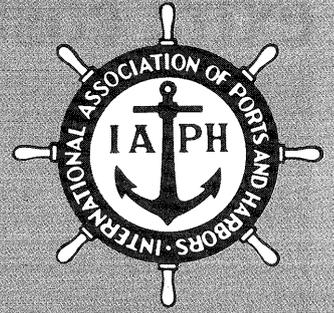


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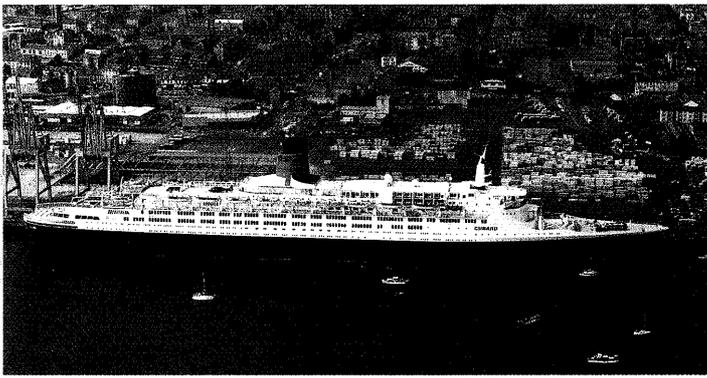
Vol.36 No. 4

Ports & Harbors

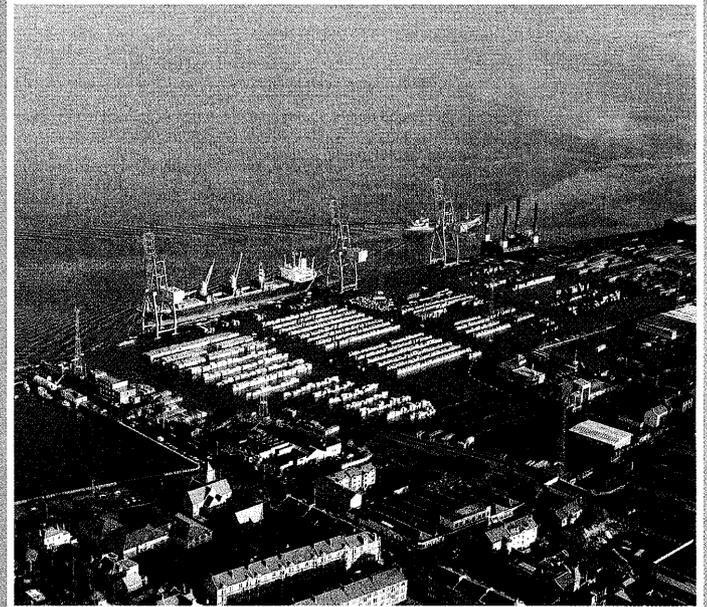


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The liner Queen Elizabeth 2 berthing at Greenock Terminal



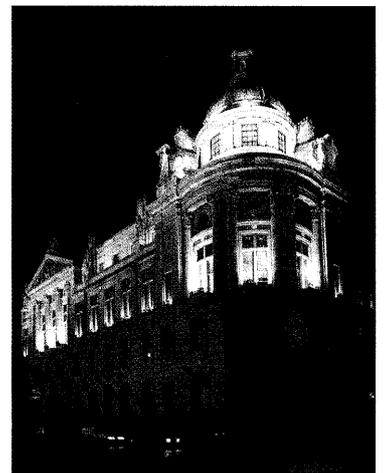
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Aerial View From South West



The Clyde Port Authority Building

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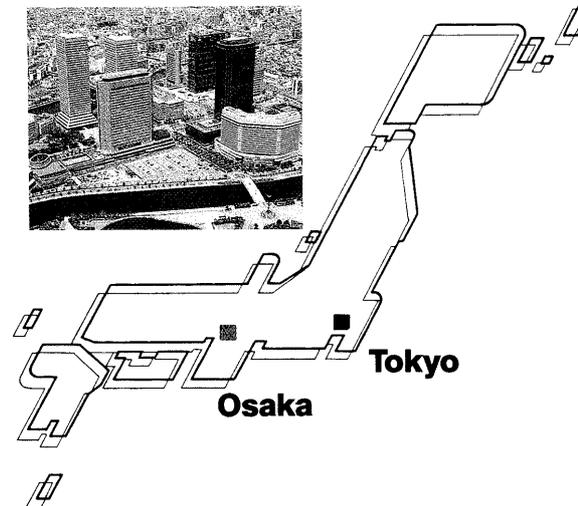


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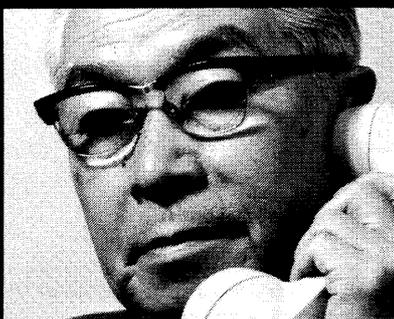
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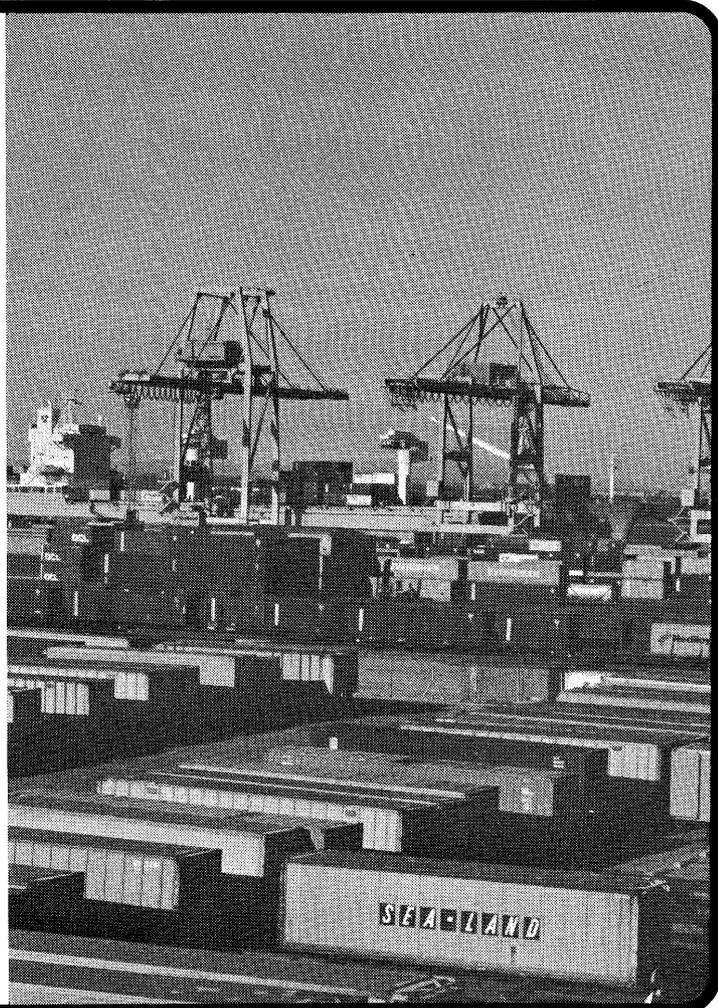
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COURSE TITLE	DATES	FEES (S\$)
1 Port Management & Operations	22 Jul - 2 Aug	\$1 800
2 Management of Container Operations	12 Aug - 23 Aug	\$1 800
3 Port Finance Management	12 Aug - 16 Aug	\$1 100
4 Management & Operations of a Break-Bulk Terminal	26 Aug - 6 Sep	\$1 800
5 Port Infrastructure - Development & Maintenance Management	2 Sep - 13 Sep	\$1 800
6 Oil, Chemical & Gas Tanker Safety	16 Sep - 27 Sep	\$1 800
7 Management and Maintenance of Port Equipment	16 Sep - 27 Sep	\$1 800
8 Management of Port Marine Services	30 Sep - 11 Oct	\$1 800
9 Marine, Fire & Oil Spill Control	30 Sep - 11 Oct	\$1 800
10 Management of Port Security	14 Oct - 25 Oct	\$1 800
11 Handling, Storage & Transportation of Dangerous Goods	11 Nov - 22 Nov	\$1 800
12 An Overview on Hydrographic Surveying	11 Nov - 22 Nov	\$1 800
13 Practical Pilotage Attachment	(2 weeks duration on request)	\$2 500

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IAPH ANNOUNCEMENTS AND NEWS

IAPH Plans Charter On Environment

Mr. Jean Smagghe (Le Havre), Chairman of the COPSEEC, who also chairs the IAPH Co-ordination Group on Environmental Issues, has recently revealed that preparations are underway to draft an IAPH Charter on the Environment for basis of our Association's increased endeavours in contributing to a better environment for our planet and of course for ports and their communities throughout the world.

The Co-ordinating Group on the Environment was created on the occasion of the COPSEEC meeting held in Le Havre in October 1989 to co-ordinate the work dealing with environmental issues within the COPSEEC. Immediately following the Le Havre meeting, a survey on the eleven environmental priorities in ports was conducted among IAPH members.

