

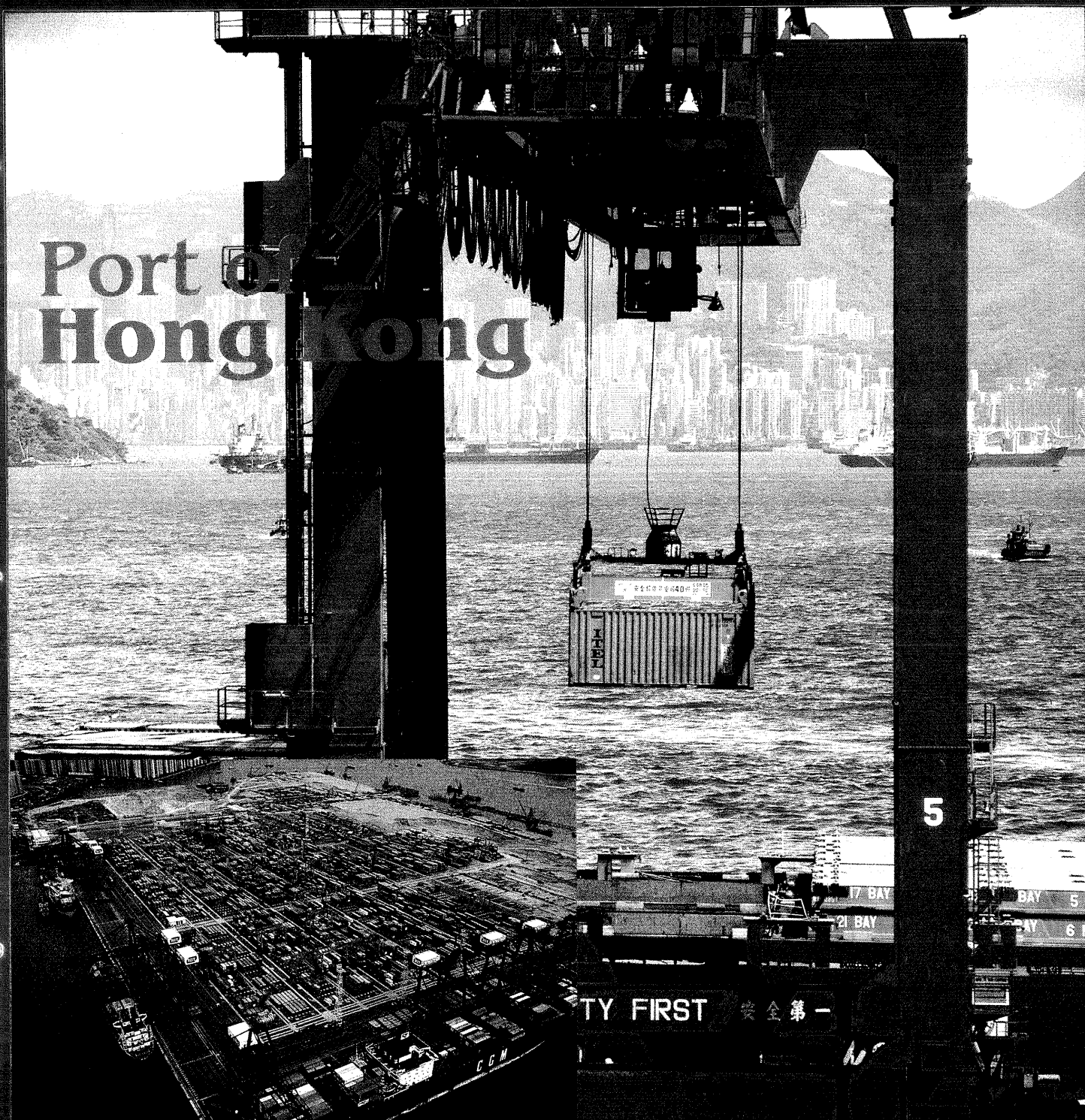
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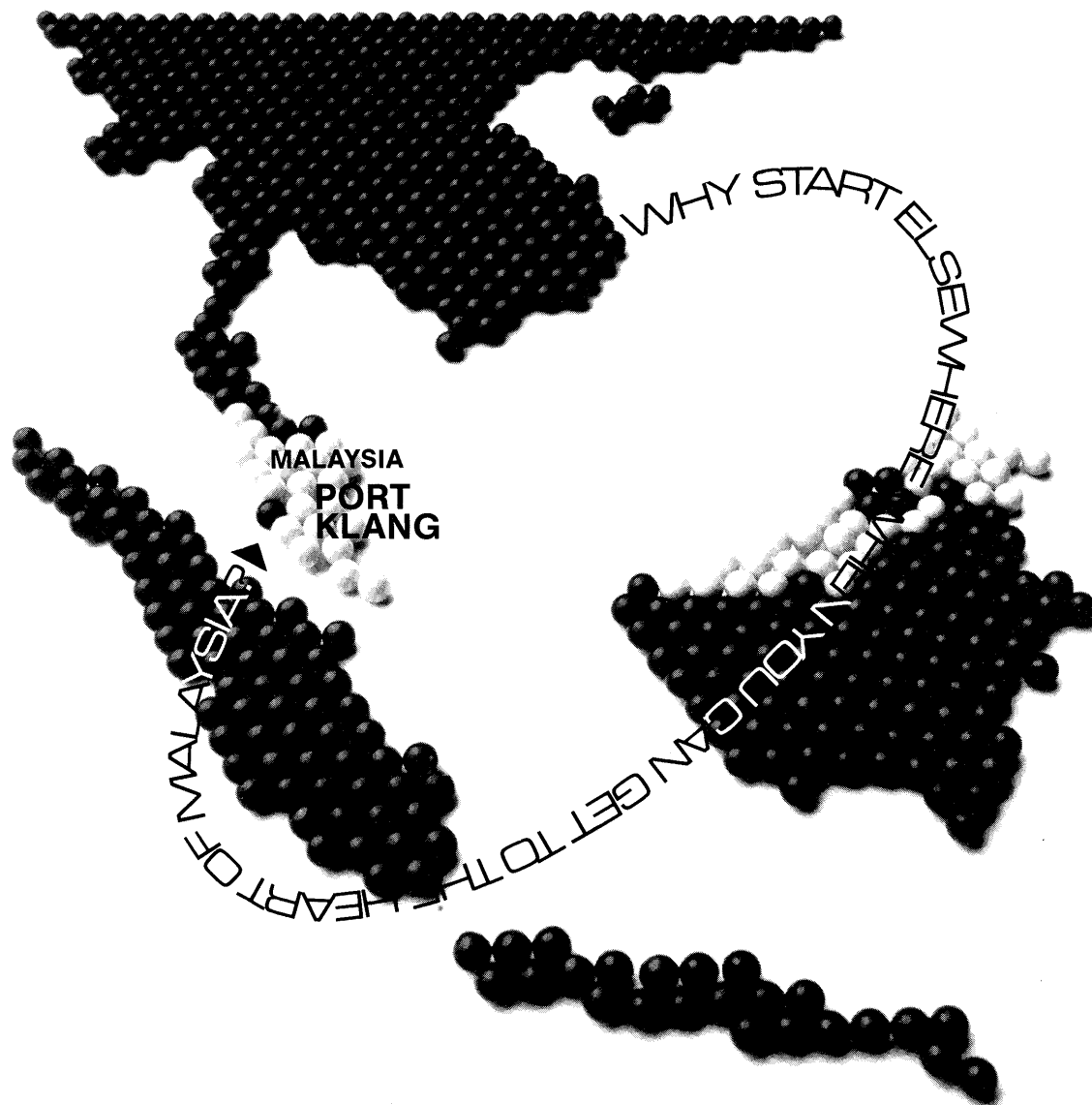


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Invitation to *The International Association of Ports and Harbors (IAPH)*

World Peace Through World Trade

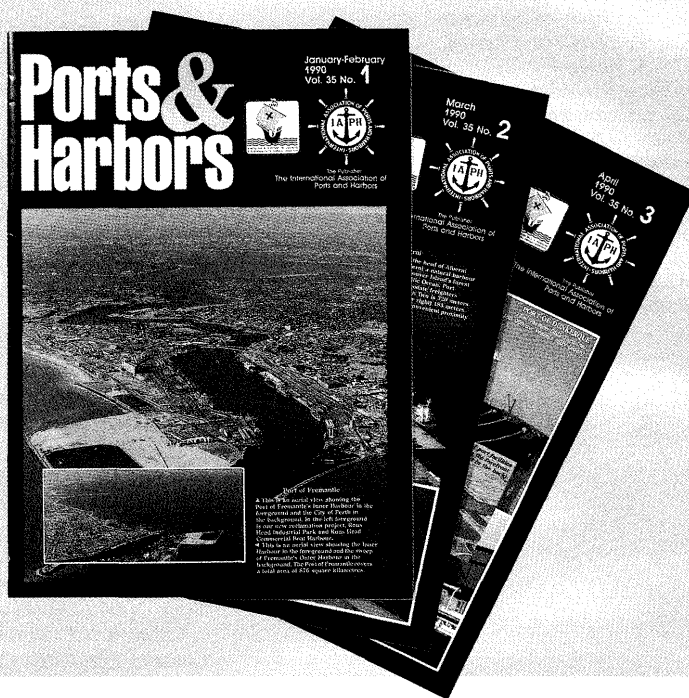
World Trade Through World Ports



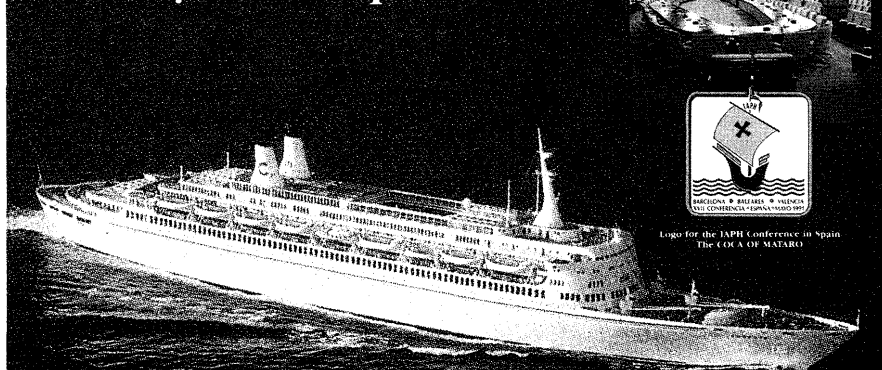
IAPH is a worldwide Association of port authorities with members representing more than 80 countries throughout the world. IAPH occupies a unique position in world commerce. IAPH members are committed to the exchange of ideas and technical knowledge on issues of concern to people working in ports and related industries through their participation in the committee activities or numerous international forums. IAPH aims at the enhancement of the overall efficiency of port management and the protection of port interests.

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The official journal of IAPH, "Ports & Harbors" provides a forum for ports to exchange ideas, opinions and information. Published ten times a year as a magazine by ports, about ports and for ports, "Ports & Harbors" includes inside reports before they become news to the rest of the world. This insiders' magazine is indispensable for port officials who make decisions that affect their industry. If your business requires you to talk to the people building and guiding activity at today's ports, you should be advertising in this journal.



The 17th World Ports Conference 4-10 May 1991 in Spain



The next World Ports Conference of IAPH, under the theme "The Challenges of Ports", is scheduled for the first week of May, 1991, with Spain's Public Works Ministry acting as the host. This will take place on a large, well-equipped cruise ship. By the end of the conference week,

participants will have debated many of the key issues facing ports in the 1990s and at the same time have experienced some of the most attractive islands in the Mediterranean plus the largest industrial harbors, Barcelona and Valencia.

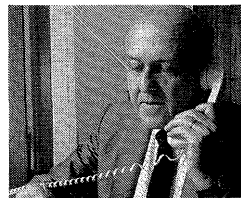
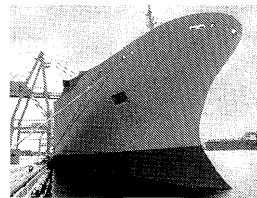
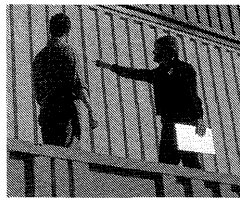
IAPH welcomes all who are interested to join this "Ports Summit" Conference in May, 1991.

For further information about the Conference, membership, publications and the work of IAPH, please contact:

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IAPH ANNOUNCEMENTS AND NEWS

Membership Dues To Be Increased 5% From 1991

In accordance with the decision made as a result of the Exco meeting held on May 10, 1990, in Fremantle, W. Australia, Section 5 of the By-Laws has been amended to the effect that the membership dues of the Association will be increased by 5% effective January 1, 1991.

The 1991 dues per unit in the SDR (Special Drawing Rights) for Regular and all classes of Associate Members in comparison with the current year will be as follows.

Regular Unit/s	1991	1990
1	980	930
2	1,960	1,860
3	2,940	2,790
4	3,920	3,720
5	4,900	4,650
6	5,880	5,580
7	6,860	6,510
8	7,840	7,440
Associate		
A-X-1, B&C	820	780
A-X-2	560	530
A-X-3	280	270
D	140	130
E	120	110

Note: X applies to all categories, i.e. I, II and III

The invoice for the 1991 dues will be issued by the Secretary General to all members and applicants who wish to join IAPH effective from January 1, 1991, towards the end of this year. Information on the exchange rate between the SDR and the five currencies (US dollar, Pound sterling, Japanese yen, French franc and Deutsche mark) in the IMF (International Monetary Fund) basket as of December 10, 1990 will be made available to the members at the time when the invoice is sent to them.

Asia to Suggest 2 Exco Candidates For Nomination

To fill the vacancies existing on the Executive Committee caused by the retirement of the two elective Exco Members

from the Asian Region (Mr. N.G. Samuels, Port of Geelong, and Mr. J. Leech, Department of Harbours and Marine, Queensland, Australia), President McJunkin, in consultation with Mr. Cheung Yeun Sei, the Second Vice-President representing the Asian Region, instructed the Secretary General to circulate a letter to the Board Members in the Asian Region suggesting two names for nomination.

The two candidates now being considered by the Asian Region Board Members are Mr. M. Moore-Wilton, Chief Executive, Maritime Services Board of New South Wales, Sydney, Australia, and Mr. Ng Kiat Chong, Executive Director, Port of Singapore Authority.

After the Asian Board Members have met in caucus, the elections will be officially conducted by all the Board members.

At the moment, there is one more vacancy on the Exco following the retirement of Mr. F.J. McNaughton, Port of Vancouver. As this post is to be filled by a Presidential appointee from the American Region, President McJunkin will appoint someone from Canada, which is likely to become official after the Canadian Ports meeting in September.

Board Approves By-Laws Revision

— on distribution of conference papers —

At its meeting in Fremantle in April this year, the Constitution and By-Laws Committee, chaired by Mr. R.P. Leach of the Port of Houston, reviewed the By-Laws to see if any changes were necessary for recommendation to the Executive Committee. As a result of its extensive review of all the Sections of the By-Laws, the Committee came up with a recommendation involving the revision of the third paragraph of Section 29, related to the distribution of technical papers to the Conference participants by the host organization.

In accordance with the Executive Committee's decision, the matter was placed before the Board via a meeting by correspondence called for September 10, 1990. As a result of this meeting, the Section 29 has been revised to read:

"Technical papers accepted for presentation at the Conference shall be distributed to all participants by the host port, as part of the registration package, provided they are received by the date to be specified by the host port before the Conference."

With this revision, the host shall be responsible for distributing conference papers at the time of registration for the Conference, whereas it used to be responsible for distribution of such papers sixty days prior to the Conference under the provisions prevailing before the revision.

IPD Fund: Contribution Report

The contributions from members to the Special Port Technical Assistance Fund ("the IPD Fund") as of September 10, 1990 are listed in the box below. The amount received in contributions in the three months from the start of the on-going campaign totaled US\$12,984.

All members' continued support in helping us to achieve the targeted amount of US\$70,000 is sincerely requested.

Furthermore, on August 30, 1990 the IAPH Foundation completed the payment of US\$13,655 as a contribution to the IPD Fund in accordance with the pledge earlier made to the IAPH President. As reported in the previous issue, the newly made contribution was intended to fill the shortfall in the targeted amount in the last campaign in which only 80% of the targeted amount of \$70,000 had been raised by the end of May this year. The Secretary General records his deep appreciation to the IAPH Foundation, a Japanese corporation which has been functioning as a benefactor of IAPH under the special arrangement with the Association. At the same time the Secretary General confirms the completion of the 1988-1990 campaign.

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

Contributors Paid	Amount Paid: (US\$)
Port of Copenhagen Authority, Denmark	1,000
Stockton Port District, U.S.A.	500
Public Port Corporation I, Indonesia	150
Nanaimo Harbour Commission, Canada	200
South Carolina State Ports Authority, U.S.A.	1,000
Port of Redwood City, U.S.A.	200
Vancouver Port Corporation, Canada	1,000
Puerto Autonomo de Valencia, Spain	1,000
Port of Quebec, Canada	250
Public Port Corporation II, Indonesia	300
Port Authority of the Cayman Islands, West Indies	100
Port of Melbourne Authority, Australia	250
Port Authority of Thailand, Thailand	100
Port of Palm Beach, U.S.A.	250
Associated British Ports, U.K.	3,000
Fraser River Harbour Commission, Canada	250
Marine Department, Hong Kong	500
Bintul Port Authority, Malaysia	200
Japan Port & Harbor Association, Japan	400
Port Authority of New York & New Jersey, U.S.A.	1,000
Nagoya Container Berth Co. Ltd., Japan	554
Japan Cargo Handling Mechanization Assoc., Japan	280
Port of Montreal, Canada	500
Total	US\$12,984
Pledged	
Ghana Ports & Harbours Authority, Ghana	250
Port of Tauranga, New Zealand	500
Total	US\$750
Grand Total	US\$13,734

— 17th World Ports Conference of IAPH —

More Than 80 Cabins Reserved

Dr. Jose L. Juan-Aracil, Executive Director of the Organizing Committee for the forthcoming IAPH Conference in Spain, in his August 29 fax communication to the Tokyo Head Office, reported on the state of registration and cabin reservation for the passenger ship "Eugenio Costa", on which the Conference will be held during the period May 5 - 11, 1991. His letter is partly reproduced as follows:

"I am happy to inform you that the registration forms are flooding to Madrid. We have already more than 80 Double Cabins reserved with all payments received. And we receive every day more and more registrations. Although we do not accept any pre-reservation without the payment, we have also received some fax notifications of registration and are waiting for the receipt of due payment.

"Each registered attendant has been sent a written confirmation of his registration, with the number of the Cabin reserved.

"We are completing the arrangement with the lecturers and session chairmen. I am able to say that nearly all the lecturers we approached have sent their affirmative responses. I hope that I will be able to bring with me to Tokyo* the full definitive programme of technical sessions, with the chairmen and lecturers who have already accepted."

The Conference Host reminds those who have not yet done so to complete their registration as soon as possible, for the attention of the Organizing Committee at the following address, while our host will be willing to answer any questions you may have concerning applications for the Conference.

Comité Organizador de la 17 Conferencia IAPH
Colegio Ingenieros de Caminos
Almagro 42, 28010 Madrid (España)
Tel: 34-1-308 20 23 and 34-1-308 20 24
Fax: 34-1-308 39 32

*Note:

Dr. Fernando Palao, the Conference Chairman, and Mr. Juan-Aracil, the Executive Director of the Organizing Committee, are invited as guest speakers for the IAPH Japan Seminar which has been organized by the IAPH Foundation to take place on October 2, 1990 in Tokyo. The IAPH Foundation, in cooperation with the Head Office Secretariat, has sponsored a series of seminars for the IAPH members in Japan to promote the next biennial Conference of IAPH and at the same time to provide the IAPH Japanese members with an opportunity of exchanging views and information. Also invited to this seminar by the organizer are Mr. E. Stromberg, President of the American Association of Port Authorities (AAPA) and Mr. A.J. Smith, IAPH European Representative. The seminar will be featured in a future issue of this journal.

Monograph No. 5 Supplement Sent Out to Members

A series of monographs prepared for UNCTAD in collaboration with IAPH has been made available to all IAPH members through the kind arrangement of the UNCTAD's Ports Section.

As of 1990, the monographs in this series already published and sent out to our members from the IAPH Tokyo Head Office are:

- No. 1 Changing from day-work plus overtime to two- shift working
- No. 2 Planning land use in areas: getting the most out of port infrastructure
- No. 3 Steps to effective equipment maintenance
- No. 4 Operations planning in ports
- No. 5 Container terminal pavement management
- No. 6 Measuring and evaluating port performance and productivity
- No. 7 Steps to effective shed management

Recently the IAPH Head Office has been able to receive copies of a newly completed monograph from the UNCTAD Ports Section. The newly received paper was a supplement to Monograph No. 5 — "Container terminal pavement management" authored by M. Meletiou (Cyprus Ports Authority) and John Knapton (John Knapton Consulting Engineers Limited).

The publisher states that this new supplement to Monograph No. 5 is intended to bring readers up-to-date with the recent advances in the field of container terminal paving which promise to exert a positive influence over port pavement management, the focus of the original Monograph.

Visitors to Head Office

On July 24, 1990 — **Mr. Ron Cartwright**, Managing Director, **BIMCOM Ltd.**, U.K.

