 35 moves per hour at our European ports with some ports even exceeding this figure. From the port's point of view it is equally important to them to turn vessels around as fast as possible because this way they can fit more vessels onto the berth and thus avoid costly new berths or equipment if they wish to attract more business. The most important piece of equipment is the ship to shore gantry — here the drivers must be well trained to make the best use of the equipment. If low production rates are being achieved and it is not due to bad driving then the supply to and from the gantry should be examined — it may be that insufficient equipment is allocated to maintain a steady flow of containers. It would usually be more cost effective to invest in more delivery equipment than purchasing more gantries.

There must be an adequate supply of spare parts and a well equipped maintenance workshop with well trained mechanics to look after the specialised equipment. There should be a planned maintenance programme and any idle time on equipment should be used to carry out maintenance. Whilst maximum productivity is required, safety and good handling procedures must be enforced. With specialised handling gear for container damage to cargo, containers and vessel should be negligible whilst good working procedures will ensure the safety of personnel.

This can only result if the labour force is well trained in using the specialised equipment and always uses it correctly. Supervisors should always be on duty and prevent the improper use of equipment. Areas where damage can occur are lashing equipment being thrown down from a great height, spreaders being landed heavily on top of containers without using the corner guide flippers, which leads to holes being punched in the roof of the container, and the improper use of forklifts on the quay leading to damaged flooring in containers or holes punched in the sides. Damage to

containers at sea can occur if they are not secured properly — both inside and out. Lashing gangs employed should be large enough that they can keep up with the rate of operations, while they should also follow the vessel's lashing requirements.

The stacking area also needs to be well controlled and laid out efficiently with a good surface and effective lighting. The terminal staff should always be able to locate a particular box through the control system. Export containers should be stacked for each vessel, preferably by weight and port of discharge. A well laid out stacking area can increase productivity — in one terminal in another service, discussions between the stevedores and the line's operational office resulted in new stacking procedures that improved productivity by 4 moves per hour. Stacking areas should have good security to prevent pilferage. Whilst on the subject, there is a major problem with stowaways in Djibouti. Once on board, stowaways create immense problems for the ship owner as well as considerable costs. Although masters are aware of the problem and take the best precautions they can, the ultimate responsibility must remain with the Port Authority to ensure that their security is adequate to prevent potential stowaways entering the port area in the first place.

Emergency Procedures

The port should also have well established emergency procedures to deal with potential hazards that may arise. These can cover from leaking chemicals, to fire on shore or on a vessel, to having to deal with spillages within their waters, possibly following a collision or grounding. From time to time, the port should test its emergency procedures by having emergency exercises. The port officials and governmental departments should ensure that sub-standard vessels are not allowed to sail until they are brought up to the internationally agreed level. If more Port Authorities enforced these standards on the operators of sub-standard ships, then the operators of well found ships would not be placed at a disadvantage and both the crews of the sub-standard vessels and the environment would be pro-



(The map has been produced at the courtesy of Lloyd's Maritime Atlas/Lloyd's of London Press Ltd.)

tected.

Whilst not essential, there are other items that can assist in operating a vessel smoothly such as good air connections for delivery of urgent spare parts and crew reliefs and high quality small engineering and electrical firms for repairs that cannot be carried out on board. There should ideally be an adequate supply of good quality bunkers, ships' chandlers and fresh water, as well as garbage and sludge reception facilities. All these services may be required and will help to ensure the smooth running of a vessel. If a port earns a good reputation for meeting these requirements efficiently and at a reasonable cost, then more business is likely to be forthcoming and the local port industries will expand and add to the overall local economy. Whilst on the subject of the local economy, the local foreign exchange regulations and taxations should be geared to attracting foreign business by allowing easy worldwide movement of earnings.

Traditionally a port's throughput depended upon the requirements of its hinterland. The introduction of containers, however, meant that large volumes of cargo could be moved relatively easily from one vessel to another. Ship operators then looked at the possibility and cost effectiveness of using one main port to serve other smaller ports using a network of feeder services as well as using a hub port to link two or more mainline services in order to extend the areas served by each service.

Cost Effectiveness

This system allows a port to earn revenue from business that it would not have attracted in the past. From an operator's point of view, the transshipment port should ideally be already called at and have sufficient volume of its own cargo to justify the call. Otherwise a port used for transshipment should cause as little deviation to the voyage as possible in order to keep costs down. The purpose of feeder services is to speed up the movement of cargo and to reduce costs and if a port wants to attract this type of business, then it has to keep the cost of bringing a vessel to its port to a minimum — this applies equally to port charges and handling charges. After all, this is business that will generally go to the cheapest port in a given geographical area. Of course, part of the cost equation is also the efficiency of the port — it is no use putting a vessel in to transship cargo if the production is so slow that costs escalate to the extent that the exercise proves to be more costly than direct calls.

There appears to be some reluctance from shippers to use lines that have a transshipment service and this is difficult to understand if the service is efficient. The aim of the operator in using transshipment is to keep costs down and to improve transit time. On certain routes, a well organized transshipment service can cut days off the transit time. However, for transshipment to work effectively, vessels have to be well scheduled and it is here again that the operator has to look at the efficiency of the ports that he uses. It is no use at all if one vessel discharges transshipment cargo but the vessel it is being transhipped to has long berthing delays due to inefficient operations ashore causing berthing congestion. As far as Beacon is concerned, we use Djibouti for transshipment via a feeder vessel to ports in the surrounding area e.g. Aden, Assab, Mukala, Massawa, Berbera and Hodeidah. From time to time we also use Djibouti to tranship from other services that the Beacon lines are involved with.

Djibouti is the ideal port for us to use as it is not a major deviation for the other services. We already call at

Djibouti and Djibouti is the most efficient port in our schedule south of the Suez Canal. Another area where a port can earn extra revenue is by pricing restows attractively. It is a fact of life that by accepting late cargo at ports or due to overweight or overwidth containers, special stowage required by hazardous cargo and change of destination required by shippers, some containers will need to be restowed. There are some ports that look on restows as additional work that they do not want.

However, as long as the work brings in revenue I believe ports should recognise the need — which after all is a cost the operator would rather avoid — and price these moves attractively. Obviously our planners will look for the most cost effective port to carry out the restows and this additional business will be lost to an expensive or inefficient port. Another area of extra business that is of interest to the port and the operator is the use of freeport facilities for manufacturing and storing items for re-export without attracting taxes or duty. The port gains the extra business — and the local community the additional employment opportunities — whilst the ship operator benefits from extra cargo revenue.

Again the port costs have to be attractive to attract this type of business — after all, there is no point in saving on duty if the costs of import and export of the raw materials and finished goods are prohibitive. To return to our vessel that is now completing operations, the terminal should be keeping everyone advised as to the expected time of completion, whilst the agents should be making sure that cargo manifest and documentation are completed and pilot and tugs ordered. There is no point in the terminal achieving good production rates if the vessel has to wait for hours either for documentation or pilot and tug services.

Prompt, Accurate Reporting

Another cost factor is storage of containers whether awaiting transshipment or movement inland. These costs must be kept to a minimum in order to attract business.

Once the vessel has sailed the work is not complete. The terminal must report to the agents that all containers have been loaded and discharged and produce the various port invoices. The agents must confirm to their principals details of those containers loaded and discharged whilst at the same time updating the lines' container control departments of the remaining container stocks. Container control is an important function and prompt accurate reporting is necessary to ensure that lines have sufficient containers positioned for expected cargo whilst not maintaining an excess of empty containers for months on end.

Containers are expensive items and should be turned around as fast as possible in the same way that the vessels need to be. Close co-operation between the port, agents and receivers should ensure that the containers are speedily released so that the customer receives his goods as fast as possible, whether the container is stripped in port, transported to the customers premises by the carrying line or whether the customer arranges the transport himself. The empty containers should be returned as soon as possible, preferably to be used for export but, failing that, to be loaded back on the next available vessel if not required to maintain stock levels. Obviously the customer wants his goods as fast as possible and the operator wants his containers for further cargoes but there is also an advantage to the terminal operator in reducing the dwell time in his stacking areas. The faster he moves containers out of his terminal or strips them in the case of LCL cargo, the less storage space he

requires and the easier it is to keep track of the containers on his terminal.

To sum up, it is our opinion that the Port of Djibouti has always taken a positive stance towards the requirements of port users and is always willing to discuss problems with operators to try and improve its service. The member lines of Beacon look forward to continuing their close association with the Port of Djibouti with the joint aim of achieving a fast turnaround of vessels in the most cost effective way.

Extensive Anti-Drug Smuggling Programs

*(Reproduced from
'VIA PORT OF NEW YORK-NEW JERSEY')*

By James Ryan

Vice President of Security

Puerto Rico Marine Management, Inc.

The estimated retail value of marijuana and cocaine consumed in the United States in one year is \$65 billion. That is equal to 78 percent of our retail value of gasoline and fuel consumption, or about two-thirds of all United States oil imports.

Former Customs Commissioner William von Raab has estimated that 30 percent of the narcotics coming into the country today are being secreted aboard airliners and cargo vessels. That figure in his opinion may increase to 80 percent within the next five years as new drug interdiction techniques aimed at small boats and planes force smugglers to increasingly turn to ocean cargo carriers. Drug interdiction is going to become a major challenge and concern to the maritime industry.

As drug smugglers focus their attention on cargo vessels, the maritime industry's only choice is to respond in kind by making vessels, containers and ports more secure.

This is especially important for Navieras de Puerto Rico — the largest carrier in the U.S.-Caribbean trade. Navieras provides the most frequent and flexible direct service to Puerto Rico from the New York-New Jersey Port. The weekly service features two sailings to San Juan: a 1,200-TEU *Lancer*-class containership and a giant trailership which SOE (shipper owned equipment) customers find popular.

Navieras has made a major commitment to security in terms of both manpower and money. Indeed, Navieras set up its security operation in 1974 when the government of Puerto Rico established the state-owned line.

As a result, today, Navieras and PRMMI have had a wide ranging anti-smuggling program well underway before Customs began cracking down on shipping companies last year. To the best of our knowledge, no other carrier has had a full-time, in-house security program in place as long as the 15-year-old Navieras/PRMMI program. Our new drug interdiction manual is used by Customs as an example for other carriers to adopt.

This year, we will spend \$1.2 million on security, including \$400,000 for overtime pay to crew members

conducting vessel searches at sea and a substantial number of dollars for sealing containers northbound from the Caribbean to U.S. ports. We employ twelve full-time investigators and 100 uniformed security personnel throughout the navieras system in the United States and the Caribbean area.

But in the course of securing shipments against drugs, our security people are employed also to investigate fraudulent cargo declarations and attempted theft. The resulting recoveries from these investigations go to cover our costs for this operation.

By preventing such losses, the security program saves money and increases shipper confidence. Customs officers sometimes refer to parts of the Navieras security program as examples of what a carrier can do to protect itself.

We believe one of the most important elements in any anti-smuggling effort is coordination. Carrier security departments must be able to work with all the people involved in shipping. Crew members, terminal operators, port employees and government officials working on the waterfront must all joint together to effectively wall out narcotics imports.

There are many practical ways to accomplish that goal. Nearly all commercial sea and air carriers have signed some form of anti-drug initiative. For ocean carriers, the program is known as the "Sea Carrier Initiative" (SCIA). It outlines general security programs and improved training. The program marks the first industry-wide effort to improve the levels of security against smuggling.

International Longshoremen's Association (ILA) President John Bowers commented: "This is the first time that industry, labor and government have joined together to put together a plan to combat drug smuggling. We'd rather lose wages than our children."

The first SCIA was signed by Navieras in 1986. It was re-signed in 1989.

For us, the secret to success is to implement a detailed security program that is realistic and "doable" for maritime professionals who are not experts in police work.

The easiest way to do that is to provide employees with written guidelines. We use a procedural compliance manual that is given to every department head. It deals with three areas: cargo; container, trailer and chassis concealment; and vessel search procedures.

This manual tells them what to do every step of the way. It is very basic. All our employees have to do while conducting their own examinations is to fill in the blocks and follow instructions.

We also standardize all our reporting. Many times an employee will see something unusual, but that employee does not know what to put into a report. Our checklist tells an employee the information we need, providing a clear guideline that a maritime operations person can follow.

There are two copies of each report. One stays with the department filing the report and one comes to our security department.

We keep a central file on all the information related to the sea carrier agreement. The information is recorded by port and by vessel.

Should such a drug-related incident occur, we will be able to clarify exactly what happened by turning over to our attorneys all the actions we have taken in relation to security. If the carrier does its part and demonstrates that it acted responsibly in carrying out basic security measures, any potential fine imposed by Customs should eventually

be reduced to nothing.

The United States Customs Service is concerned with three categories: ordinary negligence, gross negligence, and actual carrier participation in smuggling activity. Those areas provide the basis for judgment. By documenting security efforts, a carrier can avoid trouble at all levels.

The carrier must show it exercised the "highest degree of care and diligence." In that case, any fine will be mitigated to zero. To date, fortunately, we have not had to prove our security system was in place because Navieras has never been fined.

Security training throughout the company alerts employees to look for obvious signs like a container that has been altered in some way, or even the odor of drugs. But moving beyond that level, we have taught them to look for clues that turn up in the potential smuggler profile we have developed over the years.

Things like unknown, first-time shippers, cargo moving from proven drug distribution centers, prepaid shipments, or unusual destination points like a hotel or a post office box are cause for concern.

If we detect a sufficient degree of suspicious practices, we will alert the Customs, Contraband Enforcement Team (CET).

Navieras also posts information on how to spot shipping irregularities. Some employees are reluctant to become directly involved in drug interception activities, so we provide a 24-hour hot line in all our U.S. mainland ports of call, San Juan and our feeder ports in the Caribbean.

Messages are left on a recorder and the information can be checked out independently by our professional security people.

Another important aspect of our security program is visibility. That ranges from keeping uniformed security guards on gangways to sending clearly identified security personnel on round-trip voyages.

Having security people on hand acts as a deterrent in its own right. By periodically sending security people on actual sailings, it also keeps them familiar with operations throughout the course of a cargo movement.

In addition to working with our own people, Navieras Security meets frequently with Customs officials and CET teams in Puerto Rico as well as those stationed in all Navieras ports of call. Security also conducts seminars with Navieras agents in the Caribbean to further ensure that all efforts to prevent drug smuggling are fully coordinated.

Quarterly reviews are also planned to ensure compliance with the Sea Carriers Initiative Agreement in every Navieras port.

Compliance committees have been organized in Puerto Rico and Edison, New Jersey, PRMMI's corporate headquarters.

Today, ocean carriers are faced with potential fines of \$1,000 an ounce for cocaine found aboard their vessels. The fine for marijuana is up to \$500 an ounce. Congress has made it clear with the passage of anti-drug legislation in 1984, 1986 and 1988 that it considers the carriers responsible for the content of their cargoes.

The government's approach is not unlike the stiff fines and spot checks for D.W.I.'s (Driving While Intoxicated). In a way, they've made the carrier a "designated driver."

But maintaining the type of aggressive security program that limits the availability of our shipments to smugglers, carriers as a whole are protecting not only their own companies from financial liability, but society as a whole.

The Channel Tunnel And Its Influences On the Traffic Flows

(Reproduced from 'HINTERLAND Quarterly review XXXVII 1989')

By **A. Bénard**
Chairman of Eurotunnel

This contribution is based on a lecture by Mr. A. Bénard, Chairman of Eurotunnel. The lecture was one of a series organized by the Antwerp Maritime Institute to give speakers of an international stature a chance to talk about matters related to transport economics for the benefit of Antwerp's business community.

Historical Survey

Few understand better the evolution of history than the citizens of what is the Belgium of today. Four hundred years ago the Spanish-led troops that were based in Flanders were ready to reinforce King Philip of Spain's fleet in the conquest of Britain. It was the failure of the Armada to suborn Britain to Europe that gave the British the opportunity and inspiration to begin building an Empire that was to last three and a half centuries.

With imperial power came the self-sufficiency to be independent from Europe and the 22 miles of sea between Britain and France assumed a psychological importance — particularly to the British — far exceeding that posed by the actual physical barrier.

Over the last 30 or 40 years two major changes of political circumstances have come about. First, the continuing and accelerating advances in communications techniques — both mechanical and electronic — caused the Western World to accept that the economies of nations were increasingly interdependent on one another.

Secondly, it became necessary and politically imperative for Britain to devolve power to the constituent parts of her Empire — thus leaving her increasingly isolated in both influence and trade.

These were the two principal considerations that persuaded the British to overcome their hesitancy and prejudices and to become a part of the European Community. The single market, which is scheduled to be in place by 1992, and the building of the Channel Tunnel are evidence of this changing attitude.

The Channel has become a hindrance to the development of European trade — both nationally and physically. The 350 million people who constitute the European Economic Community will certainly be better served by the existence of a Fixed Link between Britain and the Continent.

The idea of a tunnel first appeared in a dissertation submitted to the "Academie d'Amiens" by a French geologist and physician, Nicholas Desmarests, in 1751. Fifty years later a mining engineer Albert Mathieu-Favier made detailed proposals to the First Consul, Bonaparte. His plan was to build an upper and lower tunnel — one for mail coaches and the other for drainage. In this plan he proposed that this tunnel should surface at an artificial island in order to change horses. Although his project was approved by both

— Eurotunnel: A Milestone
in Public Works —

Finance and Management Entirely in Private Hands

One of the most innovative aspects of the Eurotunnel project is that it is being financed and managed entirely privately. Such a course is very much a milestone for major public works.

In January 1986 the task of constructing a channel tunnel was entrusted to a consortium created by the France-Manche company and The Channel Tunnel Group. The two groups had been formed by five construction companies from both countries and by three French and two English banks. The two groups are the founding shareholders and have received the first capital installment of £50 million in return for their work.

The Fixed Link Treaty and the Concession Contract were signed with the two associated groups, which by then had become Eurotunnel, in August 1986. The Treaty and the Concession stipulate that the project must be entirely bi-national and managed by a single entity.

During the Concession Eurotunnel will construct the tunnel under the Channel and operate it for a period of 55 years, and retain exclusive rights for a period of 20 years. The concession moreover guarantees the operator the right to set rates entirely at his own discretion.