When the Group met in Fremantle in May in 1990, Chairman Smagghe invited the chairmen of the other Technical Committees to join this special working group so as to enable the different members to exchange information on the work they intend to do in terms of the environment.

Mr. Smagghe, prior to the planned meeting of the Co-ordinating Group scheduled for May 5, 1991 in Barcelona, has circulated a draft Charter to IAPH Officers and the members of the Group as well as to the Secretary General, asking them to come up with comments to be incorporated in the final wording of the Charter. Mr. Smagghe suggests that the Charter should be based on a few clear principles covering all aspects of environmental preservation and which could have the support of all IAPH port members, notwithstanding their own situations. Mr. Smagghe proposes the following key concepts be included in the Charter in question:

1. Prevention is cheaper than cure.
2. The polluter should pay.

Subject to the conclusion to be reached as a result of the forthcoming meeting of the Group in Barcelona, IAPH will seek arrangements for its representatives to participate in the relevant international meetings dealing with the environment, and in particular to attend the UN Conference on the Environment which will take place in June 1992 in Brazil, as the Conference will be of the utmost importance for environmental matters related to ports.

Survey Results to Be Reported in Spain

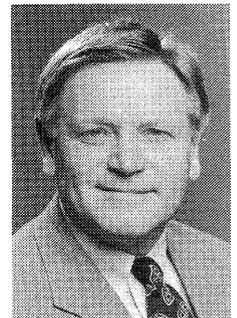
The IAPH Sub-Committee on Automatic Equipment Identification, chaired by Mr. Donald G. Meyer, Deputy Executive Director, Port of Tacoma, U.S.A., conducted a survey through the Tokyo Head Office of the IAPH Regular Members on the status of developments in the technology of what is known as Automatic Equipment Identification (AEI), in November 1990.

By the closing date, 88 members out of the 232 organizations to which the survey form was sent, had sent their responses to the questionnaire.

There was another survey on ports' perceptions of future trends to which IAPH Regular Members were asked to respond concerning the city-port relationship and ports' future strategies.

Responses were received from 116 out of the 232 members to whom the survey form was sent by the Secretary General.

The results of the two surveys are now being compiled by the Head Office staff for submission to the committees concerned as discussion papers at their meetings in Spain. The reports of the two surveys will become available to all IAPH members at a later stage upon the committees' analysis and final evaluation.



Mr. Donald G. Meyer

Nominating Comm. Members Chosen

In accordance with the requirements of the By-Laws, five committees are to be formed for each biennial conference of our Association. Of the five conference committees, the members of the Nominating Committee are to be appointed by the Board, while those of the other four committees — the Credentials, Budget, Resolutions and Bills and Honorary Membership Committees — are to be appointed by the

President.

The Secretary General, upon consultation with the President, has prepared a list of the proposed Nominating Committee members for the 17th Conference and submitted it to the Board of Directors for their voting by correspondence, setting the voting date for April 25. Due to the possible need for last minute changes in the membership — for example — the originally appointed members are unable to arrive in Barcelona in time — the Board members have been requested to give their approval of any additional appointments that the President may deem necessary. The proposed Nominating Committee members are as follows:

African/European Region:

Jean-Michel Moulod, Port Director, Port of Abidjan, Cote d'Ivoire; Patrick J. Keenan, General Manager, Cork Harbour Commissioners, Ireland; Jose Munne Costa, President, Port of Barcelona, Spain

American Region:

Dominic J. Taddeo, President & Chief Executive Officer, Port of Montreal, Canada; J.H. McJunkin, Delegate with IAPH, Port of Long Beach, U.S.A. (as Chairman); W. Don Welch, Executive Director, South Carolina State Ports Authority, U.S.A.

Asian Region:

Robert Cooper, Chief Executive, Ports of Auckland Ltd., New Zealand; Yoshiro Haraguchi, Executive Vice President, Nagoya Port Authority, Japan; Ng Kiat Chong, Executive Director, Port of Singapore Authority, Singapore

As for the nominations of the other four conference committees, the Secretary General is also to prepare the proposed membership lists for official appointment by the President McJunkin before the May Conference.

IAPH HO Analyzes Dues Structure

The Head Office staff in Tokyo at the initiative of Secretary General Kusaka has completed a series of reports and study papers for submission to the 17th Conference in Spain. Among the reports prepared by the Secretariat staff for use at the meetings of EXCO, Finance/Budget and other internal committees in Barcelona, there is a study paper on the dues structure with a view on burden-sharing by members. This study is intended to provide some scenarios for the further enhancement of IAPH activities and their financial implications while taking into the financial prospects for 1991 — 2000

In the paper, an analysis is made of the pattern of burden-sharing by IAPH members under the current dues formula. The findings of the study paper are partly introduced below in the belief that our members will be interested in how the financial commitments are being shared by the Association's members.

BURDEN-SHARING BY MEMBERS

1. Composition of Regular Members by the number of dues units subscribed (Continued)

The IPD Fund: Contribution Report

Contributions to the Special Fund For the Term of 1990 to 1991 (As of April 10, 1991)

Contributors Paid	Amount Paid: (US\$)
Associated British Ports, U.K.	3,000
UPACCIM, France*	1,989
Port of Copenhagen Authority, Denmark	1,000
South Carolina State Ports Authority, U.S.A.	1,000
Vancouver Port Corporation, Canada	1,000
Puerto Autonomo de Valencia, Spain	1,000
Port Authority of New York & New Jersey, U.S.A.	1,000
Osaka Prefecture, Japan	585
Kobe Port Development Corp., Japan	584
Osaka Port Terminal Development Corp., Japan	584
Nagoya Container Berth Co. Ltd., Japan	554
Penta-Ocean Construction Co., Ltd., Japan	502
Marine Department, Hong Kong	500
Port Authority of Jebel Ali, U.A.E.	500
Port of Montreal, Canada	500
Port Rashid Authority, U.A.E.	500
Stockton Port District, U.S.A.	500
Port of Tauranga, New Zealand	500
Port Autonome de Dakar, Senegal	480
The Japanese Shipowners' Association, Japan	438
Japan Port & Harbor Association, Japan	400
Public Port Corporation II, Indonesia	300
Japan Cargo Handling Mechanization Assoc., Japan	280
Fraser River Harbour Commission, Canada	250
Port of Melbourne Authority, Australia	250
Port of Palm Beach, U.S.A.	250
Port of Quebec, Canada	250
Saeki Kensetsu Kogyo Co. Ltd., Japan	250
Bintul Port Authority, Malaysia	200
Gambia Ports Authority, the Gambia	200
Nanaimo Harbour Commission, Canada	200
Port of Redwood City, U.S.A.	200
Public Port Corporation I, Indonesia	150
Port Authority of the Cayman Islands, West Indies	100
Port Authority of Thailand, Thailand	100
Mauritius Marine Authority, Mauritius	200
Pacific Consultants International, Japan	238
Total	US\$20,534
Pledged	
Ghana Ports & Harbours Authority, Ghana	250
Empresa Nacional de Puertos S.A., Peru	100
Total	US\$350
Grand Total	US\$20,884

* Union of Autonomous Ports & Industrial & Maritime Chamber of Commerce (the Association of French ports) on behalf of the Ports of Le Havre, Bordeaux, Dunkerque, Marseille, Nantes-St. Nazaire, Paris and Rouen

IAPH Dues Structure –

(Continued from Page 6, Col. 1)

The number of dues units to be subscribed by each member is based upon the biennial notification of tonnage, in accordance with Sec. 5 of the By-Laws.

The following table shows the distribution in terms of units subscribed, of members who have filed such figures and of those who have not responded to the request for annual notification.

Table A: Distribution of members grouped in accordance with the number of dues units subscribed

Grouping by Nos of Units	Nos of Members	Total Units	Filed (Member)	No answer (Member)*
8	3	24	2	1
7	5	35	5	0
6	13	78	11	2
5	18	90	18	0
4	37	148	35	2
3	49	147	44	5
2	40	80	35	5
1	67	67	42	25
Total	232	669	192 (83%)	40 (17%)

*: The figures existing in the previous term have been applied here.