On August 8, 1990 — **Mr. Frazer McKenzie**, Chairman, **Mr. John Halling**, Chief Executive, **Port of Tauranga Limited**, and **Mr. Stephen Cribb**, Assistant General Manager — Operations, **New Zealand Stevedoring Co., Ltd.**

On August 27, 1990 — **Captain Norman C. Stark**, Deputy Port Manager and Chief Operating Officer, and **Mr. Kevin G. Little**, Director Marketing, **Vancouver Port Corporation**

On August 30, 1990 — **Ms. Lilian C. Liburdi**, Director, **Ms. Kate Ascher**, Assistant Director, Port Department, **Mr. Frank W. Billman**, Manager, Maritime & Government Liaison, **Port Authority of New York & New Jersey**. The Picture (bottom) was taken at the Port Authority's Asian Pacific Regional Office in Tokyo, where Mr. R. Kondoh and Kimiko Takeda of IAPH were able to join the party from New York. From left, Billman, Takeda, Kondoh, Liburdi and Ascher.



Front row: Mr. Halling, Mr. Cribb and Mr. McKenzie
Back row: Mr. Kondoh and Mr. Kusaka (IAPH Head Office)



Front row: From left, Mr. Little, Mr. Stark and Mr. Kusaka
Back row: From left, Ms. Takeda and Mr. Kondoh of IAPH and Mr. Kongo (Port of Vancouver's Tokyo representative)



OPEN FORUM

Domestic Marine Transport Services In Vanuatu

By J.L. Covil and A.A.N. Ebrahim



Mr. Covil

Mr. Ebrahim

Mr. Covil is a Senior Vice President of Wilbur Smith Associates and specialises in policy and institutional matters. Mr. Ebrahim is a Senior Transport Planner/Economist with Wilbur Smith Associates. Both authors worked on the National Transport Development Plan for the Republic of Vanuatu funded by the Asian Development Bank. The views in this paper do not necessarily reflect those of the Government of Vanuatu.

ABSTRACT

This paper provides background to the domestic marine transport services in Vanuatu, summarises issues such as the copra transport allowance scheme, and discusses strategies for inter-island shipping considering the cost, subsidy, service and administrative requirements.

1. INTRODUCTION

The Republic of Vanuatu, with a population of about 150,000, consists of about 80 islands dispersed in a Y-shaped archipelago stretching over some 850 km in the South Pacific. Domestic inter-island shipping services are provided by privately-owned ships. The frequency of sailings is largely determined by the demand for copra pick-ups, and the carriage of other cargoes and passengers is regarded as largely incidental to copra trade. The shipping operations are inefficient and uneconomical, hence the boats are old and in poor condition. The inter-island shipping is considered to be less than adequate by the people of Vanuatu.

Like most of the island economies, Vanuatu suffers from low volumes of cargo, long distances, high ship operating costs, a scattered and thinly-spread population, and consequently poor shipping service.

2. SHIPPING SERVICES

Domestic inter-island shipping services are provided by a fleet of 36 privately-owned ships. Ships are required to state their intended routes when applying for a license to operate. In practice, most of the ships adjust their routes and frequencies to the availability of copra. This pattern of operation has become more common during the recent period of low copra flows. The carriage of other cargoes and passengers is largely incidental to the copra trade.

The major copra-producing areas have wharves and jetties and receive the most intensive shipping services. The ships operate out of either Port Vila or Luganville (see Map 1), the export centres, from whence copra is trans-shipped to Europe. East Coast Malekula and south Espiritu Santo, being the largest producers of copra and also most easily served on a fairly direct route between Port Vila and Luganville, receive several services a week. Areas low in production, off the heavily travelled routes, or with the greatest problems of access such as coral reefs, poor anchorages, or exposed shores, receive the worst service, often having a gap of two or more months between ships. Banks and Torres, and the smaller islands in the south - Aneityum, Aniwa and Futuna - find themselves in this position.

Ships will call at any accessible beach landing point along their route where there is copra or other cargo to be collected. This can result in a great number of calls on one island, each only a few minutes sailing time from the next.

Owners of most of the ships are divided between indigenous (Melanesian) ni-Vanuatu and Vanuatu citizens of Vietnamese or Chinese extraction.

There is relatively little movement between islands other than to or from Efate of Espiritu Santo. The projections for inter-island shipping to or from Port Vila or Luganville show that cargo and passenger flows are not expected to increase substantially to year 2000.

3. SHIP OPERATING COSTS AND REVENUES

Ship operating costs are related to essentially fixed costs (amortisation, maintenance, insurance and labour) and to variable costs, primarily fuel. For a typical inter-island ship, the fixed monthly costs amount to US\$6,000 and the operating monthly costs to US\$3,000.

Trading economics and ship safety considerations make smaller ships suitable between inner islands and between islands in the outer areas. Relatively bigger ships are required to connect Port Vila or Luganville with the more exposed and remote outer islands. However, these larger ships require larger traffic volumes to be commercially viable. Because both fresh coconut and copra quality decline with time, copra cannot be stored for the extensive periods needed to consolidate larger tonnages. Thus commercial interests do not

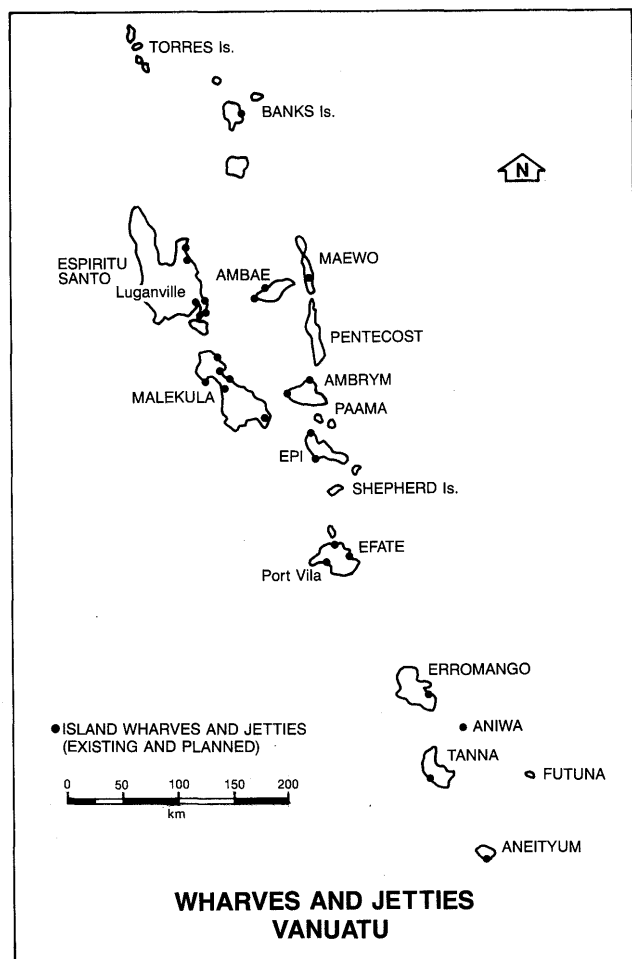
favour frequent calls by larger ships although frequent services are desired to meet local economic and social needs.

The consensus among shipowners is that the market is highly competitive, reflecting an over capacity of ships. Some shipowners offer cut-price rates, an outward manifestation of oversupply. The Vanuatu Commodities Marketing Board (VCMB) has a different view, believing that the overall composition of the fleet is broadly correct but that there is not sufficient cargo, essentially copra, being shipped.

A decline of about 24 percent in copra received for export from 1984 to 1987 has affected the revenues of the shipping fleet. Monthly revenues of a typical inter-island ship amount to about US\$10,000. Ship revenues on the routes to outer areas where the costs are high do not meet variable costs.

At present there is no data collection system for inter-island trading. The VCMB keeps the manifests for copra in disaggregated form but ship's manifests invariably are not kept. This information is vitally important to understanding the likely success or failure of a particular operation.

Given that the population of the outer areas needs to be served by ships, and that socially acceptable service levels are not commercially attractive, subsidy in some form is necessary.



4. RATE FIXING BY THE VCMB

The VCMB operates a standardised freight payment for copra transportation, which was introduced in 1984 as a price equalisation scheme. The VCMB purchases copra at a "beach price". Price equalisation takes the form of a

differential freight payment determined by zone. In essence this is a subsidisation scheme. For example, the allowance for Torres, Banks and islands in the south is 6,500 Vatu (US\$60) per tonne compared to 4,500 Vatu (US\$40) per tonne for inner islands.

The VCMB view is that the price equalisation differentials were satisfactory at earlier production levels.

Generally in shipping, freight rates are set by shipowners. They best know their costs and they set charges on their own commercial assessment of traffic demand. The VCMB may be in a good position to assess copra supply, but the shipowner (who also has access to copra statistics) is better able to assess his costs. The freight rate set by the VCMB is thus likely to be an imperfect tool to regulate demand and supply in inter-island shipping. In a social sense, however, the frequency of service to outer areas is influenced by the VCMB rate fixing subsidy. Users recognise the scheme as a subsidy, but feel it is insufficient for outer islands and too generous for inner areas. Since the level of service is not satisfactory, the situation warrants review.

5. POLICY OPTIONS

The Government's highest priority regarding transport policies concerns the rationalisation of inter-island shipping services to all regions, including remote and distant islands. A number of options presented below are considered.

5.1 Previous Proposals

Four proposals have been previously postulated by Dunbar*. These options are:

(a) Do Nothing

Free market forces would be allowed to continue, on the assumption that the most cost-effective system would result. The conclusion was that the "long term result would be one of the severe imbalance in development opportunities between those locations with access to Port Vila and Luganville, and those without."

(b) Regulation of Privately Owned Shipping

At the time of Dunbar's Study, the Government's declared aim was to grant shipping licenses only to majority ni-Vanuatu owned vessels with the underlying assumption that "controlled" competition would ensure greater efficiency and equity of service. It was concluded that "if administered carefully" it would offer the basis for establishing a shipping industry founded upon local entrepreneurship.

(c) Establishment of a Cooperative Federation Monopoly

This strategy implied the extinction of all competition and the establishment of a self regulating monopoly which would cross-subsidise uneconomic routes from profitable ones. Dunbar rightly cautioned against such a system, where costs and service levels may be beyond control.

(d) Direct Government Control

Two possibilities were discussed by Dunbar: total nationalisation of shipping, or partial involvement by

* *Inter-Island Shipping - a Report to the Government of Vanuatu of Shipping Needs and the Organisation and Operation of the Domestic Fleet*, Anne C. Dunbar, January 1981.

providing government-sponsored services only to the outer islands, leaving profitable routes to the private sector.

The former was viewed as having the inherent dangers of monopoly, with concomitant risks of inefficiency, high prices and/or heavy subsidisation.

In the latter case the parallel was drawn with similar measures in the Solomon islands which were seen to increase costs and subsidy levels, and probably would result in perpetual and uncontrolled subsidies.

5.2 Selective Subsidy

In practice, selective subsidy is applied by the VCMB under the zonal price equalisation scheme discussed earlier. Experience has shown that it has not been able to adjust to changing market conditions.

Other suggestions include exemption from taxation on fuel for ships sailing to areas which are, at present, inadequately served, and tax exemptions on imported ships and spares.

The difficulty with selective subsidies is that they commonly have an inadequate financial or economic basis. For example, fuel needs differ among types and sizes of vessel, and selective subsidies may encourage deployment of sub-optimal ships. Further, their organisation and administration make the schemes difficult to control.

5.3 Government Charter Operations

Another option to ensure adequate services to the outer islands would be to issue a contract to provide charter operations specifying the frequency of service and the locations to be served.

Charter operations subjected to bidding by the private sector would obtain the lowest price for these services. Bidding could be limited to ni-Vanuatu, or to ni-Vanuatu from the islands to be served.

The Government, as the issuer of the charter contract, may wish, in turn, to contract with the VCMB regarding the minimum transport allowance to be applied against the cost of the charter operation to provide an incentive to increase copra production of the outer islands.

5.4 Charter Operations by Cooperatives

A variation of the above scheme is for a Cooperative representing the outer islands to issue the contract for charter operations. Because the outer islands would have a direct stake in the success of the operation, it is likely that this additional incentive would result in the highest use of the services.

It is expected that the Cooperatives will neither make a profit nor break even, particularly at today's low volumes of copra production in the outer islands. Therefore, the Cooperatives will need some means of generating revenue to cover deficit operations. VCMB may wish to work with the Cooperatives concerning the transport allowance for copra, perhaps by increasing the allowance above today's level. Also, the local people could be asked to contribute an established amount from their VCMB copra payment towards the expenses of the Cooperatives. By using a sliding scale (i.e., volume discounts), this latter arrangement could as an inducement for increased copra production which, in turn, would reduce the operating deficit.

5.5 Outer Island Feeder Services

At present, a vessel must proceed to the region, then go about from place to place picking up and discharging small volumes of cargo and merchandise. It is the latter part of the operation that is the most costly, resulting in infrequent services.

A variation of the charter option is for the Government to operate feeder services around the outer islands to consolidate copra shipments. At the same time, such feeder services can engage in distribution of consumer goods and transport of passengers.

A further option is for a Cooperative to own and operate such feeder services. The difficulty foreseen with this option is that a vessel probably would be underutilised.

5.6 Outer Island Operations by Cooperatives

A further option is to allow a Cooperative owned and operated vessel to engage in other shipping services when it is not directly employed in feeder operations. The most logical extension of the feeder service would be the mainline service from the outer islands to Port Vila and Luganville. In fact, such an operation logically could be granted exclusive rights.

5.7 Government Regulation of Cross Subsidised Route Structures

There is merit in considering a Government regulated scheme involving cross subsidised route structures. In this scheme, profitable routes to selected areas would be combined with marginal or unprofitable routes to the outer islands, resulting in an overall profitable operation.

The mechanics of this scheme require the Government to prescribe a number of route structures, including points which currently do not receive adequate service. It may not be necessary to include all of the nation within the route structures to be regulated.

6. CONCLUSION

The inter-island shipping services of Vanuatu are the mainstay of the country's economy in terms of the collection of cash-earning primary products for export. They also provide the only available link between the many dispersed communities. If the forecast levels of agricultural production are to be achieved, ships will have to play an increasingly important role. However the deficiencies of the existing inter-island shipping system are clear, and derive from a lack of cost-effectiveness and a consequent unprofitability to the operators.

A number of options have been presented which, to varying degrees, achieve Government's goals for the inter-island shipping sector. An arrangement whereby profitable operations are used to cross subsidise unremunerative operations probably comes closest to meeting all of the Government goals including preference for a commercially attractive solution. A bidding process will minimise costs while achieving Government's goals regarding localisation of shipping, avoidance of monopoly operations by a few shipowners, and assurance of minimum acceptable services to all regions. However, a fair amount of administration will be required to establish and operate this scheme.

In transport terms, there is much to recommend the feeder service option. With this scheme, a minimum level

(Continued on Page 13, Col. 1)

Future Technological and Operational Developments in Intermodal Transport

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0.0 GENERAL

Intermodal transport provides coordinated transport or movement of goods or people through a sequence of modes from origin to destination. Its purpose is to reduce time and cost of transport by assuring:

1. maximization of continuity in the transport chain;
2. effective match of technologies, size, frequency, and schedule of interfacing sequential transport modes;
3. optimum utilization of capacity of modes;
4. effective change of cargo form, unitization, or consolidation to achieve low cost transport;
5. efficient and continuous intermodal cargo transfer;
6. minimization of intermodal storage or buffering of cargo;
7. effective and real time communications of cargo flow and control requirements data;
8. through certification, documentation, and billing of cargo flow;
9. minimize the number of handlings and modal changes in intermodal cargo flow; and,
10. simplification of intermodal networks and flows.

Intermodal transport was recognized as a systems management concept about 35 years ago when containerization was introduced on a large scale. It has since revolutionized goods transport by merging modal operations ever closer and converting ports and terminals from start or end point facilities of individual modal services to intermodal transfer facilities which provide for the continuity of transport flows and not just the serving of individual modes.

Multi-modal transport involves effective integration of modal modes, through use of effective mode-bridging material handling and transfer technology. It also involves concurrent information acquisition and flow, so as to assure that data required for decision making at intermodal points

is always available at the time and in the form required.

Intermodal transport has offered major advantages to goods transportation by greatly reducing time and cost of origin to destination transport, particularly of break bulk or package cargo which could be unitized (or containerized) for efficient handling by the different sequential modes.

A typical break bulk shipment from Chicago to Munich (Germany) with non-integrated modal transport may require 17 separate handling operations and 29 days, of which only 9.2 days or 31.7% was spent in productive transportation while the rest was spent waiting, reassigning, etc. Efficiently integrated intermodal transport systems would perform this in about 16 days with about 8.6 days or 54% of actual time being transported. Similar advantages accrue in other forms of physical commodities. In addition, there are both major cost savings and savings in the cost of the value of the commodities in transit.

For example, loss of opportunity cost of the value of a \$5000/ton commodity is about \$1.84/day (assuming an opportunity cost of 12%) which means, for example, in the above case that intermodal transport saved nearly \$24 per ton by reducing delivered time by 13 days. Overall time and direct cost savings of effectively designed intermodal transport amount to at least 30%.

Now that the advantages of intermodal transport have been recognized, major new technologies are under development. These can be expected to greatly revolutionize intermodal transport as we know it today and thereby force a complete change in it. Technological and operational developments are moving generally in the following directions:

1. through unitization (containerization) from production or packaging facility, floor to inside receiving warehouse, where containers or other unit form is directly interfaced with the warehouse receipt and storage system;
2. completely automated, self recording, intelligent warehouse systems;
3. on-line automated routing and intermodal transfer control systems;
4. paperless intermodal systems with all electronic data recording, transmission, storage, and transactions;
5. large scale intermodal standards affecting containers, batch, etc.;
6. intra- and inter-company integration and exchange of intermodal technology and operations;
7. new containment technology based on new materials and non-structural containment (vacuum, etc.) techniques;
8. large scale expansion of physical form change technology; and,
9. new methods for high speed pipeline transportation of goods.

Intermodal technology is under development for air, land, and water modes, and their interfaces. In future, we may also want to consider intermodal space technology, but for the purposes of this brief paper I will restrict myself to the more immediate opportunities.

1.0 INTERMODAL OPERATIONS

As noted, the principal purpose of intermodal transport is to reduce the time and cost wasted at the interface. There

are very few commodities which are only transported by use of a single mode, even in domestic trade or distribution. As a result, intermodal operations are everywhere and can be used to rationalize the movement of goods by sequential modal chains of transport from door to door.

Future operational developments will be primarily in the planning and use of just-in-time matching of arrivals of interfacing modal transports, with comparable capacities and capability, so as to facilitate near continuous transfer and a minimum of time loss at the interface. This will be paralleled with completely paperless electronic information systems, which integrate real time information transfer and use in the control of intermodal transport, including all identification, inspection, clearance, documentation and funds transfers, all of which will be performed electronically. Similarly expert electronic systems will be used to diagnose the operations of the intermodal transport and make whatever corrections are necessary, such as:

1. reassignment of vehicles, containers, warehouse space, etc.;
2. rerouting or rescheduling of cargo flow;
3. consolidation/deconsolidation of cargo;
4. cargo clearance and documentation;
5. determination of alternate use of transport or interface cargo handling capacity; and,
6. financial transactions.

The expert system will be used to assist in both tactical and strategic decisions which in turn may include financial planning and foreign exchange use or payment strategies. It may, for example, also consider buy or lease alternatives and various creative financing strategies. While not controlling the system directly, the 'Expert System' will provide management with all the necessary 'advisories' required to make 'fully informed' real time decisions.

Similarly, the 'Expert System' will check all laws and regulations pertaining to intermodal transport of particular goods and advise on the most effective legal and procedural steps to be taken to facilitate smooth and timely movement of the cargo.

The use of electronic data interchange backed up by computer networks will allow accurate real time condition audits and thereby most efficient routing, scheduling, batching, and sequencing of shipments to satisfy their transport or distribution requirements, while maximizing effective assignment and utilization of modal transport and interface storage and materials handling capacity. Intermodal transport operations have expanded their scope tremendously as a result of the large scale introduction of landbridges in recent years.

U.S. integrated intermodal container landbridges now handle over 2,000 TEUs per day in each direction or nearly 1.5 million TEUs altogether. This massive intermodal transport is growing at over 10%/year, a trend which is expected to grow as double stack unit train rail transport integrated with ocean and road transport through coordination interphase terminals has reduced the cost and time of intercoastal container transport by over 40% over the last 6 years. This type of batch intermodal transport with unit train capacities of 400-800 TEUs and interphasing mainline containership capacities of 1720-4600 TEUs has introduced incentives for the development of more efficient ship-rail interface transfer technology, more effective information and control technology and effective recording,

clearance, documentation, and transaction control. The technological developments for these operations are described in the next section.

2.0 FUTURE INTERMODAL TECHNOLOGY DEVELOPMENTS

Developments of intermodal transport technology have exploded in recent years, a trend which is expected to continue as world trade expands and the advantages of efficient intermodal transportation become more evident.

While technological changes in the last ten years were mainly extensions or improvements of existing technology, future changes are expected to introduce radically different technology which, in turn, is expected to result in major changes in the operations and management of intermodal transport. Our discussion will consider the following technological areas:

1. **Modal transport technologies**, their developments, capabilities, and impacts on integrated intermodal transport.
2. **Material handling and intermodal transfer technologies**, including their management, operations, and controls.
3. **Storage, buffer, and warehousing facilities** and their intermodal transfer and modal transport technology.
4. **Operations control and management technology and its impact** on intermodal transport.
5. **Intermodal transport, MIS, expert systems, EDI, and electronic management technology.**

After describing expected developments in each of these areas, integrated intermodal transport systems of the future in which these technologies will be used are discussed.

2.1 Modal Transport Technologies

Future technologies are expected to be introduced in all modes. They have a variety of objectives, such as cost reduction, increased speed, better intermodal interface, safety, etc. which in some cases may be inconsistent. Most of the future technologies use state of the art concepts.