Armed with these agreements, as well as with contracts concluded with the French and British railway companies allocating 50% of the tunnel's capacity to rail traffic, Eurotunnel started to raise £6,000 million required for the project in share capital and loans, £1,000 million of which represent a reserve to cover unanticipated costs. This operation, which had all the elements of a cliffhanger, was successfully completed in November 1987. A total of 30,000 investors subscribed to the public issue in Great Britain and France, with other shares being tendered internationally. In the end 45% of the capital was placed in France, 45% in Great Britain and 10% internationally.

the French and British Governments it was abandoned soon afterwards when the Treaty of Amiens collapsed due to the renewal of hostilities.

Many other proposals were put forward by both British and French engineers during the 19th century. The most notable being that of 1882/1883 when 1,000 yards were bored under the sea from each side of the Channel — but once again the British Military's fear of invasion through the Tunnel persuaded the politicians to withdraw support for the project. This same attitude persisted right up to June 1930 when the British Parliament voted against building a Tunnel. After the Second World War different criteria militated against fresh attempts to build a fixed link — although some of the old objections still lingered.

The emphasis was now on viability rather than sentiment and ideas were shelved because all the elements for a successful enterprise did not coincide.

However, in the mid-1980s the four influences of political will, actual need, technical competence and financial capacity came together and allowed this largest European civil en-

gineering project of our time to come to fruition.

Political Will

The whole Eurotunnel project must be seen as a vital component of the reality of the Single Market; both as a symbol and as a practical necessity. Not only as a symbol of a new European entity but also as a model for the successful use of private capital for financing public sector infrastructure projects.

In political terms, the building of the Tunnel simultaneously fulfilled the wish of a number of Governments to further the integration of Europe and from Britain's point of view it fitted in with the Government's campaign for greater deregulation of European trade and services. At the same time it was a further step in the British Government's policy of encouraging the private sector to involve itself profitably in a project which otherwise would have required considerable sums of taxpayers' money.

By no means least in the priorities of the Governments of France and Britain was the fact that the scale of the enterprise would create many thousands of jobs in their construction and engineering industries.

Participation in the Tunnel has considerable advantages for France too. Indeed, the traffic generated by high-speed network serving all Western Europe, including Britain, will — by virtue of France's geographical position — stand to benefit her a great deal.

To bear this out, a recent report to the European Parliament on the perceived economic benefits that Eurotunnel gives community nations, shows that Britain and France share 76% of the benefits; with 60% going to France and 40% to Britain.

Actual Need

The actual "need" for a fixed link between France and Britain had been growing for some years and by the early 80s it had become at least as urgent as the political pressures generated by the developing integration of European trade. In Britain's case — as appears from the facts sheet on the Single Market produced by the Department of Trade and Industry — the United Kingdom at present sends 50% of total exports to European Community States whilst receiving 54% of her imports from them.

In terms of the actual volume of traffic crossing the Channel figures for 1987 reveal that some 38 million passengers crossed over including about 15 million air passengers.

On the freight side it is estimated that about 66 million tonnes were shipped. At the rate of increase of traffic that exists today — together with forecast economic growth — these figures may be expected to rise very considerably by 1993 when Eurotunnel starts operating.

In fact, the latest 1988 assessments estimate that the number of passengers passing through the tunnel in 1993 will be nearly 31 million rising to 41 million 10 years later — with 15 million tonnes of freight rising to 23 million tonnes over the same period.

In revenue terms, the forecasts show a 6% increase over the level mentioned in the Eurotunnel prospectus for 1993 and 10% for 2003. These figures include a minimal allowance of only 5% — for "created" traffic — which is traffic generated "because the Tunnel is there."

This "created" traffic is an important element. As an example two well-documented cases can be quoted where the opening of a new route has attracted large amounts of

traffic, viz. the Severn Bridge and the TGV service from Paris to Lyons.

A year after the Severn Bridge was opened a survey found that nearly 50% of the traffic on the Bridge was attracted by its mere existence. On opening in late 1966 the number of light vehicles moving daily between South Wales and Gloucestershire was 1,100 odd — 12 months later the number was exactly five times that figure. Ten years later plans were being made for another bridge.

When the TGV Sud-Est — Paris to Lyons — service was introduced in 1980 there was an immediate increase in the average annual total traffic — that is road, rail and air. This increase is attributed to the traffic created by the TGV service. As a matter of interest — coincidental with the rise in total traffic numbers — there was a diversion from airlines to TGV of 70% of air passengers.

Physical Construction of the Tunnel

The physical construction of the Tunnel is being undertaken by the general contractors TML — Tranchmanche-Link — which is the consortium made up of the founding shareholders. The actual tunnelling began early in 1988 and although progress has been a little slower than intended, significant and successful efforts have been and are being made to catch up on the schedule. The full tunnelling operation is due to be under way by the middle of 1989, by which time a total of 11 boring machines will be working on the project. The aim being to finish at the end of 1992 and thus allowing commissioning to be completed by the June 1993 target date.

The Tunnel itself consists of three separate conduits running for a distance underground of around 30 miles, of which some 24 are under the sea. Two of the tunnels are single track rail with an overhead power supply with a third smaller non-rail service tunnel between them. The service tunnel will act as both an emergency exit as well as a ventilation duct with passages through to the main tunnels at roughly 400 yards intervals whilst each passenger shuttle will be about 820 yards long.

European Railway Network

Eurotunnel — by the role that it has in the process of the integration of Europe — is playing a major part in sparking the modernization of rail services throughout the Community. From Spain to Sweden and from Austria to Wales major expenditure is planned for the upgrading and building of track and rolling stock capable of high-speed operation.

In 1993 the core of the new high-speed section will be the Three Capitals' Link — Paris, Brussels, London — with London serving both Brussels and Paris through Eurotunnel. Then — as the various national modernization and programmes are completed — the high-speed lines such as those to Amsterdam and Cologne will connect into the system.

Parallel with the development of the system railway companies of Britain, France and Belgium are commissioning a fleet of new trains to operate the Paris, Brussels, London services. Although each nation drives its trains on the left and have identical track gauges, the British loading gauge, which is the height and width of the vehicle, is smaller than that in use on the continent. Consequently these new trains are being built so that they not only fit the British loading gauge but also will be able to draw power from the different supplies.

The Eurotunnel passenger shuttles, which carry the road vehicles, will operate on a closed circuit between Folkstone

and Calais with a regularity at peak times of 12 minutes and a journey time of 35 minutes. Initially Eurotunnel expects to have at least 18 shuttle trains — nine passenger and nine freight — and 44 locomotives. In its usual configuration, each passenger shuttle train will be capable of carrying 91 cars and 13 coaches, while the freight shuttle will accommodate 25 lorries.

Upon opening, the shuttle frequency at peak hours is expected to be five or six passenger and up to four freight trains per hour in each direction at a maximum speed of 100 m.p.h. At the same time the Tunnel can accommodate four passenger and two freight trains an hour both ways from the railway companies. With a nominal total capacity of the Tunnel of 20 passengers an hour each way, it will be exceptional if it becomes necessary to book a passage.

Although the frequencies just mentioned for the Eurotunnel shuttle trains are achievable at the 1993 opening, forecasters no longer consider it realistic to expect a new rail link between London and the Channel to be completed by this date.

Effects of the Tunnel

AIR TRANSPORT: Reference has already been made to the diverted traffic that transferred from the airlines to the TGV Sud-Est and the same phenomenon is expected to occur between Britain and the near continental countries — Belgium, France and the Netherlands — when the Tunnel is completed. In this context it is of interest that in the first seven months of 1988 the volume of air passengers across the Channel rose by some 14% over the previous year — or two-thirds of a million people — although some of this increase could be attributed to the prolonged ferry strike at Dover.

Undoubtedly many airports recognize the influence the Tunnel is likely to have on their traffic. This is not only because passengers may well prefer the convenience of an international train but also because of the increasing frustrations of short haul flying on overcrowded airways. To this end both Schiphol and Paris Roissy are to be connected to the high-speed network — as no doubt will Cologne and Frankfurt in due course. In turn this is likely to lead to increased competition between airports in a bid to replace London as the gateway to Europe.

CROSS-CHANNEL MOVEMENT OF FREIGHT AND PASSENGERS: In 1987 the figures for unitized freight — in order of tonnage shipped — for the principal EEC nations trading with Britain were: Germany (7 m.), France (6.6 m.), the Netherlands (4.6 m.) and Belgium (3.6 m.) — these rates ignore any transshipment tonnage.

This is not to say that transshipment is not important — it is a considerable tonnage in both Antwerp and Rotterdam. As far as Antwerp is concerned it is a trade that is bound to achieve still greater significance with the opening of the Berendrecht Lock.

Nobody doubts that the tunnel will inject a new element into the competition between European ports — not only for freight units moved between EEC nations but also for the sea-borne international container trade. In the case of the latter it is difficult as yet to forecast accurately the volumes that may use ports other than the highly developed facilities on the East Coast of the North Sea. In fact Eurotunnel has already offered to assist the Liverpool port authority to mobilize resources to organize a landbridge to the continent — bearing in mind that a substantial number of containers are already destined for Britain.

The part played by Belgian interests in the handling of UK-European freight is of considerable importance to Eurotunnel. There is little doubt that the existing Roll-on/Roll-off traffic will be a prime target for the shuttle services whilst the longer distance containers will be within the scope of the through rail services.

Eurotunnel's challenge to the ferry operators for passenger traffic will be no less intense than that with freight. The port of Dover, dominating the cross-channel services, records a steady rise in the number of passengers opting for a short journey time — principally Dover to Calais. A part from the effect that Eurotunnel would have on ferry revenues and investment, there seem to be three more threats to the profitable operation of ferry services, viz. the cost of safety, the possibility of VAT being levied on passenger fares and the possible removal of Duty Free concessions on ferries.

Nevertheless, there will always be a "niche" market for operators working out of North Sea ports but should there be a very significant fall in traffic on the Dover-Calais routes — the operators of smaller volume routes may well find it tougher going.

Single European Market

The implementation of the Single European Act will be likely to have an influence on transport operations. There will be extra cross-channel traffic generated by the liberalization of transport services and the mutual recognition by member states of the regulations of other nations. Both of these measures should open up markets and remove restrictive internal barriers and therefore further encourage the movement of people and goods.

For instance it is very possible that the deregulation of the haulage trade, the abolition of permits and the introduction of cabotage — that is to say national journeys by non-resident hauliers — will mean reduced road transport costs for freight.

However, over longer distances — 300 miles or more — rail should be able to win on journey time and costs. Therefore, with the Tunnel linking the British and Continental railways, both cross-channel freight traffic and Eurotunnel's market share should increase.

The speed and regularity with which the high-speed network can transfer large quantities of products through a weatherproof tunnel will serve to reduce the cost of inventories for both manufacturers and distributors. With the advent of 1992 one can foresee international producers of consumer goods concentrating production of certain of their brands in one big factory, the output of which will demand distribution in large quantities.

Furthermore, once the liberalization of inter-European competition is a fact, we shall see large-scale mergers and acquisitions followed by a rationalization of individual manufacturing facilities. Ford is a good example, with parts for assembly being sourced from factories situated in different countries and in due course no doubt there will be dedicated trains running to a fixed schedule between production lines far from one another.

Conclusion

With the linking of Britain to the Continent, Europe is — in a sense — being rebalanced and as a result this will bring together one of the largest markets in the World into a single whole.

(Continued on Page 28)

JAPAN STANDS READY TO WELCOME YOU !

27th INTERNATIONAL NAVIGATION CONGRESS

Osaka (Japan) 20-26 May 1990

THE FIRST PIANC CONGRESS IN ASIA !



Osaka Castle: symbol of the rich cultural heritage of Osaka

Registrations for the 27th Congress of PIANC are now being welcomed with our great pleasure by the Secretariat of the Japan Organizing Committee.

Believing that this notable Congress in Osaka will result in a very fruitful outcome with many participants from all over the world, and will greatly contribute to a new era of PIANC, we are now making our utmost in preparing for a warm welcome and in ensuring the satisfactory management of the Congress.

It is our eager hope and greatest pleasure to have the honor of your participation in the 27th Congress. We sincerely look forward to welcoming you here in Osaka.

Time Schedule of the 27th Congress

	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	24:00
May 18 (Fri.)						Executive Committee								
						PCDC								
May 19 (Sat.)		PIC				Luncheon							Banquet	
May 20 (Sun.)			Section Committees			Opening Ceremony		Special Lecture					Reception	
May 21 (Mon.)			Session Meetings					PCDC Panel Discussion					Reception	
								PTC Working Group Special Meetings						
						Accompanying Persons' Program (Sightseeing in Kyoto)								
May 22 (Tue.)			Session Meetings					Trip to the International Garden and Greenery Exposition						
			Accompanying Persons' Program (Japanese Cuisine)											
May 23 (Wed.)			Session Meetings					Inspection of Osaka International Ports and Navigation Exhibition						
			Accompanying Persons' Program (Japanese Traditional Arts)											
May 24 (Thu.)			Session Meetings					Japan Technical Session					Japan Night	
						Accompanying Persons' Program (Sightseeing in Nara)								
May 25 (Fri.)			Session Meetings					Technical Visits						
			Accompanying Persons' Program (Sightseeing in Osaka)											
May 26 (Sat.)								Section Plenary Sessions					Closing Ceremony	
														Farewell Banquet

N. B. The Exhibition will be held from May 23 through May 27.

For participation, please contact us:

Secretariat:

Address: % Port and Harbor Bureau, Osaka City 8-24,
Chikko 2-chome, Minato-ku, Osaka 552, Japan

Phone: (Osaka 06)572-6633

Fax : (Osaka 06)573-6553

Telex : 5254566 PJOC J

Hotel Accommodation

For the participants, the Organizing Committee is holding a block reservation during the Congress period at a number of hotels of different categories.

They are available at a special rate (breakfast not included), and all rooms have a private bath, shower, T.V. and air conditioner.

Royal Hotel

Deluxe Twin : ¥24,500 /¥22,800 (single use)
Standard Twin : ¥19,300 /¥18,100 (single use)
Economy Single : ¥ 9,700

Hotel New Otani Osaka

Standard Twin : ¥15,900 /¥15,200 (single use)

Miyako Hotel Osaka

Standard Twin : ¥19,300 /¥18,700 (single use)
Economy Single : ¥ 9,700

Osaka Terminal Hotel

Standard Twin : ¥14,800 /¥11,700 (single use)
Economy Single : ¥ 9,300

Osaka Grand Hotel

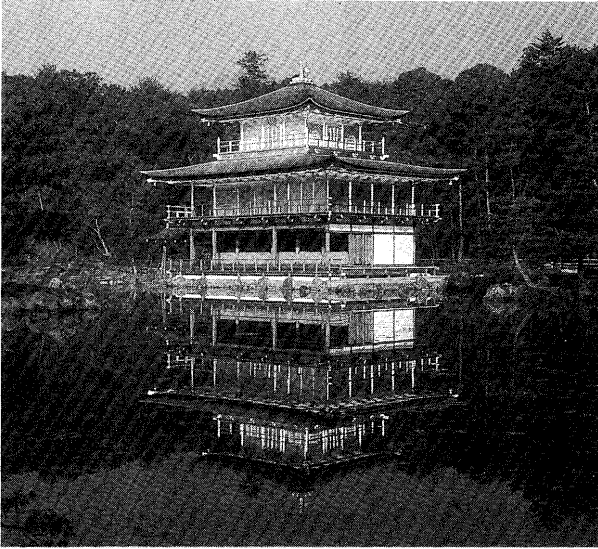
Standard Twin : ¥14,800 /¥13,500 (single use)
Economy Single : ¥ 8,500

Nakanoshima Inn

Standard Twin : ¥10,300 /¥ 8,300 (single use)
Economy Single : ¥ 6,500

Osaka Castle Hotel

Standard Twin : ¥12,000 /¥10,000 (single use)
Economy Single : ¥ 7,300



Kinkakuji Temple, Kyoto

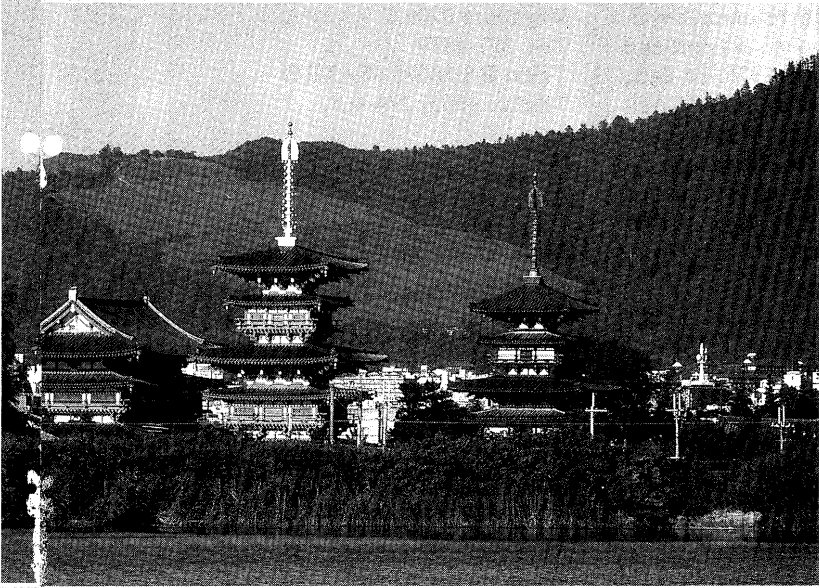
Registration Fees

Both PIANC members and non-members can participate in the Congress.

Registration fees differ depending on the category of the participants. For details, please refer to the table below.

Category	Registration Fees		
	~ March 20, 1990	March 21 ~ May 19, 1990	May 20, 1990 ~
Delegates of the member Governments of the PIANC.; members entrusted with a special mission by the Governments	J ¥60,000 or US \$460	J ¥66,000 or US \$510	J ¥72,000 or US \$550
Life members, Permanent individual members	J ¥60,000 or US \$460	J ¥66,000 or US \$510	J ¥72,000 or US \$550
Corporate members	J ¥60,000 or US \$460	J ¥66,000 or US \$510	J ¥72,000 or US \$550
Temporary technical members	J ¥75,000 or US \$580	J ¥82,000 or US \$630	J ¥90,000 or US \$690
Accompanying persons	J ¥36,000 or US \$280	J ¥40,000 or US \$310	J ¥43,000 or US \$330

Please note that the payment must be made in Japanese Yen or US dollars.