Fig. 1 Regular Members grouped by the number of Membership Dues units
(U stands for Unit)

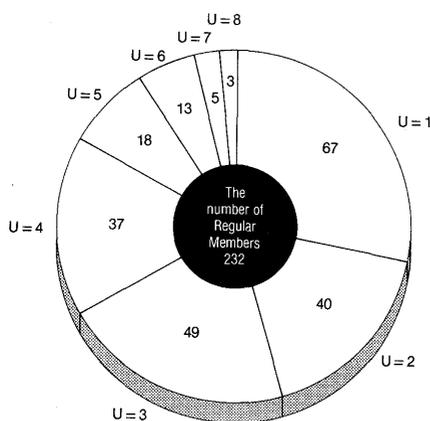
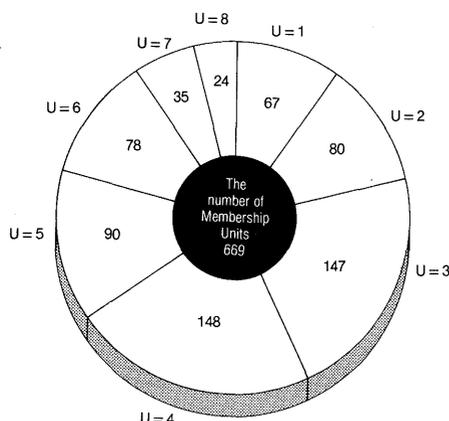


Fig. 2 Membership Units shared by unit-based groups of Regular Members



2. A visible pattern of burden-sharing

From the above statistics, the following two major points can be discerned:

2.1 The distribution of members in accordance with the number of dues units subscribed

Of the 232 members, a significant 67% consists of those subscribing three or fewer units. That is, those members who subscribe more than four units (as listed below) comprise 33% of the entire membership. The average number of dues units applicable to each number is 2.88. (See Fig. 1)

2.2 Burden-sharing in accordance with the number of members grouped by the number of dues subscribed

Of the 669 membership units, the portion held by those members subscribing three or fewer dues units, who comprise 67% of the entire membership, account for 44% of the total number of membership units. (See Fig. 2)

3. Observation

3.1 Spirit of port-to-port cooperation

The current dues scheme was established to conform to the spirit underlying the foundation of IAPH whereby members would shoulder due responsibility and thereby contribute to the enhancement of mutual cooperation and the spirit of fraternity among ports.

3.2 Developed countries and developing countries

Of the 80 countries represented in IAPH by Regular Members, as many as 58 are classified as "developing countries and territories" in accordance with the classification devised by the United Nations. This number represents 70% of the entire membership.

In this context, again, the current direction and stance concerning IAPH activities fairly well embraces and inter-faces the common interests held by both developed and developing ports.

List of Members with more than four units subscribed:

8-unit members: [3] Kobe, Rotterdam, Yokohama

7-unit members: [5] Antwerp, Nagoya, Osaka, Tokyo, Singapore

6-unit members: [13] Associated British Ports, Bremen, Hamburg, Houston, Long Beach, Los Angeles, New York/New Jersey, Marseille, Maritime Services Board of N.S.W. (Australia), Kaohsiung, Inchon, Sea Ports Authority (Saudi Arabia), Vancouver

5-unit members: [18] Canada Ports Corporation, Corpus Christi, Dunkerque, Gothenburg, Hakata, Keelung, Kitakyushu, Le Havre, London, Melbourne, Ministry of Transport (Japan), Montreal, New Orleans, Port Authority of Thailand, Public Port Corporation II (Indonesia), Transport Queensland (Australia), Sabah, Tomakomai

4 Japanese Ports Prepare Entries

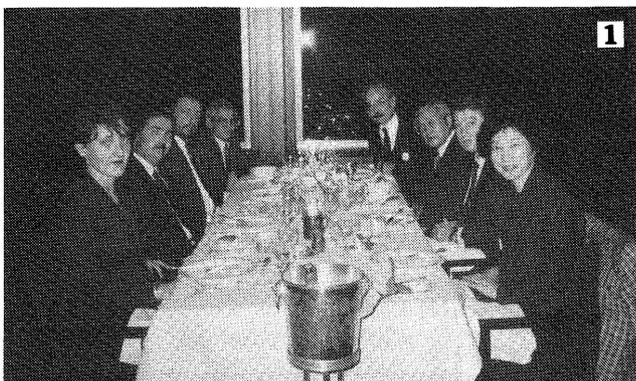
World VTS Guide:

According to information obtained from Dr. Yoshio Fujino, a Tokyo-based member of the IAPH Marine Safety Sub-Committee, COPSSEC, four Japanese ports, namely Tokyo, Yokohama, Kobe and Bisan Seto, are preparing their entries to the World VTS Guide.

To help ensure the success of the applications from the Japanese ports, Dr. Fujino, in his capacity as a member of the Sub-Committee, has been co-ordinating with the relevant authorities within Japan and is to see that the entry forms are sent to Capt. Weeks of the Maritime Communications and Safety Unit (formerly called Seaspeak Project) which is responsible for producing the VTS Guide under the agreement with IALA, IAPH and IMPA.

Visitors to Head Office

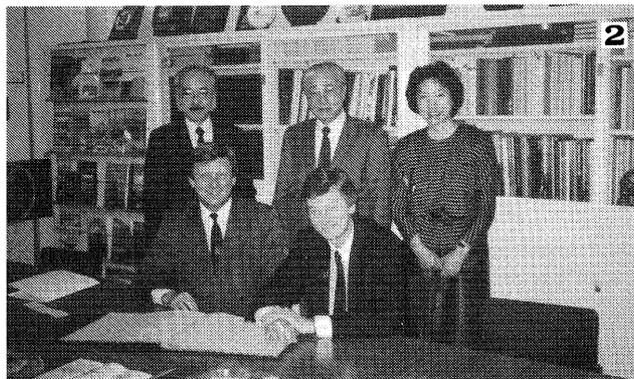
- March 5 — **Dr. Hans Ludwig Beth**, Director Central Division, **HHLA, Hamburg**
- March 6 — **Mr. C.C. Skat Larsen**, Managing Director, **Mr. Per C. Schmidt**, Vice President, Marketing, **Port of Copenhagen Authority (Photo 2)**
- March 15 — **Mr. Louis J. LoBianco**, Manager, Bulk/Carrier Sales, **Mr. Y.K. Pin**, Far East Representative, **Mr. N. Watanuki**, Japan Representative, **Maryland Port Administration (Photo 3)**
- March 22 — **Mr. Jack A. Haynes**, Board Chairman, **Mr. A.A. Carter**, Board Member, **Captain I. de C.F. Baird**, General Manager, **Port Hedland Port Authority**, **Mr. W.W. Warnock**, Acting Manager Engineering, **BHP Iron Ore (Photo 4)**
- March 25 — **Mr. Michael C.C. Sze**, Director, **Marine Department, Hong Kong**, **Mr. Lee Lap-sun**, Chief Representative, **Hong Kong Economic and Trade Office in Tokyo (Photo 5)**



Port of Barcelona Trade Mission at IAPH Dinner in Tokyo (November 19, 1990) (Photo 1)

Left row: Ms. Isabel Genis, Mr. Santiago Bassols, Mr. Jose Munne Costa, Mr. Luis Montero

Right row: Ms. Takeda, Mr. Jose-Luis Rodrigues, Mr. Kusaka and Mr. Kondoh



*Front: Mr. Schmidt (left) and Mr. Larsen
Back: Mr. Kondoh, Mr. Kusaka and Ms. Takeda*



*From left: Front: Mr. Kusaka, Mr. LoBianco and Mr. Watanuki
Back: Mr. Kondoh and Mr. Pin*



From left: Messrs. Warnock, Haynes, Baird, Kondoh, Carter and Kusaka



From left: Messrs. Kusaka, Kondoh, Sze and Lee

OPEN FORUM

Matters Relating to the Disposal at Sea of Dredged Material

Submitted by the International Association
of Ports and Harbors (IAPH)
to Fourteenth Meeting of the Scientific Group
on Dumping of the London Dumping Convention
International Maritime Organization (IMO)
2-5 April 1991

By **Herbert R. Haar, Jr.**
Special Assistant to the President
Port of New Orleans
Chairman, IAPH Dredging Task Force

I. Introduction

1.1 The International Association of Ports and Harbors (IAPH) appreciates the invitation to attend the Fourteenth Meeting of the Scientific Group on Dumping to participate in the discussion of agenda items that may effect the ocean disposal of dredged material. The agenda includes a number of subjects which raise fundamental issues as to how the London Dumping Convention (LDC) is to be implemented and applied in the future. IAPH is pleased to have an opportunity to express its views on these issues and to lend its assistance to the Scientific Group in continuing consideration of ways in which the LDC can be made more effective.

2. Agenda Item 2 – Draft New Assessment Procedure: Review of Comments

2.1 At LDC 13, IAPH expressed its support for the draft New Assessment Procedure (NAP) developed by the Scientific Group. IAPH noted the discussions as to the role of the “precautionary principle” in the NAP and the different views of various delegations as to whether this principle requires a phasing out of all ocean dumping or would allow dumping decisions to be made on the basis of risk assessment

procedures. In IAPH’s view, use of the NAP, in conjunction with Annex III and the Special Guidelines for Dredged Material, is fully consistent with the precautionary principle. IAPH believes that the sea disposal option should be given equal consideration in a holistic waste management strategy that would allow disposal at sea where this will result in the least detriment to man’s environment.

2.2 At LDC 13, the Secretariat presented a report prepared by GESAMP relating to measures to be used for protecting and managing the oceans. LDC13/INF.8 This paper was the outcome of two working groups established by GESAMP to consider scientifically-based strategies for marine environmental protection and management and a comprehensive framework for the assessment and regulation of waste disposal in the marine environment.