Rail Transport

The double stack trains which have revolutionized container rail transport will in the future be superseded by much higher speed magnetically levitated double stack trains with gimble linked levitated double stack platforms, operating at speeds of 200-300 km/hr. These trains could uncouple sets of cars or platforms automatically. The cars would similarly be equipped with magnetic shifters, which could move containers sideways between the cars and stationary platforms. (Stationary platforms would generally have air cushion pallet or similarly levitated platforms onto which containers are transferred. These in turn would be designed to be moved to a storage position. Storage can be on platforms or containers lifted onto a higher stack or positioned in a high rise container silo.

Similarly new types of bulk carrying unit trains will become available which will permit in motion discharge without decoupling. The objectives of these technological developments are to improve rail transport productivity (cost reduction) and improve intermodal interface. Most trains will be automatically controlled in terms of speed, routing, and classification which will also be performed in an auto-

matically programmed manner.

Automated or remotely (radio) controlled coupling/uncoupling will become standard, as will become control of train separation distances and other operational decisions. Most trains will be self unloading.

Road goods transport will be by heavy capacity tandem trucks, many of which will be designed for double stacking of containers (overall height 18'6"). Although 40% of U.S. interstate highway overpasses are lower, the cost of increasing the headroom may be justified by the resulting economies, particularly as many of the roads (and overpasses) must be rebuilt anyway.

Ship technology will probably adopt catamaran and semi-submerged catamaran configurations for ocean container transport and wide beam, full bodied designs for bulk commodity transport. Catamaran containerships will load/unload containers in blocks 5-7 high, while new bulk carriers will probably be equipped with bottom unloading chutes designed to discharge onto a waterproof submerged channel mounted conveyor.

Ships will be propelled by diesel-electric, gas turbine propulsion. This would allow much more of the ship's hull to be used for cargo storage. Most tankers will be double skinned, and other types of ships will carry their fuel in side or wing but not double bottom tanks.

Barges will be designed for push towing with automatic or remotely controlled coupling/uncoupling. Ocean bulk push barges will be bottom unloading, using chutes and conveyors or bottom mounted pipe connections. Smaller inland water dry bulk barges will be designed for unloading by a lift-turn-and dump (or barge dumper) arrangement. Oil carrying barges will all have double bottoms.

Pipeline Transport

On land, coastal, and transocean pipelines will not only be used for the transport of oil and gas (or for short distances grain, cement, etc.), but also for break bulk cargo.

Recent research has proven the feasibility of supersonic transport of cargo modules in evacuated pipelines. Large-scale subsonic (fluid or air) flow propelled cargo module carrying pipelines have been engineered and designed to carry both oil and dry cargo slats or capsules over long distances. The energy requirements are varied in terms of full consumption per ton-mile.

It is expected that pipeline transport will emerge as a major new dry bulk and break bulk transport mode within the next 20 years.

Domestic Marine Transport—

(Continued from Page 10, Col. 2)

of service can be provided to the outer islands while leaving the majority of inter-island shipping to operate under free market conditions. A distinct advantage of this option is that the amount of subsidy and justification for these services and their costs will be known.

It is apparent that much of the discussion in this sector has been impeded by a lack of information about the costs and revenues of operators in the sector. A model of the costs and revenues of operations of different types of ships in different areas of the country under a variety of scenarios is essential. The model would be most valuable in allowing decisions to be made which otherwise could have costly implications.

Air Transport

Though air transport has not played a major role in modal goods transportation in the past, its role is expected to change drastically soon. Over 5.8% of high value international trade cargo (larger than \$10,000/ton) in ton miles now moves by air. By the year 2000 nearly 10% of high valued cargo is expected to move by air. To facilitate the growth of air cargo, aircraft are now designed for longer standard containers and more effective access to the cargo hold.

Air transport will become increasingly intermodal and integrate its technology with land and water transport. Before 2010, short to medium distance vertical take off aircraft will be used, and artificial offshore island airports will handle much of the long distance intercontinental air traffic.

2.2 Materials Handling and Intermodal Transfer Technologies

Materials handling technology will grow in terms of capacity, rate, continuity, and adaptability. Containers will increasingly be stuffed/unstuffed by use of a false bottom shelf in the container which can be rolled in/out with the cargo on it. Container stuffing/unstuffing will then only take minutes and not hours without a weight (or cost) penalty in container construction. Containers furthermore will be handled as blocked containers in double, triple, or higher locked stacks, even larger say 4x2 or 4x4 blocks.

Catamaran and other increasingly wide beam containerships will be loaded/unloaded by use of vertical elevator lifts instead of gantries and then move the block of containers horizontally on/off the deck. This type of preblocking and blocked prestacked movement and handling of containers is already performed in some ports using Luff frames.

Air cushion pallets and other levitation devices will also be used to more prestacked blocks of containers in a container terminal. Vertical steel frame container silos will be in fairly general use as they not only reduce the land area required but also provide greater selectivity and continuity in container transfer and storage.

Container stacking and transfer to or from the ship loading/unloading equipment will in the future be more continuous and highly automated with continuous chain road or rail trailers or air cushion pallets moved by remotely and automatically controlled winches.

Packaging will become more efficient and lighter. Vacuum packing and new light environmentally acceptable standard packing will become the norm.

Cable, monorail, and even balloon supported cable transfer of containers and similar cargo will be used. Bulk cargo will be transferred from ship to shore by conveyors placed in closable and sealable submerged bottom channels, which can be sealed against a ship's bottom for bottom discharge.

Dry bulk ship loaders/unloaders will be available with capacities of 10-20,000 tons/hour. Pipeline transfer technology of dry bulk cargo is also advancing very rapidly with two phase flow, agitation, and circular flow, all of which provide for increased capacity or reduction in friction (boundary layer).

Advances in materials handling technology now permit much more effective control of intermodal transfer operations, as the statistical variations of these operations have been greatly reduced. This now allows just in time delivery

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International Maritime Information

WORLD PORT NEWS

East Europe: Massive Trade Potential Analysed

According to a far-reaching new study from Ocean Shipping Consultants the outlook for bulk trade in the Soviet Union and East Europe is very positive. Although there are deep uncertainties for the region the most likely course of development indicates that total bulk imports will increase by some 16 percent over the 1990s whilst exports will record an increase of around 10 percent. Total trade tonnages are forecast to increase from an estimated level of 536m tonnes in the current year to a total of over

602m tonnes by 2000. Given comparatively sluggish development forecast for other major geographical regions it is apparent that East Europe will become a primary focus of bulk trade development in the coming years.

Economic Development

The new in-depth analysis represents the culmination of a research project initiated in late-1989 as a response to the far-reaching changes occurring in East Europe. The methodology analyses demand development in terms of commodity trade groups and the individual situation in each of the regional economies. This allows a full-

ly-built-up picture of regional trade potential to be identified. The actual pace of reform in each of the regional markets varies considerably and the possible range of identified demand growth reflects this.

These uncertainties are accommodated in the structure of the study by means of a scenario-based approach. For each national market the effect of various economic conditions is identified. The low growth case represents worsening difficulties in economic reform programmes and some further stagnation of the economies — although any full-scale return to the

Future Technological—

(Continued from Page 13)

and transfer and will permit the gradual elimination of all interoperational storage buffers.

2.3 Storage, Buffer, and Warehousing Facilities

Improved intermodal transport operations and management, as well as the more advanced transport technology, has reduced the need for intermodal storage or buffer capacity. At the same time, storage facility technology has really taken off. Fully automated high rise container silos which unload/load containers directly to/from ships with a container freight station (CFS) underslung have been designed and may offer the ultimate in low cost, high efficiency, intermodal container terminal with flexibility of operations. This type of storage would be particularly attractive for use on artificial offshore island terminals. Similarly, automated high rise CFSs have been developed and have shown to be very efficient.

In dry and liquid bulk storage, the volume of prefabricated gravity caissons used in pier construction offers strategic storage capacity right at the bulkhead. (If necessary, pressure or load equalization is incorporated.)

Fully automated warehouses now replace traditional transit sheds. These usually have vertical shelf cells served by automated delivery/take off systems, very much as in use in large supermarkets, etc. distribution warehouses.

2.4 Operational Control and Management Technology

Cargo identification, sorting, scheduling, planning, and routing technology will be available which will reduce human involvement in the physical inspection and management of physical distribution of cargoes.

These management and control systems will be operated by networks of computers, read-off and inspection devices, feedback routing (or gate) controls with a minimum of human decision override requirements. Humans will serve primarily

as

1. drivers or pilots of trucks, trains, ships or aircraft,
2. maintenance personnel, and
3. inspectors who check and upgrade operations if and when required.

Computers will perform real time operational management and diagnostics of unexpected conditions.

2.5 Intermodal Transport Management Information Systems, Expert Systems, and EDI

We are rapidly entering the age of electronic logistics management. Completely autonomous MIS and EDI systems are already available and will soon benefit from the introduction of intelligent expert systems programmed to make effective decisions, and possibly control at least some of the more routing operations.

Artificial intelligence and expert programs are available now which make many logistics decisions more rapidly, accurately, and based on more real time data than human decisionmakers. It is expected that within 10 years such systems will be available to manage some of the most complex intermodal transport problems.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Technological developments in intermodal transport continue at a rapid rate and make it more and more efficient. By 2010, most intermodal transfer of cargoes will be continuous without intermodal storage. This just in time matched capacity interface design will result not only in a great reduction in door to door transport time and cost, but will permit the various transport modes in the chain of intermodal transport to use the capacity previously wasted in extended turnaround at the interface terminals for productive transportation.

The interface time and cost savings and increased utilization and capacity will reduce transport costs significantly and increase the quality and reliability of intermodal transport.

conditions of a year ago is extremely unlikely. The High Case assumes great success in the development of reform following a period of very severe short-term recession as the economies struggle to accept far-reaching restructuring. The Base Case — identified in the accompanying tables — brings out the "most likely" course of development for each of the regional economies and aggregates these analyses to present a total picture of bulk trade development.

Bulk Commodity Trades

With regard to the import of bulk commodities into the region the total picture indicates considerable potential in each major category with the exception of grains. In the case of iron ore and coking coal the rapid opening of the regional markets and the decreased reliance on intraregional trade is set to result in an increase in iron ore imports of some 17 percent over the forecast period, with demand for regional coal imports also surging as both Poland and the USSR witness a decline in market share. Total coal imports are set to increase by around 60 percent in the 1990s, with by far the greater part of this increase stemmed from long-haul suppliers. The study includes a detailed consideration of the development of demand in this sector on a national basis and considers the impact on required infrastructure investment.

The declining importance of the USSR as a regional energy source — as a result of both increased domestic demand and worsening production levels — will also impact on the East European market for crude oil and products imports. With rapidly increasing demand the net effect is set to be an increase in import volumes of around 21 percent over the period to 2000, with total imports reaching around 104m tonnes in that year.

The only bulk sector that will record a decline will be the grain sector. At the heart of this trend are perceived shifts in demand from the USSR. An improvement in the general economic situation will be manifested in the grain sector — where considerable further effort is currently being directed at the minimising of hard currency losses on grain imports. Under the most likely identified scenario the net effect is forecast to be a decline in import ton-

nages of some 16 percent to reach a total of 40m tonnes in 2000. This sector remains extremely vulnerable to short term shifts in political conditions, however.

Turning now to bulk commodity exports the tension in the region will continue to be between increasing domestic demand — following a period of stagnation — and the requirement to maximize exports to boost hard currency earnings. The most likely course of development will be a fairly significant increase in export volumes — especially for oil and products, although the changing pattern of inter-regional trade will reduce the level of iron ore exports from the region. Once again the range of possible developments is significant on a national basis but the general picture will be one of fairly steep increases in total export volumes — with a net development of some 10 percent to a total of 350m tonnes forecast for 2000.

East European Container Trade to 2000

By far the most significant variable shaping the development of East European container trade in the forecast period will be the underlying level of general economic expansion. The development of trade in manufactured goods development.

The basis for forecasting is therefore directly related to the various economic scenarios identified. Thus, under low growth conditions, the actual level of container trade is set to show a general stagnation as a result of under-investment in export orientated industry in East Europe together with a continuing inability to pay for imported manufactured goods in hard currency. This case therefore may be essentially summarised as a continuation of the stagnation process that has characterised the development of the container trades in the second half of the 1980s. Indeed, the picture is probably more severe given the perceived lack of confidence in the market and a consequent further slowdown in the pace of economic development.

The high growth case is predicated upon a generally successful development of the regional economies after a period of drastic restructuring has been successfully negotiated. Under these conditions the picture is one of a rapid decline in total container trade

over the next two/three years followed by a subsequent upward acceleration in total trade from the middle of the 1990s. Under these conditions the pace of container trade development is set to accelerate sharply.

Under low growth trade conditions the stagnation in the regional economies will result in a contraction of total demand throughout the first half of the 1990s and it is unlikely that historic trade volumes will be re-approximated much before 1995. Some further subsequent growth is anticipated but this will be at a very slow pace. Considered overall it is forecast that total demand will increase by just 14 percent across the period as a whole, with total container trade aggregating just 610,000 TEUs under these conditions by 2000.

As is to be expected the high growth scenario generates a considerably more bullish development in total container trade volumes, although the depth of the perceived short-term recession in demand is more pronounced. Under these conditions it is forecast that total trade will aggregate to some 751,000 TEUs in 2000 — a growth rate over study period of some 43 percent. It must be stressed that even under these conditions the total magnitude of East European container trade volumes remains limited in contrast to other major trade regions. Indeed, the real expansion of container traffic under these economic conditions is only really getting underway towards the end of the study period. Real and sustained further container trade growth under these conditions will be a feature of the following decade and total trade volumes will only then begin to approximate the levels regularly achieved in the west since the early 1980s.

The base case analysis brings together the national analysis of the most likely course of demand development to build up an aggregated picture of regional container trade. Under these conditions it is forecast that an increase in trade volumes of some 32 percent to reach a level of 700,000 TEUs in 2000 will be included.

The study goes on to assess the effect of these commodity demand trends on the level of port/terminal investment and required fleet development to handle this demand. The conclusions indicate a massive requirement for dedicated port investment and a rapid increase in the level of investment in

the fleet. The shortfall in available investment — and the increasingly obsolete nature of much of the COMECON fleet — indicates that considerable opportunities will present themselves for Western shipowners. It is unlikely that existing fleets will be able to maintain their market share of existing trade volumes, let alone maintain market share in a climate of increasing demand.

In general terms it is apparent that the East European market offers massive potential for increased trade tonnages. The study provides a detailed analysis of the current trade situation and analyses the outlook for the major commodity categories.

East Europe to 2000 — the Effect of Economic Restructuring on Seaborne Trade

220 pages of text, tables and graphs

Price: £390 (US\$715)

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New Publications

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Maritime Security Manual

By the American Society for Industrial Security. (Arlington, VA: 1990). 46 pages. Order from:

Order Department

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Price: US\$18 to ASIS members and US\$21 to nonmembers (includes postage and handling). Prepayment required in US dollars.

This manual was written by the Seaports and Harbors Subcommittee of the American Society for Industrial Security's (ASIS) Standing Committee on Transportation Security. The Subcommittee Chairman is Capt. Herman Gomez, Director of Training, Planning, and Development in the Port of Miami's Security Division and a member of the AAPA Security Committee.

The manual opens with an Introduction to Seaport Security and continues with chapters on:

Coordinating Vessel and Facility Security, the Security Manager's Role in Planning Seaport Operations, Passenger Vessel Security, the Cruise Ship Security Plan, Local Police Law Enforcement on Ships, Florida Prosecution of Crimes on the High Seas, Foiling Alien Stowaways, Terrorism, Extortion, and the Cruise Industry, Electronic Security Systems in a Seaport Environment, Physical Security for Cargo and Passenger Terminals, a Working Seaport Safety Program, Theft Investigations in a Seaport, Cargo Theft through Fraudulent Documentation, Private Security Services at a Seaport, and the Importance of Maritime Security Training Worldwide.

The Americas

Chairman of Halifax Commission Appointed

Mr. Jack N. Bathurst, O.B.E., of Bedford, has been appointed Chairman of the Halifax Dartmouth Port Development Commission by the Government of Nova Scotia. He has been Vice Chairman since its inception in 1984 and assumes Chairmanship from Mr. John Grice, whose mandatory term expired on August 13, 1990.

Mr. Bathurst has worldwide experience in international shipping and port affairs. He spent 25 years at sea between the British Merchant Marine, the Royal Navy and R.C.N. Following that, Mr. Bathurst spent 16 years with the United Nations secretariat as a Senior Economic Affairs Officer (Transportation) and later as Principal Inter-Regional Advisor on Ports and Shipping with UNCTAD (United Nations Conference on Trade and Development).

Since retiring from the U.N., he has provided ad hoc advisory services to the U.N. as well as to all levels of government in Canada and the private sector, in areas pertaining to multi-modal transport, shipping and port affairs.

The Halifax-Dartmouth Port Development Commission was created in 1984 by an Act of the Government of Nova Scotia, to promote and facilitate the development of the Port of Halifax. It is financed by the Province with support from the municipalities of Halifax, Dartmouth, Bedford and Halifax County.

EDICOM Important to Canada's Transportation

An EDI project of strategic importance to Canada's transportation and trade community has been announced in Montreal under the name EDICOM (Electronic Data Interchange for Commerce).

An initiative founded by several key players in Montreal's transportation, trade and commerce sectors, EDICOM's mission is to facilitate and

develop an EDI system to meet the requirements of the transportation and related sectors.

Electronic Data Interchange is the transmission of information of business or strategic significance between computers of independent companies or organizations. It is a worldwide movement already in the process of changing the way information is communicated.

"Montreal requires a genuinely co-operative EDI effort not only to analyze the needs of the local transportation and trade community, but to synergize with other initiatives across the country," explained Mr. Dominic J. Taddeo, general manager and chief executive officer of the Port of Montreal and chairman of EDICOM at a press conference announcing the initiative.

"Given that Montreal's transportation community represent a trading nexus worth more than \$1 billion annually, a community-oriented EDI system would enhance the probability of increasing this volume of trade and help Montreal maintain its competitive edge," Mr. Taddeo told a group of industry leaders and representatives of the media.

EDICOM History

A report by the Picard Commission on the development of the Montreal region in 1986 recognized the importance of ports/transportation to the Montreal area and pointed out the necessity of moving to Electronic Data Interchange as one way to stay competitive with other North American ports such as New York, Baltimore and Hampton Roads.

Recognizing this need to stay competitive and technologically current in today's increasingly global trading atmosphere, representatives of leading Canadian transportation companies in Montreal met on numerous occasions throughout the last year to review the need for an EDI trade and transportation initiative and pledged individual commitment and cooperation.

An advisory/steering committee, which includes representatives with the authority to make decisions and commitment for their organizations, was formed.

Subsequently, a board of directors comprising the founding members of the initiative was named.

The common goal of these executives is to have all players of the transportation industry efficiently and effectively communicate business data and information electronically through an internationally and nationally accepted set of formats, standards and appropriate infrastructure.

EDICOM is the response by the Montreal-based transportation industry to the Picard Commission report and to the stated interest of the federal government to support the implementation of an EDI transportation and trade system for Montreal.

EDICOM also addresses the objectives of the Government of Quebec to optimize the utilization of the communication expertise of Quebec companies, share the economic benefits of such technological innovation with the extended business community which relates to the Port of Montreal, as well as promote the participation of small and mid-range enterprises in the field of EDI. Most importantly, the envisioned EDI system will be able to interface in the national and international environment.

Business Mission

EDICOM is a private sector effort that necessitates the participation of the government sector due to the intertwined regulatory, business and trading environment.

The design, development and implementation of a coherent and efficient community-oriented EDI system as proposed will require the co-ordination and participation of appropriate private and public sector players. The community-oriented effort is a collective group effort.

The following statement has been approved by the participants of EDICOM:

The mission of the Montreal EDI project is to facilitate, develop and meet the EDI requirements of the transportation and related sectors including ports, carriers, customs, agents and the financial community.

EDICOM Phases

The EDICOM initiative is a four-phase project.

Phase I, entitled Trading System Analysis, is expected to last nine months at a cost of \$721,300 with a contribution of \$215,000 from the

private sector and respective contributions of \$253,150 from the Government of Canada and the Government of Québec.

Requests for financial assistance have been addressed to the federal communications minister through the Montreal Regional Development Fund, and to the provincial communications minister through the Office de planification et développement du Québec.

Phase II of the initiative involves technological acquisition and/or design and should last 12 months.

Phase III covers appropriate pilot projects, and Phase IV is the general installation of the service.

It is expected that the system will be operational within three years, although the time frames for Phases III and IV are difficult to determine at present.

(Portinfo)

APL EDI Interface for Quick Tariff Info Service

American President Lines has become the first ocean carrier to develop the ability to receive eastbound trans-Pacific tariff information by electronic data interchange (EDI) directly from an automated tariff publishing service under contract to the Asia North America Eastbound Rate Agreement (ANERA).

"This EDI system allows APL customer service representatives to obtain more timely eastbound tariff information, resulting in faster rate quotes for the customer," said Mr. Peter Neibert, director of marketing systems for APL. He added that the system demonstrates APL's commitment to improving the convenience of its customer services, and to supporting new, innovative programs for the intermodal transportation industry.

EDI interface with ANERA's rate publisher allows APL service representatives to access eastbound tariff information the same day it is filed with the Federal Maritime Commission.

Under the new system, the tariff information is received from Transax Data, of Bridgewater, New Jersey, by electronic interface with APL's automated tariff database, known as the Tariff On-Line Pricing System (TOPS). Prior to the development of this EDI

capability, eastbound tariff information from ANERA was received by APL in hard copy format and transferred to TOPS by manual input.