Yakushiji Temple, Nara

Post-Congress Tours

Japan, located in the Orient, is a beautiful archipelago blessed with the natural beauty of oceans and mountains, and four distinct seasons. Many Japanese sightseeing spots, famous for scenic beauty, have ports nearby. The Post-Congress Tours, combined with inspection of various ports, will take participants to such scenic locations of popular charm, including Tokyo, center of the Japanese and international economy. We are pleased to brief our fantastic Post-Congress Tours.

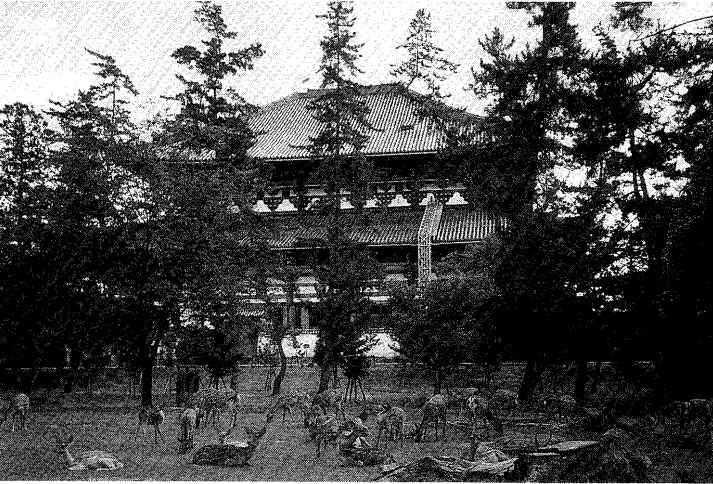
PT-1 Full day tour (Osaka) Date: May 27 (Sun.)
Fee: ¥ 7,500

PT-2 Full day tour (Kyoto) Date: May 27 (Sun.)
Fee: ¥ 12,500
Kinkakuji Temple / Heian Shrine / Kyoto Handy Craft Center/ Sanju-sangen-do

PT-3 Full day tour (Nara) Date: May 27 (Sun.)
Fee: ¥ 11,600
Kasuga-taisha Shrine / Todaiji Temple The Great Buddha / Yakushiji Temple

PT-4 2 nights and 3 days tour Date: May 27 (Sun.) - 29 (Tue.)
Fee: ¥ 62,100 (1 room / 2 persons) ¥ 76,200 (1 room / 1 person)
Shimizu Port / Hakone / Lake Ashi / Yokohama Port

PT-5 3 nights and 4 days tour Date: May 27 (Sun.) - 30 (Wed.)
Fee: ¥ 82,700 (1 room / 2 persons) ¥ 100,700 (1 room / 1 person)
Mikimoto Shinjoutou (Pearl Island) / Ise / Nagoya Castle Nagoya Port / Tokyo Port



Todaiji Temple, Nara

International Maritime Information

WORLD PORT NEWS

Singapore Port Institute: 1990 Training Courses

The Port of Singapore Authority (PSA) places emphasis on the training and development of human resources. To reinforce its commitment to the training of personnel from the local and regional port and shipping industries, the PSA has established the Singapore Port Institute (SPI).

As a means of sharing information and experiences in port management and operations, the SPI will be offering 12 courses ranging from one to two weeks in duration during 1990. These courses, designed for senior and middle management personnel, are as follows:

and consultants from the Centre for Advanced Maritime Studies, University of Strathclyde (UK), University of Wales (UK), International Port Consulting (Belgium), Humberside College of Higher Education (UK) and the Ports & Waterways Institute, Louisiana State University (USA).

The PSA has been offering courses on port management, operations, engineering and human resource development to local and overseas port and shipping personnel since 1975. To-date, over 2,500 personnel from ASEAN, Southeast Asia, Africa, Middle East, the Mediterranean, the Caribbean Islands and the Pacific have attended these courses. Some of these participants were sponsored by the Com-

nisation (ILO), United Nations Development Programme (UNDP) and the International Maritime Organisation (IMO).

For more details of SPI's courses for 1990, please contact:

Training Manager
Singapore Port Institute
c/o No. 7 Keppel Road
02-28 Tanjong Pagar Complex
Singapore 0208.
Tel.: 321-1819
Telex: RS 28676 PSATRG
Telefax: (065) 274-4677

BIMCOM: Int'l Network For Maritime Industry

Mr. George P. Livanos, President of BIMCO, announced that BIMCO's Executive Committee, at its meeting in Paris, has given the green light for the launch of BIMCOM — a global communications network for the Maritime Community.

Mr. Livanos continued, "This is truly a milestone for BIMCO. In my view this momentous decision will take the Shipping Industry into the leading edge of the use of communications technology. I am convinced that BIMCOM will be the catalyst to completely new dimensions of transacting shipping business. I would like to state my congratulations to my colleagues on the BIMCO Executive Committee for taking a courageous and visionary decision."

The concept was first presented at BIMCO's General Meeting in Hamburg in May of 1989. Since then, the BIMCO Secretariat has been researching the international demand and the service/facility requirements. The final outline of the new global network was laid before the Executive Committee in Paris, whose approval signalled the conversion of the project into a programme of active implementation.

BIMCOM will be a co-operative

COURSE	DATES	DURATION (WEEKS)	FEES (\$\$)
Management & operations of a break-bulk terminal	12-13 Mar	2	\$1,800
Civil engineering & project management	26 Mar-6 Apr	2	\$1,800
Port Management & operations	4-15 Jun	2	\$1,800
Managing container operations	18-29 Jun	2	\$1,800
Improving port productivity through QC activities	16-27 Jul	2	\$1,800
Management & maintenance of port equipment	13-24 Aug	2	\$1,800
Training of port trainers	21 May-1 Jun	2	\$1,800
Oil, chemical & gas tanker safety	3-14 Sept	2	\$1,800
Safe handling & transportation of dangerous goods in port areas	23-27 Apr	1	\$2,150
Containerisation policy & strategic planning	16-20 Apr	1	\$2,500
Port planning & development	22 Oct-2 Nov	2	\$3,250
Port marketing	5-9 Nov	1	\$3,450

The first eight courses will be conducted by lecturers from the SPI and PSA's departments. The remaining four courses will be conducted by lecturers

monwealth Fund for Technical Co-operation (CFTC), International Association of Ports and Harbors (IAPH), International Labour Orga-

venture, with BIMCO members as sole owners and shareholders. The aim is to provide a fully comprehensive global network to meet the needs of the maritime industry — one which will provide full connectivity with business partners and a wide range of other information services. Controlled by BIMCO itself, the network offers full cost control, together with integrity, impartiality and security. Revenue will be returned to shareholders in the form of both dividends and reduced daily running costs.

Under BIMCOM's overall management, the technical program will be undertaken by Digital Equipment Corporation (DEC) as prime contractor, with Scienc Applications International Corporation (SAIC) fulfilling the administrative role as Agent for BIMCOM on the technical aspects. Software for user applications will be developed by Data Access Corporation, Miami, in co-operation with BIMCO Informatique A/S.

The backbone of the network will be set up globally during the first quarter of 1990. Initially 26 nodes in key locations are envisaged, as a base for further development.

26th Int'l Seminar On Port Management

The six-week International Seminar on Port Management, organized by the International Institute for Hydraulic and Environmental Engineering (IHE) Delft, The Netherlands, in close co-operation with the Port Authorities of Amsterdam and Rotterdam, and with the support of The Netherlands Ministry of Foreign Affairs, will be held from May 7 to June 15, 1990. This year's theme is "Intermodal Transport."

An intensive full-day study programme comprises lectures on several subjects including port planning, port finance, port administration, multi-modal cargo handling, traffic problems, decision-making exercises. Other activities include study tours to the ports of Amsterdam and Rotterdam, a one-week study tour to Belgium and France and participants seminar.

More than 750 port specialists from 86 countries have already attended the International Seminar on Port Management. Details and application forms

may be obtained from:

IHE Registrar
P.O. Box 3015
2601 DA Delft
The Netherlands
Telex 38099 IHE;
Telephone +31-15-783404;
Fax +31-15-122921
Cable: interwater

OCIMF Guidelines for Drug, Alcohol Control

Drug and alcohol abuse and its effects is one of the most significant social problems of our time. It is, appropriately, receiving increasing attention both in the public eye and in government legislation. An example, specific to the marine industry, of government and industry attention to this issue is the U.S. Coast Guard (USCG) Regulations on the testing of both national and foreign marine personnel.

Recognizing the potentially serious impact of marine incidents, the Oil Companies International Marine Forum (OCIMF) and the marine industry have over the years developed guidance aimed at encouraging safe ship operation and protection of the environment. Whilst tanker companies have generally operated with strict policies related to drug and alcohol use, OCIMF considers that it is timely that the industry as a whole reassess the control of drugs and alcohol onboard ships.

Shipping companies should have a clearly written policy on drug and alcohol abuse that is easily understood by seafarers as well as shore-based staff. In order to enforce their policy, companies should have rules of conduct and controls in place with the objective that no seafarer will navigate a ship or operate its onboard equipment while impaired by drugs or alcohol. It is recommended that appropriate seafarers be subject to testing and screening for drugs and/or alcohol abuse during routine medical examinations.

The misuse of legitimate drugs, or the use, possession, distribution, or sale of illicit or unprescribed controlled drugs onboard ship cannot be condoned and should be prohibited. In addition, any use of a controlled substance which causes or contributes to unacceptable job performance or unusual job behaviour should also be prohibited. The

suggested list of substances to be banned should include, but not be limited to, marijuana, cocaine, opiates, phencyclidine (PCP) and amphetamines. In this regard, the International Chamber of Shipping (ICS) has published guidelines on recognition and detection of drug trafficking and abuse entitled "Drug Trafficking and Drug Abuse: Guidelines for Owners and Masters on Recognition and Detection."

Company policy should provide for control of onboard alcohol distribution and consumption. The policy should support the principle that officers and ratings should not be impaired when performing scheduled duties. OCIMF recommends that officers and ratings observe a period of abstinence from alcohol prior to scheduled watchkeeping duty or work periods. For example, this may be either a fixed period (e.g. the USCG requires 4 hours) or a period based upon prior alcohol consumption (e.g. 1 hour of abstinence for each unit of alcohol consumed; refer to table below for examples of alcohol units). In the interest of health and safety, seafarers should be actively encouraged not to exceed consumption levels which could affect long-term health. Information should be provided to crew on alcohol consumption in relation to impairment and its impact on behaviour and health, and also on the availability of rehabilitation programmes.

It must be borne in mind that all seafarers should be able to respond at any time to an emergency situation. Therefore, consideration should be given to advising maximum acceptable levels of blood alcohol content.

OCIMF believes it is in the best interest of all sectors of the maritime industry to respond to these guidelines and thus work to ensure a safe workplace and to protect the safety and well being of the public and the environment.

Approximate Alcohol Unit Conversions

	VOLUME	UNITS
Beers and Lagers		
Ordinary Strength Beer	10 oz.	1
or Lager	30 cl.	1
Extra Strength Beer	10 oz.	2 1/2
or Lager	30 cl.	2 1/2
Spirit/Liquor		
	1 oz.	1
	3 cl.	1
Table Wine		
	10 cl.	1
	1 litre bottle	10
Sherry or Fortified Wine		
	6 cl.	1
	1 litre bottle	16

IMO Programme of Meetings for 1990

8-12 January

Sub-committee on Standards of Training and Watchkeeping (STW) — 21st session

22-26 January

Sub-committee on Containers and Cargoes (BC) — 30th session

5-9 February

Sub-committee on Radiocommunications (COM) — 35th session

19-23 February

Sub-committee on Stability and Load Lines and on Fishing Vessels Safety (SLF) — 34th session

12-16 March

Marine Environment Protection Committee — 29th session

19-23 March

Sub-committee on Life-saving, Search and Rescue (LSR) — 21st session

26-30 March

International Conference on the Revision of the 1974 Athens Convention

2-6 April

Legal Committee — 62nd session

17-20 April

Steering Group on the Development of a Long-term Strategy for the London Dumping Convention

23-27 April

Sub-committee on Ship Design and Equipment (DE) — 33rd session

30 April - 4 May

Facilitation Committee — 19th session

14-18 May

Preparatory Meeting for the International Conference on International Co-operation on Oil Pollution Preparedness and Response

21-25 May

Maritime Safety Committee — 58th session

11-15 June

Council — 64th session

14 June

Technical Co-operation Committee

— 33rd session

2-6 July

Sub-committee on Fire Protection (FP) — 35th session

3-7 September

Sub-committee on Safety of Navigation (NAV) — 36th session

17-21 September

Legal committee — 63rd session

24-28 September

International Oil Pollution Compensation Fund — Assembly — 13th session

1-5 October

Sub-committee on Bulk Chemicals (BCH) — 20th session

8-12 October

Sub-committee on the Carriage of Dangerous Goods (CDG) — 42nd session

22-25 October

Inter-governmental Panel of Experts on Radioactive Waste Disposal at Sea (IGPRAD)

29 October - 2 November

Thirteenth Consultative Meeting of Contracting Parties to the London Dumping Convention

5-9 November

Council — 65th session**

8 November

Technical Co-operation Committee — 34th session**

12-16 November

Marine Environment Protection Committee — 30th session**

19-23 November

International Conference on International Co-operation on Oil Pollution Preparedness and Response**

10-14 December

Sub-committee on Radiocommunications (COM) — 36th session

* * *

Programme of Intersessional Meetings of Working Groups as Approved by the Council

17-20 April

Working Group on Alarms and Indicator Systems

27-29 June

Fire Protection Working Group for Passenger Ship Safety

15-19 October

CDG Editorial and Technical Working Group

** Tentative.

New Publications

Convention on Facilitation of International Maritime Traffic as amended.

Published by IMO, 4 Albert Embankment London SE1 7SR.

Sales number: 354 89.02.E; price £8.00

The Convention on the Facilitation of Maritime Traffic was adopted by the International Conference on Facilitation of Maritime Travel and Transport on 9 April 1965. The Convention entered into force on 5 March 1967.

The purpose of this Convention is to facilitate maritime transport by simplifying and minimizing the formalities, documentary requirements and procedures associated with the arrival, stay and departure of ships engaged on international voyages.

Although it is recognized that the convention has made an important contribution to the removal of trade barriers, its value was for many years limited by one important drawback — the amendment procedure. This required an amendment to be explicitly accepted by two thirds of Contracting Parties and in practice this took far too long to be practicable. A new procedure known as 'tacit acceptance,' under which amendments automatically enter into force on a pre-selected date unless they are specifically rejected by one third of the countries which have ratified the Convention, entered into force in 1984 (article VII). Early in 1986 the new acceptance procedure was used to adopt further amendments designed primarily to permit the use of automatic data processing and other techniques. These amendments entered into force

Channel Tunnel—

(Continued from Page 23)

Eurotunnel will play a considerable part in this — not only because it is a pioneer in the building of infrastructure using privately subscribed capital, but also because of the very large volumes of passengers and freight that will pass through the Tunnel.

The traditional forms of transport are becoming in-

creasingly congested — a situation that is certain to get worse unless there is some relief for existing facilities. The high-speed rail network will be a major force in reducing the pressure on road and air services. We are at the beginning of a new Rail Age and because of Eurotunnel's position in this renaissance it is vital that it succeeds in the challenge of being completed on time and on budget — not to do so would jeopardize its credibility in the eyes of potential financiers of future infrastructure projects.



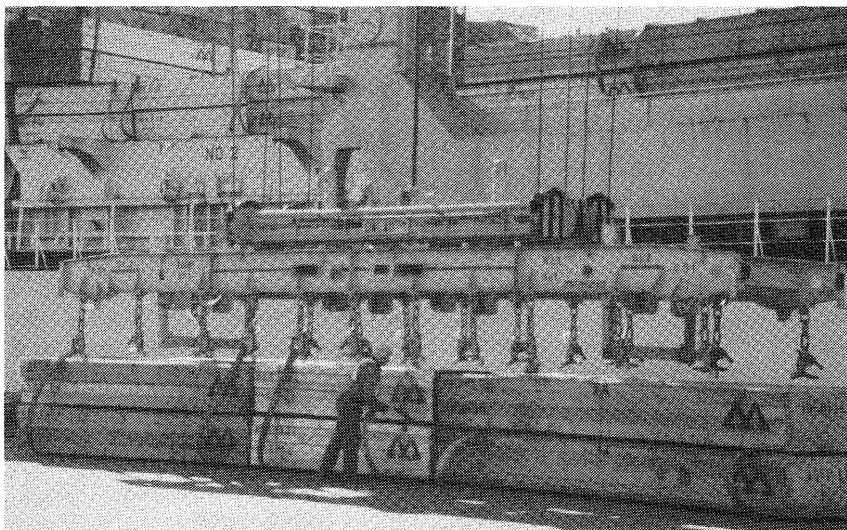
Port Alberni: Natural Harbour in the Heart of Vancouver Island

(Top) The Fishermen's Harbour is seen in the foreground and together with the fish plant and ice house on the dock, bottom left, is administered by the Port Alberni Harbour Commission. In the centre of this picture to the right is the Harbour Quay, Port Alberni's "People Place". Upper left, the start of Terminal Three with one of four storage sheds.

(Middle) Port Alberni Harbour Quay is a waterfront beautification project built to provide access to the Harbour for citizens and tourists. Intermediate docks accommodate small coastwise traffic and there is a special service float system for use by regulatory vessels and fire boat.

(Bottom left) Special gantry heads being used to lift as much as 40 tons of packaged lumber at one time. Speed of loading is dependent upon such devices and on occasion, the rate of loading has exceeded 300 tonnes an hour.

(Bottom right) Six forklifts with special heads for moving rolls of paper have a capacity of 7.5 tonnes. Two of those forklifts are shown moving rolls of paper from storage in the sheds preparatory to stacking them under ships cranes.



in October of the same year.

The present publication contains the text of the Convention effective from 1 January 1989.

Shipping Statistics Yearbook 1989

The Institute of Shipping Economics and Logistics, Bremen (ISL) has published the *Shipping Statistics Yearbook 1989*.

Experts of the Institute's Empirical Shipping Research Department have compiled this remarkable information source by using in-house data files as well as hundreds of shipping related information sources.