2.3 IAPH has carefully reviewed the GESAMP paper and is of the view that it sets forth a number of fundamental principles that are of extreme importance in defining how the “precautionary principle” should be applied under the LDC. The report recognizes the need for a “holistic” approach to the management of dumping at sea that minimizes the impact of anthropogenic activities on the environment as a whole. The GESAMP working groups found that it is both scientifically unsound and ethically wrong to take measures to protect one sector of the environment without considering the implications of that action to other sectors or the costs and benefits attendant on that action. There must be a sound comparison among alternative options for the disposal of substances which requires a multi-disciplinary approach. LDC13/INF.8, II.2. Under this approach,

the assimilative capacity concept does not conflict with the precautionary approach. Protection of the marine environment does not require a zero discharge policy. Such an approach would reject scientifically based impact assessments that would prevent proper allocation of priorities. in a rational evaluation of alternative options. id., II.5.

2.4 At the Thirteenth Meeting of the Scientific Group last year, there was agreement that any framework or definition for use of the precautionary principle should be based on a sound technical foundation. The Scientific Group found that the NAP contains technical components of such a precautionary approach. AT LDC 13, IAPH expressed its view that the Special Guidelines for Dredged Material adopted at LDC 10 provide a sound technical foundation for evaluating disposal of dredged material at sea and allow scientifically based application of the precautionary principle.

2.5 The GESAMP report also notes that despite the fact that there may be uncertainties in predicting the consequences or effects of anthropogenic activity, scientific data and understanding frequently exist to allow conservative scientific predictions of the potential for environmental damage. In the view of the GESAMP working groups, judicious application of available information would generally support the development and implementation of appropriate control measures. Id., III.1. The concept of precaution is intrinsic to scientific prediction and allows the inherent uncertainties

associated scientific analysis and assessment to be accommodated. Such uncertainties can usually be qualified and conservatively allowed for in the assessment. The predictions can then be used to compare different development options on a common basis. Id., III.3.

2.6 IAPH wishes to express its support for the principles set forth in the GESAMP report and invites the Scientific Group to give appropriate consideration to the report in its discussions of how the precautionary principle should be implemented and applied under the NAP.

3. Agenda Item 7 – Waste Management Issues

3.1 This agenda item includes issues relating to comparative assessments of land-based and sea disposal options and mitigations of the impact of dumping waste at sea. The principles set forth in the GESAMP report bear directly upon these and other waste management issues. IAPH invites the Scientific Group to give careful consideration to the GESAMP approach in the discussions of these waste management issues.

4. Conclusion

4.1 IAPH invites the Scientific Group to consider the views expressed by IAPH in this submission in its discussion of these agenda items.

Membership Notes:

New Members

Temporary Members

Port of Gdansk (Poland)

Mailing Addressee: Mr. Jan Barcewicz
General Director
Address: ul. Zamknieta 18, Nowy Port
80-81339 Gdynia

Port of Gdynia (Poland)

Mailing Address: Mr. Bodgan Buczko, M.Sc.Eng.
Director of Port of Gdynia
Baltic Container Terminale
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Changes

Mauritius Marine Authority [Regular] (Mauritius)

Ports under Administration: Port Louis Harbour, Port Louis
Port Mathurin, Rodrigues
Responsible Ministry: Ministry of Internal and External
Communications, Prime Ministers's
Office
Chairman: Mr. H. Ramnarain, Q.B.E.
Director-General: Mr. J.H. Nagdan
Deputy Director-General:
Mr. R. Maunthrooa
Financial Controller: Mr. T. Juddoosingh
Port Master: Capt. W.T.C. Wong Chung Toi
Traffic Manager: Mr. B. Lalsing

Karachi Port Trusty [Regular] (Pakistan)

Mailing Addresses: Rear-Admiral S.R. Hussain, SI(M)
Chairman

* Rear-Admiral Hussain is serving as Director of the IAPH from Pakistan.

Port of Long Beach [Regular] (U.S.A.)

Mailing Addressee: Mr. Steven R. Dillenbeck
Executive Director

The Port Authority of New York & New Jersey [Regular] (U.S.A.)

The Port Department's offices have been moved from the 64th to the 34th floor of #1 World Trade Center. The new phone and fax numbers are:

(212)435-7000 [Phone]
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Ports Privatisation — Heralding A New Era

Acknowledgement: This office expresses thanks to Mr. Nicholas Finney, Managing Director, "The Waterfront Partnership" (London, U.K.) for enabling us to introduce the article which was presented to the conference on Port Privatisation held at London on January 23, 1991. (LAPH Head Office)

**By The Rt Hon Malcolm Rifkind, QC, MP
U.K. Secretary of State for Transport**

(Speech delivered at the Waterfront Partnership Conference on Ports Privatisation held on January 23, 1991)

Introduction

I am very pleased to have this opportunity to explain what is in our Trust Ports Bill, which was published last week, to such an appropriate audience. I particularly applaud Nicholas Finney and Peter Cropper — the Waterfront Partnership, as we must now learn to call them — for their initiative in arranging this conference. The timing is impeccable; the attendance is most impressive — and I am particularly pleased to see so many delegates from outside Britain; and there are expert speakers later in the programme to help all concerned come to grips quickly with the implications of the proposed legislation.

At a personal level, it is enormously helpful for me, having only recently taken up Transport responsibilities, to be able to meet so many of you here today and to learn more at first hand about the ports industry.

Rationale for the Bill

The proposals in our Bill constitute, I believe, an important further step forward in the policies we have pursued over recent years to promote the development of a viable, competitive and commercially oriented ports industry. Some ports have always been in the private sector and therefore fully exposed to the opportunities and disciplines of the market place. The privatisation of the former British Transport Docks Board, now ABP, and of the Sealink harbours, added substantially to the size of the private ports sector. That example has demonstrated too that we can confidently look to ports in the private sector to continue to discharge their duties as harbour authorities responsibly.

Then in 1989 the Government took the further step of abolishing the Dock Labour Scheme by means of the Dock Work Act. That has led to a wholesale restructuring of the way in which dock work is organised. The dramatic speed of this has, I think, taken everyone by surprise. Certainly my Department has found itself bearing far higher redundancy costs than it expected. But in most cases the other half of these costs has been borne by the ports



themselves. It is one measure of the inefficiency that had been allowed to build up under the old arrangements that it should have been worth incurring such high costs. I have been very encouraged by what I have been told about the transformation in working practices that has resulted, helping to improve turn round times and reduce costs for the ports' shipping company customers, to the benefit of our trade and our competitive position in Europe.

These developments have sharpened competition in the ports industry, making it all the more necessary for ports to be able to respond quickly and commercially to new opportunities. While the trust ports which were in the Scheme have benefited along with others from its abolition, I know that a number of them have found themselves constrained by their trust port status. This status is a strange limbo which makes them neither public nor private, answerable neither to shareholders nor to Government. Some have promoted private Bills to take themselves into the private sector. More were on the point of doing so when happily the opportunity arose to bring forward the public Bill which was announced in the Queen's Speech in November. I am sorry that it has been such a long and frustrating wait for some of you but I hope that you will now be able to take the opportunity which the Bill offers.

To Tees & Hartlepool, and Clyde, who led the way, I say congratulations on the initiative you showed. You have helped to create the right climate, in Government as well as in the industry, for our Bill. You may prefer to stay with your own Bills, subject to their successfully completing their final parliamentary stages, but the provisions of the public Bill will be available as an alternative.

The benefits which the trust ports may gain from taking themselves into the private sector under our legislative proposals include:

- i) enhancing the prospects of port development, by giving them access to share as well as loan capital and by making them, as companies, more attractive partners to industrial users and property developers;
- ii) stimulating the release for alternative development of land no longer wanted for port purposes by removing present restrictions on development for non-port purposes; and
- iii) creating the possibility of employee ownership or employees having a financial stake in the port.

In the process, the port boards would become properly accountable, to their shareholders, in a way in which they are not accountable to anyone at present.

The Department is aware of more than 100 ports that can be classified as trust ports. The provisions of our Bill will be available to all such ports. But the vast majority are relatively small and it would be surprising if many of the smaller ones felt the need to put forward schemes. Only around 20 trust ports have an annual turnover of more than £1 million; but these do include some that are of considerable importance, including PLA's Tilbury Docks which will be covered in a separate section of the Bill. It is these larger

ports that I particularly hope will consider carefully what our Bill has to offer.

The Main Provisions of the Bill

Let me turn now to outline the main provisions of the Bill. Here, we are all helped by the fact that the Bill is mercifully quite short — and much shorter than privatisation measures usually are. So we have a lot to be thankful for. We considered whether we should also include local authority ports, but decided against doing so because they can already enter the private sector without primary legislation, by using the Harbour Revision Order procedure. Also, including them would have added considerably to the length and complexity of the Bill.

The difference in length compared with other privatisation measures also reflects a difference in concept. Because the Government does not own the trust ports, our Bill is designed principally to be an enabling measure. So, its provisions do not relate specifically to any individual port, except for the separate treatment of London. Instead, they try to construct a framework under which any trust port that wishes to do so can privatise itself much more quickly and easily than at present. The Bill enables it to do this through a two stage process.