"Direct EDI communication with ANERA's rate publisher eliminates this manual step," Mr. Neibert explained.

According to Mr. Neibert, APL customer service representatives can also access TOPS to receive tariff information from other rate-making groups, such as the Transpacific Westbound Rate Agreement (TWRA). Direct EDI interface with these rate agreements is under development.

NAS/MarAd Meeting on Cooperative Projects

Eight members of the National Association of Stevedores (NAS) met on July 18 with Maritime Administration officials to discuss the possibility of cooperative research and development projects. The meeting, hosted by MarAd at the Department of Transportation, was well organized and very informative.

The Maritime Administrator, Mr. Warren Leback, stated that MarAd was putting more and more emphasis on port facilities and port problems. This emphasis is necessary, explained Mr. Leback, because of the competition for use of finite waterside property by terminal operators, residential and recreational interests, industrial users and environmentalists; and because of the need for more study on port access, especially from the land side, where there is often poor truck and rail access.

As one way of addressing port concerns, MarAd is stressing cooperative programs where individual companies/associations and the government share the cost of a study, the subject of which is decided by industry. MarAd presented an example of a current project, the Cargo Handling Cooperative Program, begun in 1983 to "identify, evaluate, and implement quality and productivity improvements for U.S. flag ocean transportation companies." Four U.S. carriers are working together with MarAd on a broad range of operational and technical area: automated equipment control, operations automation, and industrial engineering analyses.

The focus of this first NAS/MarAd meeting was on non-containerized

terminal operations. One NAS suggestion for study is the adaptation of bar code technology for use on break-bulk cargo. The NAS Board of Directors will discuss further the feasibility of a joint study at the Board meeting in September. (NAS Newsletter)

Port Canaveral Home for 'Phoenix World City'

Port Canaveral was recently selected to be the home port for the world's largest proposed cruise ship. The *Phoenix World City* will measure 1,360 feet in length with a 300-foot beam. Accommodating 5,600 passengers with a crew of 1,800, the 250,000 gross registered ton ship is scheduled for completion in 1994 at a cost of \$1.5 billion. The annual economic impact on Port Canaveral and the Central Florida region is estimated at over \$500 million.

The Norwegian-based owner of the ship, the World City Foundation, will spearhead the overall project and plans to convert approximately 100 acres of Port Canaveral land into a commercial/resort complex featuring hotels, a convention center, a festive retail marketplace, and a World Space Trade Center. The space center will consist of an office building and exhibition center for Space Coast businesses and the growing commercial space industry in Central Florida.

As the *Phoenix World City* is being constructed, the World City Corporation will be directly involved with Port Canaveral's environmental design for the ship as well as the airport-to-seaport infrastructure to serve the vessel. Port Canaveral was selected as the home port after an almost two-year competition with Port Everglades and the Port of Miami. World City president and spokesman John S. Rogers commented the decision to home port the ship at Port Canaveral was influenced by the fact that the World City Foundation could be involved with the design of its own base port from the beginning. Another important point included Central Florida's dynamic and diverse growth.

Mr. Rogers also said the helpful, positive attitude of Port Canaveral's staff was a factor in the decision making process. Support from numerous regional officials, groups, organizations

and agencies, including the City of Orlando and the Orlando Utilities Commission, was also cited. Mr. Rogers said attitude was the overall attracting quality of Port Canaveral and Central Florida for the World City Foundation.

(Port Canaveral Journal)

Port of Corpus Christi: Tonnage Up Slightly

Tonnage at the Port of Corpus Christi is up slightly over that at mid-1989, according to port officials. Through June, over 34.191 million tons had moved through the port, an increase of one percent over the same period in 1989. Port officials are optimistic that tonnage will top 70 million tons in 1990 and set a record for the third year in a row. In 1989, more than 69.3 million tons moved through the port. Petroleum, the largest commodity, accounted for the majority, or 79 percent of that total. The port has continued to maintain its ranking as the sixth largest in the United States in terms of total tonnage. It also continues to rank third in import tonnage.

"We have had a reasonably good year," says Mr. Harry G. Plomarity, executive director of the port. "Our break bulk shipments are up 38 percent. Both chemical and dry bulk tonnage are neck and neck with last year's figures and petroleum is showing a two percent increase.

"On the international trade scene, perhaps one of the greatest changes directly affecting the Coastal Bend is Mexico's economic restructuring and liberalization of trade. As Mexico increases its share of the world's economic activity, we are seeing a corresponding increase in overseas shipping. To keep up with the growing volumes of cargo to and from Mexico, we are scheduled to open an office in Monterrey, Mexico in August. The office is operated jointly by the Port of Corpus Christi, the Corpus Christi Chamber of Commerce, the Corpus Christi Area Economic Development Corporation, the Corpus Christi Area Convention & Visitor's Bureau and the Laredo Economic Development Corporation.

"Also as part of our effort to capitalize on Mexico's free trade policies, we have been working to strengthen our ties with major Mexican companies



Guest enjoy grand opening festivities at the Port of Corpus Christi's new Cargo Dock One/Open Pavilion. The new \$3.1 million dock and pavilion will provide a place for the general public to observe shipping activity in the port's nine-mile-long Inner Harbor. The pavilion will be open to the public from 9:00 a.m. until sunset seven days a week and is available for rent for special events through the City of Corpus Christi's Bayfront Plaza Convention Center.

and organizations. In June, port officials met with executives of Bancomer, Mexico's second largest banking institution. While visiting Corpus Christi, these officials also made presentations to local business leaders on the Mexican economy, foreign investments, import opportunities and restrictions, and the maquiladora program. Their visit came on the heels of President Bush and President Salinas de Gortari's talks aimed at negotiating a comprehensive free trade accord which both countries hope to have in place by the end of 1990.

"These changes in Mexico's international trade policies have the potential for an even greater impact on the Port of Corpus Christi when viewed in the context of the global economy. With the advent of EC '92 and the creation of a single European Economic Community, we can expect a greater flow of trade between Mexico and Europe. The Port of Corpus Christi's location gives us the opportunity to uniquely position the port as a gateway for European cargo moving to and from Mexico. We have recently contracted with Temple, Barker and Sloane, a leading economic and marketing consulting firm, to assist the port staff in developing strategy for capitalizing on

this trade," says Mr. Plomarity.

The opening of the port's new Cargo Dock One/Open Pavilion in mid-June marked the first phase of a \$20 million capital expansion program approved by the Port Commission in 1988.

The new \$3.1 million dock and pavilion will provide a place for the general public to observe shipping activity in the Inner Harbor. It will also serve as a berthing area for Navy and other "goodwill" vessels calling the port that are often open for public tours. The pavilion will be open to the public and available for rental through the Bayfront Plaza Convention Center Director's office. Rental is \$800 per event.

Construction of the port's next major project got underway in late 1989. Cargo Dock 13, a \$14.1 million general purpose cargo dock is designed to enhance the port's cargo handling capabilities, is scheduled to be completed in early 1992. The dock will enable the port to more efficiently handle heavy lift and project cargo, roll-on/roll-off (RO/RO) cargo, military cargo, containers and other types of general or break bulk cargo.

Once completed, Cargo Dock 13 will feature a new, heavy-duty 163,000

square foot concrete wharf with an allowable deck loading strength of 1,500 pounds per square foot. It will be adjacent to a 45 foot deep channel and will be able to bear the weight of a 300-ton rubber tired mobile crane of 500-ton crawler cranes. The dock is also designed to accommodate a dredge depth of 55 feet in the event the channel is deepened further in the future.

In other developments, the Port Commission recently authorized a \$120,000 feasibility study addressing the concept of an onshore, deep draft oil terminal designed to enhance the area's refining and petrochemical industry. Results of the study are expected to be released between September and October, 1990.

The port's Foreign Trade Zone No. 122 continues to expand. It currently consists of six sites and eleven subzones. The Zone is the only one in the continental United States to include active oil refineries.

Los Angeles, NYK Sign Container Terminal Pact

At a special meeting of the Board of Harbor Commissioners (07-20-90), an official agreement was signed between the City of Los Angeles and Nippon Yusen Kaisha (NYK) to operate a new state-of-the-art container terminal at Berths 212-216 at WORLDPORT LA. This is NYK's only major exclusive terminal in the United States. NYK is a major Japanese transportation company and has been calling at the Port of Los Angeles with general cargo since the 1930s. The new NYK terminal is under construction and will be operational next year.

"This significant agreement between WORLDPORT LA and NYK continues a decades-old partnership from which the City of Los Angeles has benefited tremendously. I am honored to be here with my friends from Japan today to see this new era in our relationship with NYK begin," Los Angeles Mayor Tom Bradley said. "Our economy is strong and the global presence we have achieved as a result of WORLDPORT LA's success in international trade translates into more jobs and a better quality of life for all of us. NYK is one of the reasons the Port of Los Angeles has become the number-one containerport in the

United States."

The new NYK terminal is being constructed in five phases at a total cost of approximately \$81,786,426. A \$35,490,067 contract for phase four of the project was awarded to Morrison-Knudsen Company, Inc. of Boise, Idaho. When phase four is complete the administration building and infrastructure will be in place. Phase four consists of backland improvements for the 100-acre terminal such as paving, storm drains, sanitary sewers, electrical substations, truck scales, water systems, area lighting, fencing and telephone systems.

"We signed a letter of intent during the trade mission to Japan in April of last year with NYK and at that time I felt confident that we would see this day when the partnership between NYK and WORLDPORT LA would take another step forward," Mr. Bradley continued. "When I went back to Japan in May of this year we continued our discussions and today we welcome NYK to their new home at WORLDPORT LA."

The action taken by the Board of Harbor Commissioners was to grant NYK a 25-year permit to operate a container terminal. The action has been approved by the Mayor and goes to the City Council for its approval. Council is expected to act on the permit within the next month.

In phase one of the project, over \$13,000,000 was spent for environmental cleanup at the site. The second phase for \$13,374,303 was for slope dredging and rock dike construction. Phase three to build the wharf is under construction at a cost of \$18,854,652. Bids for phase five to add additional buildings at the site will be awarded this summer, at an estimated cost of \$5 million.

Los Angeles Harbor Commission President Jun Mori presiding over the special meeting said, "We are very proud of the NYK project. When it is operational it will be one of the most modern and effective container terminals in the world," Mr. Mori said. "WORLDPORT LA is committed to its aggressive capital improvement program to insure that we maintain our competitive edge by providing the most modern facilities possible. We look forward to a long rewarding relationship with our friends at NYK."

LA Harbor Commission Elects New Officers

The Los Angeles Board of Harbor Commissioners (7-25-90) unanimously elected Mr. Ronald S. Lushing president for a one-year term. Outgoing president Jun Mori was elected vice-president of the Commission which is

appointed by the Mayor and confirmed by the City Council to oversee the Port of Los Angeles, WORLDPORT LA.

Mr. Lushing is a former president of the City's Library Commission and was appointed to the Harbor Commission in June 1989. Mr. Mori is the longest sitting member of the Board and has served five previous terms as president. Commissioners Dr. E. Grace Payne, Robert Rados and Floyd Clay also serve on the five-member board.

WORLDPORT LA is the number one container port in the United States and operations at the port are responsible for more than a quarter of a million jobs in Southern California. The 7,500-acre complex has some 28 miles of waterfront and is the largest man-made port in the United States.

CBC of Baltimore: Dredging Underway

The Curtis Bay Company (CBC), one of three coal facilities in the Port of Baltimore, has begun dredging its access channel to take advantage of the deepening of the port's main shipping channel.

Work began July 30 on the more than \$1 million dredging project which has been awarded to Great Lakes Dredge and Dock Company. The project will deepen the north side berth at Curtis Bay Company's Patapsco River terminal to a depth of 52 feet and connect the facility with the new main channel depth of 50 feet. The contractor will place the dredge material on Hart-Miller Island.

The Port of Baltimore is in the final stage of \$170 million dredging project in the main shipping channel. The project will deepen the channel from 42 to 50 feet and is expected to be completed in the fall.

"The purpose of the project is to enable CBC to continue to provide economically competitive coal transloading service to its customers," said Mr. Charles N. Gilmore, Island Creek Corporation's vice president of terminal. Island Creek is the parent company of CBC.

Curtis Bay Company is a coal transshipping facility that began operations at the Port of Baltimore in 1982. The facility was developed to provide railcar dumping, ground storage and rapid loading capability to lad vessels



NEW CONTAINER TERMINAL — Concrete pilings are driven into the channel floor as the first step in construction of a concrete wharf at the Yusen Container Terminal, Berths 212-216, Port of Los Angeles. Scheduled for operation in mid-1991, the 100-acre facility will become the Port's ninth container terminal. Yusen Terminals Inc., a division of Japan-based Nippon Yusen Kaisha, will operate the terminal using four new container cranes and other cargo-handling equipment. The Port of Los Angeles is the nation's leading container port, handling more than two million TEUs annually.

and barges primarily in the export trade. The Curtis Bay Company loads more than 3 million tons of coal a year.

Mr. Brendan O'Malley, executive director of the Maryland Port Administration, said, "Curtis Bay Company's deepening of its access channel is another important step in the dredging of the Port of Baltimore's main channel.

"The deepening of the main channel to 50 feet will attract more bulk cargo to the port. We are pleased that the Curtis Bay Company is our partner in moving the Port of Baltimore ahead," Mr. O'Malley said.

The federal government, through the United States Army Corps of Engineers, and the state of Maryland are sharing the cost of the main channel dredging. The dredging is being conducted along 42 miles of the Chesapeake Bay from Baltimore to the Atlantic Ocean.

The dredging of the main channel, which began in 1987, will allow many of the world's largest cargo ships, fully loaded with dry bulk cargo such as coal and grain, to use the Chesapeake Bay channels to Baltimore.

Baltimore: Truckers Tour Seagirt Marine Terminal

More than 60 members of the trucking industry, as well as representatives of other related marine industries got a first-hand look recently at the new state-of-the-art Seagirt Marine Terminal.

In the first of a series of meetings planned over the next few weeks with area truckers and others who will be using the new \$250 million facility, Maryland Port Administration officials explained the process and procedures for the almost completely computerized facility.

"Truckers are the backbone of port operations," said Mr. Brendan O'Malley, Executive Director of the Maryland Port Administration.

"We are delighted to have this amount of interest by the trucking community in our new Seagirt Marine Terminal."

Seagirt, the most modern marine terminal on the East Coast, is a showpiece of high-technology cargo-handling systems and equipment, highlighted by modern dual hoist

cranes, an on-dock railyard and a computerized gate complex. The 20-story cranes dominate the harbor's skyline and stand as Seagirt's centerpiece.

"It's up to everybody to make it work. It's up to us and to all of you," said Mr. Morgan C. Bailey, director of operations.

"We want to give everybody the opportunity to see how it works so it will work smoothly when we get it up to the production levels we expect."

Three of the seven cranes include a double hoist system, capable of lifting up to 55 containers an hour — more than twice as many as conventional cranes. The design of the four single hoist cranes, which can handle 36 moves an hour, will allow them to be upgraded to double hoist capability.

Mr. Gene Bailey, manager of Seagirt, explained the procedure and necessary paperwork that will be required of all trucks entering and leaving the 19 gate Seagirt truck plaza.

He talked the group through a step-by-step drive through of the facility and answered questions ranging from how customs checks will be handled to what happens if the computer system is temporarily interrupted. The truckers also discussed such topics as the availability of receipts for transactions, something Mr. Bailey said would be provided.

A special brochure designed to familiarize the truckers with the procedures for entering and leaving Seagirt was available to those attending.

As part of the procedure for the new terminal, truckers will be required to have Trucker Identification cards.

NY-NJ Chief Economist Looks Ahead to Future

Mid-year 1990 seems an appropriate time to reassess conditions in the economy of the New York-New Jersey region, with the fast-growth 1980s just receding and the new decade just beginning to unfold with all of its challenges.

Port Authority Chief Economist Rosemary Scanlon recently released *The Regional Economy: Review 1989, Outlook 1990 for the New York-New Jersey Metropolitan Region*, the agency's economic report, containing an essay on developments during the

past decade. She is also finalizing a report which looks ahead to the year 2000 and beyond to forecast trends in the region's population, labor force and employment.

According to Ms. Scanlon, most of the questions and concerns she hears these days center around present conditions — and the immediate future direction of the regional economy.

"There is enormous concern over recession," she said. "Has one started? Will it start soon? Can recession be avoided?"

While there is considerable weakness in the office construction, housing and retail sectors, Ms. Scanlon said, there is still some slow growth in job levels, and unemployment levels have held reasonably steady.

"In the two and one-half years since the dramatic plunge of stock prices in October 1987 signaled an end to the growth of the 1980s, the regional economy has stabilized, with slow overall growth but also with several emerging weak sectors," she said.

Job levels in New York City's dynamic finance-insurance-real estate sector have been cut back some 25,000, or 5 percent, from the peak year of 1987. Ms. Scanlon noted that construction jobs throughout the region have edged downward this year as the volume of new starts in housing and office construction subsides.

Housing prices — for single family homes or for urban condominiums — have fallen by 10-15 percent in the past year. "This is a circumstance which would otherwise be alarming, were it not for the fact that median housing prices in the region increased by 150 percent between 1982 and 1988," Ms. Scanlon said. She views the current downturn as a cooling-off period.

The escalation in housing prices made the New York area the most expensive of all major metropolitan areas in the United States by 1986. It was caused in turn by the sheer volume of job generation and a relative scarcity of housing supply. In the decade between 1977 and 1987:

- Almost 1.5 million new jobs were generated in the 17-country metropolitan area, of which over 400,000 were in New York City.

- Unemployment rates in the region fell to a low of 3.8 percent during 1988, two percentage points under the

U.S. average, causing a shortage of labor in many suburban industries.

- Almost 200 million square feet of new offices were built, and 375,000 new housing units constructed.

The total regional population is not expected to increase significantly in the 1990s, according to Ms. Scanlon, but the demographic mix will change dramatically. Residents in the 20-30 age group will decline, while those between 35 and 50 will increase significantly as yesterday's "baby boomers" reach middle age. The number of residents over 65 will also grow.

Labor force growth will slow markedly in the 1990s in the United States in general, but particularly in the Northeast and the NY-NJ region, where annual growth will average only 0.6 percent. "This will occur despite a large and steady influx of new immigrants," Ms. Scanlon noted, "because the sharp drop in birth levels during the late 1960s and early 1970s will cause declines in the workforce between ages 16-24."

As a result, the 1990s will be very different from the 1970s and 1980s, which were geared to development of jobs for the vast supply of baby boomers entering the job market. "The labor shortages experienced in this region during 1988 will be the more typical pattern of the 1990s — but this should also encourage productivity increases, and thus real wages and real incomes should increase," Ms. Scanlon said.

Slower labor force growth also suggests that new office starts will slow compared to the 1980s, but public construction for infrastructure is expected to increase strongly over 1980 levels. Pent up demand for housing should provide a substantial market for housing construction if prices — and incomes — can be improved over existing market conditions, according to Ms. Scanlon.

She said the NY-NJ region's international links are also expected to remain a strong element in economic growth during the 1990s, both in resurgent exports through the port and airports and in the movement of business and tourists. The renewed growth in Europe and the opening of markets in Eastern Europe and the Soviet Union also offer unique opportunities for this region's businesses.

"There are so many opportunities

and challenges in the new decade," said Ms. Scanlon, "even if we are off to an uncertain start." (RE: PORT)

Tokyo's New Offices at World Trade Center

The Tokyo Metropolitan Government officially opened the doors of its new offices recently at One World Trade Center, in the heart of lower Manhattan's financial district, with a visit by the Governor of Tokyo Shunichi Suzuki.

Governor Suzuki was officially welcomed to the Trade Center by Chairman Richard C. Leone of The Port Authority of New York and New Jersey and the agency's Executive Director, Mr. Stephen Berger. The bistate agency built, owns and operates the giant trade complex. It is also responsible for operating the major land, sea and air terminals and interstate transportation facilities in the New York metropolitan area.

"We welcome the Tokyo Metropolitan Government's decision to locate its office in the World Trade Center," said Chairman Leone. "They will join more than 50 Japanese businesses here who now provide a major presence in the Trade Center and have established this complex as the focal point for Japanese business in New York."

According to a spokesperson for the Metropolitan Government, the new offices will help foster the Tokyo/New York Sister Ports and Sister City relationships and further economic, financial, educational and cultural exchange.

The new offices of the Tokyo Metropolitan Government represent the latest in a growing number of Japanese tenants leasing space in New York City's most prestigious office complex.

N.C. Ports Target Breakbulk Cargo

In a move designed to increase the breakbulk and bulk cargo moving through North Carolina's deepwater ports at Morehead City and Wilmington, the North Carolina State Ports Authority has added a manager of breakbulk sales to its business development staff.

Director of Business Development,

Mr. Robert G. Jacobi, announced that Mr. Frederick W. Bayers assumed the position of Manager, Breakbulk Sales, on August 6, 1990. Mr. Bayers brings 28 years of experience in the shipping industry to his new job with the N.C. State Ports Authority. Most recently, Mr. Bayers worked as Manager, Marine Operations for New Haven Terminal, Inc., in New Haven, Connecticut. He has extensive experience as a chartering broker for both vessels and cargoes.

"Fred Bayers has been heavily involved in activities for breakbulk services, project carriers and other specialized vessel trades world wide," Mr. Jacobi said. "We believe his contacts and experience will prompt shippers and carriers to look more closely at the North Carolina ports as viable alternatives to competing ports."