The yearbook contains clearly laid out statistical data on key areas of the world shipping industry, whereby the in-depth investigation attempts to present interdependent information on shipping, shipbuilding and ports. Features included are

Shipping Market

- Analysis of total merchant fleet, laid-up and broken-up tonnage as well as special fleets
- Presentation of key figures on world seaborne trade and world trade development
- Detailed overview on nearly 30 major commodity markets specified according to production and consumption centres
- Long-term series on freight rates
- Profiles of major shipping countries

Shipbuilding

- World shipbuilding returns indicating ordering activities and output figures
- Information on the current situation of major shipbuilding countries

Ports and Sea Canals

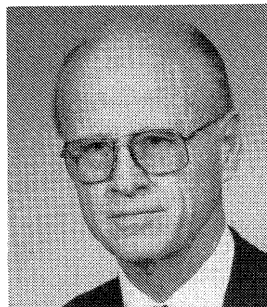
- Port survey on worldwide shipping and cargo traffic structures including a detailed container traffic analysis; figures are extracted from the ISL port data base
- Shipping and freight traffic attributable to the world's major sea canals

The large amount of statistically sifted and processed data gives the yearbook the authority of a valuable instrument of market analysis and explains why so many shipowners, shipbuilders, repairers, port authorities,

The Americas

Mr. Cornett Elected Fraser Port Chairman

Mr. Lloyd E. Cornett, Tsawwassen, was elected Chairman and Mr. George H.B. Preston, Langley, Vice-Chairman,



Mr. Cornett

of the Fraser River Harbour Commission at the recent 1990 inaugural meeting of the board.

The new chairman has been the Commission's Vice-Chairman for the past two years and a Commissioner since 1986. He replaces Commissioner William Vogel who was first elected Chairman in May 1987. Vice-Chairman Preston was appointed to the Commission in January 1988.

brokers, banks, transportation consultants, universities and research institutes in more than 50 countries worldwide make use of this source of reliable insider information.

476 pages, graphs; ISSN 0721-3220
Institute of Shipping Economics and Logistics (ISL):

Universitätsallee GW1, Block A, 2800 Bremen 33, Fed. Rep. of Germany.

Price 230 DM incl. packing and postage (surface mail); in case of inland sales plus VAT.

Lloyd's Register's Maritime Guide 1990

The *Maritime Guide* published by Lloyd's Register provides the shipping industry with an invaluable collection of far-ranging maritime information which has been gathered through LR's worldwide resources.

The *Maritime Guide* is arranged in eight sections covering port facilities and a ports gazetteer with coloured

EDI Updated at Port of Halifax

A steering committee organized by the Halifax Port Corporation to facilitate and promote the development of electronic data interchange (EDI) at the Port of Halifax has had a very successful first year of activity. EDI is the computer-to-computer exchange of business documents (eg. Canada Customs information, bills of lading, invoices, etc.) between companies which results in lower costs and improvements in efficiency.

In June the committee formalized its activities by creating EDIPORT Atlantic, Inc. in an effort to generate support for EDI, provide information on EDI developments and pursue the implementation of EDI at the Port of Halifax.

To this end, consultants DMR Group, Inc. were retained to conduct a study and come up with an implementation plan for an EDI pilot project. The study is being jointly funded by the federal and provincial governments through the Atlantic Canada Opportunities Agency (ACOA) and the Halifax Port Corporation.

Phase I of the study, determining the major document flows at the Port is

maps, postal and telecommunication addresses, call signs index, shipbuilders, shipbrokers and marine insurance companies.

Price £85.00

Lloyd's Register of Shipping, 71 Fenchurch Street, London, EC3M 4BS. Telephone 01-709 9166; Telex 888379 LR LON G; Fax 01-488 4796 (Gp III).

Lloyd's Nautical Yearbook 1990

Editor: Harry Arnold. This premier maritime reference book continues to develop as an essential annual review of the shipping industry. As well as its regular reference sections, the 1990 edition looks ahead to the new decade with articles on ship finance, the problems of manpower and resources, shipbuilding in an era of constant changes, and the future of the LNG trades.

Price: £25. Postage: £2. per copy. Airmail rates on application. 488pp. ISBN 1 85044 250 9.

now complete. DMR, along with a steering committee from EDIPORT Atlantic, is now pursuing Phase II and evaluating alternative strategies for providing an EDI service. Phase III will involve the preparation of a business plan for the operation of the selected strategy and recommend a pilot project to test the operation.

EDI has appeal for all stakeholders at the Port of Halifax, both large and small, in that it reduces errors, paper and clerical costs and speeds up the through movement of cargo by reducing delays. The approach taken by EDIPORT Atlantic strives to provide a system at minimal user cost, which is easy to use and ensures confidentiality of commercial information.

(Port of Halifax)

EDI Improves Montreal's Competitive Edge

Electronic Data Interchange (EDI) has emerged as "the" communications tool of today between trading partners, and the Port of Montreal is proud to play an active role in its implementation in the transportation industry.

EDI is the computer-to-computer exchange of business information between two or more trading partners or companies using a standard, computer-readable message format.

Originally developed in the United States, EDI is migrating toward developing international standards known as EDIFACT (EDI for Administration, Commerce and Transport).

EDI will be of strategic importance to the Canadian transportation industry, for "paperless" trade is a means of improving service, increasing productivity and facilitating international trade.

In essence, it opens opportunities for the transportation industry to improve its competitive edge, and that is why ports throughout the country, including Montreal, have seized the opportunity.

Hundreds of businesses have already improved their administrative efficiency by adopting Electronic Data Interchange. Major corporations such as Provigo Inc. and Catelli Inc. are just two of the many EDI leaders in Canada. The automobile sector relies heavily on EDI.

But EDI also is making steady headway in the Canadian transporta-

tion industry. CN Rail, CP Rail and Cast North America (1983) Inc. are all major players in EDI.

And ports are beginning to assume a much more active role in EDI. After all, Canadian ports can only benefit from a communications system that will allow their clients to better compete with their counterparts.

The Port of Montreal is committed to acquire EDI expertise and to the philosophy of answering the private sector's EDI needs. To that effect, the port is actively participating in an industry-wide top management effort to determine the EDI requirements of the Montreal intermodal industry.

At the same time, the port is pursuing more specific objectives through its own EDI committee.

Regarding the industry-wide effort, to which Canada Customs and both the federal and provincial communications ministries will be participants, the Montreal shipping and transportation industries have retained the services of the EDI Council of Canada to act as a facilitator.

A steering committee has recently been formed and a business plan is now under development. The port is providing the necessary facilities for the group.

The Port of Montreal's own EDI committee was formed on June 6, 1988, after the port canvassed the private sector to determine potential applications of EDI. The committee got under way by sponsoring a two-day EDI seminar given by the EDI Council of Canada.

The members of the committee are: Canada Maritime Agencies Ltd., Cast North America (1983) Inc., Netumar Navigation Ltd., Cerescorp Inc., Empire Stevedoring Co. Ltd., Logistec Corp., Racine Terminal (Montreal) Ltd., CN Rail, CP Rail, and, of course, the Port of Montreal.

The group's two main priorities are to study the electronic transmission of manifest data and examine tracing services on Port of Montreal Property.

The committee is currently involved in a pilot project for the direct one-to-one transmission of manifest data. Its main objective will be to experiment with EDI standards.

The first phase of the project, in which Cast, CP Rail and the Port of Montreal are participants, is concentrating on

import data for containerized cargo.

The port has set aside the necessary human and financial resources, and has purchased a minicomputer and software program for the project.

As agreed among the members of the committee, Cast was chosen to work on the project and it was decided that the rest of the industry would be kept abreast of the developments.

The Port Montreal also is active in an EDI steering committee established by Ports Canada. Montreal's representatives are Mr. Bernard J. Finestone, vice-chairman of the board of the port, and Mr. Normand Fillion, manager of economic research and analysis.

Many issues must still be tackled before the Canadian transportation industry fully benefits from EDI. Among those issues are the capability of Canada Customs (and other federal agencies) to receive electronic data from carriers, the different needs of different ports, and the acceptance of specific transaction sets. (Transaction sets are the computer equivalent of a given business form.)

The Port of Montreal is excited by the implementation of Electronic Data Interchange and is proud to work alongside so many organizations dedicated to the EDI cause. It realizes that the many benefits of EDI can only enhance Montreal's role as a major world port.

(PORTINFO)

\$60 Million Project For Cameron Island

Preliminary plans for a \$60 million residential-commercial complex on Nanaimo's waterfront have been unveiled by Bosa Development Corp.

Plans for the development at Cameron Island, in Nanaimo's Inner Harbour, call for a 22-storey condominium tower as the focal point for a European seaside-style project. Bosa recently purchased Cameron Island from the Nanaimo Harbour Commission.

The development will contain a 100-unit tower, an 80-room hotel and 150 additional condominium units on the waterfront. As well, there will be 23,000 square feet of commercial space.

In making the announcement, architect Norm Hotson said: "We want this to feel a bit like a seaside village and have a very casual feeling, a feeling

where if you're visitor you feel as welcome as someone who owns a house there."

The centrepiece of the project will be a lighthouse-shaped tower which will serve as a landmark for the maritime character of the development, Mr. Hotson said.

Mr. Hotson said the plans are "early thoughts" as a demonstration of the comprehensive way the developer is approaching this project. He said the finished project may take on a different look.

Included in the project will be underground parking for up to 500 tenants and another 70 spots on the main level. The hotel would go to a maximum of nine storeys, with the condominium units going no higher than four storeys, Mr. Hotson said.

Bosa Development Corp has a history of bringing successful developments to expanding communities.

President Nat Bosa said: "We don't expect anything less for Nanaimo. We think something of this magnitude is going to be the catalyst for Nanaimo."

Other Bosa projects include Vancouver's False Creek mixed use development, a major apartment and single family homes development at Whistler, a housing project at Blackcomb, a condominium project in Maui and residential projects Lonsdale Quay, New Westminster Quay and a high-rise development in New Westminster.

Plans call for the project to be phase in over five years, with work beginning as early as next spring with a public walkway around the perimeter of the property. (*Nanaimo Harbour News*)

Vancouver Development: Balance and Reality

As the public sector administration and private terminal operations of the Port of Vancouver aim their land management and development strategies toward the next century, they are confronted by a set of parallel and often incompatible challenges: intense competition, and growing public involvement.

These challenges are not unique to Canada's largest port. Major seaports world-wide can all offer accounts of "gentrification" and attempts to juggle competing demands for waterfront use.

In many ways, however, the Port

of Vancouver's story is unique. It is a growing port surrounded by growing municipalities. Vancouver is well on its way to attaining the status of a world-class centre for trade, transportation, tourism and finance. The resulting population influx has placed an enormous strain on existing urban infrastructure.

Municipalities throughout the lower mainland are under pressure to provide badly needed accommodation, roadways and "green space."

At the same time, new and expanding cargo opportunities present themselves to the Port of Vancouver. Western Canada's resource and agricultural sectors show promise of continued health. Economic strength is forecast to continue in primary export markets throughout Southeast Asia.

But during the 1980s tough new competitive factors have emerged. Today, container liens are practising load centering, rationalization of services, and are acquiring and operating more links in the intermodal chain. All are measures which have tended to favour the Port of Vancouver's competitors south of the border.

Competition from U.S. west coast ports poses a serious threat to the Port of Vancouver's ability to serve the nation as a Canadian gateway on the Pacific. It must continue to offer full service, or risk decline to feeder port status.

To realize growth potential, the Port of Vancouver must respond with efficient terminals, and state-of-the-art facilities and equipment. Its future depends on a prudent programme of marketing and port development.

(*Port News*)

Final Report Soon on Vancouver Recreation

From boating to water skiing — crab fishing to diving — the Port of Vancouver offers literally dozens of opportunities to enjoy marine recreation year-round. But exactly what are these activities, who enjoys them, and do they ever conflict with each other?

To find out, the Vancouver Port Corporation commissioned Quadra Planning Consultants to conduct a Marine Recreation Resource Use Study. The purpose of the six-month "audit" was to determine both existing

and potential uses of the water resource, the impacts and conflicts that may arise from such uses, and finally, to put forward a number of general and area-specific recommendations to enhance the public's enjoyment of recreation in the study area.

In late October 1989, the Port unveiled the Draft Report of the study in a series of three "Open House" events in communities in the Indian Arm/eastern Burrard Inlet areas. The meetings were lively affairs; punctuated by widely varied input from local residents and other key user-sectors.

Among the draft general recommendations is a call for an area designation process to identify specific foreshore uses; establishment of boating facilities; stepped-up policing; and expanded boater education.

The Draft identified the implementing agencies that would be involved in bringing about the various recommendations, including the Municipalities, the Regional District, and regulatory agencies of the federal and provincial governments. The Port Corporation itself is seen as being instrumental in bringing about some of the suggested initiatives.

Public input to the Draft Report will now be considered in preparation of the Final Report to the Port, likely to be presented early in the new year. From that point, VPC is optimistic that the Study will serve as an effective resource in the management, and enjoyment, of area Marine Recreation by everyone concerned — government and the general public.

(*Port News*)

New Cruise Passenger Record at Vancouver

For the seventh straight year, a new cruise passenger record has been set in the Port of Vancouver. According to figures released by the Vancouver Port Corporation, the revenue passenger count for the 1989 season totalled 333,189. This figure represents a gain of 8,928 revenue passengers or 3% over 1988.

The five-month cruise season, which ended with the departure of *Rotterdam* October 14th, 1989, saw a total of 17 ships make 198 calls at the port's two cruise terminals — Canada Place and Ballantyne. All but one of the ships were engaged in the Van-

couver-Alaska cruise. Nine international cruise lines were represented in the Port of Vancouver in 1989.

Fifteen of the sixteen Alaska callers "home ported" in the Port of Vancouver during the 1989 season, producing a positive economic impact for the port, city and region. A study recently issued by the North West Cruise Ship Association estimates that in 1989 the Vancouver-Alaska cruise industry generated direct economic benefits in Canada of \$99 million, much of it in the Lower Mainland region.

The Port of Vancouver is gearing up for a busy season this year, with "Cruise-A-Thon 1990" promising to be a highlight. This semi-annual convention of travel agents and cruise line representatives is expected to attract more than 1,500 travel agents and cruise line representatives to Vancouver for five days beginning May 23rd. The event to be held at the Vancouver Trade and Convention Centre at Canada Place will be the first of its kind ever held outside the United States.

According to Mr. Francis MacNaughton, Port Manager and Port Corporation C.E.O., Cruise-A-Thon presents a new and exciting opportunity for the local cruise industry. "Until now, most travel agents have only seen pictures of us," said Mr. MacNaughton. "At Cruise-A-Thon 1990, the people who sell cruises will, for the first time, see in person the product we have to offer — as a port and a city."

Houston Ship Channel: Local Funds Okayed

Harris County voters have approved a \$130 million bond issue to finance improvement of the Houston Ship Channel. In a Nov. 7 general election, 63 percent of voters supported the bond measure.

"The election results demonstrate voters' willingness to invest in the future," said Mr. James Pugh, executive director of the Port of Houston Authority. "This is an investment not only in Houston's port, but in the city's economy as well."

The bond proceeds would pay the Port Authority's share of enlarging the Houston Ship Channel.

PROJECT STATUS: The project is currently under review by federal agencies, after which the U.S. Army

Corps of Engineers will submit the proposal to Congress for review and funding consideration.

Total cost of the project would be \$319 million. Federal legislation requires the Port Authority — as the ship channel's official sponsor — the share the expense of the improvements with the federal government.

SAFETY STUDIED: A recent study by a national maritime consultant found that the improvements would enhance safety conditions along the channel. The Port Authority commissioned the study, which was conducted by Marine Safety International's National Maritime Research Center.

The center used a computer model to simulate conditions along the Houston Ship Channel. The sophisticated simulations take into consideration the surge, sway, yaw and speed of many types of vessels as they navigate the channel. The study also examined hydrodynamic forces on the channel that affect vessels.

The channel improvements also would have significant economic benefits. Previous studies have shown the project would produce \$1.40 in benefits for every dollar spent.

(Port of Houston)

Wider, Deeper Channel To Enhance Safety

Extensive computer modeling of the Houston Ship Channel by a leading national maritime consultant proves that proposed improvements would enhance channel safety and reduce the chance of mishaps.

A wider and deeper channel would allow deep-water ships to be farther away from the channel edge as well as each other when they pass, increasing the margin of safety and giving ship pilots more time to react to the unexpected, the study said.

These findings were in the second part of a two-part study commissioned by the Port of Houston and done by Marine Safety International's National Maritime Research Center.

"The results of the (computer) simulation tests show that an increase in channel width and depth provides a large return in safety through improved ship/waterway hydrodynamic interaction," the study said.

The computer modeling emphasized

what the preliminary report said when released October 12: that there will be "significant improvements to navigation safety" in the channel if the U.S. Army Corps of Engineers' modernization plan is approved on Nov. 7 by Harris County voters.

Marine Safety International's highly complex computer simulations considered the surge, sway, yaw and speed of a variety of ship types as they travel through the channel. The simulation also considered channel hydrodynamic forces that affect the vessels.

The channel is presently 400 feet wide and 40 feet deep. The Corps proposes that it be enlarged to 530 feet wide and 45 feet deep.

According to the report, a wider ship channel will:

- allow a greater separation distance between vessels as they pass each other, greatly enhancing safety;
- reduce the chance that barge traffic will interfere with deep-water vessels;
- facilitate turns into and out of the main ship channel at ancillary channel junctions;
- allow safe navigation over a wider range of weather conditions; and
- allow increased margins of safety for coping with emergencies.

"Increasing (the channel width) from the present 400 to 530 feet or beyond would also have a dramatic safety payoff because the shallow-draft traffic will be able to hold farther off of the channel centerline and drastically reduce the possibility of interfering with deep-draft traffic holding to the centerline," the report said.

This is important because captains of small vessels who are not familiar with the ship channel or its marking buoys tend to gravitate toward the middle of the channel, which can cause problems for the larger ships already there, the report concluded.

In addition to improving port safety, the proposed modernization would enhance port activity by eliminating bottlenecks, the first part of the study said.

"A wider ship channel would not only help ease the dangers associated with congestion, but will also make it less likely that the channel will be shut down as often or to all sizes of traffic, because the increased width and improved aids to navigation will allow safe navigation over a wider range of conditions" such

as fog, strong winds and other weather problems, the study said.

During the study, extensive interviews were conducted with Houston ship pilots, the Corps of Engineers and many chemical companies which rely on the Houston Ship Channel to transport their products.