Transfer Schemes

In the first stage, the authority prepares a scheme for transferring its whole undertaking, including all statutory duties, liabilities and so on, to a successor company newly formed for the purpose. This is different from the two Private Bills which provide for a two tier structure, with a holding company as well as a successor company. Our own Bill needs to be more flexible to cater for a wider range of situations and we believe that the single tier approach achieves this. The authority then submits the scheme, and the new company's constitution, to the appropriate Minister for approval — that will be myself, in most cases.

It will need at this stage to advertise the existence of the scheme and make it available to those who wish to examine it. Representations may then be made to that Minister about the Scheme. I am well aware that this may produce a pretty mixed postbag in some cases. I recognise that it may be argued that Parliament will have approved the principle of privatisation and that in those circumstances there is no case for allowing representations. But I believe that we have to recognise the strong links which exist between many ports and their local communities and it is right to provide an opportunity for local views about such a fundamental change, whether supportive or not, to be heard.

Once a scheme is agreed, it will be promulgated in a Statutory Instrument.

Sale of the Successor Company

In the second stage, the authority prepares plans for selling off its now transferred undertaking by disposing of the new company's securities. On the basis of these plans, and such offers as it has received, it submits proposals for the sale to the appropriate Ministers.

I know that the question of what type of sale is, or is not, likely to be acceptable to Government is naturally of great interest and concern to many ports. This is not an issue that can be set out in hard and fast terms in the Bill, as the actual details of sale will clearly differ from one port to another. But the Government's approach will reflect two main policy considerations:

i) Firstly, it will be important to ensure that a fair price is paid for each port. Open competitive bidding for sale is, in the Government's view, the best way of ensuring this;

ii) Secondly, we recognise the entirely legitimate hopes of many ports to privatise by means of a management and employee buyout, and of the workforce to participate directly in the benefits of privatisation. Although these needs cannot override the basic policy of competitive sale, we are considering how to give effect to some degree of preference for management and employee bids.

In preparing schemes and planning disposal arrangements, individual ports will obviously need to obtain good professional advice. And in cases where a management buy-out is contemplated, it will be very important that the board is in a position to take an objective view, independently of the management buy-out team, of any other bids it may receive. In addition, it will help us all if my officials are kept closely in touch with ports' plans as they develop so that there is no risk of misunderstanding between us.

Once approval for the disposal has been obtained, the sale can proceed. The successor company ceases to be a subsidiary of the port authority, and passes to the new owner. After the port authority has fulfilled its remaining duties, the Minister dissolves it and the privatisation is complete.

Levy

The Bill imposes a Government levy of 50 percent on the proceeds of sale. To those of you in the ports industry this will come as no surprise, since it broadly follows the precedent set by last year's Finance Act which applied to the Clyde and Tees Private Bills. To those of you who are less familiar with the reasons for this approach, let me explain that the levy is Parliament's way of establishing a fair balance between the interests of the taxpayer and those of the new owners of the port. In the absence of a levy, since trust ports have no legal owner, the buyer of the port would receive back the entire proceeds of sale along with the port. While we would like to leave some incentive for privatisation, too large a carry-forward of proceeds would distort the sale process and would be open to criticism. In this situation, it is perfectly proper for the Government to seek Parliamentary approval for a share of the proceeds to come to the Exchequer.

Although the rate of levy is the same as in the Finance Act provisions which apply to the Private Bills, the effect will not be identical, because the basis for levy will be the actual sale proceeds. In the case of the Private Bill, the basis for levy will be the proceeds of sale or the market value, whichever is the greater. However, the process of competitive bidding, which I have mentioned, should ensure that a fair and reasonable value is obtained.

In addition, we have introduced a clawback provision which will, in effect, secure that 50 percent of the gain on any land development in a 10-year period following privatisation should return to the taxpayer. As with the levy, this is intended to establish a balance between the interests of the taxpayer and those of the new owners of the privatised ports. It is also a means of discouraging those who might intend to purchase ports merely for purposes of land speculation. The details of the clawback provision will be incorporated in an order to be made under the Bill and they remain to be finalised.

(Continued on Page 13, Col. 1)

International Maritime Information

WORLD PORT NEWS

Cleaner Oceans: IMO in the 1990s

A message from the Secretary-General, Mr. W. A. O'Neil

(Reproduced from 'IMO NEWS NUMBER 3: 1990')

It is indeed a pleasure, in my first year of office as Secretary-General of the International Maritime Organization, to extend my greetings to all members of the world maritime community on the occasion of World Maritime Day 1990, which is dedicated to the theme of "Cleaner Oceans: the Role of IMO in the 1990s."

During the first thirty years of its existence, IMO had two major objectives: the promotion of the safety of

international shipping and the prevention of pollution from ships. Maritime safety, and especially the safety of life at sea, has rightly been regarded as the more important of the two. Appropriately enough, the title of the most important treaty adopted under the auspices of IMO is the International Convention for the Safety of Life at Sea, commonly referred to as SOLAS.

But although maritime safety remains the principal objective of IMO, the Organization has from its very inception placed increasing emphasis on the prevention of environmental pollution. Even before concern with the condition of the global environment became widespread, IMO had undertaken modest but practical steps to eliminate or at least reduce pollution

of the seas by substances carried in ships.

Along with other agencies and bodies of the United Nations system, IMO is now fully involved in the international campaign to halt, and, if possible, reverse the degradation of the environment and the global ecology. The Organization and its Member States recognize the extreme seriousness of the problem and the urgency of radical remedial action.

Every week it seems that new evidence emerges about acid rain, the diminishing of the ozone layer, the greenhouse effect and other threats. They are now very real and not simply the over-dramatic forecasts of the professional prophets of doom.

The evidence also indicates that so

Trust Ports Bill—

(Continued from Page 12, Col. 2)

Reserve Powers

I have already mentioned the Government's wish to build on the success of the abolition of the Dock Labour Scheme. I have emphasised the importance which the Government places on privatisation as a method for opening up the larger ports, in particular, to the full range of market disciplines as well as increasing their flexibility and opportunities for investment. So it would be a matter for concern if the number of ports coming forward quickly for privatisation were small and no further privatisations seemed to be in prospect. The Bill will therefore enable the Secretary of State, at any time from two years after enactment, to direct a port to produce a scheme of privatisation if it has not done so already. News of our intention in this area has led to a good deal of correspondence in which the concern of a range of individual ports, as well as the British Ports Federation, has been expressed very forcibly. I would therefore like to take this opportunity to put the intended reserve power into perspective:

— it will be limited to ports with an annual average turnover of at least £5 million — little more than 10 percent of the total number of trust ports;

— the £5 million figure will be index-linked: it is not intended as a way of bringing in ever increasing numbers of ports as time goes by;

— the very differing circumstances of those ports even above the threshold is recognised. A decision to use the reserve power will only be taken after full consultation with any individual port; and the commitment to consult is written into the Bill;

— the opportunities for local representation that I mentioned earlier will apply equally to any scheme made under the Secretary of State's direction.

Port of London

I should end this tour d'horizon of the privatisation provisions in the Bill by briefly mentioning the Port of London, which forms a separate part of the legislation. Most of the procedures that I have just outlined will apply here as well — the successor company, the transfer scheme, the disposal of the successor company and the reserve power of compulsion. There are however two significant differences.

Firstly, the scale and range of responsibilities of the PLA argue against the privatisation of the PLA as a whole. Instead, the PLA will be empowered to sell off its commercial docks at Tilbury, but it will retain its conservancy and other statutory functions as regards the River as a whole.

Secondly, the PLA will clearly be the owners of the Tilbury company when it is formed and in any event the proceeds of Tilbury's sale will go towards the payment of the PLA's debts to Government. There will not therefore be any corresponding 50 percent levy. But the Bill allows scope for a clawback provision here too.

Conclusion

That brings my description of the Bill and my remarks as a whole to a close. I have tried to set out a little of the port industry's past, present and future as seen by the Government. I have also attempted to explain the main features of our intended legislation and the thinking behind them.

The legislation will open up new opportunities for the trust ports. It will enable them to compete more effectively in the more vigorous market place that now exists. And this will benefit not only the trust ports, but also Britain's health as a trading nation.

I am sure that today's conference will provide a most useful forum for discussion of our proposals. I am sorry that I myself will not be able to stay for the whole day, but my officials will remain and will take careful note of the points that arise. My congratulations once again to the organisers, and my best wishes for a successful and productive day.

much damage has already been done that sustained recovery can only be made through international action on a virtually unprecedented scale. Much of this effort will be co-ordinated through the United Nations — the United Nations Conference on Environment and Development in 1992 will be a major event — but specialized agencies such as IMO also have a very important part to play.

Figures issued earlier this year in a United Nations report on the state of the marine environment indicate that about 12% of marine pollution results from maritime transportation and a further 10% from the dumping by ships of land-generated wastes. These are the two areas in which IMO has responsibility, and in which it has achieved a measure of success. The two main treaties dealing with marine pollution — MARPOL 73/78, which controls pollution from ships, and the London Dumping Convention, which regulates dumping into the sea of material derived from land-based operations — have both had a significant impact.