N.C. Ports Show Significant Turnaround

The North Carolina State Ports Authority ended its 1990 fiscal year showing a turnaround of three-quarters of a million dollars over the preceding fiscal year.

Figures for the 12 months from July 1, 1989 through June 30, 1990 indicate the Ports Authority tallied a profit of \$589,053 on revenues of \$24,908,635. Revenues exceeded last year by \$871,036 (4%). Expenses for the fiscal year were \$193,689 under budget. At this time last year, the Ports Authority had a loss of \$162,113. This fiscal year's profit, therefore, represents a \$751,166 improvement over last year.

In addition, container tonnage at the Port of Wilmington showed a thirteen percent increase over the same period last year.

Several commodities experienced notable increases in tonnage for the 1990 fiscal year. In Morehead City, linerboard was up nearly 500 percent; bone meal up 113 percent and urea up 100 percent. Also in Morehead City, the export of wood chips showed a 100 percent increase due to the conversion of the coal handling facility there to a wood chips operation. In Wilmington, two major commodities reflected significant increases with tobacco tonnage rising 54 percent and woodpulp up 37 percent. Military movements in Wilmington showed a 59 percent increase over the previous fiscal year.

Total tonnage for the 1990 fiscal year was 4,331,121.

"We find this most gratifying," said Ports Authority Executive Director James J. Scott, Jr. "Our financial turnaround can be attributed to many things. We have reduced our expenses everywhere possible. Our sales efforts have improved the amount of cargo yielding high revenues moving through our ports."

"The support of the ports by the North Carolina shippers also is evident," Mr. Scott added, "in the increased tonnages for tobacco and wood-pulp. The conversion of the coal terminal to wood chips in Morehead City helped, and the increase in military movements helped put us solidly in the black."

Oakland Port CEO: Cargo Will Double

Chief Executive Officer Nolan R. Gimpel of the Port of Oakland predicted the Port's container cargo volume will double in the next decade, airport passenger traffic will more than double, and the Port of Oakland will enter the 21st Century making an \$8 billion annual contribution to the economy of the region.

These optimistic forecasts were presented in a series of reports by Mr. Gimpel to business and community leaders and the press on the State of the Port. Mr. Gimpel took over the newly-created position of Chief Executive Officer on January 16, 1990, and this was his first major report to the Oakland community. He had previously held a briefing session for the shipping community on the status of Oakland's application to dredge both the inner and outer channels to -42 feet at mean lower low water.

Indeed, Mr. Gimpel said, dredging is now our highest priority. If we cannot get a dredging permit we will lose both tonnage and market share in the maritime division.

Assuming the dredging can be completed, deepening the present 35-foot channels to 42 feet, Mr. Gimpel predicted the container tonnage would grow for Oakland at a 7 percent rate, compared with 5 percent for the rest of the West Coast. By the year 2000, Oakland then would be handling 26.7 million revenue tons annually, com-

pared with 12.7 million revenue tons of container cargo this year.

Maritime plans also include a new container terminal, increased intermodal capability, and the lease of some 195 acres from the adjacent U.S. Navy Supply Center to augment warehousing facilities and improve rail operations.

At Oakland International Airport, which also comes under the jurisdiction of the Port of Oakland, Mr. Gimpel predicted a 62 percent increase in the number of landings and take-offs by the turn of the century, a 259 percent increase in air cargo, and a jump in passenger volume from today's 4.2 million a year to 11 million..." and that's a conservative estimate, he added.

The airport master plan calls for expanding the number of gates from 22 to 42, building a second 10,000-foot runway, a third passenger terminal, and a huge airport garage.

The third revenue generator for the Port of Oakland is commercial real estate. When the reorganization of the Port's managerial structure took place last year, fears were expressed by shipping clients that the Port would neglect maritime development and concentrate its finances and energy on real estate development.

Mr. Gimpel pointed out that the Port has only 185 acres of undeveloped land, and that much of that consists of relatively small parcels.

By the year 2000, Mr. Gimpel said, the Port will have completed the leasing in its \$125 million Jack London's Waterfront Development, completed a second major Jack London project for office space and retail stores, and completed a series of additional commercial real estate projects that will substantially increase the Port's revenue flow.

(Port Progress)

Oakland Commission Officers Chosen

Ms. Carole Ward Allen, a college administrator who has long been an active participant in Bay Area community affairs, was elected president of the Oakland Board of Port Commissioners.

Ms. Allen, a Board member for the past three years, served as vice president during the past year.

Elected vice president was Mr.

Thomas J. Sweeney.

Ms. Allen is director of community relations and assistant to the president of Laney College, Oakland. She also manages her own consulting firm, Carole Ward Allen and Associates.

Mr. Sweeney was appointed a member of the Oakland Board of Port Commissioners in December 1987. He serves as business manager/financial secretary of the International Brotherhood of Electrical Workers, Local 595, a position he has held since 1964.

He is president of the Alameda County Building Trades Council. He is a past president of the California State Association of Electrical Workers of Northern California.

They serve one-year terms.

The other five members of the Oakland Board of Port Commissioners are Ronald W. Brady, James B. Lockhart, Celso D. Ortiz, Mayor Lionel J. Wilson, and Henry Chang.

Port of Oakland to Host Pan Pacific Conference

The Port of Oakland will host the sixth Pan Pacific Ports Conference scheduled for the Spring of 1992 with the objective of further facilitating the development of the ports of the Pacific Rim and expanding trade among them. Held biannually, the sixth conference will also mark the tenth anniversary of the founding of the event.

This was stated by Mr. James J. O'Brien, the Port's executive director of transportation services, upon his return to Oakland from the fifth Pan Pacific Conference held in Shanghai, People's Republic of China, from May 14 to 17.

Mr. O'Brien, Port of Oakland Commissioner Celso D. Ortiz, and Mr. Timothy Chen, cargo marketing manager, represented the Port of Oakland at the conference which was attended by representatives from 21 Pacific Basin ports.

The conference theme was "The Pacific Ports Development in the Changing Environment of the 1990s." It addressed significant topics of port development, the safety of port facilities, and the environment of the port and its surroundings.

In his address to the gathering, Mr. O'Brien gave an account of the Port

of Oakland's response to the devastating earthquake which struck the Bay Area on October 17, 1989.

Mr. O'Brien described the extensive damage suffered, the swift action taken by the Port to recover from the catastrophic event, and the lessons and experience the Port gained from it.

He said: "An event such as this has very broad ramifications and a great deal more review and planning remain to be done. Planned future studies will reassess our response procedures, analyze our risk management plans, examine ways to improve the engineering design of our facilities, and evaluate the financial impact of possible future major disasters."

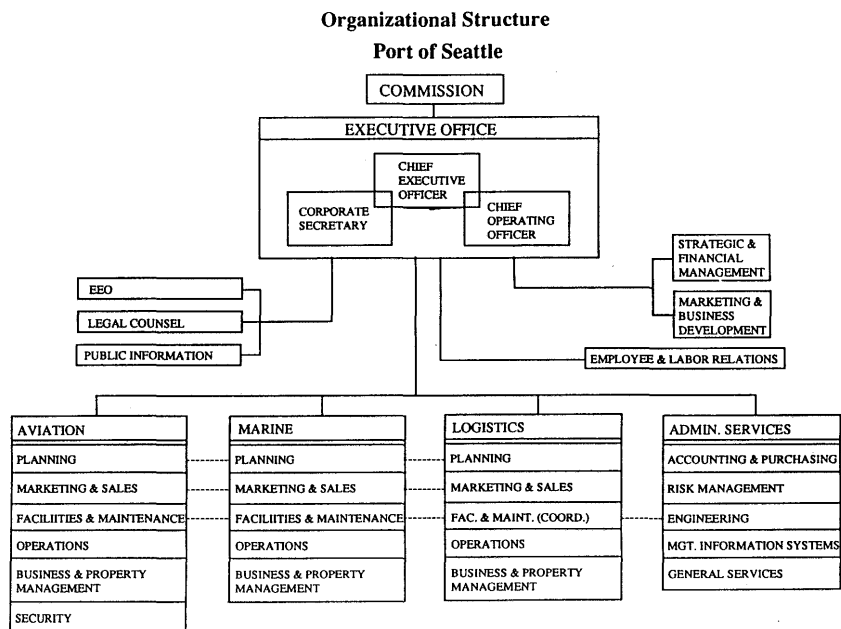
Mr. O'Brien said the earthquake was a milestone event for the Port of Oakland. He said: "It tested the organization, it tested its people, it tested facilities. We believe all rose to the occasion with high marks."

"Under disaster conditions, the Port of Oakland as an organization continued to function effectively. The Port's emergency operating plans proved their value."

"In areas of activity not directly addressed by the written emergency procedures, Port employees reacted instinctively to fulfill their responsibilities. The field emergency units, the operations people, and the people in the offices all assumed their posts and had the situation well in hand within 24 hours."

"Emergency repairs through the efforts of these workers restored the critical facilities of the Port and the Airport within a few days. The Port's tenants and users were all accommodated. Not a single containership was turned away, and aircraft were landing and taking off at the Oakland Airport the very next day."

The biannual Pan-Pacific conferences were initiated by the Port of Oakland and Port of Yokohama in 1980 when they entered into a sister port relationship. The first Pan-Pacific conference was held in Oakland in 1982, followed by a Yokohama conference in 1984. It was later decided to broaden participation to include other sister ports on the Pacific Rim. As a result, three other ports hosted the conferences — Port of Vancouver, B.C., Canada, in 1986, Port of Melbourne, Australia, in 1988, and Port of Shanghai, China, in 1990.



Port of Seattle Structure Reorganized

With the full support of the Port of Seattle Commission, Executive Director Zeger van Asch van Wijck on July 30 announced a major reorganization of the public agency's management structure. The reorganization is intended to streamline the Port's operations and make it more competitive in the global trade marketplace through the 21st Century.

"We will re-energize the Port of Seattle, fundamentally changing the way we do business through this reorganization," said Mr. van Asch van Wijck. "We are making two major changes: strong decentralized authority for decision making at the operating divisions, making us more responsive, innovative and customer-driven; and creation of an Executive Office and corporate staff functions which strengthen our strategic planning, business development and financial control at the corporate level. Together, they result in strong operational divisions with clear and focused corporate oversight. We will be leaner and more competitive, a leading edge organization that realizes a stronger return on the investment in the Port."

"This is consistent with our new mission and goals," said Commission President Patricia Davis, "which reinforce our primary emphasis on marine and aviation business while creating

new means to enhance our leadership position as an international trade and commercial center."

The reorganization is the first step of a review of the Port's organization and reflects participation by employees across all the Port's functions. The reorganization plan addresses far more than reporting relationships, according to Mr. van Asch van Wijck. "The new management structure is unique, but we heard from our employees and our customers that we had far more to tackle than just who reports to whom. We are changing how we do business, encouraging teamwork and an entrepreneurial spirit, and we are re-thinking in every division how we allocate resources to achieve our mission. In a time of fierce trade competition, it's the smart thing to do."

The Port expects to realize \$2 million in cost savings next year as a result of the reorganization. Mr. van Asch van Wijck announced that all managers will submit plans for reallocating resources and personnel to achieve new corporate objectives as the next step in the reorganization. "We expect managers to put resources where we can add value to the services we provide, rather than simply adopt what we've done before. We need to make firm and fair decisions on the best use of our resources in order to excel in the next decade. And we will."

"This is exactly the strong leadership the Commission asked of Mr. van Asch

van Wijck when we hired him," Ms. Davis said. "We're pleased to see that he has undertaken a strategic management process followed by this plan to streamline the Port's operations. It was not easy for him to make these tough decisions, but we support him wholeheartedly in them. The new structure will increase efficiency by clearly focusing all our activities on the Port's mission, and that will ensure a strong competitive position for the future."

These initial changes in the Port's senior management will take effect September 1st. The Port will refine other elements of the reorganization plan in the coming months, with all managers responsible for restructuring their areas of responsibility by January 1st. Parallel with that, Port policies and procedures, including information management systems, will be reviewed.

Mr. van Asch van Wijck emphasizes a shift in the Port's corporate culture as another key objective. "To be competitive, we can no longer think like bureaucrats," he said. "We need to be risk takers and team players, and that starts with better definition of what we expect of our employees and how we intend to reward them for performing in this new mode. It's a priority of mine and of the Commissioners."

Among the key changes is the creation of an Executive Office and corporate staff coupled with elimination of the Executive Management Team. The corporate staff will focus on strategic planning, business development and financial oversight functions for the Port. "This gives me the tools to focus more on strategic opportunities for the Port and spend more time with the Commission on policy matters," said Mr. van Asch van Wijck. "I will spend more time on the Port's relationships with customers, labor and our key constituencies." He added that the Port is considerably strengthening its business development and strategic planning staff through the move.

Central to the adoption of the new executive office concept is the creation of the new position of Chief Operating Officer (COO), responsible for day-to-day oversight of Port operations. Mr. Mic Dinsmore, head of the Marine Division for three years until his departure from the Port two and a half years ago, has been appointed

to the COO position, effective September 1. Mr. van Asch van Wijck will change titles to Chief Executive Officer from Executive Director.

Mr. Dinsmore will be responsible for day-to-day operations and will oversee four major divisions: the existing Aviation and Marine Divisions, headed by Ms. Andrea Riniker and Mr. Frank Clark respectively; a new Administrative Services Division, headed by Ms. Candace Jonson; and a newly formed Logistics Division.

Joining Mr. van Asch van Wijck and Mr. Dinsmore in the Executive Office will be current General Counsel Stephen Sewell in the newly created position of Corporate Secretary/General Counsel.

Departments comprising the corporate staff include:

- Strategic and Financial Management, to be headed by current Budget Director Maud Smith-Daudon.
- Marketing and Business Development, to be headed by Mr. Mark Reis, currently the director of Marine Policy and Business Development.
- Equal Employment Opportunities.
- Public Information.
- Legal and Government Relations.
- Employee and Labor Relations, a newly created department that combines the Human Resources and Labor Relations functions.

"I consider our employees critical to the achievement of our mission," said Mr. van Asch van Wijck.

The Marketing and Business Development Department will develop a coordinated Port-wide general marketing strategy, centralizing related market research, analysis and innovative business development creation, including special projects such as the Central Waterfront Project. The Strategic and Financial Management Department will monitor agreed upon performance indicators and finances, develop and coordinate the annual budget process and integrate that with the Port's strategic plan.

Mr. van Asch van Wijck also announced a major regrouping of responsibilities throughout existing Port departments, including the creation of a Logistics Division. The study also

determined that commercial real estate development is not one of the core functions of the Port, and therefore does not warrant a separate division. Development Director Dan Dingfield has decided to resign, but will continue as a senior consultant on the Central Waterfront Project. "After discussing with Zeger the long range prospects for development activity with the Port, I have concluded that now is a good time to make this change. The Port is a fine organization with good people and with a most important role in this community."

"We are committed to the Central Waterfront Project and there is no one better qualified than Dan to help us," said Mr. van Asch van Wijck. "He has done a terrific job bringing it to this point."

The creation of a Logistics Division is a major step towards maintaining the Port's tradition as an innovator in the trade industry. "Services such as intermodal rail and truck transportation services can serve far more than just our marine customers," said Mr. van Asch van Wijck. "We will reach out to our aviation customers as well, providing new services and greater efficiency moving their goods to market."

When Mr. van Asch van Wijck, a former Port of Rotterdam executive, took over the helm in Seattle at the beginning of 1989, the Commission directed him to improve the Port's competitive position, strengthen financial results, and build better relationships with community groups in the Puget Sound region.

"Some tough decisions had to be made to prepare the Port for the tough business climate of the '90s and to move us into the 21st Century," Mr. van Asch van Wijck said.

Seattle Commission Adopts Ethics Policy

The Port of Seattle Commission has adopted an ethics policy for Port commissioners providing guidelines for conflicts of interest, acceptance of gifts and other items. Additionally, a five-person ethics board will be established to interpret the Code of Ethics and investigate alleged violations.

Spearheaded by Port Commissioner Paige Miller, the policy has been in

development since December, 1988.

The policy places an emphasis on disclosure. All commissioners must now complete disclosure forms for gifts received. In general, a commissioner holding a financial interest exceeding \$1,500 in any entity doing business with the Port shall not take part in any actions concerning that interest, although the code makes limited exceptions for certain remote interest as consistent with RCW 42.23.040.

The newly created Ethics Board includes two members appointed by the Commission, two members selected by Port of Seattle Chief Executive Officer Zeger J.J. van Asch van Wijck from a list of nominees prepared by the Commission, and a fifth member, who will serve as chairperson, appointed by the Commission from a list of nominees submitted by the other members of the board.

Ms. Miller said she was very pleased to have the policy. "It means that we will have clear guidelines on conflicts of interest and gifts. It will give the public confidence that issues will be judged fairly and without politics."

"It will be good to have the Ethics Board in place. They will be able to give opinions ahead of time on possible conflicts of interest," she said. Ms. Miller said the Ethics Board will be selected sometime in the near future and that the Port staff will be working on a companion policy for Port employees.

The new Port of Seattle Commission ethics policy is effective immediately.

Ports of Seattle, S'pore To Establish EDI Link

By Stephen McAdoo

The Port of Seattle recently reached an agreement with the Port of Singapore to establish an electronic data interchange (EDI) link that will enhance the exchange of shipping information between the two ports. Trade between Seattle and Singapore has increased rapidly in the past two years.

"The EDI link with the Port of Singapore is the Port of Seattle's first step in the development of a teleport," said Port of Seattle Executive Director Zeger van Asch van Wijck. "The establishment of this important link-up with Singapore will help enhance the

Port of Seattle's international communications exchange."

The Seattle-Singapore EDI link will initially enable the two port to exchange information on ship arrivals and departures and container loading. As the system is further developed, additional information exchange capabilities will be negotiated by both ports.

In February, the Port of Seattle began to study the development of a teleport, which would service the entire region in facilitating the flow of information on an international basis.

A teleport is a major area satellite station, augmented by high quality communication hook-ups to businesses and other community. It offers access to information worldwide at a speed and in a scope unavailable via currently established channels — and at a cost lower than possible with traditional systems. Information transmitted can include video-teleconferencing, FAX, television, voice, and a wide range of computer data, among others.

Mr. van Asch van Wijck said, "The concept of a teleport fits in well with the Port's mission." He sees a teleport as a way to greatly improve the functions of the traditional port operations and services, and as a major stimulus to regional business and trade development in general.

By having instantaneous, cheap and comprehensive access to such information as international cargo movement and schedules, the Port, as well as rail and truck lines, freight forwarders, and U.S. Customs, can make the most efficient and economical use of time and facilities. In this regard, the teleport is a logical followup to the Puget Sound Community Cargo Release System being developed by the Ports of Seattle and Tacoma. That system will facilitate the flow of information about cargo on a regional basis.

But with a teleport system in place, the advantages go beyond that. Local businesses can have instant and continuous access to current world market data (this hour's price of wheat in Tokyo, for example, or the demand for lumber in Rotterdam). Along with services such as video teleconferencing, a teleport can allow regional businesses to be ahead of the pack in seizing opportunities worldwide. The facility can serve as a catalyst to further eco-

nomic growth and development, create new jobs, and encourage a more competitive environment for all regional communication providers.

The Port would like to act as the leader for the development of the teleport, with private enterprise taking over the management and operation of the system, as has been done at the Port Authority of New York/New Jersey. That is the only U.S. public port authority with a full-fledged teleport.

"The Port's role is to provide common facilities that would be too expensive for individual operators to maintain on their own, and to see that the services offered are those that best meet the community's needs," said Mr. Cecil Patterson, Port director of Information Systems.

A consultant is being recruited to conduct a feasibility and market study, as well as examine expense and financing alternatives. The Port Commission will make a final decision whether to proceed to develop a teleport in November, as the final budget for 1991 is determined. If approved, a target on-line date would be sometime in 1992.

There are currently 51 teleports operational or planned in the United States, and 71 worldwide. The World Teleport Association predicts that by 1995 there will be 200 such facilities in the United States alone.

(Port of Seattle Tradelines)

Group to Study Landside Access to Ports

A federal interagency group will study the issue of landside access to Ports. Four agencies (the Maritime Administration, Federal Railroad Administration, Federal Highway Administration, and Research and Special Program Administration) in cooperation with the American Association of Port Authorities have begun collecting information on access impediments and possible solutions. The information gathered will be used in a National Academy of Sciences study.

BACKGROUND INFORMATION

One of the primary goals of the National Transportation Policy is to enhance intermodal connections and link rural and urban areas. As the pace and volume of freight traffic through

our ports increased in recent years, so have the capacities of ships, terminals, cargo handling equipment, trucks, and trains. At some ports, problems have developed regarding access to landside transportation. Shipments can be delayed, inventory costs increased, congestion worsened, and environmental opposition created.

A couple of months ago a team of DOT Administrators met with the president of the American Association of Port Authorities and representatives of 10 ports to discuss landside connectivity problems. As a result of this meeting, a Landside Access to Ports Study Group was established which has begun planning a National Academy of Sciences study to see what is needed and what can be accomplished. This effort eventually could lead to developing specific strategies to correct port, rail and highway access deficiencies.

The National Academy of Science Study will consider four main areas of access impediments: Institutional, physical, land use and regulatory. The main thrust of the institutional assessment will focus on the need for more effective use of the different institutions that can make a difference in proving access remedies. Physical impediments could include the gambit of issues such as inadequate road or rail designs for turning large vehicles as well as the quality of freight access to interstate highway system. Land use impediments include the availability of land for port-related ancillary services. Regulatory issues concerning safety, the environment and imposing operating constraints will be addressed as well as possible state and local regulatory environmental control measures may lead to the creation of dedicated transportation corridors in some port areas.