MSI conducted the study at its Computer Aided Operations Research Facility at the National Maritime Research Center in Kings Point, New York. More than 30 maritime geographic areas have been "computer modeled" at the high-tech facility, including the Panama Canal and Galveston Ship Channel.

JAXPORT, Buenos Aires To Strengthen Ties

In a move to bolster trade between Argentina and the United States, the Jacksonville Port Authority (JAXPORT) signed an agreement with the Argentina Port Authority (AGP) that will result in the sharing of technical, commercial and financial information.

The joint partnership will entail:

- The development of business activities between the two ports. A liaison will be developed between the marketing departments of both ports, and an analysis will be made of trade volumes between Argentina and the United States.

- The sharing of financial and administrative information, including the development of management techniques and the analysis of financial possibilities available for capital expansion.

- The exchange of operations personnel to study future undertakings, including assessing the development possibilities for Argentine ports and their links with roads and railways.

"I am hopeful that this agreement will allow each port to identify and obtain cargo that is transported from each of our regions," said JAXPORT Managing Director Paul D. deMariano. "There are tremendous opportunities for increasing the two-way trade between our ports, and we can accomplish that by working together."

Mr. Antonio Troiano, trustee for the Argentina Port Authority (AGP), said, "Through this agreement, the AGP and JAXPORT will surely seek to boost the development of joint business through

direct communications between our respective marketing departments. This will bring about an improvement of business between both countries."

The Port of Jacksonville and the Port of Buenos Aires have enjoyed a very good relationship dating back to the early 1940s when various liner services began plying the waters between the two ports. In 1988, JAXPORT handled more than 100,000 tons, or an estimated 50 percent of Argentine imports and exports to and from U.S. South Atlantic ports.

Speaking in Spanish, deMariano told the gathering that "we see a bright future ahead for South America, because talents, wealth and natural resources in the great South American nations will be activated by clear economic policies. We see this treaty as sound business for JAXPORT, sound business for Buenos Aires, sound business for Argentina and sound business

for the United States.

"This is the beginning of a truly international fraternity," Mr. Troiano said. "We want to become brothers with the Port of Jacksonville, to ... learn from their experience and also be able to contribute from our end with ideas and creativeness."

New Hanjin Terminal Construction Begins

The Port of Long Beach recently inaugurated construction on its seventh container terminal with the ceremonial first pile christening of the Hanjin facility. Located at the old Procter and Gamble site on Seventh Street, the 55-acre Hanjin Terminal is scheduled to open November 1990. Port of Long Beach Harbor Commission President Louise DuVall presented Mr. W. Kim, Hanjin Vice President, North America,



Long Beach Freeway Extension Dedicated

A one-mile extension of Interstate-710 south of Pacific Coast Highway and two interchange bridges linking the new Long Beach Freeway terminus with Ocean Boulevard have been officially dedicated and will soon be open to vehicular travel.

Pictured at the recent on-site ceremony are, from left, Jerry Baxter, Director of CalTrans District 7; Long Beach City Councilman Ray Grabinski; Harbor Commission President Louise M. DuVall; City Councilman Evan Braude; County Commissioner Jacki Bacharach; State Assemblyman Dave Elder and Congressman Glenn M. Anderson.

The improvements are a major part of Phase I of the Port Access Demonstration Project. Additional upgrading of roads and highways in the harbor area is scheduled for Phase II construction.



with an artist's rendering of the future terminal (photo).

The container facility of Hanjin Shipping Company, South Korea's largest liner company, which will feature a modern, two-berth terminal served by three state-of-the-art, post-panamax gantry cranes that will improve Southern California service.

"We are happy to see Hanjin return to the Port of Long Beach," noted Mr. Steve Dillenbeck, the port's Managing Director of Commerce & Development. Hanjin, which recently merged with Korea Shipping Company, is currently operating from Korea Shipping's Los Angeles terminal. Hanjin had operated from Long Beach before the merger, but needed more space. "Hanjin has ambitious growth plans in the Pacific," Mr. Dillenbeck added. "To become a principal player in today's marketplace, you need space to grow."

Trade with the Pacific Rim is booming, and boxed cargo levels are growing at a phenomenal rate. One of the world's 10 busiest container ports, exports through the Long Beach harbor shot up 43% last year.

Expected cargo throughput of the San Pedro Bay harbor complex by the year 2020 is estimated at over 197 million metric tons, including 11.7 million boxes, nearly quadruple today's levels. The new container terminal will help provide for the projected cargo handling needs of the future.

Los Angeles Project for Traffic Improvement

The Los Angeles Board of Harbor Commissioners approved several items that are described in the Port's capital improvements program and in the 2020 Plan.

The Harbor Commission voted to transfer funds to the Department of Public Works in an amount not to exceed \$899,600 to expedite the planned widening of Alameda Street between McFarland Avenue and "B" Street in Wilmington. This project is outlined in the capital improvements program and is designed to improve traffic flow and broaden the existing sharp curve for safety reasons.

Additional funds were allocated by the Board toward completion of the final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Batiquitos Lagoon enhancement/mitigation project in San Diego County. An existing reimbursement agreement with the City of Carlsbad was amended increasing the allotted amount from \$828,666 to \$1,499,916. This project will mitigate marine habitat losses when the Port begins dredging south of Terminal Island to create new landfills as proposed in its 2020 Plan.

In other action, the Board of Harbor Commissioners also approved the final conceptual master plan which includes a new eleven-story building in the

Beacon Street Redevelopment area of San Pedro. The Board requested that staff begin preparation of a supplemental EIR based on the final master plan. The Harbor Department's master plan for the office complex includes a visitors center and office and retail space.

New Orleans Buys Container Gantry Cranes

With a positive structural survey in hand and with a stroke of a pen, the Port of New Orleans assumed ownership of two 40-ton gantry cranes at the France Road Container Terminal.

The gantry cranes are the second and third units to be purchased by the Port in 1989. Earlier this year, the Port purchased and rebuilt another container crane which it installed at the Industrial Canal Terminal.

With rails running the length of the wharf, all three cranes can work at berths 4, 5 and 6 together, speeding loading and unloading operations. Berth 4 is leased to Puerto Rico Marine Management Inc., while berths 5 and 6 at the Public Container Terminal are operated by N.O.M.C.

Because it now owns and operates all the cranes at the two terminals, the Board can control the pricing of crane service. Rates have been reduced from \$475 per hour per crane to \$425, and overtime charges have been eliminated.

Steam-cleaning Service Of Containers, Trucks

Genesis Unlimited, Inc., a minority-owned industrial/marine cleaning service based in Elizabeth, New Jersey, will establish a container and truck steam cleaning facility at the Port Newark-Elizabeth Port Authority Marine Terminal, the first such facility to serve steamship lines, terminal operators and truckers at the seaport, it was announced by Chairman Philip D. Kaltenbacher.

"Genesis will provide a necessary support service to the tenants at our seaport and do so in an environmentally sound facility," said Chairman Kaltenbacher following the monthly Board meeting.

"We are pleased to note that this minority-owned port service organiza-

tion has received the enthusiastic support of the many tenants it has served at the seaport over the past four years under its operational name of Steam King Cleaning Service," he added.

Steam King will lease Building 126 on Tyler Street in Port Newark, comprising approximately 3,280 square feet of space, and 27,900 square feet of adjacent open area.

At its own expense, Steam King will modify the building and install oil-water separators and water recycling equipment, which will conserve water and prevent any discharge of possibly contaminated waste water from cargo residue into storm sewers.

Regularly scheduled steam cleaning of truck cabs, chassis and containers are part of normal marine terminal operations. Steam King expects to handle approximately 60 containers, truck cabs and/or chassis a day when operational by the summer of this year.

Under U.S. Department of Agriculture regulations, the inside of refrigerated containers must be cleaned before being reloaded with another commodity or cargo. Cleaning of truck cabs and chassis is part of normal safety and maintenance operations for shipping companies.

NY/NJ Cuts Charges On Cargo up to 35%

Cargo assessments at the Port of New York and New Jersey will drop by up to 35% on Jan. 1, according to the New York Shipping Association and the International Longshoremen's Association, AFL-CIO.

The reduction — a cut of \$1 per assessment ton on tonnage-based levies — was made possible by the success of a new retirement-incentive plan designed to lower the port's costs by bringing the number of active dockworkers into balance with work needs. The program has drawn a quarter of the labor force onto the pension rolls in the last three months.

Assessments are charges on cargo that fund longshore workers' benefit programs, including health, pension, vacation, holiday and guaranteed annual income.

"This is solid evidence that management and labor in the Port of New York and New Jersey are deadly serious about making our waterfront a more

competitive place," said NYSA President Anthony J. Tozzoli, management's chief labor negotiator, and ILA President John Bowers.

Currently, the tonnage charge is \$5.85 per assessment ton for standard containerized cargo, and \$2.85 per assessment ton for labor intensive goods, Canadian cargo, inland freight and military cargo.

After the Jan. 1 reduction, the standard tonnage charge will be \$4.85 per assessment ton, a 17% reduction from current levels. The charge for labor-intensive, Canadian, inland and military cargo will be \$1.85 per assessment ton, a drop of 35%.

Mr. Tozzoli and Mr. Bowers said the reduction is aimed at passing on the savings that are expected to result from the retirement-inducement program adopted in the NYSA-ILA contract that took effect Oct. 1. It offered increased benefits to workers 55 and over who left the labor force in a three-month window period.

As of Dec. 27, with four days left in the eligibility period, 1,448 dockworkers had retired. That was 24.9 percent of the 5,800 workers on the port's longshore rolls on Oct. 1.

The retirements will help resolve a long-standing problem for the Port of New York and New Jersey: a costly surplus of workers who had been idled by automation. Many were supported in large part by expensive benefit programs adopted in the 1960s to win union acceptance of automation.

Of the new retirees, nearly 60% had depended heavily on guaranteed annual income, a job-displacement program that guaranteed up to 1,900 hours of pay a year to dockers who were available for work. The balance were active workers whom management intends to replace without going outside the labor force.

The retirees were of all ages from 55 up and came from all parts of the Port of New York and New Jersey. The biggest single group, some 700 men, came from Brooklyn.

N.C.: More Contacts With Businesses

North Carolina State Ports Authority (NCSPA) Manager of Marketing, Mr. Donald D. Black, Jr., will spearhead a new marketing effort directed at

North Carolina's importers and exporters. Effective February 1, 1990, Black will relocate his office from Wilmington to Greensboro.

According to NCSPA Director of Business Development, Mr. Robert G. Jacobi, Mr. Black's relocation to Greensboro will increase and improve the Port Authority's direct contact with the businesses and industries that either use the ports now or are potential users of the ports. "Greensboro is central not only to North Carolina's industrial base, but to importers and exporters outside the state who might benefit from shipping through the ports at Wilmington or Morehead City," Mr. Jacobi said.

Mr. Black will continue to manage and direct the NCSPA outside sales force with its offices in Morehead City and Charlotte. His new office will be located in the NCSPA Greensboro Intermodal Terminal:

6211 Swiggett Road

Greensboro, N.C. 27419

Phone: (919)294-9614/5/16

Fax: (919)294-9618

Mr. Gimpel Named Port of Oakland CEO

Mr. Nolan R. Gimpel, who served in a variety of top executive positions for American President Companies during the past 11 years, has been named to the new position of Chief Executive Officer of the Port of Oakland.

As the chief executive of the Port, he will have overall responsibility for the operations of the three revenue-producing activities — maritime, aviation and commercial real estate — and for setting the directions for the Port's future development and growth. Two Executive Directors, Mr. James J. O'Brien with direct responsibility for transportation and engineering services, and Ms. Eileen M. Daly, responsible for planning and development, will report directly to him, as will the chief financial officer, director of public affairs, director of administration-human services and the Port Attorney on administrative matters.

The appointment was made following a world-wide search.

"We are delighted that Mr. Gimpel will be joining the Port of Oakland in this important position at a critical time

in our history," said Dr. Ronald W. Brady, president of the Oakland Port Commission.

"His wide-ranging experience in the maritime industry and his proven successes as an executive in a highly competitive private industry, gives us every reason to be strongly optimistic about our future under his leadership."

The new position of Chief Executive Officer was created earlier this year, following an internal reorganization of the Port structure.

Oakland's Revenue Up For First Quarter of Year

The combined marine, aviation and real estate operations of the Port of Oakland posted a \$2.1 million increase over budgeted operating income for the first three months of the Port's fiscal year, ending September 30. Operation income for the full 12 months is forecast to exceed budget projections by a like amount.

However, Port Commissioners were reminded that these figures predated the 7.1 Loma Prieta earthquake on October 17, and that the revenue outlook for the remaining three quarters of the year depends in large measure on the repair schedule for a number of facilities.

Damage to Oakland seaport and airport installations has been estimated at \$105 million. "If recovery in some instances takes longer than originally planned, then these figures may have to be revised," said Mr. Richard Broderson, the Port's chief financial officer.

Mr. Broderson said that, while Federal and State relief assistance will become available to the Port, most emergency grants require the Port to pay for repairs first and then apply for reimbursement. As a result, he said, the Port could be deprived of interest income it normally would receive from funds on deposit, and could incur interest expense on funds borrowed to pay up front costs.

Federal relief through the Federal Emergency Management Agency presumably will cover 75 percent of the Port's damage repair cost and the State will cover 75 percent of the remainder, leaving the Port with an exposure of about 6 percent, or some \$6 million, based on a \$105 million damage estimate.

The Port of Oakland got off to a fast start, well above forecasts, during the first three months of the fiscal year, from July to October.

Operating income for the Aviation Division came in \$325,120 ahead of budget; Maritime was \$166,905 ahead, and the Commercial Real Estate Division, which normally accounts for about 12 percent of the Port's operating income, was \$4,424 over budget for the first three months.

Despite the earthquake, Mr. Broderson said the Aviation Division should be \$1.2 million above budget for the full year.

"The positive impact of increased passenger activity on the parking lot and car rentals, together with mid-year rate adjustments and increased activity in maintenance facilities, will be the major contributors," he said. Passenger volume is expected to increase by 800,000 for the year.

Mr. Broderson estimated maritime revenue losses attributable to the earthquake at \$700,000. On the other hand, the budget projected a rental expense for U.S. Navy property whose lease

has been delayed and the expense has not been incurred. That savings should offset projected maritime revenue losses and allow the division to be on schedule, he said.

Commercial Real Estate probably will wind up about \$335,000 below budget, due to a number of factors, including loss of rent from tenants as a result of the earthquake, increased security costs, and the reclassification of certain cost from capital to current period expenses.

On the expense side of the ledger, Mr. Broderson noted that the Port will "save" \$1.1 million because filling a number of new positions created by the Port's reorganization program is taking longer than originally anticipated.

Port of Seattle: Mission And Goals Statement

The Port of Seattle Commission recently announced a major step toward the future with its adoption of a final Mission and Goals statement. The Mission and Goals statement outlines a course of action which positions the Port as a leader in balancing further

(Continued on Page 38, Col. 1)

Palm Beach Revenues For '89 Over \$5 Million

For the first time ever, revenues for the Port of Palm Beach Fiscal '89 topped \$5 million. This represents another milestone in the history of the 75-year-old Port — one of which Executive Director Ben Murphy, now in his fifth year of service at the Port, is justly proud. He attributes this accomplishment to a combination of many things: increased volume and cargo, of course; the continued support of Port users and the addition of new tenants; the increasing success of the cruise line; the skill and hard work of an excellent staff; and the strong support of a deeply committed Board of Commissioners.

The success of 1989 was particularly gratifying considering some of the obstacles that had to be overcome. This was a year of much upheaval at the Port. Literally. Construction activity was at an all-time high. There was the addition of a new cruise terminal, the completion of rebulkeheading Slip No. 1, extensive paving and sinkhole repairs, improvements in parking and fencing. Fortunately, these expenses were overshadowed by steadily increasing revenues.

The figures speak for themselves. Total revenues went up from \$4,498,180 to a new high of \$5,142,640, a rise of 14 percent. Total tonnage reached 3,832,842, up a hefty 16 percent over last year. The number of vessels jumped from 1,791 to 1,824, while the number of containers went from 119,154 to 121,137 CEUs (container equivalent units). Cruise passengers showed a healthy 17 percent increase to 279,556.

According to Port Director Murphy, 1990 is shaping up to be a busy year, with much legislation pending, both on state and federal levels, that could impact ports. The Florida Ports Council will be working hard in Tallahassee and in Washington to protect port interests, guarding against, in particular, the imposition of new user fees. With the Port of Palm Beach's new fiscal year already under way, Director Murphy is optimistic about the future. "All the signs are positive. With Florida's encouraging economic outlook and the Port's continued fiscal stability, it looks like another banner year ahead."

(Gateway)

(Continued from Page 37, Col. 2)

economic progress with a commitment to retaining the unique quality of life our region offers. In addition to Mission and Goals, the statement includes Strategies for action and Criteria for measuring projects against the Mission, Goals and Strategies.

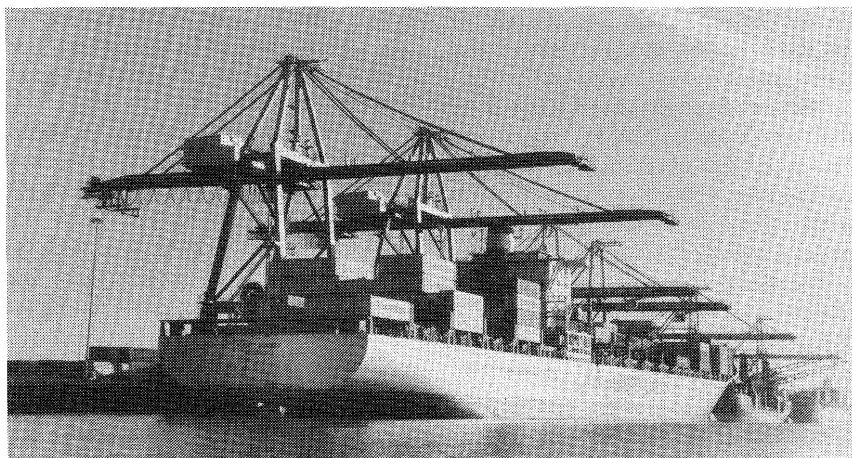
The newly adopted Mission reaffirms that the Port's "core businesses" are the maritime and fishing industries, and aviation. The Goals statement is straightforward: to provide excellent service to the Port's customers, to maintain and enhance the Port's global reputation and competitive position as an innovative commercial transportation and distribution center, and to create long-term benefits for the people of King County.