Studies carried out in the United States indicate that some 1.5 million tonnes of oil gets into the sea each year as a result of shipping operations. But without IMO that figure would have been a great deal worse. The United Nations report to which I referred earlier estimates that the measures taken in IMO have prevented as much as 10 million tonnes of oil being disposed of into the sea each year from tank-cleaning and ballasting operations.

The London Dumping Convention has also been very effective. The United Nations report states that the dumping into the sea of various wastes such as sewage sludge has decreased since the convention entered into force and the dumping of other substances is being subjected to increasingly rigorous controls. It is perhaps worth mentioning that MARPOL and the London Dumping Convention are the only conventions now in force which deal with environmental protection on a global scale.

These successes are encouraging, because they show that, if the incentives are there and a spirit of goodwill and compromise prevails, a great deal can be achieved. It is true that much more still needs to be done to restore the

oceans to health but, despite the difficulties involved, I believe that the omens for success are good.

In the first place, the world political climate is more relaxed than it has been for many years. Many of the old political groupings have disappeared and with them the suspicions that had hindered progress in the past. Instead of division and discord the trend is towards unity and co-operation.

In the second place, nobody now is in any doubt that the environmental threat is a real one. There is also general acceptance that the likely consequences of inaction would be catastrophic and this must provide a powerful incentive for really serious action by Governments and individuals alike.

IMO is already playing a significant part in this world-wide effort. The use on ships of certain gases that damage the ozone layer has been banned, and the Organization is looking at ways of reducing still further the pollution of the atmosphere from shipping operations. Incineration at sea — a controversial way of disposing of particularly harmful substances — could be ended within a few years. Further improvements have been made to the MARPOL Convention. In November, IMO will convene a diplomatic conference to adopt a new convention on oil pollution preparedness and response. The purpose of this new treaty will be to increase the ability of the countries of the world to deal with major pollution incidents through the sharing of information, expertise and equipment.

To ensure that these and other measures developed over the years are implemented as widely as possible, IMO has this year initiated a global programme for the protection of the marine environment. Its primary purpose is to enhance the capacity of developing countries to fight marine pollution from ships and control the disposal at sea of wastes. The programme will initially run for three years and will make a major contribution to international efforts to protect the oceans.

These and other measures will enhance the ability of IMO and its Member States in all regions of the world to prevent marine pollution. But nobody is under any illusion that the future will be easy. The shipping industry is undergoing great changes now

and change always creates uncertainty. IMO and the world maritime community must be ready and willing to adopt new measures which may be necessary to cope with the changes which may occur. Furthermore the measures already adopted need to be enforced rigorously if they are to be effective. More effort needs to be devoted to this aspect. For example, there is still concern about the lack of reception facilities for wastes in many ports. If this is not remedied, it will be difficult to implement MARPOL effectively. Finally, the world tanker fleet is ageing, and older ships are more liable to accidents and breakdowns than new ones. It is important that the retention in service of older ships does not lead to an increase of pollution incidents in the future.

These concerns should be borne in mind — but the lesson of recent years remains one of optimism. Through genuine international co-operation and partnership much has been achieved so far in the fight for the health of the oceans. I am convinced that even more can be accomplished in the future, and I am determined that IMO shall play its full role in promoting co-operation in the areas of its competence and interest.

Ocean Shipping Consultants: Container Trade Demand to Boost Port Investment Needs

Despite the increasing maturity of the container trades (with most of the world's general cargo movements now containerised) the level of total container trade growth in the late 1980s has proceeded at a very rapid pace. This demand growth has been funded not simply by rapid increases in trade with the Developing World — especially the Newly Industrialised Countries — but also by very sharp increases in the level of container trade volumes between the established OECD markets.

A new study, Container Trade Growth and Port Development to 2005, from UK-based Ocean Shipping Consultants, analyses the future level of regional container trade and the resulting levels of required port investments.

The basis of the team's approach has

been to provide a detailed analysis of future trade levels under various economic cases and to relate this demand to container handling capacity in the major port ranges. By considering the development of unit productivity levels for container terminals forecasts of additional investment needs have been derived.

Container Trade to 2005

Analysis indicates that massive further demand increases will be noted, with different economic conditions relating to the pace of this expansion.

Such is the underlying strength of demand that the container sector will shrug-off OECD recession in the short term.

Under a more constrained economic growth — the Low Case — conditions it is forecast that total container trade will record an increase of around 26 percent over the period to 1995. Once again it is clear that demand will continue to increase at a more rapid pace than underlying economic growth and, even under these more negative economic conditions, there is still forecast to be a significant increase in total traffic over the short term. This pace of general growth is set to continue over the balance of the forward period with an increase of some 77 percent in world container trade estimated for the 1990/2005 study period as a whole. This scenario generates a total world container port throughput figure of around 146 m TEUs in 2005.

As is to be expected under more dynamic economic development — the High Case — a significantly higher level of container trade for the forecast period as a whole is generated. This generally positive picture is reflected in an increase in container trade of around 40 percent over the 1990/95 period, with total port volumes reaching around 115.1 m TEUs in 1995. This rapid increase in traffic will not be sustained at these levels beyond 1995, although it is still forecast that significant further demand development will be recorded. For the entire period (1990/2005) it is estimated that container trade will increase by 104 percent to reach a total of some 167.9 m TEUs at the end of the study period.

Container Port Demand

The study provides a detailed review of the development of port capacity to

Table 1

Future Development of Regional Container Port Throughput

1990/2005 ('000 TEU)

	1990	1995 Low	1995 High	2000 Low	2000 High	2005 Low	2005 High
Europe	21902	25950	27630	30545	32205	35190	38100
Africa	2246	2500	2740	2920	3365	3505	4125
Middle East	2980	3200	3575	3725	4470	4620	5360
S/SE Asia	10030	14050	16550	17550	23570	24070	31250
East Asia	21675	30350	34680	36850	43250	41750	49210
Oceania	2295	2650	2850	2985	3325	3555	3900
North America	18290	21700	23460	24785	27640	28545	30535
Latin America	2985	3435	3585	3880	4480	4675	5375
Total	82403	103835	115070	123240	142305	145910	167855

Source: Ocean Shipping Consultants

Table 2

Major Port Ranges: Total Required Additional Gantry Cranage to 2005

(number of units)

	990/1995 Low	1990/1995 High	1995/2000 Low	1995/2000 High	2000/2005 Low	2000/2005 High
N. America East Coast	10	27	26	38	36	31
N. America West Coast	19	40	27	35	27	18
North EEC	22	44	45	39	37	47
Korea and Taiwan	—	—	6	20	10	13
Japan	13	16	52	68	32	39
East Asia	5	22	23	45	42	51
Middle East	—	1	3	13	13	13
Total	69	150	182	258	197	212
Investment (m1000US\$)	241.5	525.0	637.0	903.0	689.5	742.0

Source: Ocean Shipping Consultants

Table 3

Major Port Ranges: Total Required Additional Berth Capacity to 2005

(aggregate kilometers)

	1990/1995 Low	1990/1995 High	1995/2000 Low	1995/2000 High	2000/2005 Low	2000/2005 High
N. America East Coast	0.10	4.40	6.45	9.45	9.05	7.65
N. America West Coast	2.67	7.64	5.65	7.20	5.60	3.75
North EEC	2.04	7.04	10.10	8.60	8.20	10.60
Korea and Taiwan	—	1.93	3.45	5.12	2.79	3.45
Japan	3.83	4.28	8.40	11.00	5.20	6.45
East Asia	—	1.85	2.65	5.95	5.55	6.50
Middle East	—	—	—	2.45	2.95	2.95
Total	8.64	27.14	36.70	49.77	39.34	41.35

Source: Ocean Shipping Consultants

handle these anticipated trade volumes. The approach used is to assess typical unit productivity — per gantry crane and lo-lo berth — on a regional basis. These productivity figures are then used to define future investment needs over and above investments already committed. The results of these analyses are summarised in the accompanying Tables.

On a regional basis the number of additional gantry cranes (over and above those already specified) and container berths required to handle anticipated demand are defined.

Several important conclusions emerge from this analysis; firstly, the sheer pace of demand growth will result in massive increase in demand throughout the study period. Having said this, however, it is clear that the massive investment levels already committed in Korea, Taiwan Hong Kong and Singapore will meet much of perceived demand increases in the short term to 1995. With the exception of the Middle East, however, the general trend elsewhere is for a further requirement for significant investment in both new berth capacity and also in container gantry cranes — although the pace of expansion is closely linked to the identified general economic growth cases.

The wide differential between the efficiency of OECD and east Asian container terminals will continue over the forecast period. This will have the effect of limiting further investment in East Asia given high unit productivity levels for container gantries and individual berths.