Among the several remedial strategies that will be considered in the study are:

- Methods of intergovernmental cooperation.
- Methods of achieving better communication between the end of users of access facilities and the providers.
- The future design of road and rail systems with adequate turning radii for the future possibility of larger and longer trucks and trains.

- On-dock vs. off-dock intermodal container transfer facilities.
- Dedicated freight corridors.
- Inland cargo consolidation ports.
- Access road for national defense purposes.

The National Academy of Sciences will select an independent panel of experts from the intermodal industry as well as academia and state and local government organizations to conduct the study. The study is scheduled to begin this Fall.

(Port of Tacoma & Port of Seattle)



Charleston-Atlanta Intermodal Express Services

Norfolk Southern Corporation, a provider of rail service to the Port of Charleston, has inaugurated dedicated intermodal express services (photo) to Atlanta with return express trains to Charleston.

The Atlanta-bound trains operate daily Monday through Friday from Norfolk Southern's Seven Mile Yard in North Charleston. This is in addition to a similar service already provided by Norfolk Southern to and from Charlotte. The express trains are capable of handling all intermodal equipment, including double stack.

"The cargo volume at the Port of Charleston has put us in an excellent position," said Mr. L. Duane Grantham, director of Marketing and Sales at the South Carolina State Ports Authority. "The combination of Charleston's growth and the expanding Atlanta marketplace has developed the need for this additional intermodal express."

Over the past five years, cargo tonnage at the Port of Charleston has increased 115 percent. Among U.S. East Coast ports, only the combined

Africa/Europe

Antwerp: SEAGHA Declared Operational

The SEAGHA (System for Electronically Adapted Data Interchange in the Port of Antwerp) pilot project, which was started up in April 1989, was successfully concluded after a year of trials, and the system was declared

port of New York and New Jersey handles more container tonnage than Charleston.

"This new service enhances the Port's overall service profile," Mr. Grantham said, "with both Norfolk Southern and CSL Intermodal providing daily service to the Atlanta market and beyond, the intermodal express capabilities available to Port customers are doubled."

"A major strength of the Norfolk Southern intermodal express is its enhanced service between Charleston and Atlanta, and connections to the Midwest," said Mr. Jerry Pitts, district sales manager for Norfolk Southern. "The express can save a day's transit time to Chicago, St. Louis, Louisville, and Kansas City."

Atlanta is recognized as a growing market for freight not only from the Atlanta area, but for the major shipping lines which have developed the concept of loadcentering. In loadcentering, cargo is funneled in to a select number of ports from inland areas, including the Gulf Coast states.

operational in May 1990.

The following elements of the system were tested by approximately forty maritime companies during the course of the pilot project:

SEAGHA-BRIDGE: this is the package of software made available to SEAGHA users. It acts as the link between the user's computer system and the network, and translates communications into the international EDIFACT standard. It also attends to the transmission and reception of electronic communications to and from SEAGHA-CLEARING.

SEAGHA-CLEARING: this is the network and electronic mail system, which operates on the "store and collect" principle.

SEAGHA-NET: SEAGHA-NET is the name given to the physical communications network.

SEAGHA-NOTICES: these are the container notices, the booking and B/L notices and the conventional cargo handling notices developed in consultation with the various port operators.

Another aspect of SEAGHA which is now fully operational is the SEAGHA-SADBEL facility. This enables forwarders to submit their declarations electronically to the SADBEL System operated by the Customs Service in Brussels. The facility makes use of SEAGHA applications software running on a personal computer.

SEAGHA is currently working on a number of improvements including, multiuser applications, integration with inhouse computer systems and a way of printing out validated declarations where they are required, for example in a quayside office.

The functionality of the SEAGHA modules is also being extended and the speed of SEAGHA-BRIDGE is being improved. The communications module of SEAGHA-BRIDGE will be adapted so that users who do not use SEAGHA-CLEARING will nevertheless be able to use SEAGHA-BRIDGE facilities. SEAGHA is moreover currently developing invoice and import oriented notices.

SEAGHA is taking part in the PROTECT project, which is the first step along the road to international communications. When completed this project should make it possible to exchange electronic data about hazardous goods and shipping movements be-

tween the information systems of various ports, including COMPASS (Bremen), DAKOSY (Hamburg), INTIS (Rotterdam), MCP (Felixstowe) and SEAGHA. This project is scheduled to become operational in June 1991.

At present any company shipping through the port of Antwerp can become a SEAGHA subscriber. In the near future every foreign or domestic business which so wishes will be allowed to subscribe. Only then will the ultimate objective, namely to enable any firm active in the shipping business to communicate via a single line with anybody either in Belgium or abroad, have been realized. *(Hinterland)*

Le Havre: New Facilities Put Into Service

In the course of this summer, the new facilities of the Rapid Turnaround Port intended for containerized traffic are gradually put into service.

In tidal dock and below the Francois I lock, northward, the new wharf called "Quai des Ameriques" offers 500 metres of quayside, 15 hectares of surface and two Over Panamax gantry cranes equipped with the latest technological progress. It is operated by Europe Atlantique Terminal (E.A.T.) formed by C.N.M.P. and G.M.P. which participated in the investment (open storage areas - gantry cranes - stacking equipment).

Owing to these enlargements, the whole terminal located north of the Francois I lock thus offers from now on 2,500 metres of quayside over a surface of 85 hectares. This terminal is equipped with 11 gantry cranes.

From last July 1st, a "feeder" called "JAN V," chartered by the C.G.M. and connecting Spain with the Port of Le Havre, has carried out several calls there. The first gantry crane is thus operational now, the second one should be put into service in late July.

In the South, the wharf "Quai de l'Asie" offers 600 metres of quayside, a surface of 20 hectares and has three Over Panamax gantry cranes similar to those put into operation in the North. This quayside is operated by the "Operating Company for the Terminal de Normandie" formed by SOMABA and PERRIGAULT which also participated in the investments (open storage

areas, gantry cranes, stacking equipment).

With this extension in tidal dock, the whole terminal located south of the lock offers itself 2,300 metres of quayside for a developed surface of 95 hectares. This terminal is served by 8 gantry cranes.

In the "Quai de l'Asie," a Brazilian containership owned by "LLOYD BRASILEIRO," the "LLOYD PACIFICO" has just called there commercially on a trial basis.

The first gantry crane is operational, the second one will be put into operation in late July and the third one in early September.

After the first trials carried out both in the North and South wharves, it is possible to assert that it will be possible to reach easily outputs equal or higher than 30 containers per hour.

Owing to its privileged geographical location, to the quality of service reserved both for ships and cargo and to the high competence of all the professionals in the Port Community, the Port of Le Havre is undoubtedly one of the two or three fastest ports in Europe.

The putting into service of this new Rapid Turnaround Port even more emphasizes the Le Havre advantages, which is located very near to the entrance to the English Channel, and will generate a significant time-saving for ships as well as a very competitive cost of port transit.

The opening of these new wharves of the Rapid Turnaround Port, which is a real "challenge" for the entire Le Havre Port Community, increases the total number of handling equipment of these two large terminals to 19 gantry cranes.

Rapid Turnaround Port

Amount invested	MF 950
Port of Le Havre	
Authority	MF 270
State	MF 225
Local and regional	
Authorities	MF 125
Private partners	MF 330

Would you pass him by?

Some did...

In 1986, this child was rescued by a merchant ship but only after other ships had passed him by. Today and everyday, there are other children like him, adrift in the South China Sea, in danger of death from drowning or other perils.

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.



UNHCR

United Nations High Commissioner
for Refugees

P.O. Box 2500

CH-1211 Geneva 2 Dépôt

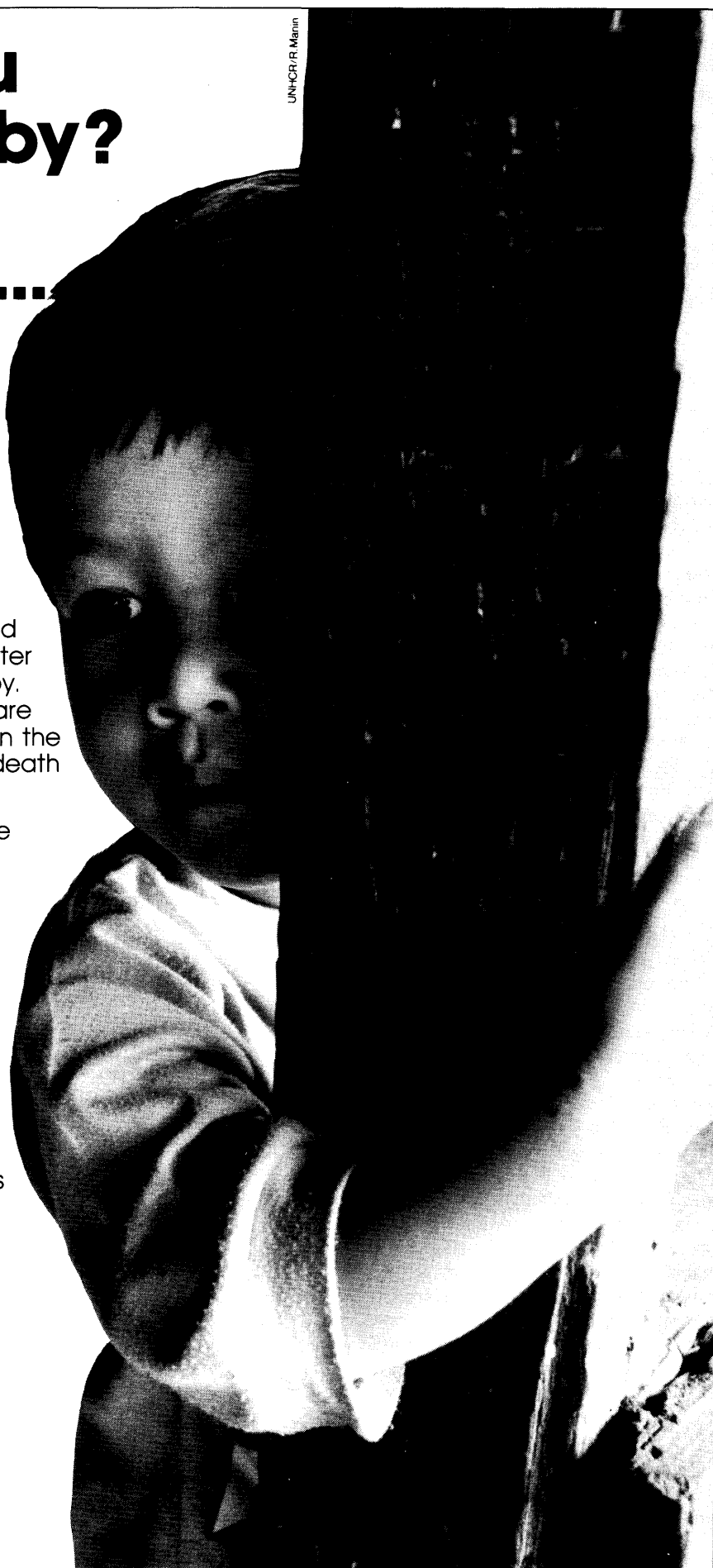
Switzerland

Tel: 398111

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UNHCR/R. Mann



Sean Lemass Terminal: Address by Mr. Daly

Address by Mr. Dominic J. Daly,
Chairman, Cork Harbour Commis-
sioners on occasion of official opening
of Sean Lemass Terminal, Ringask-
iddy 23 July, 1990.

A Thaoisigh, Mrs. Haughey, Minis-
ters, Fellow Commissioners, Honoured
Guests.

Today is a historic day for the Port
of Cork as it brings to fruition eighteen
long years of planning, of hope, often
of frustration but finally of achieve-
ment. The Sean Lemass Terminal is
surely one of the finest port facilities
in Europe and the smooth arrival this
morning of probably the most majestic
and famous vessel in the world is tan-
gible evidence of this. The Terminal is
the only facility in Ireland capable of
accommodating the *QE2*. Perhaps the
final recognition of the significance of
this new Terminal is the presence among
us today of our Taoiseach, Mr. Charles
J. Haughey and Mrs. Haughey who
graciously accepted our invitation to
perform the official opening ceremony.

The everyday hustle and bustle of
this busy Terminal is a far cry from
1972 when Cork Harbour Commis-
sioners published the Cork Harbour
Development Plan, a blueprint for the
future development of Ringaskiddy.
There were many disappointments and
delays over the next decade before the
Ringaskiddy Ferry Terminal became
operational in 1982. In 1986 the
Deepwater Terminal received its first
vessel and finally, in March of this year
two new high output cranes were in-
stalled, enabling the port to handle the
large 60,000 D.W.T. vessels for which
the Terminal was designed.

In tandem with port development
works during the eighties, all the or-
ganisations involved in the day to day
running of the port — Cork Harbour
Commissioners, Port Users, Port
Stevedores, Dock Labour and Trade
Unions — joined together to create an
efficient and competitive working en-
vironment free from industrial relations
problems. Major rationalisation pro-
grammes were undertaken, major sac-
rifices were made. The result — a 24-
hour port working seven days per week

and increased customer confidence
which in turn led to increased private
sector investment such as the two
modern warehouses which you see here.
Additional container and ferry com-
panies were attracted and at present
there are daily container services op-
erated from the Tivoli Container Ter-
minal while three ferry companies
provide cross channel and continental
services including the shortest crossing
between Ireland and mainland Europe.
Total port traffic has grown to almost
six million tonnes per annum or ap-
proximately 22% of total national
seaborne traffic.

Cork's favourable geographical lo-
cation in relation to Europe, the fre-
quency and range of its shipping ser-
vices — Cork is the only Irish port
offering scheduled lift-on lift-off and
roll-on roll-off services to the continent
— and the competitiveness of its first
class port services and facilities demand
national recognition of Cork's growing
European dimension. As the port's
traffic is drawn from all parts of Ireland,
I suggest that this recognition take the
form of a government commitment to
speedily raising the standard of access
roads to Cork the national primary
route linking Ireland's two main cities,
Dublin and Cork, to Euroroute status.
This would allow the nation's exports
easier access to the port and expedite
the distribution of essential imported
industrial and agricultural raw mate-
rials.

In making this appeal to government,
I wish to express our grateful appreci-

ation of the financial contributions
made by the present and previous gov-
ernments and by the European Com-
munity to the Ringaskiddy Develop-
ment. I also wish to thank the Taoiseach
most sincerely for his personal inter-
vention in expediting approval for the
new Ringaskiddy cranes.

We are delighted to have so many
people present today. From first light
sightseers gathered at various vantage
points around the harbour to witness
the arrival of *QE2*. The vessel's presence
has contributed enormously to today's
ceremony and for this I wish to thank
Sir Nigel Broackes, Chairman of
Trafalgar House, Mr. Dermot
McDermott, Chairman, Cunard Line
and their colleagues both ashore and
afloat. This year Cunard are celebrating
their 150th anniversary and today's visit
is part of a celebratory cruise which
takes in Cunard's traditional ports of
call including Southampton, Liverpool,
Glasgow and Cherbourg in addition
to Cork. We in Cork have been hon-
oured in having Cunard vessels call to
the port since the middle of the last
century and we look forward to a third
century of servicing this great company.

For many decades to come, the ex-
isting and planned facilities at Rin-
gaskiddy, — including our 170 acre
landbank, so essential for future port
development — will contribute signif-
icantly to both the regional and national
economy. And so, the decision to name
this Terminal "The Sean Lemass
Terminal" was most appropriate as it
recognises the tremendous contribution



QE2 berthed at Ringaskiddy Deepwater Terminal

which Mr. Lemass, in his years as Minister for Industry and Commerce and as Taoiseach, made to Ireland's industrial development.

I wish to thank the Taoiseach, Mrs. Haughey sincerely for the great honour which his presence has bestowed on Cork Harbour Commissioners. I also wish to take this opportunity to congratulate him on the recent successful completion of Ireland's E.C. presidency. Finally, I wish to thank Mrs. Haughey, daughter of Mr. Lemass, for her presence and her agreement to unveil a specially commissioned limestone plaque which commemorates today's ceremony.

Rotterdam Coal Imports Up in Second Quarter

Coal imports in Rotterdam increased by 46% in the 2nd quarter of 1990. This brought total coal imports to 4.4 million tons. It is expected that in the future the demand for coal will rise, because in some European countries, especially in Germany and England, new coal-fired power stations will be built.

According to provisional figures of the Municipal Port Management Rotterdam, the transshipment of goods in the Port of Rotterdam in the second quarter of 1990 amounts to some 73 million tons. This brings the import and export of goods by sea in the first half-year of 1990 to some 143 million tons, the same as in the first half of 1989. And that was a top year for the Port of Rotterdam with almost 292 million tons of cargo transshipped.

According to the provisional figures, this good half-year result was principally achieved due to the substantial growth in the import of coal, while the import of crude oil and the other bulk goods segment (such as chemical base products) developed well. On the other hand there was a reduction in the import of ore and oil products. Imports increased on balance by 1.5% (some 1.6 million) to 112.4 million tons.

In the first half-year, overseas exports fell with the same tonnage (-5%) to 30.7 million tons. All in all, total goods transshipped up to and including June achieved the same level as 1989.

Whether the result for the whole year will equal that of 1989 closely depends on developments concerning the import

of crude oil.

General Cargo

General cargo imports in the first half-year amounted to 14.8 million tons. This represents a slight increase (0.7%) in comparison with the first half-year of 1989. The increase is caused by container imports +2% and ro/ro +3.4%. Other general cargo imports, however, fell by 3.4%. The export of goods in containers and ro/ro traffic fell by 2.4% and 3.9% respectively. This slight reduction can principally be attributed to the precarious economic situation in England with its depressing effect on imports in this country. Increasing containerization has also led to a reduction in the export of other general cargo. The transshipment of other general cargo fell in the last half-year by a further 10% to 5.2 million tons.

The total transshipment of general cargo in the first half of this year fell slightly (-2.4%) in Rotterdam to 29.1 million tons as a result of lower exports overseas of 14.3 million tons (-5.4%).

Ore

Ore imports up to and including June amounted to 20.0 million tons, a reduction of some 17% in comparison with 1989. Exports overseas were 732,000 tons, an increase of some 19%. In the first half-year, EC steel production showed a slight fall of 2.6% to 70.7 million tons; for 1990 as a whole a reduction of approximately 4% in production is anticipated. This is in line with the slower growth in the world economy this year.

In the first four months of this year, West German steel production was approximately 6% below the average in 1989.

In 1990 the import of iron ore in Rotterdam will be below the record level of 1989. In the next few years a gradual reduction in imports is expected.

Coal

So far this year, coal transshipment has increased by some 18%. For the rest of the year, building-up of stocks is anticipated due to the expected increase in the price of coal. In addition, total West German coal imports this year will increase by 1 million tons and there is a greater demand for coal in the Mediterranean countries. British

coal imports has increased, because the British electricity industry needs more coal.

Coal transport by sea rose worldwide to the record level of 320 million tons. This year it will rise still further by 5%. This is mainly due to reduced production in Western Europe and Japan, resulting in an increase in imports in those countries.

The construction of a number of new coal-fired power stations in several European countries will also lead to a further demand in the demand for coal in the future.

Crude Oil

In the second quarter, the transshipment of crude oil in Rotterdam rose by 9% to 23.5 million tons. During the half-year, a total of 45.4 million tons was achieved (+6.8%).

Western industrial countries have built up large stocks, because the oil prices were low. (increase in the Netherlands alone + 1.1 million tons).

Mineral Oil Products

The import and export of oil products amounted to 15 million tons in the first half of this year, a considerable drop of 15.7%.

Only a slight increase can be seen in the stocks of oil products in the EC. There is a high demand for products, with West Germany leading the way with decreasing imports. Expectations regarding the transshipment of products in the second half of this year are uncertain. It will depend on the development of the price of crude oil and the availability of oil.

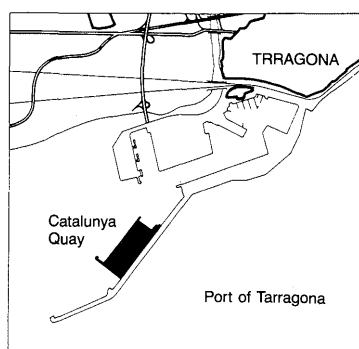
New Catalunya Quay Becomes Operational

The new Catalunya Quay began its commercial operations with the beginning of the unloading of 20,000 tons of coal from the ship "ANAFI," whose agent was TRAFISA. The unloading operation was made between the 11th of June and 13th of June and was useful to know the conditions of the facilities of this new Quay.

This Catalunya Quay is the most important ever built in any Spanish Mediterranean Port and has 20 m draught, 700 m berthing line and 17 hectares of area for handling and storing goods.



The new Catalunya Quay



Main Features of the new Catalunya Quay:

Beginning of the work:

- Quay wall, dredging and fulfilment: 12/04/1983.
- Pavements, railways tracks, sewerage, electric system, water system, etc: 29/11/1988.

Physical features:

- 20 m draught.
- 700 m berthing line.
- 17 hectares of area for handling and storing goods.

Facilities:

- 2 private cranes, 25 tons capacity, owned by TRAFISA.
- 2 private cranes, 25 tons capacity, owned by ENDESA.
- 4 cranes, 16 tons capacity, owned by the Port Authority (under construction).

Total Investment:

3,300,043,892.— Pts, in current pesetas. (This amount grows up to 4,633,373,730.— Ptas in 1990 pesetas.)

Proposals for Swansea Waterfront Development

Plans were unveiled recently by ABP for a major new waterfront development on the east side of the River Tawe in Swansea, opposite the Maritime Quarter.