The new Mission and Goals statement is the product of a year-long Strategic Management Planning effort initiated by the Port's Executive Director Zeger van Asch van Wijck. According to Ms. Patricia Davis, Port of Seattle Commission president, "Zeger has done exactly what we hired him to do. With amazing speed, within the course of a year, he has spearheaded a major evaluation of the Port's future path."

Under Mr. van Asch van Wijck's direction, Port staff met with over 1,000 citizens throughout King County who shared their ideas about the future of the Port. "I am impressed with the huge amount of public input we received, and am looking forward to tough decisions, enormous challenges, and great opportunities in basing our future goals on the new Plan," Ms. Davis said.

Citizens throughout King County offered very similar thoughts about the Port of Seattle, in what Ms. Davis has called one of the largest open processes initiated by a Port anywhere in the country. A common thread throughout the public outreach process was the public's desire to see the Port retain its leadership role as a provider of facilities and services to transport cargo and passengers. But they also offered challenges, to look toward new ways of doing business. Electronic data interchange (EDI) systems, regional co-operation and other new and innovative thoughts were incorporated into the final document.

During the next phase of the Strategic



Charleston: 6 Container Cranes in Operation

Ships berthed at the Port of Charleston's Wando Terminal make maximum use of the six container cranes now in operation. The Port recently activated its two newest IHI container cranes at the Wando with two more scheduled to come on line at North Charleston Terminal early in 1990. The cranes, with outreach of 145 feet and a clearance of 100 feet, are designed to service post-Panamax container ships. Altogether, the new cranes will bring to fourteen the number of container cranes in service at the Port of Charleston.



THE CHARLESTON ADVANTAGE — The heaviest cargo ever transported by LASH barge comes ashore at the Port of Charleston's Columbus Street Terminal. The 434-ton, \$6 million generator stator was transferred from the barge to a rail car specially designed for heavyweight cargo. The combination of pierside rail facilities and expertise in heavy-lift operations were major considerations in the selection of the Port. At the Port of Charleston, shippers of large dimension and high-tonnage cargoes can take advantage of the best rail clearances in the Southeastern United States.

Management Planning process, Port staff will proceed with development of business strategies and action plans to carry out the new Mission and Goals. When completed, in February 1990, the Strategic Management Plan will be used as a basis for determining the 1991 budget. Its influence will be felt throughout all Port projects, from Central Waterfront planning to making choices about the development of new

container terminals.

"I believe that the Port's new Mission and Goals statement will serve as an invaluable guide in navigating through the increasingly complex issues of the 1990s," said Port of Seattle Executive Director Zeger van Asch van Wijck. "It reaffirms the Port's traditional values of providing excellent services and facilities to our customers, and ensures that our future planning takes into

account the economic, social and environmental implications for our region's residents."

Mission and Goals Statement

INTRODUCTION

The Port of Seattle is a public enterprise with unique authority operating in an international, market-driven environment. The Port provides services to its customers in order to return benefits to the citizens of King County, giving careful consideration to the economic, social and environmental implications of its decisions.

MISSION STATEMENT

The Port of Seattle's primary mission is to be a leader in providing services and facilities to accommodate the transportation of cargo and passengers by air, water and land, and to provide a home for the fishing industry, to foster regional economic vitality and a quality life for King County citizens.

The Port will also pursue other opportunities if they enhance its ability to achieve its primary mission or if they preserve scarce land resources—marine or aviation—of unique value for Port uses.

In accomplishing its goals, the Port will work as a partner with other public and private entities. The intent is to complement, rather than duplicate or compete with, the functions of general purpose governments or the private sector.

GOALS

- Provide excellent service to our customers.
- Maintain and enhance the Port's global reputation and competitive position as an innovative commercial transportation and distribution center.
- Create long-term benefits for the people of King County.

STRATEGIES AND CRITERIA

The following Strategies and Criteria serve as a general focus for our efforts to achieve our Goals and Mission. Additional strategies and criteria are likely to be added, as will more specific key strategic issues, to further guide program development and resource allocation.

Strategies

To achieve our Mission and Goals,

we will:

- Conduct Port business and development in a manner which preserves the quality of life in the region;
- Maintain a high level of public understanding of and confidence in the Port's activities;
- Involve the public in Port decision making in a meaningful way, beginning at an early stage in the process;
- Emphasize productive, cooperative relationships with other ports, governments, unions, private sector entities, and communities;
- Act as a catalyst to create economic benefits and diversity;
- Recognize the importance of a well-trained and motivated staff as a key resource for the Port's success, including strong emphasis on affirmative action in Port employment and contracting;
- Recognize the need for a skilled workforce in the region to fill the jobs created in the port sector;
- Manage the Port's financial resources and physical assets in order to ensure maximum long-term economic development;
- Emphasize research and development to seek innovative programs using leading edge technologies;
- Focus on international trends and opportunities as a foundation for Port planning and business development.

Criteria

To measure consistency with our chosen Mission, Goals and Strategies, proposals should demonstrate strength on a high number of these benchmarks:

- Environmental effects
- Consistency with core businesses
- Effect on regional capacity
- Effect on relationship with other ports, governments, unions, private sector entities and communities
- Need for Port of Seattle involvement (e.g., the activity is outside the domain of other entities or is not being adequately provided)
- Resource requirements (financial, facilities, staff, etc.)
- Financial performance (internal rate of return, net present value, cash flow, bottom line impact)
- Effect on economic vitality of the Port District and the region
- Effect of timing (e.g., will opportunity still be available at future time)

Asia/Oceania

APICS for Ship Guidance At Port of Antwerp

APICS stands for Antwerp Port Information and Control System. It is a totally new computer system for ship guidance for the port of Antwerp.

Mr. J. Devroe, Alderman for Port and Industry, gave the official go-ahead for this project in 1986.

Over the years considerable experience had been acquired in maritime computer applications. If the port wanted to remain competitive in the future, investment in this field had to be a top priority. A satisfactory guidance and control system for shipping movements had become essential, especially with the opening of the Berendrecht Lock and the prospect of a container terminal on the Scheldt.

The VTS (Vessel Traffic Service) is the heart of the matter: it monitors the ships in the Scheldt, plans lock use for arrivals and departures of seagoing vessels, plans tug deployment, and helps manage berths. Nor should it be forgotten that while all this is going on thousands of lighters and barges are constantly entering and leaving the port.

The task of the APICS team was to somehow incorporate all this in a single computerized information system. The job has been successfully completed. The training of roughly 200 employees of the Harbourmaster's Service and the Financial Service started on the 4th of January 1989.

The dedicated network was completed by the end of March. On the 3rd of April the system became operational. For 10 days and nights the entire APICS project team provided assistance at all locations: in the headquarters of the Harbourmaster's Service and the Financial Service, at the VTS, at the locks, with the towage service, and the dockmasters.

Assistance was also available whenever it became necessary to modify the software. After all starting up a computer application of this size without expecting any teething troubles at all would be utopian.

By now APICS has clearly demon-

strated its functional viability. The task now before us is to continue the development of the public sector port computer system, both in quantitative and qualitative terms and to provide it with the necessary links to the outside world.

With APICS the Port Authority has set a first step towards an operational information processing policy, towards a new era. In future it will be easier for the port management to present the port services as an efficient enterprise and to take part in the creation of a new advantage in the competitive struggle with other seaports.

(Hinterland)

Le Havre Implements 2nd Productivity Plan

The Union of Port and Associated Professions in Le Havre, the Port of Le Havre Authority, the Dockers Union and the Havre Association of Port Labour Employers issued the following Joint Declaration on July 24, 1989 on the subject of productivity, which is crucial to the future of the port:

* * *

In 1986 a plan for increased productivity was agreed upon by all concerned in the life of the Port of Le Havre, with the aim of retrieving a situation which had become critical both in terms of our competitiveness with the rival ports of North Europe and in terms of unemployment among the dock labour force. As in all negotiations undertaken in a spirit of good will, the parties to the agreement deliberately sought to create a fair balance between social aspirations on one side and the requirements of productivity on the other. Despite this, 600 dockers ceased to be employed.

The plan, which involved all concerned in the life of the port and implied a step-by-step improvement in productivity in order to minimise the social effects, enabled the Port of Le Havre over a period of three years to increase its general cargo traffic by 50%, raise the number of scheduled services by 25%, and recover its position, on the eve of the 1993 European Single Market, as one of the leading ports in Europe.

By the end of 1988, however, this considerable increase in traffic, ac-

companied by full employment, was causing problems in the handling of cargoes during the ever-growing number of peak periods.

Early in 1989 the Port of Le Havre and its partners were therefore led to consider the implementation of a second stage, with the aim this time of dealing with the very large increase in traffic, while simultaneously continuing the very necessary drive for improved competitiveness. As in the first stage, the parties have striven to create a balance between the demands made on each side, and in this spirit have agreed that:

firstly, big new increases should be made in productivity, so as to free part of the current work force for new tasks; secondly, the benefits derived from the increased traffic should be shared, through the immediate creation of 200 vacancies for part-time apprentice dockers, who at the end of their apprenticeship, rendered necessary in particular by the ever more technical nature of cargo handling, would join the professional labour force.

This agreement, imbued with the spirit of concertation that governs management/labour negotiations in the Port of Le Havre and which was fully considered at interministerial level, has been ratified by the Minister for the Sea.

* * *

The Port of Le Havre was therefore authorised at the end of July to set about recruiting 200 apprentice dockers and at the same time was enabled to implement a second plan for increased competitiveness, which will introduce further step-by-step improvements in productivity.

"Competitiveness" and "First Class Service" are now more than ever the watchwords of all who work in the Port of Le Havre.

(Port of Le Havre Flashes)

Major Development Plan In Progress at Rouen

The Port of Rouen's important Development Programme, costing nearly 1,000 million francs, enters a further stage with the go-ahead to modernise Rouen's Grand-Couronne terminal.

Following the same logic of con-

centrating similar cargoes into efficient specialised terminals, improving plant road access and the Seine Channel, Europe's biggest grain port and the world's number one wheat exporter is expecting further major gains in productivity and competitiveness. The process is aided by large private investments in infrastructure and equipment.

France's fourth biggest port, in its bid to enhance its competitiveness, Rouen has a major plan underway to create specialised terminals for sugar, flour and liquid bulks. The concentration policy is already bearing fruit with substantial reductions achieved in the cost of handling goods and gains in market shares.

Estimated at 60 million French francs, investment in the Grand-Couronne extension involves work on two new berths with a total wharf length of 430 metres upstream of the present site to enable containers and mixed general cargoes to be accepted. Much of this cargo, which is presently handled at the Rouen-Quevilly site will be moved gradually to Grand-Couronne. It is expected that by the end of 1990 the terminal will be able to accommodate four vessels simultaneously with major savings expected on "box" handling.

A further 40 mf programme will be invested in quayage, sheds and a crane-ramp upstream. Anticipated investment of about 15 mf is to be made on an industrial solid bulks terminal and a further 45 mf for a new Grand-Couronne agrifood terminal.

(Rouen Port)

Container Traffic Up In Ports of Bremen

Handling up, net profits down—the commercial development of the Bremer Lagerhaus-Gesellschaft (BLG) in the year 1989 can be thus shortly expressed. Altogether, as Dr. Rolf Fastenau, chairman of the Board of Directors, stated to the press in Bremen, the BLG handled more than 18.2 million tons of cargo in 1989, about 6.5% more than 1988. Container traffic was the main area of growth.

In terms of total development Bremen's largest handling concern managed to increase the previous year's result by some 6.5%, with a total of



almost 17 million tons of general cargo handled. The grain terminals registered a volume of 1.2 million tons, representing an increase of almost 6%. The main support of the upward general cargo tendency was container traffic. Here the BLG scored up more than 1.2 million TEUs in the year, 7.2% more than in the last. With a figure of 674,000 vehicles the level of the previous year's figures for car handling was not quite attained.

Examining details of the results more closely, Dr. Fastenau referred to the quite different developments in Bremen and Bremerhaven.

Thus for example the Bremen city installations registered a decrease in the yield from general cargo of 7.2%, which the BLG chairman attributes to the general absence of trade in iron pipes with the Soviet Union. The great weight of these products is of course clearly reflected in the handling statistics.

A further reason for the differing developments is found in the increasingly clear tendency to containerise goods. The volume of containerised general cargo at BLG installations is currently at about 70%. Since container traffic is to a great extent concentrated in Bremerhaven, former conventionally-transported goods tend to "wander" from Bremen to Bremerhaven.

In order to adjust to this trend and to ensure long-term employment in the Bremen harbour, the concern is continuing to enlarge its distribution activities. In the early part of the year, a new overseas trade centre on the Weser left bank became operative. In the meantime this has shown itself to

Every year more than 1 million containers (TEUs) are handled in the ports of Bremen. The Container Terminal Bremerhaven is one of the world's biggest and most efficient terminals.

be successful, as this overseas trade centre its working to capacity. In all, these activities on the part of the BLG and the United Port Operations organisation (GHB) have resulted in the creation of about 100 new jobs. An essential contribution to this was the special tariff contract for distribution work agreed on with the public services trade union.

On the import side, as Dr. Fastenau pointed out, developments in the handling and storage of cocoa, among other things, have been positive. In contrast to coffee, which has always been of traditional importance for Bremen, not one single ton of cocoa was handling in the Ports of Bremen up to a few years ago. After beginning with 10,000 tons in the first year, the BLG is already expecting some 70,000 tons in this. The recognition of Bremen as an international cocoa-trading port by the London Commodity Exchange provided the keynote for this development.

In contrast to Bremen, the Bremerhaven handling volumes of 12.2 million tons were thoroughly satisfactory. Here the BLG were able to chalk up a two-figure increase in general cargo traffic. The clear increase in tonnage handled was essentially in container traffic, where an increase of almost 15%, to nearly 10 million tons, was achieved. In terms of the number of containers (TEU), 9% more or 1,058,000 container units crossed the quays of Bremerhaven's container terminal. With 674,000 units vehicle handling activities did not quite attain

the high levels of the previous year. Here there was a slight increase in imports, in contrast to a decrease in exports. On the other hand, banana handling in Bremerhaven showed a clear upward tendency. Almost 60,000 tons are estimated as final figure for the year, equivalent to an increase of about 11%.

If the financial results do not seem to have developed adequately, in spite of the concern's generally satisfactory handling volumes, then there are essentially two reasons for this: Firstly the competitive situation among the great North Sea ports, especially in anticipation of post-1992 Europe, remains extremely fierce. Necessary price adjustments therefore can scarcely be realised at this time. A second reason is the comprehensive volume of investments whereby the concern intensively seeks to adjust itself to the competitive situation in view of the increasing requirements of shipping companies in respect of shorter turn-around times, and demands for better and better service from the goods side.

Dr. Fastenau revealed that in this year alone the BLG had invested, or arranged to invest, sums amounting to 115 million marks for extensions and modernisation. A natural consequence of this is of course the need for write-off depreciation, which has an effect on the financial results. Focal points of these investments are above all the extension of the Neustaedter Harbour as well as a comprehensive equipment acquisition programme, which in ad-

dition to numerous forklift trucks, tractors, and van-carriers includes four new high-tech container-bridges for the terminal in Bremerhaven. Facilities for the needs of the vehicle imports are also being brought into line, in order to consolidate Bremerhaven's position as Europe's most important auto-handling harbour.

As far as traffic politics are concerned, Dr. Fastenau was more hopeful than in the previous year. The traffic committee of the Federal Parliament had decided, in the scope of a "Settlement of Rights" bill, to extend possibilities for special agreements relating to seaports and hinterland traffic. It was to be hoped that this bill would be approved by the Federal Government soon. Continuing anomalies in cross-border traffic must be quickly abolished, so that a position of equality in competition with other ports could at last be reached.

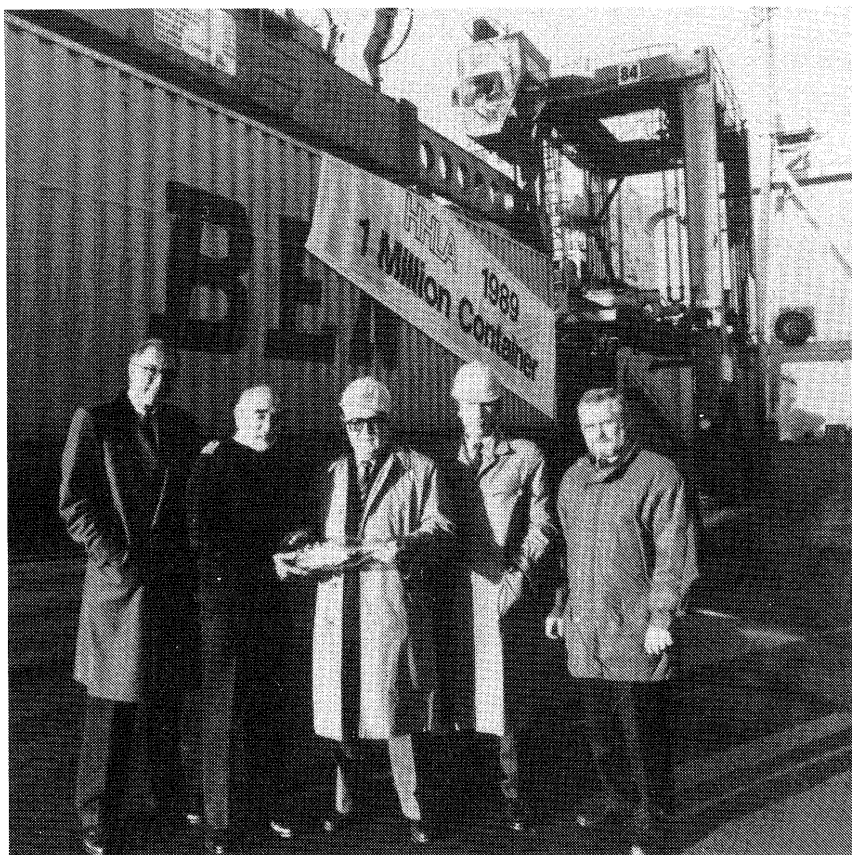
For the future, new chances could also arise for Bremen out of the political and economic changes in Eastern Europe, particularly in the GDR. With the rising market potential in Eastern Europe, a supposed marginal position of German seaports could no longer be spoken of.