An attempt has been made to quantify the value of this gantry crane market over the forecast period, and the results are also summarised in Table 2. Research indicates that the unit costs of these cranes varies between \$2.2m/\$4m over 1990. For the entire study period it is estimated that the market for container gantries (in the major ports only) will be between \$1.57/2.17bn - in terms of 1990 US dollars. The actual spread of additional demand is actually fairly limited beyond 1995 and strong demand is generated under both cases. The major differential period is noted in the short term to 1995. If Low Case conditions are realised then the need for additional investment over that already committed is fairly limited.

New Publications

Inert Gas Systems (1990 edition)

Sales No.860 90.09.E, price £8.00 (English)

In either English or French
English posted January 1991
French available later
IMO Secretariat,
Publications Section,
4, Albert Embankment,
London SE1 7SR

Containerisation International Yearbook

In his introduction to *Containerisation International Yearbook 1991*, Mr. Francis Phillips, editor of *Containerisation International Magazine*, highlights some of the changes which affected the container shipping industry in the last twelve months. Lines were regrouping as a result of low U.S. domestic consumption but also in anticipation of the dissolution of the Trio and ScanDutch partnerships:-

“Maersk Line signalled an astonishing change of style in mid-1990 by offering to take P&O Containers as a partner in the Europe/Far East trade. By end-1990, even Pacific top-dog American President Lines was indicating an intention to rationalise its operations, through forming partner-

It is, therefore, the short term period that generates the greatest uncertainty in the magnitude of additional demand.

The study runs to some 200 pages and provides a detailed evaluation of the commercial climate for the major port ranges to 2005. The study also includes an analysis of current container port and terminal facilities on a world-wide basis.

Available immediately from:

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ships of the cost-cutting, capacity-reducing kind. It was quite fascinating to observe how, just as these former ‘independents’ were busy rationalising, others who had been even more heavily rationalised were moving in quite the opposite way. The ‘big three’ Japanese lines are now strongly motivated towards increasing their independence from one another, particularly on the Pacific. What irony to have finally achieved this just when the loners’ thinking seems to have altered, seeking instead to get closer to the pack.”

However, the author of the article goes on to warn that while closely coordinated operations may benefit all partners, there may be severe problems in maintaining service frequency and price when lines pull out of the deal:-

“Jumping into such a rationalisation is easy, but once in, there is no easy way out. For this reason, Maersk’s deal with P&O has quite a sacrificial ring, not lightly entered into as a temporary thing. Logically, this pair could now join others and build up an unbeatable competitive pattern of daily service calls. It’s already been mooted in the Atlantic and why not the Pacific too? Perhaps because rationalisation’s prison door would lock remorselessly behind.”

While operational economy was the goal in forward planning during 1990, this did not hold back a flood of new orders. The Yearbook’s Register of *Container Carrying Vessels* shows a total of 394,000-TEU capacity on order at the start of November 1990, compared with 314,500 TEUs twelve months earlier. Germany has by far the greatest number of slots on order with over 65,000 TEUs, followed by the USSR (38,000 TEUs) and Denmark (35,000 TEUs). There are now almost 4,800 container vessels in service, totalling 3.2 million TEUs — a rise of 5% in capacity since November 1989. In *Renewed Optimism Fuels New Orders*, the Yearbook’s editor Mark Lambert provides an analysis of the register of vessels in service and on order.

Clearly, there will be a need for new containers to service these ships, and last year was a good one for box builders. Manufacturer’s estimates indicate a total of 800,000 TEUs was built, with nearly 75% or 595,000 TEUs constructed in Asia. Included in the

world total was 750,000 TEUs of dry freight units, 44,000 TEUs of reefers and 6,000 TEUs of tank containers. It is estimated that nearly half of all new containers are built to replace scrapped stock.

The results of the latest worldwide survey of boxes currently in service are summarised by Mr. Andrew Foxcroft, editor of *Cargoware International*. Standard dry freight containers comprised of 87% of the 5.9 million total TEUs at mid-1990, with integral reefers making up 36% of the 771,000 TEUs of "specials." The author goes on to say that the mood of leasing firms, who now own 45% of the world total, has changed subtly since 1989:-

"One year later, firms are taking stock of the two largest mergers to occur within their ranks as well as witnessing a substantial downturn in the integral reefer and tank container leasing markets. They have also witnessed an inexorable downward drift in the demand for leased dry freight equipment, and a weakening of lease rates. Container purchasing by the leasing sector has thus been curtailed during the past year, with deliveries barely amounting to 300,000 TEUs — down more than 10% on 1989."

Quayside handling of boxes showed another rise in 1989 (the latest period for which full-year traffic figures were available), although the growth rate of 8% was down from the 10.6% of 1988. The *World Container Port Traffic League* shows that port movements totalled nearly 78.5 million TEUs in 1989, compared with the 73.8 million recorded for 1988. Hong Kong led the world with 4,463,709 TEUs, closely followed by Singapore with 4,364,400 TEUs. Rotterdam and Kaohsiung ports were ranked third and fourth respectively. On a country-by-country basis, the U.S. handled 14.4 million TEUs, followed by Japan (7.4 million), Taiwan (5.3 million) and Hong Kong. In conclusion, the statistician Nicola Berry comments "With the arrival of the Gulf Crisis in mid-1990 the world port league positions are certain to see some quite remarkable changes for 1990-91."

A port-by-port breakdown of container traffic figures for 1988-90 is included in the *Ports and Terminals* section, which is one of the annually updated reference sections which make up the major proportion of the Year-

book. Other sections covered in the 1991 edition are the All-water carriers (detailing ports of call, vessels, mini/microbridge services, as well as boxes owned or leased); containership managers and shipbrokers; freight forwarding and road haulage associations; intermodal rail and air services. The *Equipment Guide*, which incorporates many tables, shows container and chassis manufacturers and component suppliers, box handling and stowing equipment fabricators and a guide to computer software for the intermodal industry. The container supply and servicing aspects are covered by sections on container leasing, repair, surveyors, tracing bureaux, second-hand containers and marine insurance.

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ISL Shipping Statistics Yearbook 1990

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The Shipping Statistics Yearbook, published by the Institute of Shipping Economics and Logistics (ISL) in Bremen, is designed to inform on developments in shipping, world trade, seaborne trade, single commodity markets, ocean freight rates, individual profiles of shipping and shipbuilding countries, as well as on world port developments.

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The Americas

8th Crane for Vancouver Container Operations

The Vancouver Port Corporation (VPC) announced that a fourth crane will be purchased for installation at its Centerm container terminal, raising the total number of cranes in the port to eight. The new crane will substantially add to the efficiency of Centerm by enabling the terminal operator to simultaneously service two ships using two cranes on each.

Captain Norman Stark, Port Manager and C.E.O., commented that the crane purchase represents the latest investment by the Port Corporation in improving container handling facilities. "We've made a commitment to continue to upgrade the port's competitive position in the container trade," said Captain Stark. "A healthy and viable container operation in the Port of Vancouver translates into jobs and investment locally and across the country."

1989 AAPA Port Finance Survey

The 1989 Port Finance Survey was AAPA's most successful ever, with 82 of 101 U.S. and Canadian member ports participating, 13 of whom asked that their information remain confidential. From AAPA's Caribbean and Latin American region there was a single response — from the Port Authority of the Cayman Islands.

Responses from most AAPA regions were excellent, including 100 percent participation by U.S. North Atlantic and Canadian St. Lawrence and Atlantic ports. Response rates for other regions was over 90 percent for the U.S. South Atlantic and South Pacific, 86 percent for the U.S. Gulf, 70 percent from the U.S. and Canadian North Pacific, and 43 percent of the Great Lakes Ports of the United States and

Canada.

An analysis of the reported data (excluding the 13 ports requesting anonymity) was prepared by Port Financial Consultant Qury L. Selig, former Deputy Executive Director of the Port of Galveston and past Chairman of the AAPA Finance Committee. According to Mr. Selig, the 70 ports included in the tabulated results reported tax and other support of approximately \$78 million, or 6 percent of the almost \$1.3 billion reported as total operating revenues.

The survey form, says Mr. Selig, does not, and probably cannot, adequately measure tax and other support, since it includes only that support which actually becomes a part of each port's revenue as reflected in its financial records. The survey may not include all support in the form of general obligation bonds, general revenue funds, transportation trust funds, toll revenues, etc., which may have been funded by state and local government agencies on a direct basis.

Of the 70 ports included in the 1989 survey, 49 reported a net profit and 21 a net loss. Among the regions, 85 percent of the South Pacific ports earned net profits, as did 80 percent of the Great Lakes ports, 77 percent of the North Pacific ports, 75 percent of the Gulf ports, and 67 percent of the Canadian St. Lawrence and Atlantic ports. Only 50 percent of the ports shown in the survey as South Atlantic ports reported a net profit while two-thirds of the North Atlantic ports reported losses in 1989. Of the 49 ports reporting net profits, seven (or 14 percent) would have incurred a net loss were it not for tax or other support received.

Supporting data are provided in the tables. Table I provides a profit/loss analysis recap for all ports reporting in the 1989 AAPA Survey. Table II shows related tax support to operating expense. Table III depicts historic profit/loss trends for the years 1985-1989.

The reporting ports are grouped as follows:

(a) Profit without tax: Made a profit from operations irrespective of tax and other support.