The development is to be known as Port Tawe and involves over 45 acres of prime waterfront land. Proposals include:

- * commercial accommodation, ranging from studio office units for local businesses to high quality office buildings aimed at national decentralising companies.
- * houses and flats around the tidal basin and along the river bank.
- * a high quality hotel, in a prominent location.
- * leisure and retail facilities, including waterfront cafes and a pub restaurant.

An important part of the scheme will be the provision of a new landscaped public walkway along the river bank. The historic buildings on site will also be refurbished and heritage features of the docks retained in the scheme.

Mr. David Griffiths, Managing Director of Grosvenor Waterside, the property development subsidiary of ABP which will be carrying out the development, said:

"We believe that Port Tawe could make a major contribution to the transformation of Swansea's waterfront, creating new commercial and residential opportunities for the city."

(Ports)

Fremantle Seminar On Waterfront Reform

Reform 'Vital' to State

The Western Australian Government has pledged its full support for the national process of achieving waterfront reform.

Launching the Fremantle Port Authority's seminar on waterfront re-

New Bulk-Handling Facility at Southampton

A new bulk cargo delivery and storage facility is to be established at Southampton by Continental Grain Ltd.

The new facility will be capable of handling up to 250,000 tonnes annually and will supply animal feed and fertiliser to farms throughout the South.

Continental will be concentrating import activities at 107 berth, Western Docks, with new premises costing approx. £1 million. New shed space with capacity for 15,000 tonnes and new weighbridges are to replace outdated equipment at the berth.

Mr. Jock Cullen, Silo Manager of Continental Grain, comments:

"In addition to handling bulk cargoes at this new facility, we will have the ability to discharge pre-bagged cargoes of fertiliser, feeds and such like, which can be placed straight onto road transport for delivery inland.

"Not only will this new berth give us more flexibility for imports, we also intend to increase our export potential by using this berth for grains as well as 47 berth in the Eastern Docks."

Continental, alongside Southampton Grain Silos, already plays a significant part in Southampton's success as Britain's biggest export outlet for home-produced grain.

ABP's port of Southampton also handles substantial tonnages of incoming cement and liquid bulks. In the future the import of construction aggregates will form a significant part of the port's expanding bulk handling business.

form, Transport Minister Pam Beggs said reform was particularly vital in Western Australia because the State was more dependent than any other on overseas trade.

"It is now being accepted that our overseas trading effort is slipping and that is putting our economic wellbeing in jeopardy," she said.

"We need to improve our international competitiveness if we are to sustain our present standard of living.

"Waterfront reform is all about increasing our international competitiveness and maintaining our standard of living as a nation — that is why the matter is high on the micro-economic reform agenda of the Hawke Government."

Mrs. Beggs said the term waterfront, referred to terminal operators, stevedores, port authorities, freight forwarders, Customs, shipping companies, ships agents, importers, exporters, rail authorities, quarantine, trucking companies, banks, insurance companies, Governments and many others.

"None of these groups can be exempt from consideration in the process of achieving meaningful waterfront reform," she said.

"The goals of waterfront reform are to enhance reliability, increase productivity and reduce cost levels."

Mrs. Beggs said waterfront reform was a matter of survival for a number of the State's regional ports.

"Something has to change or they will go under," she said.

"The Western Australian Government is giving clear and unambiguous support of the Federal reform process because of the vulnerability of Western Australian ports.

The Minister said it was vital that the individual circumstances of each port around the coast were to be recognised.

"Esperance has little in common with Port Hedland — their problems are worlds apart. The solutions to the problems may be likewise," she said.

"Consequently the State is anxious to avoid the imposition of blanket solutions, certainly not national blanket solutions."

Mrs. Beggs said the Western Australian Government supported the ACTU's initiatives in the amalgamation of relevant unions which covered the waterfront.

She said she has put Western

Port Development In Hong Kong

Port and Airport Development Strategy Study (PADS)

By T.J. Frawley
Planning and Local Services
Division
Marine Department
Hong Kong

Hong Kong has recently taken a major step to provide new port and airport facilities by completing its Port and Airport Development Strategy Study (PADS). This is the most wide-ranging and important study ever commissioned in Hong Kong. It addresses the long term needs for port and airport facilities, together with associated transport infrastructure. Capital costs associated with the recommendations made in the Study are estimated at US\$16.3 billion at 1989 prices. It is proposed to review the component issues involving the Study

Australia's position to the Federal Minister for Shipping, Senator Bob Collins, and the ACTU Secretary, Mr. Bill Kelty.

Change 'Not Easy': Minister

At the seminar, Senator Collins emphasised the foundations laid for major changes in the coming months.

Senator Collins said he was aware that there were concerns about whether the final outcome of the reform process would fully meet expectations. Such concerns were understandable.

"Change is never easy. This is especially the case when the change is as fundamental and broad ranging as that which is being sought in the waterfront sector," the Senator said.

"Reform of the waterfront involves major changes to:

- the role of institutions
- the commercial focus of companies
- the traditional organisation of work
- and the attitudes of both management and employees.

"It has never been claimed that reforms of the scale and complexity proposed would be achieved overnight.

"This is precisely why the Inter-State commission concluded independently

by publishing a series of six articles in this magazine. The articles will address the following areas of interest:-

- (1) What is the Port and Airport Development Strategy Study? — The Main Aims — Key Factors — Strategy Goals for PADS.
- (2) The Regional Context — Economy — Shipping — Air Transport — Surface Transport — Future.
- (3) A Thriving Port — Historical Review — Cargo Working Methods — Port Cargo Forecasts.
- (4) An International Airport — History — Forecasts.
- (5) The Selected Strategy — Introduction — Port Layout — New Airport — Transport Infrastructure
- (6) Conclusion — Costs — The City — The Port and Airport

The first article entitled "What is the Port and Airport Development Strategy Study" appears in this issue of "Ports and Harbors". (See Page 39)

— that a three year time frame was necessary to complete the current reform process.

"However, the major benefits of the reform program in the stevedoring area will begin to flow well within the three year time frame.

"The Federal Government, for its part, is committed to assisting the achievement of these benefits as soon as possible.

"It is important to recognise that, although there are major changes, there do not have to be major losers.

"For instance, the program for reform of the stevedoring sector seeks to recognise the interests of all parties. It is designed:

- to provide shippers with more efficient, reliable and responsive stevedoring service.

- to provide stevedoring companies with greater commercial freedoms

- to provide workers with more interesting and challenging jobs with better career paths

- and to provide those leaving the industry with appropriate recompense.

"The challenge before us is to ensure that the reform process now in train achieves these aims — and in particular delivers major tangible benefits to waterfront and shipping users."

(Port of Fremantle)

Award Restructuring — A Consultative Approach At Port of Melbourne

Like the rest of Australian industry, the PMA has been actively involved in Award Restructuring over the last 18 months. This has presented a major challenge to the Authority at a time when there has been considerable national attention on the waterfront.

Having responsibility for managing Australia's largest container port, the PMA has been vitally interested in how Award Restructuring can contribute to wider waterfront productivity. We weren't just interested in being more efficient and effective for our own internal purposes, we were also interested in providing better service to customers in a way that would enhance the productivity of the industry.

As the largest Port Authority in Victoria, the PMA has taken a lead role with the Port of Geelong Authority and the Port of Portland Authority in developing consistent Award Restructuring strategies and outcomes across the three Victorian Port Authorities.

Perhaps the most daunting challenge before the Authority has been its own very complex industrial structures. With over 20 unions and a similar number of awards, some of which have very narrow coverages, and a workforce with a very wide skill base, Award Restructuring hasn't been a simple business.

A Port Priority

The PMA has approached this challenge head on. As the General Manager, Mr. Jack Firman, said in an address to managers in the early days of Award Restructuring:

"If we are to advance nationally and as an organisation, there must be a significant improvement in productivity. As award restructure is critical to achieving this improvement, it must receive priority."

And priority it did receive!

- * A central Award Restructure project team was established under the leadership of a senior manager.

- * A initial strategy was developed and submitted to Government for endorsement before commencing formal discussion with unions.

- * Management briefing sessions were

held, outlining the history and objectives of Award Restructure.

- * Steering processes were established to facilitate a coordinated and complementary approach within the three Victorian port authorities.

An Open Process

Recognising that the task was a complex one that involved a close investigation of work practices and in-

Features of the PMA Package

The PMA package of Award Restructure reforms has three key elements that reflect the seriousness of its approach to labour reform.

The three elements are:

Common conditions

Objective — development of a series of common conditions awards in respect of key areas of the Authority's operations.

Career and classification Structures

Objectives — development of integrated career and classification structures that provide real career opportunities based on skill acquisition.

Other efficiencies

Objectives — The adoption of efficiency measures that will provide a framework for ongoing productivity improvement.

All three elements are being developed in consultation with unions.

The most complex of these is the career and classification structures. These are being developed with the assistance of a comprehensive skills analysis which includes:

- An audit of current skill levels and training needs

- An analysis of the complexity of skills

- An identification of the human resource impacts of major change issues ahead of the Authority.

At the end of the process the PMA and its unions will have a detailed training plan and an integrated career and classification structure. For further information on this package please contact Denton Djurasevich on 611 1774.

(Port of Melbourne Panorama)

dustrial arrangements that had grown up over a long period of time, the Authority was committed to an open process with regard to Award Restructuring.

Operational managers, employees at all levels, and unions as well as senior managers and executives have all been involved at different stages. The involvement has been varied, sometimes through committees, at other times on special project teams, or as skills experts, or just out of interest.

The Award Restructure project team has attempted to keep all employees informed by issuing newsletters at key points in the process and by making themselves available to groups of employees who would like special briefings.

One of the major ways the central project team has kept in touch with employees is just by doing its job. They are always talking to people, as they are committed to knowing what really happens and to building a future that encompasses the best of the present. In the process, they have received a high level of cooperation and enthusiasm, and many of their best ideas.

Principles of Consultation

The PMA has been working closely with the unions and the Victorian Trades Hall Council on Award Restructure. Consultative arrangements have varied in response to the nature of the task, but have followed five principles:

- * The active participation of management, its employees and the relevant unions is necessary.

- * Award Restructure should provide substantial benefits for the PMA in terms of productivity and workforce flexibility and for employees in terms of career structures and training opportunities.

- * No industrial action will be taken in relation to proposals under discussion during the consultation process.

- * All proposals put forward by the PMA, employees or relevant unions will be subject to consultation.

- * All proposals developed through this process will be submitted for Ministerial Industrial Relations Task Force endorsement before forwarding to the appropriate Industrial Tribunal. (This is a Government

requirement).

The PMA, is aware that Award Restructure is as complex for unions as it is for employers and recognises the positive contributions of its unions and VTHC to the process.

Building on Achievements

In some ways award restructure is not new. Some of the concepts it embraces such as multi skilling and career path planning have already been introduced by some employers as a way of improving workforce flexibility and employee satisfaction. For such companies award restructure will virtually mean business as usual.

The PMA's corporate human resource goals are clearly consistent with

Gladstone: Clinton's Expansion Continuing

Clinton Coal Facility is once again a hive of construction activity with major contracts worth \$17 million underway.

Construction of a second rail unloading station to cost approximately \$8 million will duplicate present unloading facilities in readiness for extra coal tonnages generated from new Central Queensland mines.

GPA Chairman, Mr. Graham Fenton, expressed his satisfaction with the Authority's forward planning, which will ensure no problems in handling increased coal tonnages through the port.

Also as part of the planned Clinton expansion, construction of a tenth stockpile has begun. The extra storage from this stockpile will bring Clinton's total capacity to approximately 2.7 million tonnes.

Clinton's expansion programme last year included a \$17 million second berth at the Clinton Wharf. Resulting from this second berth was an increase in Clinton's annual throughput capacity to 21 million tonnes.

When actual throughput reaches this figure, a second shiploader will be installed to boost available throughput to 30 million tonnes per annum.

During the year ended 30 June, a record 15.5 million tones of coal was shipped through Clinton, now classed as one of the world's largest coal ports.

(Port-Talk)

Award Restructure. The Authority believes that training should be viewed as an investment — not a cost — and that it is in effect the key to the success of Award Restructure.

In early 1988, before Award Restructuring hit the Australian Industrial Relations scene, the PMA had commenced an efficiency and effectiveness process. This included the conduct of 6 efficiency and effectiveness reviews into authority operations and led to the adoption of a large number of productivity improvements.

Like Award Restructure, these reviews were conducted in conjunction with the VTHC.

Commencing mid-1989, the Authority has been actively involved in a significant management training programme that has focussed on change management. This has contributed to developing increased organisational understanding and skills in regard to managing change and introducing innovation into the workplace.

Department of Harbours and Marine (Queensland) in profile

The past year has been a period of progress as the Department has taken on the challenges of meeting the demands of our changing social and economic environment. The Department has taken a proactive rather than reactive approach to change through the adoption of a corporate approach to its operations. This corporate approach has created the environment where Harbours Marine has implemented increased financial accountability, program management, privatisation of services where appropriate, marine industry and resources development through the provision of services and support, and international marketing of the services provided by Harbours Marine and the marine industry.

Corporate Development

The corporate direction was formally implemented on 1 January 1989. The direction facilitated the identification of the roles of Harbours Marine in fostering Queensland's growth in the areas of industry, tourism, finance,

recreation and quality of life. Harbours Marine roles were determined to be the promotion of an effective and competitive port system, of the safe use of navigable water in Queensland, of quality coastal management and of the development and expansion of Queensland's maritime and related industries. These roles established the blueprint for the provision of the highest standard of service through its operations in 1988-89 and in the future. Such a high standard of service by motivated and responsive officers has benefited both the maritime industry and Queenslanders in general.

(Excerpts from the report of Director, Department of Harbours and Marine, John Leech)

Corporate Goals

Harbours Marine's roles are to promote an effective and competitive port system, the safe use on navigable waters in Queensland, quality coastal management and development, and to facilitate expansion of Queensland's maritime and coastal-related industries. It is responsible for administering the following Acts of Parliament:

- * Queensland Marine Act;
- * Harbours Act;
- * Queensland Marine (Sea Dumping) Act;
- * Canals Act;
- * Pollution of Waters by Oil Act;
- * Port of Brisbane Authority Act;
- * Gold Coast Waterways Authority Act;
- * Nerang River Entrance Development Act;
- * Groyne Construction (Palm Beach) Act;
- * Cairns Airport Act.

In order to carry out these roles, the Department has identified the following corporate goals to guide the implementation of Departmental projects and activities so they will enhance planning for the State's economic and social development.

Goal 1

Increase the use of the present port system and anticipate future industry demand to ensure that port infrastructure is ready when needed as part of the State's overall transport and economic strategies.

Goal 2

Create opportunities for responsible development and balanced usage of the coast's natural resources by Queenslanders generally, the private sector and tourists.

Goal 3

Eliminate preventable injury and death and damage to property on the navigable waters of Queensland while encouraging their safe use.

Goal 4

Supervise the usage of fishing resources, prevent and detect offences concerning exploitation of aquatic species and enforce regulations governing other areas of the Department's activities.

Goal 5

Assist Queensland marine and coastal industries to operate in the world market place.

Goal 6

Become an enabling Department by developing policies to facilitate Queensland's economic growth.

Goal 7

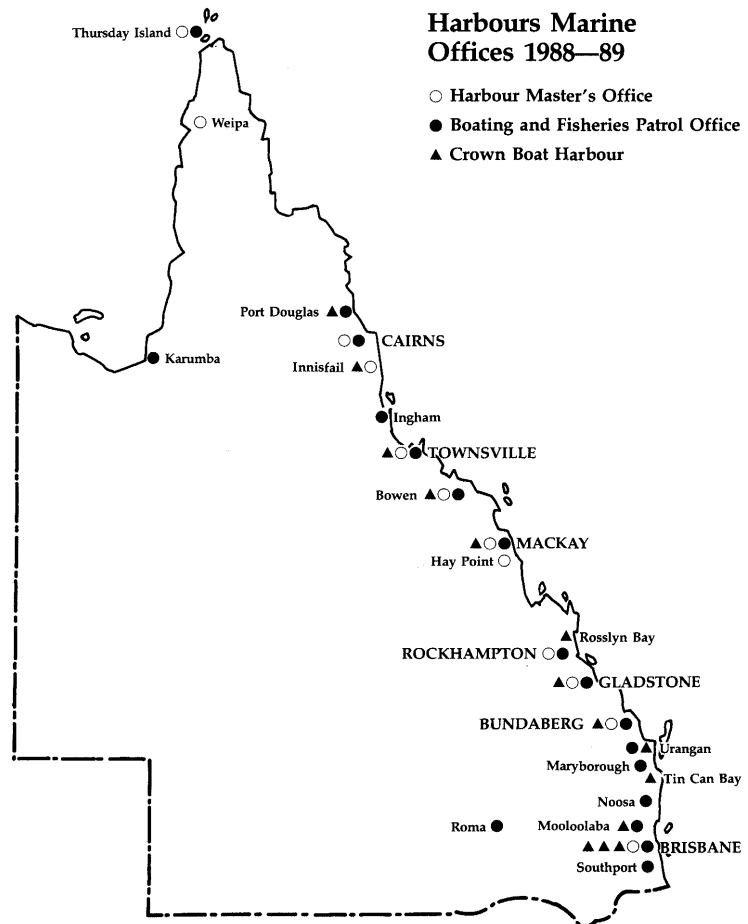
Create an environment where client service and pride in what we do is actively encouraged.

Corporate Organisation

Harbours Marine has been divided into five divisions to ensure the Department achieves its goals. Each division has identified objectives and organised its activities into programs to ensure the Divisional responsibilities as set out following are met.

Marine Operations Division is responsible for facilitating and promoting the safe commercial and private use of the navigable waters of Queensland. The Division provides and maintains navigation aids, and provides accurate and timely hydrographic and tidal information for charting, safe navigation and public information. It maintains an efficient pilotage service, and provides harbour masters in each major port. The Division supervises and advises on the construction, outfitting and maintenance of vessels, and plans the construction and maintenance of vessels and facilities for Harbours Marine throughout the State. It sets standards

Location of Harbours Marine Offices



for the certification and manning of vessels. The Division provides education, advisory and policing services for small craft through the Boating and Fisheries Patrol. It also combats and controls pollution by oil and noxious substances.

Ports and Property Management Division manages the operations of port and boat harbours under the control of the Harbours Corporation of Queensland. The Division also provides a co-ordinated planning service for Queensland's port system. It provides and maintains boating facilities throughout the State and deals directly with all property matters involving Harbour Marine and the port authorities.

Engineering Services Division supplies professional engineering and allied services to port and local authorities, the Harbours Corporation of Queensland and other Departmental programs.

It provides technical advice on planning, development approvals and management of the coastal zone to individual developers, Government departments, and statutory authorities, including the Beach Protection Authority. The Division manages and operates the Queensland Government Hydraulics Laboratory.

Administration Support Division provides administrative support to the operational areas of the Department through executive, legislative, personnel, accounting, and office services. The Division deals directly with the public through the collection of monies, sale of publications and the provision of information during those transactions. Advice and service are also provided to statutory bodies such as Queensland port authorities on Government policy issues.

Corporate Services Division is responsible for marketing Queensland

marine-based industries and services to achieve the greatest possible economic and social benefits to Queensland. It is also responsible for ensuring that the public is well informed of the services and facilities the Department provides. The Division increases coastal protection and personal safety of the boating public through information and education, support of voluntary sea rescue organisations and the provision of boating safety charts and products. It also plays major role in enhancing the strategic management and planning of the Department and the efficiency and effectiveness of its operational systems.

Johor Port Adopting UN Layout Key Documents

The Johor Port Authority has introduced the revised port documents based on UN Layout Key for cargo movement through its facilities since January 1, 1990.

By doing so the port has reduced the number of documents used for export and import from six to four.

The new Shipping Note incorporates two documents, namely the Shipping Order entry forms (computer input for billing purposes) and the shipping agent's Shipping Order into a single document.

The Goods Receipt accompanies the vehicles conveying the goods for the port and upon endorsement it becomes an acknowledgement receipt for goods delivered into the port's custody. This document also contain the tally details of the goods delivered to the port. A copy of the duly endorsed Goods Receipt is used as the gate pass for the

empty vehicles to leave the port.

The move by the port authority to introduce the integrated document follows the suggestion by the Ministry of Transport to all ports authorities to redesign the existing documents.

Compared with other ports, Johor Port had district advantage in ensuring its quick implementation. Having started operations in 1977, and therefore a new port, it had the opportunity to research and study existing procedures and documents used by other ports.

It was able to learn from the experiences of others and design documents to facilitate the move of goods in the most simplified manner.

The port also prides itself as a pragmatic team which is supportive towards modernisation and willing to try new ideas and methods to ensure higher efficiency and productivity.

The port authority has been close cooperation between the port and the users, thus making it easier to introduce and carry out whatever reforms were needed.

The new Johor Port Integrated Documents (JPID) conforms to the UN Layout Key using A-4 size paper. The data to be found both in JPID and Customs are, a) name and address of consignee/consignor, b) name and address of authorised agent, c) name of vessel/voyage number, d) port of loading/discharge, e) cargo marking, f) types of packages, and g) description of goods.

All other data elements that are specified in the Customs documents, but are not required in the JPID are disregarded.

Johor Port being vested with a Free

Trade Zone has declared the whole operation area as FTZ and therefore outside the Customs area. With the exception of those goods declared as non-FTZ cargo, under sub-section (4) of the section 6 of the FTZ Act (1971), goods that are imported, exported or transshipped into the FTZ, need to be declared under the prescribed forms to the FTZ Authority (which is the Johor Port Authority). The related forms are i) FIZ 1-for imports ii) FTZ 2-for exports and iii) FTZ 3-for transshipment. (NADI)

Johor Port Embarks on New Growth Phase

Johor Port is now at the threshold of a new growth era. The Port, recording one of the fastest growths in its history, has been witnessing the demand in the growth for its facilities and services narrow the gap capacity rather dramatically.