Despite hypothetically positive developments in Eastern Europe, the world-wide trend to containerisation would certainly continue, and would find its results in the Ports of Bremen. To be ready in time for future possibilities, the chairman of the BLG's Board of Directors considered that a further extension of the container terminal in Bremerhaven would be necessary. This would be an essential requirement for the maintenance of the Bremen port's competitive position, so that they could continue to take part in the league of the world's largest container ports.

Transshipments Stable in Port of Amsterdam

Transshipments in the Port of Amsterdam rose by 0.1% to 21.6 mln tonnes in the first nine months of 1989 compared to the year-earlier period, according to figures supplied by the Port Management of Amsterdam.

In the labour-intensive general cargo



"Benalder" operates on the Far East route in the 27-ship fleet of the TRIO consortium. TRIO is way ahead the "Number One" in this trading area. From left: Prok. Alfred Kramer, Menzell & Co (Agents), Capt. Frederic G.J. Anderson of "Benalder," HHLA Chairman Senator a.D. Helmuth Kern, Gerd Drossel, Head of HHLA Container Division, Uwe Messenbrink, Menzell & Co.

"Container Millionaire" Status for HHLA

For the first time since it entered container traffic 22 years ago, HHLA will have handled 1 million container units (TEUs) in a single year in 1989. The "jubilee" box was discharged on August 12, 1989 from m.v. *Benalder* at Burchardkai.

At about 1,060,000 containers (TEUs) in 1989 this is for HHLA an increase of 25% over the preceding year. The HHLA new acquisitions UNIKAI and Hansa-Umschlagsgesellschaft (Terminal) contributed to this total with some 150,000 TEUs; but at about 880,000 containers, a growth of 10%, Burchardkai accounted for the lion's share. Topping the 1 million-TEU mark was due in particular to the continuing boom in Far East traffic via Hamburg, which rose from 375,000 TEUs in 1985 to 750,000 in 1989.

Favourable growth rates are also recorded by the European feeder services, which have reacted flexibly to the container boom. Referring to these developments, HHLA Board Chairman Senator a.D. Helmuth Kern told journalists:

"The port of Hamburg succeeded in 1989 in becoming a member of the exclusive 'container millionaires' club,' an event of which the entire port economy was proud.

"Today HHLA alone would hold 19th place among the leading world ports. Its market share in the Hamburg port in this trend-setting sector is now over 60%.

"Thanks to its versatile terminal structures the HHLA is now in a position to offer optimum dispatch possibilities to all shipping companies. Due to the enormous capacity and the latest and on-going investments, we shall also be able in the near future to exclude capacity bottlenecks."

sector, tonnage increased by 15.3% to about 2.2 mln tonnes.

Transshipment of dry and liquid bulk cargoes fell by 12.8% to 7.3 mln tonnes and by 3.2% to 9.6 mln tonnes respectively.

The Port Management expects total tonnage for the full 1989 year to be about 28 mln tonnes.

The number of ocean-going vessels calling in the port in the first nine months was 3,176, registering 23.3 mln grt. This compares with 3,082 ships registering 22.7 mln grt in the same 1988 period.

1989 Best Year for Port of Rotterdam

The estimate of the Port of Rotterdam shows transshipments totalling 292 million tonnes for 1989. This is 20 million tonnes more than 1988, an increase of 7%. Growth was noted for all sectors but the grain sector. Rotterdam has increased its market share when compared with competing ports in Western Europe. Apart from the continuing economic growth and ad-

aptation to new trends, the main port effect has led to 1989 becoming the best year of the decade.

The rise of 11% in the general cargo sector (including containers) bodes especially well. In this sector, the quality of the logistic service plays a decisive role in the choice of harbour.

There was a 6% growth in the bulk sector. The greatest increase was realised in the mineral oil product sector with a spectacular growth rate of 18%. The transshipment of crude oil has risen by 4%.

Furthermore, there has been a large annual growth rate in other bulk goods. The increase of 13% can be explained to a large extent by the growth of the basic chemical industry. Ore transshipments rose by 5% because of the high demand for steel products and the concomitant production in the West German steel industry. The stable coal sector also increased by 3.5%. On the other hand, transshipments of agribulk have fallen by 7%. The reasons for this range from EC regulations and the mild winter to the worsening market position of North American grain.

New Era for ABP As Scheme Is Abolished

Associated British Ports lobbied long and hard to persuade the Government of the need to abolish the National Dock Labour Scheme.

The Company firmly believed that the British ports industry was labouring under a system which had no regard for, nor ability to react to, the introduction of initiatives which would enable ports to compete more efficiently in a commercial environment.

The successful culmination of that campaign—the abolition of the Scheme—has swept away years of restrictive practices and given ABP's port managers the opportunity to compete on a more equal footing with other UK and continental ports.

Though certain ports in the group were affected by the relatively short-lived dock strikes in July, the transition to the post-Scheme era was achieved at the Company's ports without undue disruption of services.

The effective deregulation brought about by abolition means new flexible

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This international post-graduate training course gets under way once again at the end of September 1990. The course lasts eight months (October 1 through until June 1), although it can also be taken in two parts in successive years (leave periods). The course language is English. The syllabus comprises management, marketing, technology, economics, business policy, finance, manpower, organisation and port and shipping practice. Guest lectures, together with relevant case studies, are also provided by industry representatives.

Entry qualifications: A degree of a CNAA recognized University or Completed Higher Vocational Education (Hoger Beroeps Onderwijs) or H.BEC/H.TEC Diploma. The minimum age of entry is 23. Exceptionally, a student of 27 years of age or over without the approved qualifications may be admitted, provided that he has had at least four years' experience in a post of professional or administrative responsibility.

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* Represented in IMTA. are: KNRV (Royal Netherlands Shipowners Association); MARIN (Maritime Research Institute Netherlands)



working practices for the Company's ports.

In addition, as operating technologies continue to make steady advances in the modern port industry, more than ever a workforce is required which is capable of undertaking a wide variety of tasks.

More than 1,000 of the 1,720 former Registered Dock Workers employed by ABP have taken voluntary severance.

Four of the Company's ports where ABP once employed dockers no longer do so. In other ports within the group, the number of ex-Registered Dock Workers has been reduced considerably, and they form the nucleus of the cargo handling employees which can be expanded using other employees within the port when the need arises.

Local labour agreements have been reached at virtually all ports where dockworkers continue to be employed by ABP—permitting the tailoring of facilities to the requirements of customers.

Clearly, the many benefits which ABP stated would stem from the abolition of the National Dock Labour Scheme are already beginning to show at the 19 ex-scheme ports operated by the company.

ABP believes that further benefits of abolition will become apparent as the post-Scheme ports industry settles down to new working practices.

(ABP News)

ABP Acquires 3 Firms At Port of Whitby

Associated British Ports Holdings PLC has acquired Whitby Port Services Limited and Whitby Stevedoring Limited from Hekla Holdings of Hull, becoming the sole supplier of cargo handling at the port of Whitby in Yorkshire, which is owned by Scarborough Borough Council.

Whitby Port Services provides stevedoring, ships agency and freight forwarding services. Currently, Whitby handles some 200,000 tonnes of European and Scandinavian trade over two wharves.

ABP has further extended its road haulage and warehousing interests with the acquisition from Hekla Holdings of Slaters Transport which operates a modern haulage fleet from its depots

Africa/Europe

Operators, Unions Agree To Smaller Tug Crews

Tugboat operators and seagoing unions have agreed to cut by nearly 30 percent the size of crews engaged in harbour work over the next three years.

The Minister for Transport and Communications, Mr. Ralph Willis, said the productivity breakthrough was one of a number of key reforms contained in a report to be considered soon by Federal Cabinet.

Mr. Willis said that under the plan there would be a 13 percent reduction in crew numbers by the end of December 1989.

"The report, by the Towage Industry Review Committee, proposes cutting crew numbers for harbor work from the existing levels of up to eight seamen to a maximum of five by 31 December," Mr. Willis said.

"In some cases this would mean and almost immediate reduction in crew costs of 35 percent.

"Furthermore, by 1992 crews engaged in harbour work would be reduced to a maximum of four with the introduction of modern technology and advanced training schemes.

"In addition, the operators and the unions have proposed a voluntary early retirement scheme for approximately 340 tug seamen affected by the crewing

at Pickering in Yorkshire and Glenboig near Glasgow.

Mr. Martin Pudden, Deputy Managing Director of ABP, who takes over as Chairman of the group of companies, said:

"ABP now has an opportunity to extend its interests on the UK's East Coast, North of the Humber, and to increase its share of the growing European cargo market and associated warehousing and distribution activities. Anticipated growth would also provide a further stimulus to Whitby's local economy."

Total consideration for the acquisition is approximately £2 million, which will be satisfied by a mixture of cash and ABP shares.

changes.

"The report also proposes a major review of rostering arrangements and other port practices.

"Cabinet will consider the report this month and the Government will announce its plans for reform of the towage industry shortly afterwards."

Mr. Willis said the report, which had been overseen by the Shipping Industry Reform Authority, was an important contribution to the Hawke Government's continuing reform of Australia's transport industries.

"With total savings for the towage industry estimated at 15 percent from the recrewng program alone, the benefits to Australia's exporters and importers will be substantial," he said.

"The package that Cabinet will consider clearly illustrates the advantages of the Government's philosophy of achieving change by negotiation and cooperation."

In its April 1989 Report, the Shipping Reform Task Force recommended that the towage industry parties should develop a reform strategy for the industry. This approach was endorsed by the Government in June 1989 as one of its initiatives on shipping and waterfront reform.

Mr. Willis said: "What we have now is an agreed position between towage operators and industry unions for a comprehensive set of proposals to reform tug operations.

"I congratulate all members of the Review Committee who have worked extremely hard and constructively to develop a consensus reform package for the Government's consideration."

Sister Port Partnership For Brisbane, Klang

The ports of Brisbane and Klang (Malaysia) have become "sisters." The union, following several months of negotiation, was formalised in Brisbane on December 4 with the signing of a sister port agreement and a declaration of intent.

About 100 leading business executives from the port and shipping community, plus importers, exporters and transport operators, were present to witness the ceremony.

The venue and occasion chosen for the historic event was a luncheon meeting (Parkroyal Hotel) of the

Queensland division of the International Cargo Handling Co-ordination Association.

A delegation from the Klang Port Authority led by its chairman (Dato' Michael Chen), was present to take part in the proceedings.

Dato' Michael Chen and Executive Chairman of the Port Brisbane Authority (Mr. Alan J.W. George, M.B.E.) were the principal signatories.

The concept of the sister port relationship originated several months ago when Hon. Don Neal, M.L.A., the then Queensland Minister for Maritime Services, was on a trade promotional tour of South East Asia.

The proposal was brought to fruition under the direction of Mr. George.

The declaration of intent, agreed to by the parties, reads as follows:

"In recognition of the important roles which can be played by international ports in the promotion of understanding, friendly relations and trade between their respective regions and countries, the Port of Brisbane Authority in the State of Queensland, Australia, and the Klang Port Authority in the State of Selangor, Malaysia, hereby agree to enter into a sister port relationship.

"It is the understanding of both ports that they will endeavour to contribute to the prosperity of each other's port through technical and business exchanges; to increase trade between their two ports and their two countries; and to further promote and develop the mutual friendship, understanding and co-operation between the State of Queensland and the State of Selangor through every available means.

"The Port of Brisbane Authority and the Klang Port Authority agree to consult with each other at any mutually convenient time on port planning, development, construction and operational topics of common interest with the purpose of increasing efficiency and effectiveness in both ports...and further agree to examine the possibility of personnel exchanges for work experience."

(Brisbane Portrait)

Geelong's Marketing Thrust Paying Dividends

The aggressive marketing thrust adopted by the Port of Geelong Authority during recent years is paying

substantial dividends during the closing years of the decade, according to the Authority's Commercial Manager, Mr. Vincent Tremaine.

Reviewing the year's marketing success in the Authority's 1988-89 annual report, Mr. Tremaine said trade through the Port of Geelong grew by 15 percent during the last 4.5 years if the marked slump in grain handling created by external factors was excluded.

He said the result highlighted the success of the strategy in broadening the customer base in order to reduce reliance on a few major customers.

"Encouraging growth in oil, woodchips, steel and refrigerated cargo is helping to fill the void created by the fall in grain exports and should enable the Authority to enter the 1990s with greater confidence and optimism.

"The port's emerging market niche as a specialist handler of freezer, bulk and general cargo was emphasised through well targeted print advertising, public relations exercises and direct personal approaches to shippers and shipping lines in Melbourne, Ballarat, country Victoria and interstate.

"A growing awareness of the benefits of dealing through Geelong has been reflected in an increase in the number of enquiries, as well as active evaluations of the port's services and facilities by a number of potential new clients.

"Central to the upsurge in interest is the general publicity and 'word of mouth' endorsement generated by the joint venture stevedoring arrangement," Mr. Tremaine said.

Pricing Structure Key To Fremantle's Future

The introduction of a new Port Pricing Structure is vital to the future efficiency of the Fremantle Port Authority, according to General Manager Trevor Poustie.

Mr. Poustie was speaking at the Authority's Port Pricing Seminar, which offered port users the chance to put their views on the proposed Port Pricing Structure.

He said the Port had experienced a good year in 1988/89, and this had followed into the first four months of 1989/90.

"To ensure we are competitive, we must maintain a high degree of effici-

ency," Mr. Poustie said.

"Just over 17 million mass tonnes went through the Port in 1988/89.

"Currently, we handle about two-thirds by value of the State's total trade."

Mr. Poustie explained that eastern Australia, which could be served by a landbridge link through Fremantle, had the buying power of Los Angeles, but in order to capitalise on this, the Port recognised the need to improve its efficiency.

Important concepts such as inter-modalism with the eastern seaboard and expanding trade links with Southeast Asia were priorities.

To do this, Mr. Poustie identified the need to promote, market and better utilise the Port.

He corrected critics who claimed the proposed Port Pricing Structure was an indirect way of collecting revenue to pay for the \$30 million Inner Harbour deepening project.

"Money for that will come from leasing the reclaimed land at Rous Head Industrial Park—the Port Pricing Structure is income neutral, and in itself will not increase our revenue," Mr. Poustie told Port users.

(Port of Fremantle)

Fremantle Cargo for First 6 Months Up 11%

The Fremantle Port Authority has ended the first six months of the 1989/90 financial year with an 11 percent increase in cargo throughput compared to the first half of 1988/89.

Fremantle Port Authority General Manager Trevor Poustie said total trade had increased from 7,095,000 mass tonnes to 7,867,000 mass tonnes in 1989/90 and showed a continuing solid operational performance.

He said that the number of commercial ships visiting the Port also increased by 53 from 561 in the first half of 1988/89 to 614 for the same period this year.

Gross Chargeable Tonnage (GCT) increased by 11 percent during the period to 11,113,000, compared to 10,037,000 last year.

A 12 percent increase was recorded in the number of containers, which rose 6,669 TEUs from 56,226, to 62,895 TEUs.

Imports rose from 2,964,000 mass tonnes in the first six months of 1988/89 to 3,283,000 mass tonnes in 1989/90, while exports rose from 4,131,000 mass tonnes to 4,584,000 mass tonnes.

Trade Thru Gladstone Up 66% in 10 Years

The 1980s saw a remarkable increase in trade through the Port of Gladstone. Just over 29 million tonnes of cargo was handled in the Port in 1989. This was a 66% increase over the figure 10 years ago.

In 1983, the Port reached the 20 million-tonne mark for the first time. Now at the commencement of the 1990s, it appears the 30 million tonnes per annum milestone will be reached shortly.

The Clinton Coal Facility came into operation in 1980. During 1989, 14.5 million tonnes of coal were shipped from the facility which, in a few weeks time, will handle the 100 millionth tonne of coal since it came into operation.

Queensland Alumina Limited, Boyne Smelters Limited and Queensland Cement Limited have provided solid bases in the Port's trade associated with their operation. Grain exports have shown a steady rise during the 1980s.

The Port remains an important distribution point by road and rail for petroleum products. Tonnages brought in during 1989 amounted to 315,000 tonnes. Whilst this figure is virtually the same as at the commencement of the 1980s, the electrification programme of the Railway Department and resultant reduction in diesel used has offset the increase caused by the region's growth. Whilst compared to the Port's total tonnage the amounts of L.P. gas, sulphuric acid and general cargo handled are minor, each plays a role in the Port's growth.

The 1990s should be an exciting phase in the development of the Port. New industry proposed for the area, together with expansion of existing trade, provide prospects for the maintenance of the trade expansion which occurred in the 1980s.

Tasmania Gov. Opens New PLA Headquarters

The Port of Launceston Authority's move down river into new headquarters

was indicative of Tasmania's progressive and enlightened attitudes, according to the Governor of Tasmania, His Excellency, General Sir Phillip Bennett.

Sir Phillip performed the official opening ceremony for the new headquarters which he said marked an important milestone for the PLA.

He told about 180 invited guests that the Tamar River, already a busy industrial shipping centre, was about to be revitalised as a result of the new catamaran ferry service due to begin operating out of Port Welshpool in Victoria and George Town, just north of Bell Bay, late in 1990.

Sir Phillip Bennett said it was "fitting that the buildings have been sited to best welcome ships into one of the safest and best managed ports in Australia" and he congratulated the PLA on its progressive move which would carry the Authority well into the 21st Century.

The \$1.7 million building brings the PLA's port office and administrative offices under one roof, resulting in a streamlining of the Authority's operations.

PLA Master Warden John Ferrall told the gathering the move was a "tremendous event for the PLA"—a move which he hoped would result in a more productive workforce.

Mr. Ferrall also said the Authority

Fiji Officers Attend Regional Seminar

Four senior officers of the Ports Authority of Fiji (PAF) represented Fiji at the Regional Container Seminar in Auckland from 27 November to 1 December 1989. The Container Seminar, the second of its kind to be held in the Region was organised jointly by the South Pacific Ports Association and the Economic Commission for Asia and the Pacific and funded by the New Zealand Government.

The Seminar focused on the concept of containerisation and on how ports may plan effectively for container berths and operations.

Countries represented at the Seminar included Fiji, Western Samoa, Vanuatu, Tuvalu, Papua New Guinea, Solomon Islands, Kiribati and Rarotonga.

(WAVU, PAF)

would be well-placed to take on the challenges associated with Australian waterfront reform and the proposed amalgamation of the ports of Burnie and Launceston, expected to occur next financial year.

"The PLA Board decided that port amalgamation was essential for the betterment of Tasmania and this port," he said.

"It is long overdue and we are pleased to have taken a positive lead in this matter.

"There will be some problems. Some ports will be losers—maybe Launceston or any of the other ports in the State—but we are convinced amalgamation will be for the good of all Tasmanians in the long-term."

Mr. Ferrall said it was logical to place the Authority's headquarters at the site from where its income is derived, rather than in Launceston, some 50 km upstream from the port's wharves.

(Port of Launceston Newsletter)

Auckland Expansion, Enlarged Manukau Role

A major redevelopment of the Auckland port and an enlarged role in international cargo handling for the Manukau Harbour are envisaged in a port development plan for Auckland prepared by Ports of Auckland Ltd., the ARA and the Auckland City Council.

The basis of proposed developments is a conclusion that the existing Port of Auckland is approaching the operational limits of its capacity as far as the handling of general cargo and containers are concerned.

The three organisations say that early approvals should be sought now to progressively implement that staged development plan outlined in the report.

Significant alterations are projected for the existing Bledisloe, Jellicoe, Freyberg and Fergusson wharf areas and the focus for Manukau Harbour development under the plan would be at Puhinui, subject to the practicality of establishing an adequate channel through the Manukau bar and cultural and environmental acceptance.

The second best alternative to Manukau Harbour development is seen as construction of a new port on reclaimed land in the vicinity of the en-

trance to the Wairoa River, west of Ponui on the east coast.

Other options include variations to the Auckland Harbour bridge which would remove impediments to the passage of large ships to berths in the upper harbour, such as a Port Island off the Whau River, and further reclamation to the east of Fergusson Terminal. Consideration was also given to sites on the Kaipara Harbour.

The report was presented by the chief executives of the ports company, ARA and ACC, Mr. Robert Cooper, Mr. Colin Knox and Mr. Bruce Anderson respectively, working with a Sydney port consultant, Mr. John Wallace, and executives of the three organisations.

They recommend urgent action to permit progressive implementation of the plan, including

- means of achieving faster planning approval for the re-development of the present port
- immediate negotiations with the Railways Corporation regarding the use of central city railway land for port and transport purposes
- investigations into the practicability of providing an entrance channel to the Manukau Harbour for deep draught shipping.

Should it be determined that a second port for Auckland can be economically developed at Puhinui they want action taken to

- undertake an environmental impact study in consultation with the Tangatawhenua
- provide appropriate protection of the site to ensure that port development including the provision of road and rail access can be provided.

Changes are also recommended to the Waitemata Harbour Maritime Planning Scheme, the Auckland Regional Planning Scheme and the relevant district planning schemes to provide appropriate protection for possible Port Island development and to protect rail access routes.

The report sees the development plan being divided into three components. The first involves progressive redevelopment of suitable existing commercial wharfage to the maximum practicable extent to accommodate future shipping and trade.

On present growth rates these can meet the needs of the port for at least

20 years.

The second covers an assessment of the future of wharfage and areas not considered suitable for redevelopment to meet the needs of modern cargo handling methods.

Under the third component an assessment would be made of the suitability of various sites in the region for a new port—"the study indicates that a new port at Puhinui in the Manukau Harbour would be favoured for Auckland's second major port dependent on the outcome of a study of the Manukau Harbour entrance bar."

The report says timing of the developments, particularly in the latter stages, should be flexible as logically they must conform to the actual trade growth and variations in the types of shipping, as well as the financial viability of each stage.

(Ports of Auckland)

Auckland: Arrangements Against Drug Smuggling

Ports of Auckland Ltd. and the Customs Department have strengthened their links to tighten security arrangements in the port, particularly related to drugs and drug smuggling.

The new measures are contained in a memorandum of understanding between the two parties, which highlights responsibilities, and details plans for covert security and surveillance, vehicle access, use of technology, and exchange of information.

The Comptroller of Customs, Mr. Murdoch Taylor and Ports of Auckland Company Secretary Geoff Bissell signed the memorandum at a special ceremony in Wellington, attended by the Minister of Customs, Ms. Margaret Schields.

(Ports of Auckland)

PALIS Computer System Now Available For All

More than 25 clients have shown an interest in joining the new computer-based import information service.

The service, known as PALIS (Ports of Auckland Information Service), was originally proposed in a slightly different form nearly two years ago.

The introduction of the Port Companies Act, and the new structures resulting from those changes have re-

quired revised computer systems, and these have taken priority over the PALIS project. However, PALIS is now up and running, and additional clients are joining this system as they are commissioned.

PALIS provides dial-up access to a computer database containing information about the location, status and general availability for collection of both FCL containers and cargo that has been devanned from LCL containers. Certain other information about port operations will also be available.

The PALIS system is accessible to subscribers who have their own computers and modems to make connection with Ports of Auckland computers.

The entry cost to the system is \$500 plus GST. This purchases a licence to use the PALIS service and the programme that are needed on a subscriber's computer. The programmes involved can be readily integrated into in-house systems.

A minimum charge of \$20 plus GST per month will be made for the service. However, the tariff structure is based on the length of time during which a subscriber is logged onto the PALIS computer.

(Ports of Auckland)

Singapore: Pre-gate Processing System

By Chong Gum Hong
Cargo Systems Department

To facilitate speedy processing of towheads arriving at and leaving Tanjong Pagar Terminal (TPT) when trucking containers in or out of TPT, the use of Equipment Interchange Receipt (EIR) is to be eliminated. Its function is to be taken over by the transponder.

Every towhead would be attached with a transponder which bears a number unique to the towhead. After processing of documents to truck in or out a container, the haulier is required to inform PSA which towhead would be trucking the container. There are two ways of doing so. It could be done either through an on-line terminal, which is available to Portnet subscribers, or via a telephone.

The telephone system centres around the equipment called Voice Output Modem (VOM) which is stationed at

Singapore Telecom's Comcentre. Residing in the VOM is a Communication Processor Controller which handles the communication with PSA's mainframe computer. Two modems complete the link to VOM. One is placed with the VOM while the other is located with the mainframe computer at PSA premises. Voice recording to be used as telephone output is digitised and stored in a memory card. There are 10 telephone lines connected to the VOM to accept calls from the public.

The haulier is required to provide the necessary information by dialling a telephone number. He would then be guided by a voice throughout the whole data entry process. All the data to be entered by him would be keyed in through the telephone's keypad.

Data which is to be provided by him includes his Pass Number, Personal Identification Number, towhead number and container number(s). Pass Number of the driver will be needed if he is not the driver. He would also be required to indicate the type of operation, whether a container is for shipment, storage or delivery by answering questions prompted to him.

When the towhead arrives at the TPT in-gate or out-gate, a transponder reader would read the transponder number of the towhead. With this, the container records could be retrieved speedily, based on the information provided to the computer system earlier, for further processing. This would reduce processing time at the gates.

Training for the use of the telephone system is to be held in January '90 for implementation in February. Initially, it will run as a parallel system with the EIR still in existence. (PSA News)

Laem Chabang Port: Ahead of Schedule

The construction of Laem Chabang Commercial Port, Thailand's new deep-sea port which is aimed at stimulating the development of the Eastern Seaboard and accommodating larger ships that cannot enter the Bangkok Port has been advanced by 55%, 3% ahead of the schedule.

The 2,029 million-baht-construction work started in December 1987 and due to be completed within 48 months or December 1991.

Upon completion, the Port will

comprise three container berths, one multi-purpose berth, two agricultural bulk cargo berths, one coastal berth and one berth for service craft. The multi-purpose berth is scheduled to be operational by the end of next year. Total capacity at the initial stage is 7.3 million tons per annum.

The Port Authority of Thailand (PAT) was assigned as the implementing agency for the construction work and also is the Management body of the new port.

Regarding preparation for the port opening, PAT, has short-listed qualified suppliers for various mechanical equipment such as quayside container cranes, tugboats, various harbour crafts and marine control equipment. Proposals are to be submitted in mid-January 1990.

For terminal operation, the pre-qualified firms are to submit proposals for being the port's contractor early next year.

1989 Performance

The Port Authority of Thailand registered impressive earnings and net profit during the 1989 fiscal year following substantial increase in the country's international trade.

PAT gained a net profit of Bt.2.09 billion compared with only Bt.1.23 billion in the previous fiscal year. The rising earnings were due to a large number of ships calling at the PAT's ports. There were 2,375 ship calls. The volume of cargoes throughput was 12.20 million tons and number of containers were 0.916 million TEUs. For the Bangkok Port alone, the number of containers via the Bangkok port increased 20 percent from the previous fiscal year. PAT, for the current fiscal year, expects a growth of 18-20 percent.

At present, the Bangkok Port ranks among the world's Top 20 ports in the volume of containerised cargoes handling, according to the London Statistics. It can be said that though it is a river port, with unfavourable geographical location for navigation, making it difficult for the entry of large container vessels, it can still provide service similar to other leading ports in the world.

New Tariff Structure

PAT will adjust its service charge structure to make it fair to all parties

concerned.

In this plan, the proportion of service charge burden on shipping firms and cargoes consignors will be charged to 50:50 from 20:80.

For exports, the service charge rate will remain at 75% of the charge paid by importers. Tonnage calculation method will be changed to GRT from NRT.

The new structure also requires shipowners to be responsible for all expenses incurred in transporting cargoes from ships to warehouses, while cargo owners will be responsible for transportation expenses from warehouses until the cargoes are delivered, and vice versa for exports.

In case of the LCL, shipowners will be responsible for all expenses until the containers are unstuffed (in case of imports) or are on board (in case of exports).

PAT will stop charging "overtime" rates on its clients which means that they pay the same rate any time they use the services.

PAT has discussed the structure with its users and are now preparing to set up the rates. The new structure and rates are scheduled to be enforced in October 1990.

Navigation Systems For Gulf Shipping

The Japanese government is to give 710 million yen (\$5 million) in grant aid to three Gulf states—Qatar, Bahrain and Oman—to install navigation systems in the Gulf.

The grants are part of a \$10 million plan announced by Japan in October 1987 to install 24 advanced British-made coastal radar beacons in the six Gulf cooperation Council countries to help ships determine their location in the Gulf.

The project was originally part of Japan's contribution to the multinational effort led by the United States to protect ships in the Gulf from attack during the eight-year long Iran-Iraq war. Japan imports 56 percent of its oil from Gulf states, according to Government figures.

Japan also gave navigation funds to Kuwait and Saudi Arabia and a similar navigation system is said to be planned for the United Arab Emirates.

(Gray MacKenzie News)

Would you pass him by?

Some did....

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It won't cost your ship in time or money if it stops to rescue refugees in distress. UNHCR can ensure prompt disembarkation and reimbursement for expenses incurred.

For copies of our "*Guidelines for the Disembarkation of Refugees*" please contact us at the address below.

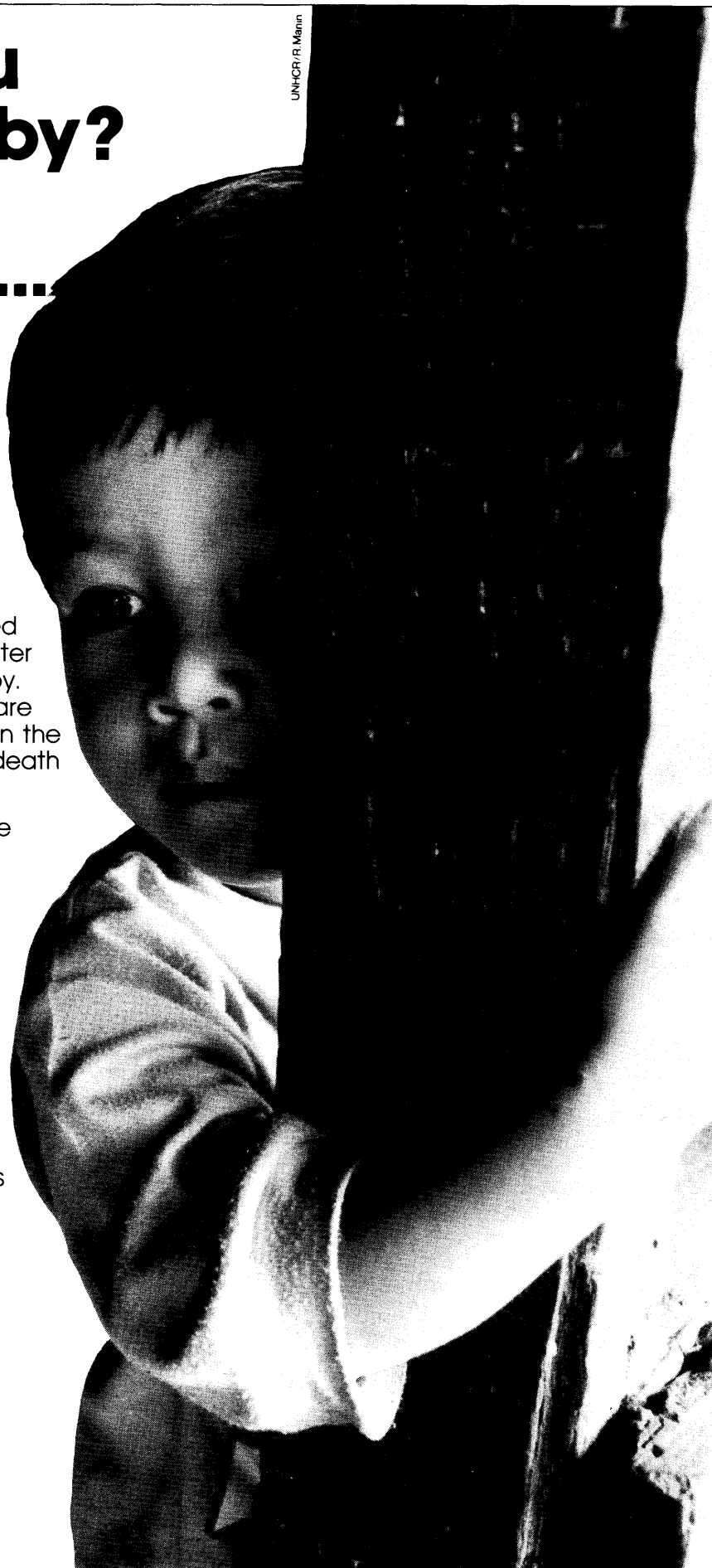
Whenever your vessel encounters refugee boats, **PLEASE STOP** – the refugees need your help.



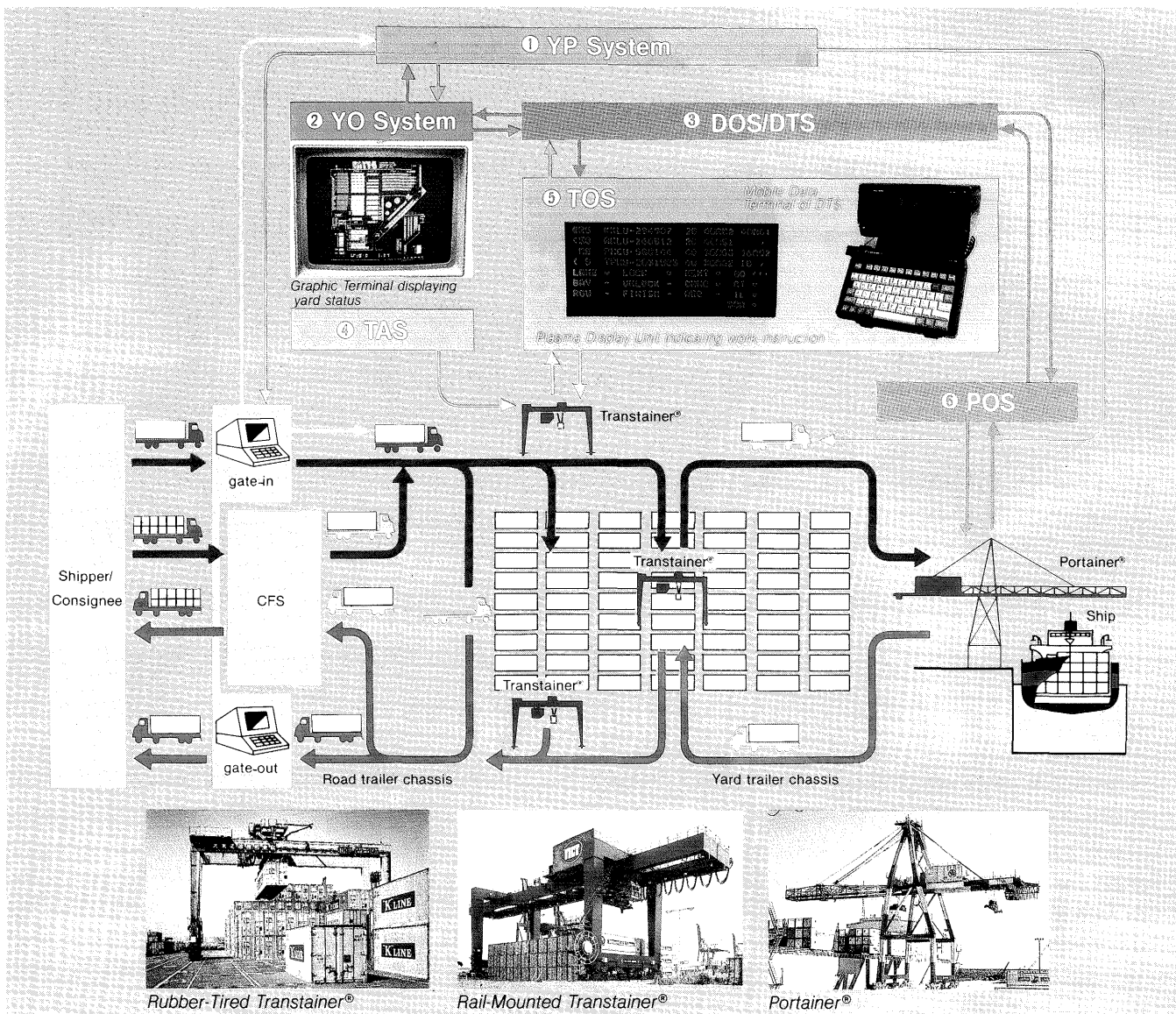
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- ④ TAS: Transtainer® Automatic Steering System
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