This has made it necessary for the Port to reassess its capacity and availability of the range of facilities and services. It is incumbent upon the Port, that aspires to be responsive and competitive, to review its capacity in relation to the demand for its facilities and services. The Port recognises the need to maintain the capacity at a desirable level in order not to jeopardise the positive sustained growth over the past year.

Johor Port Authority has instituted a number of measures to meet the demand. The measures include a series of short-term and contingency measures as well as long term strategy to enhance the supply of facilities and services to commensurate with the high demand level.

As an immediate step to boost up capacity the third expansion phase is now being implemented. The Federal government, recognising the importance of the Port as a catalytic impetus to the southern peninsula Malaysia has given its approval for the expansion of the Port. The phase, estimated to cost about M\$218 million, will add two more containers berths at the Port.

The need for additional container handling capacity is on account of the high growth in container traffic, presently registering the fastest growth in the types of cargo handled by the Port.

The Port has also earmarked the need

OLD		NEW DOCUMENTS	
EXPORT			
i)	Port Document		
	a) Shipping Order Entry	a)	Shipping Note
	b) Shipping Note	b)	Goods Receipt
ii)	Other documents		
	c) Shipping Order		(Integrated into a) above)
IMPORT			
i)	Port's Document		
	a) Deliver Order Entry	a)	Deliver Order
	b) Delivery Note	b)	Gate Pass
ii)	Other documents		
	c) Delivery Order		(Integrated into a) above)

to proceed with the fourth expansion phase. The need for fourth phase expansion has been felt well before the completion of the third expansion phase because the high anticipated growth over the next few years.

The fourth phase, which is awaiting Federal government approval is expected to cost about M\$230 million, will comprise general cargo berth, jetties for liquid cargo, both for hazardous cargo handling and vegetable oil cargo.

The expansion of liquid cargo handling capacity is expected to increase the Port's role in the transshipment trade.

In line with the expansion in berthing capacity, the Port Authority is also looking into acquisition of additional appropriate equipment and machinery. Other qualitative measures are also being adopted to enhance the Port's productivity. (NADI)

Singapore VTIS for Better Management

By Mark Heah Eng Siang
Port Master's Department

The Singapore Strait is one of the busiest channels in the world. With the increasing volume of marine traffic along this channel and at the Port of Singapore, the Port of Singapore Authority (PSA) has established a Vessel Traffic System.

The Objectives of the System are to:

- improve navigational safety through the Singapore Strait;
- provide information on navigation to vessels using the Singapore Strait; and
- enhance safety and efficiency of marine traffic into and out of the Port of Singapore.

This service is called the Singapore Vessel Traffic Information (VTIS). Overall it will enable better management of port waters and approaches to the Port.

The VTIS is a radar and computer-based system for facilitating vessel movements. A Norwegian firm, Norcontrol Surveillance Systems A/S (NCSS) was awarded the principal contract to design, supply, install, test and commission the VTIS. Phase I of the VTIS is designed to provide coverage of the Singapore Strait Traffic

Separation Scheme (TSS) and the approaches to the Port at a cost of some \$40 million.

The VTIS is one of the key components of the multi-million dollar project, Computer Integrated Marine Operations System (CIMOS). CIMOS consists of three core components and six supporting components.

The core components comprise the VTIS; the Port Traffic Control System; and the Computerised Vessel Communications System.

The six supporting components are the Pilots Deployment System; Marine Craft Deployment System; Marine Emergency Action System; Ship Handling Simulator; Hydrographic Information System; and Real-time Current Monitoring System.

With the targeted completion of Phase I in July 90, plans have gone ahead for Phase II of the project, which will be configured to monitor vessel traffic within port waters. About \$30 million will be spent to install more radar systems under this phase. For Phase III, another \$20 million will be spent for other components of CIMOS, bringing the total expenditure to some \$90 million.

In line with international practice, the VTIS will be operated in accordance with recommendations by the International Maritime Organisation (IMO). The VTIS will commence partial operations in mid-July 90. Vessels intending to enter the Port or transiting the Singapore Strait would communicate with the VTIS Centre via VHF (Very High Frequency) radio. The Centre would monitor marine traffic in the Singapore Strait TSS. Marine traffic plying in port waters would continue to communicate with the Singapore Port Operations.

By the third quarter of 1990, Phase I would be fully operational and function as an advisory information centre.

Some of the other participating authorities in the VTIS Phase I which will provide useful and safety information, are the Marine Department, Singapore Radio (Coast Radio Station), PSA's Hydrographic Department and the Singapore Port Operations Centre.

PSA recognises the need to enhance the safety of navigation in the Singapore Strait, to protect the marine environment, and facilitate efficiency of marine traffic in the Port. With the full im-

plementation of CIMOS in mid-1992, the Port of Singapore is geared to meet the challenges of the growing shipping traffic and maritime businesses.

(PSA Port View)

Auto-Classification of DG Declarations

By Siew Chok Seng
Engineering/Marine Systems
Department

From this year, port users who effect their Dangerous Goods (DG) declarations through PORTNET may have their submissions approved immediately through an auto-classification system.

The benefits are multifold. Port users get immediate approval round-the-clock on declarations. It saves shipping agents time as they are no longer required to check the outcome of their applications.

Processing DG declarations through auto-classification system is possible through co-operation from the shipping agent. Firstly, the shipping agent obtains the information on the DG such as the chemical name, IMO class, UN No. from the shipper, load port or manufacturer. He matches it against the approved list in the Dangerous Goods Information System (DGIS) database. He then selects the appropriate DG from the approved list. The system will inform him whether the submission is approved.

DG declarations requiring legal action e.g. late submissions or the attention of the Port Chemist will not be auto-classified by the system. The DGIS was developed in 1985 to monitor the movement of DG and to enhance in the port areas. Information on DG handled in port areas can be retrieved from the system during an emergency. It has a database with about 4,000 types of DGs, comprising the entire list of hazardous cargoes in IMDG code and also other DGs frequently shipped though the port. Shipping agents can retrieve the following information from DGIS:

- (1) Names of Dangerous Goods
 - (2) IMO Class
 - (3) UN No.
 - (4) PSA Group
 - (5) PSA Category
 - (6) Labelling Requirements
 - (7) Properties of Dangerous Goods
- (Continued on Page 39, Col. 1)

What Is the Port and Airport Development Strategy Study?

By **T.J. Frawley**
Planning and Local Services
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Hong Kong

The Port and Airport Development Strategy Study (PADS) was initiated by the Hong Kong Government in March 1988. The Study reviews the long term needs for port and airport facilities in Hong Kong, together with associated road and rail links. It recommended a number of alternative strategies which Government could pursue. The Strategy which the Hong Kong Government has now selected incorporates a replacement airport on the northern coast of Lantau Island, some 25 kilometers to the west of downtown Hong Kong.

The Main Aims

The Strategy is designed to:-

- * meet the forecast port and air traffic growth in Hong Kong up to 2011;
- * ensure that all new port, airport, associated industrial and residential facilities, transport links and other infrastructure, will be incrementally provided according to an integrated and cohesive plan; and
- * form the heart of future major Government development programmes to enhance and sustain

DG Declarations—

(Continued from Page 38, Col. 3)

- (8) Segregation Requirements
- (9) Any Other Observations Specified By Port Chemist

In case of fire or emergency, emergency action procedures can be retrieved by the Fire Department or related parties to avert possible disaster involving the loss of property or life.

By submitting DG declarations though PORTNET, shipping agents can enjoy a reduced advance notification time of 12 hours instead of 24 hours and save the trip to the PSA DG Inspectorate office. Currently, over 90% of the declarations for DGs handled at PSA terminals are submitted though PORTNET. *(PSA Port View)*

the stability and prosperity of the Territory.

Key Factors

The formulation of the Strategy has taken into account:-

- * regional development trends;
- * changing world economic and technological developments;
- * the availability of the resources needed to construct the proposed developments;
- * environmental issues;
- * economic costs and benefits; and
- * financial viability and the potential for private sector participation.

Making An Early Start

Given the rapid growth in port cargo and air passenger traffic, and the urgency attached to providing facilities with increased capacity, the early stages of the PADS development programme are already underway. In this connection Government has:-

- * commissioned detailed planning studies for a new Container Terminal, Number 8, at Stonecutters Island;
- * commissioned further studies relating to a major fixed crossing to Lantau Island; one option incorporates a bridge, which would have a main span of about 1,400m over a major shipping channel, it would be part of a road and rail link connecting the new airport and port facilities on Lantau to the rest of Hong Kong;
- * commissioned a study for a third road crossing between Hong Kong Island and Kowloon; and
- * completed an engineering feasibility study for the Route 3 highway that will provide another new link to the neighbouring Guangdong Province in southern China, the economy of which has expanded rapidly in recent years.

Time Horizons

The study was required to produce strategies which would provide for the forecast needs for port, airport and associated urban development and infrastructure up to 2011. While 2011 was considered acceptable as a planning horizon, it was not considered an appropriate base year for evaluation purposes.

With any forecast of progressive

change, it is reasonable to place more confidence in forecasts for earlier rather than for later years as the former are inherently more likely to materialise. It was consequently considered inappropriate to base decisions on the costs and benefits forecast to arise in the more distant future and about which there would be considerable uncertainty. For example, the estimates of requirements for port facilities, based on the Port Cargo Forecasts, suggested that the requirement between 2006 and 2011 would be equivalent to about 60% of the total requirements forecast as needed between 1988 and 2006.

Furthermore, Strategies which gave greater benefits in the long term, but which did not perform as well as others in the medium term, were unlikely to be as attractive in the face of more immediate demands on resources from other sectors of the economy. It was therefore considered vital to demonstrate that the Strategies would perform well at the initial and intermediate stages, and it was decided that the performance of the Strategies up to 2006 should be used for evaluation purposes.

Parameters

The Study was inevitably based on many assumptions about the future socio-economic and institutional environment within which the selected Strategy will have to function. Such assumptions were necessary to narrow down the vast array of circumstances which might have a bearing on the Strategies and to ensure the Study concentrated only on those considered likely to occur. There were, however, considerable uncertainties surrounding the large scale, long term and complex nature of the PADS proposals. For this reason, considerable emphasis was placed on assessing the flexibility of options to cope with changes in the base assumptions.

The most fundamental parameters were:-

- * port cargo forecasts;
- * gross domestic product forecasts;
- * airport passenger and cargo forecasts;
- * territorial socio-economic projections;
- * strategic development framework;
- * land availability; and
- * financial resource availability.

Strategy Goals for PADS

- 1. Port and Airport Efficiency**
Ensure the proposed port and airport can efficiently serve the future needs of Hong Kong.
- 2. Resource Utilisation**
Maximise the cost effectiveness of the strategies wherever possible with the provision and use of common infrastructure.
- 3. Engineering Feasibility**
Ensure the strategies are practical to implement.
- 4. Transport Performance**
Ensure the strategies provide an effective transport system.
- 5. Land Use Performance**
Ensure the strategies provide for a convenient and rational distribution of land uses in both new and affected existing urban areas at each stage of development.
- 6. Environmental Quality**
Ensure the strategies contribute to improving the quality of the physical and living environment of Hong Kong.
- 7. Flexibility and Robustness**
Maximise the extent to which the strategies can cope with variations in future requirements.
- 8. Programming**
Ensure the strategies are capable of implementation in incremental stages according to a defined programme.
- 9. Financial Performance**
Ensure the strategies are capable of progressive implementation within forecast public sector financial constraints and encourage fullest participation of the private sector.
- 10. Economic Performance**
Maximise contribution of the strategies to Hong Kong's continued and long-term economic well-being giving due consideration to physical resource availability.
- 11. Institutional Performance**
Ensure the strategies are capable of implementation by existing or, where advantageous, other appropriate administrative, policy and statutory mechanisms and are easily manageable.

Easing the Problem of Berthing Space Shortage

— in the Port of Tacloban City —

By Reginaldo M. Rosalia
Terminal Supervisor
Philippine Ports Authority
Port Management Office
Port of Tacloban

In the last quarter of 1990 through 1991 and even a part of 1992 the Port of Tacloban will experience an acute shortage of berth space. During this time repair and rehabilitation works on the wharf will be in full operations. Affected by these repairs and rehabilitation are that part designated as Berth No. 6 and Berth No. 7 which collapsed sometime last April and that portion of the wharf designated as Berth Nos. 1, 2, 3, 4 and a portion of Berth No. 5. These portions comprise almost seventy-five (75%) percent of the total berth space of the Port of Tacloban. Decidedly these works would create a very acute shortage of berth space until such repair and rehabilitation works are finished.

If nothing is done about this shortage of berth space port operations in Tacloban would be adversely affected. Turn-around time of vessels as well as the vessel's waiting time to berth would be lengthened. Commodities coming in or going out of the port would arrive or depart late as vessels pile up in the anchorage area waiting for their turn to occupy the very limited berthing space at the wharf. Perishable cargoes would be ruined. Prime commodities such as rice, sugar and flour would arrive late. Shippers of fish and other marine products would be reluctant to ship out due to the uncertainty of the arrival and departure of vessels. Exporters and importers would be afraid to ship their products abroad for fear of incurring demurrages. Ultimately the economy of the city would suffer.

To date no plans have been made to avert this foreseen problem. Nobody seems to realize the repercussions such repair and rehabilitation works would result. While it is true that the port community of Tacloban would be greatly benefited by the improvements on its port facilities, we should not forget the accompanying inconvenience

albeit temporary such repairs would beget.

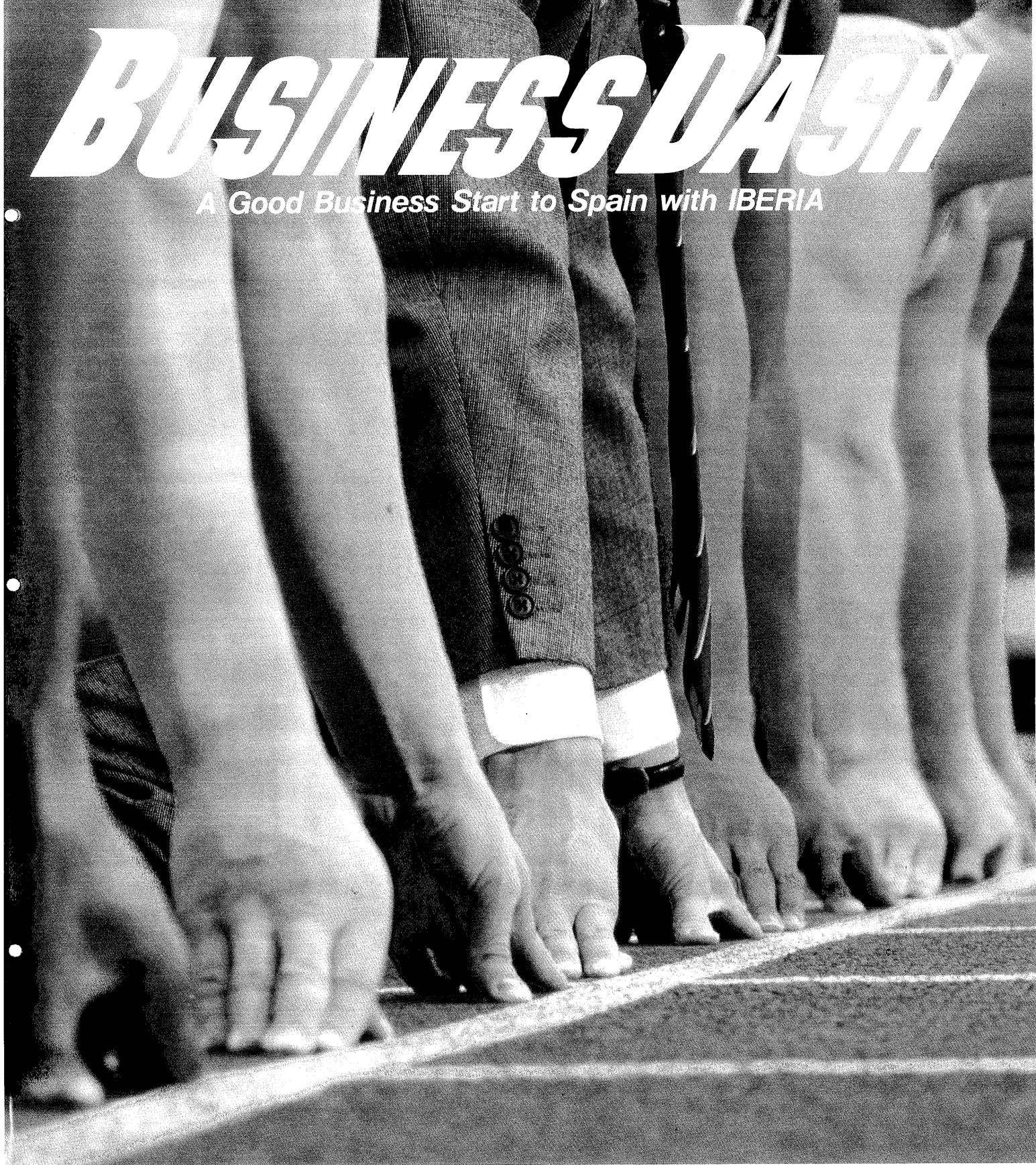
This paper seeks to provide a solution to the problem of shortage of berth space. There is a portion of the wharf which presently is not supervised by the Authority. This space lies outside the fenced area of the port zone. The length of this space is roughly two hundred meters and could accommodate two interisland vessels at any given time. At present the space is being utilized by small vessels with wooden hulls and small fishing boats. These vessels do not pay the Authority any fee whether against cargoes or against vessels therefore the Authority does not gain anything from this area. Extending the Authority's supervision over the area and allowing larger vessels to dock there would greatly ease the problem of berth space shortage and provide the Authority some revenues in terms of usage fees and wharfage dues. But this solution is far from being simple and easy. Before this area could be productive for the Authority, negotiations has to be made with the city government for the relocation of the City Bus Terminal which is located directly next to the berthing space. If the City Bus Terminal is relocated the number of cafeterias lined up along the apron ridge of the wharf would also be relocated. The city government have already constructed a bus terminal in another part of the city and all that is needed is an ordinance for the present bus terminal to be relocated to the new site.

Another problem which will confront the Authority before the area could be utilized is the controlling depth of the water along the berth space including its approaches. Previously the water in that area had a controlling depth of five meters but when the cafeterias opened in the area no proper waste disposal system was in effect so the sea along the berth space became the ideal garbage dump site for them thus making the water very shallow. The Authority must undertake dredging operations in the area before larger vessels could berth there.

Once the City Bus Terminal is relocated together with the cafeterias and the water dredged to a comfortable depth it is recommended also that the back-up area of the berth be fenced to ensure its continuous operations.

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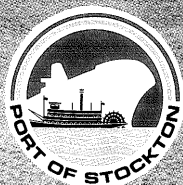
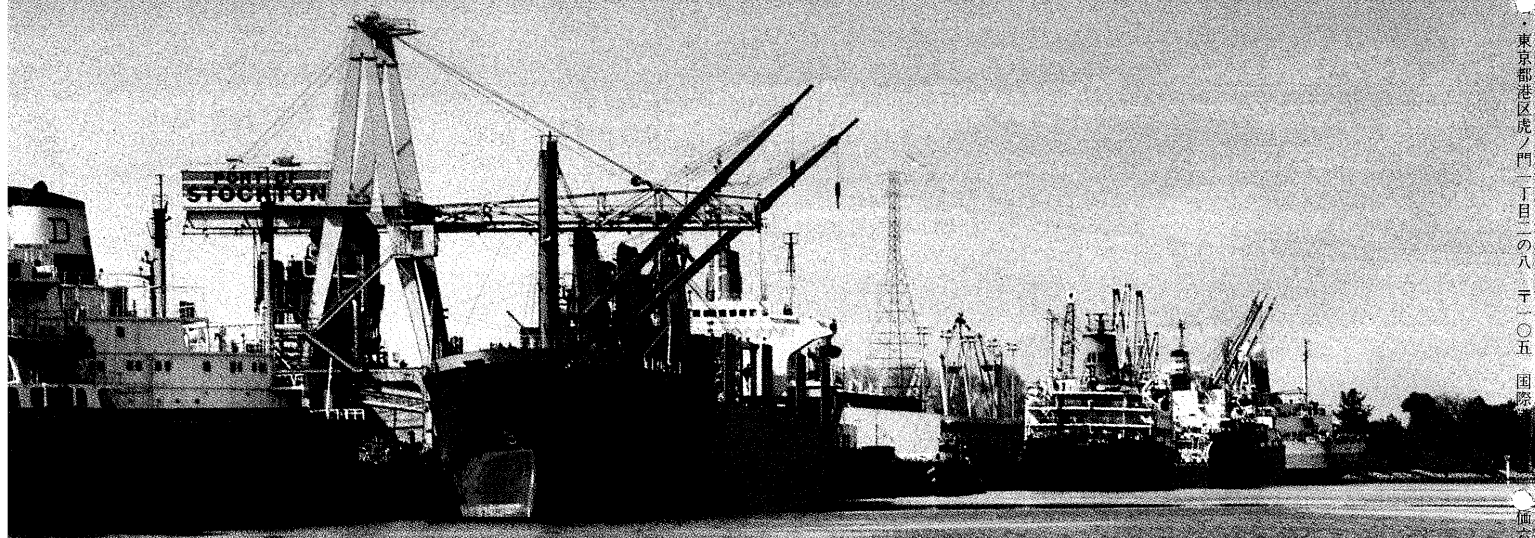
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