(b) Profit with tax: Made a profit, but only after the inclusion of tax and other support.

(c) Loss with tax: Incurred a net loss even with tax and other support.

(d) Loss without tax: Incurred a net loss and received no tax or other support.

Mr. Selig's five-year analysis for

Table I
1989 AAPA Port Finance Survey
Profit/Loss Analysis
Recap of All Ports Reporting

Port Range	Profit Without Tax	Profit With Tax	Loss With Tax	Loss Without Tax	Total Reporting
North Atlantic	3	0	1	5	9
South Atlantic	4	0	0	4	8
Gulf	9	3	1	3	16
North Pacific	8	2	0	3	13
South Pacific	11	0	0	2	13
Great Lakes	2	2	0	1	5
Canadian St. Lawrence & Atlantic	2	0	0	1	3
Caribbean Islands	3	0	0	0	3
Total	42	7	2	19	70

Table II
1989 AAPA Port Finance Survey
Tax Support as Percent
of Operating Revenue
Recap of All Ports Reporting
By Range
(\$000's)

Port Range	Operating Revenue	Tax and Other Support	Support as % of Operating Revenue
North Atlantic	\$232,088	\$19,967	8.60%
South Atlantic	207,426	0	0.00%
Gulf	185,654	17,831	9.60%
North Pacific	194,253	36,585	18.83%
South Pacific	376,161	2,107	0.56%
Great Lakes	9,995	2,177	21.78%
Canadian St. Lawrence & Atlantic	39,200	0	0.00%
Caribbean Islands	42,515	0	0.00%
Total	\$1,287,292	\$78,667	6.11%

Table III
AAPA Port Finance Survey
Profit/Loss Analysis of
All Ports Reporting

Year	Profit Without Tax	Profit With Tax	Loss With Tax	Loss Without Tax	Total Reporting
1985	33	5	4	10	52
1986	27	3	2	13	45
1987	26	4	5	12	47
1988	46	5	4	11	66
1989	42	7	2	19	70

1985-89, by port range, indicates the following:

North Atlantic: Decline in profitable ports; increase in ports with a loss.

South Atlantic: Decline in profitable ports; increase in ports with a loss.

Gulf: Increase in profitable ports

North Pacific: Increase in profitable ports

South Pacific: Increase in profitable ports; decrease in ports with net losses.

Great Lakes: No significantly measurable change.

Canadian St. Lawrence/Atlantic: Some increase in profitable ports reporting.

One possible conclusion, according to Mr. Selig, is that ports in ranges with effective marine terminal conferences, where competition does not impede compensatory pricing, fare better than ports in ranges where there are no terminal conferences, or where many ports belonging to marine terminal conferences elect to take independent rate action. He cautions, however, that much additional study is needed to substantiate such a conclusion. (AAPA ADVISORY)

Safeharbor: **Port of Corpus Christi**

The Port of Corpus Christi announced recently that it was moving forward with the next phase of Safeharbor — a major deepwater oil port. The new port, capable of handling fully loaded supertankers, is intended to improve the safety and reliability of bringing crude oil to the Texas Coast.

The Port Commission, in June 1990, authorized a study of environmental, safety, economic and construction aspects of an inshore, deepwater port. This was largely in response to concerns about possible future environmental restrictions on lightering in the Gulf of Mexico, the shipping method used by many refiners in Corpus Christi and along the Texas Coast. The possibility of reducing the amount of oil crossing Corpus Christi Bay was also an important reason to consider the project. The recently completed study found that there would be risk reduction and safety benefits from the project, and that it could be built in an environmentally sound manner.

A key feature of the Safeharbor is

an enclosed docking area. The docking area is U-shaped, surrounded on three sides by land. The end would be sealed off with an oil spill boom that would be opened to let ships pass. Clean up equipment, including additional booms, would be onsite to allow immediate response to a spill, as would fire fighting and other safety equipment.

Corpus Christi's unique proximity to deep water makes an inshore port economically feasible. The planned 74 foot deep channel would only extend about ten miles from shore. Other major Texas ports would have to dredge significantly longer channels to reach deep water. Dredging will be the largest cost item for Safeharbor.

With a construction cost of \$400 to \$500 million, Safeharbor could be operational as early as 1995. The study found that the transportation cost using the inshore port would actually be less than the present method of lightering.

Houston Mission to Soviet Union Success

When political and economic unrest breached the Berlin Wall in 1989, the possibility of an open international marketplace came one step closer to being reality.

Since the drastic political changes have taken place in Eastern Europe and the USSR Economic changes will undoubtedly follow, but at a much more sedate pace.

New infrastructures must be created; distribution systems must be improved; manufacturing and processing plants must be built; and basic needs must be satisfied before more sophisticated markets can develop.

"We're not going to see a lot of change in the trade patterns between the U.S. and these countries for some time," said Mr. Andy Hietala, PHA's director of trade development. "Still, this is the time to position ourselves for the changes that will eventually occur."

Recent Trade Mission: For this reason, Port Commission Chairman Ned Homes, PHA Executive Director James Pugh and General Sales Manager Don Allee visited the Soviet Union this summer. Stopping in Leningrad and Moscow, they called on Soviet agencies involved in the maritime business.

Soviet vessels have called at Houston



Port of Corpus Christi: Laborers at the Port of Corpus Christi's Transfer Facility prepare 76,700 tons of bagged sorghum, corn and wheat for shipment. The recent tender was the largest single shipment of PL480 cargo to date for the Port of Corpus Christi. Bagged agricultural commodities such as these account for a significant portion of the port's general cargo tonnage, which recorded a 33 percent increase in 1990.

in the past, but traffic slowed substantially in the 1980s when the United States failed to renew a maritime agreement with USSR. The Soviet Army was occupying Afghanistan at the time, and the Reagan administration objected to certain Soviet immigration and human rights policies.

Still, PHA officials felt continued contact was appropriate. A trade mission to the Soviet Union in 1986 provided that contact. This year, however, the situation was different. A new maritime agreement was signed by the United States and the USSR. The Soviets began to express interest in resuming regular service to ports on the Gulf of Mexico. It seemed an appropriate time for another PHA visit.

Good Results: The results of this recent trade mission were promising, according to Mr. Allee. Officials of the Soviet maritime agency wanted to talk about scheduling liner service to Houston for Baltic Shipping. Regular calls by two other Soviet lines — Black Sea

Shipping and Far East Shipping — are also under consideration.

"In 1991 there will be more Soviet vessel calls in U.S. ports," Mr. Allee said. "They are building new ships, although we don't know yet how they will be deployed. They have some existing multipurpose vessels that would be ideal for the Gulf. The cargo is here; we just need to get that information to them. We also need to point out that there is an import/export balance here that should give them good tonnage figures both inbound and outbound."

The Prospects: "The Soviet Union has 280 million consumers and Eastern Europe has millions more," Mr. Hietala noted. "These are people who were not fully franchised to participate in the international trading system under earlier regimes. Now they have the freedom to participate."

However, these consumers won't be ordering sophisticated foreign goods by the shiload in the immediate future.

"They don't have much money to spend, they don't have a lot to sell and they don't have the infrastructure to distribute imports," Mr. Allee said. "In some of these countries, they haven't even finished deciding who's in charge."

Time is needed to develop economies equipped to take part in international trade, Mr. Allee added. Already, U.S. rail experts are helping devise plans to improve the soviet rail system. Experts from all over the world will be involved in developing industrial bases and distribution systems.

The Near Future: In the meantime, the soviet Union will keep ordering grain from other countries—principally the United States. Although the USSR has a bumper grain crop this year, much of it will rot in fields and warehouses because there is no way to distribute it, Mr. Allee said.

The Soviet Union and Eastern European countries also will be importing machinery and equipment for new factories and plants.

"This is where Houston can begin to participate very soon," said Mr. Hietala. "We are the major export point in the U.S. Gulf for machinery. We have the facilities, the equipment and the expertise to ship everything from bulldozers to entire generating stations."

Longterm Outlook: However, Mr. Hietala is quick to point out that the Port Authority is looking at more than just 1991 shipments. "While the three Soviet shipping companies are still controlled by the maritime administration, they have more autonomy than before," he noted. "There will be more pressure for them to be competitive and profitable. We plan to show them that using the port of Houston will help them accomplish those goals."

(Port of Houston)

Long Beach Expands On-dock Rail Service

International Transportation Service, Inc., a terminal operator at the Port of Long Beach, has been granted permission to add a fourth train to its weekly on-dock rail schedule. The train is expected to begin calling in February and will make the round trip from Long Beach to U.S. Gulf cities New Orleans, Atlanta, Dallas and Houston, before bending south into Mexico.

The four weekly trains out of ITS are instrumental in carrying cross-country cargo to inland destinations throughout the United States and in returning US-made goods for export to Long Beach.

The Port of Long Beach will begin construction in February on a second on-dock rail facility at its Long Beach Container Terminal. Three weekly trains are expected to call at that facility starting in July.

Long Beach is the first, and only, Southern California port to offer its customers the advantages of on-dock rail.

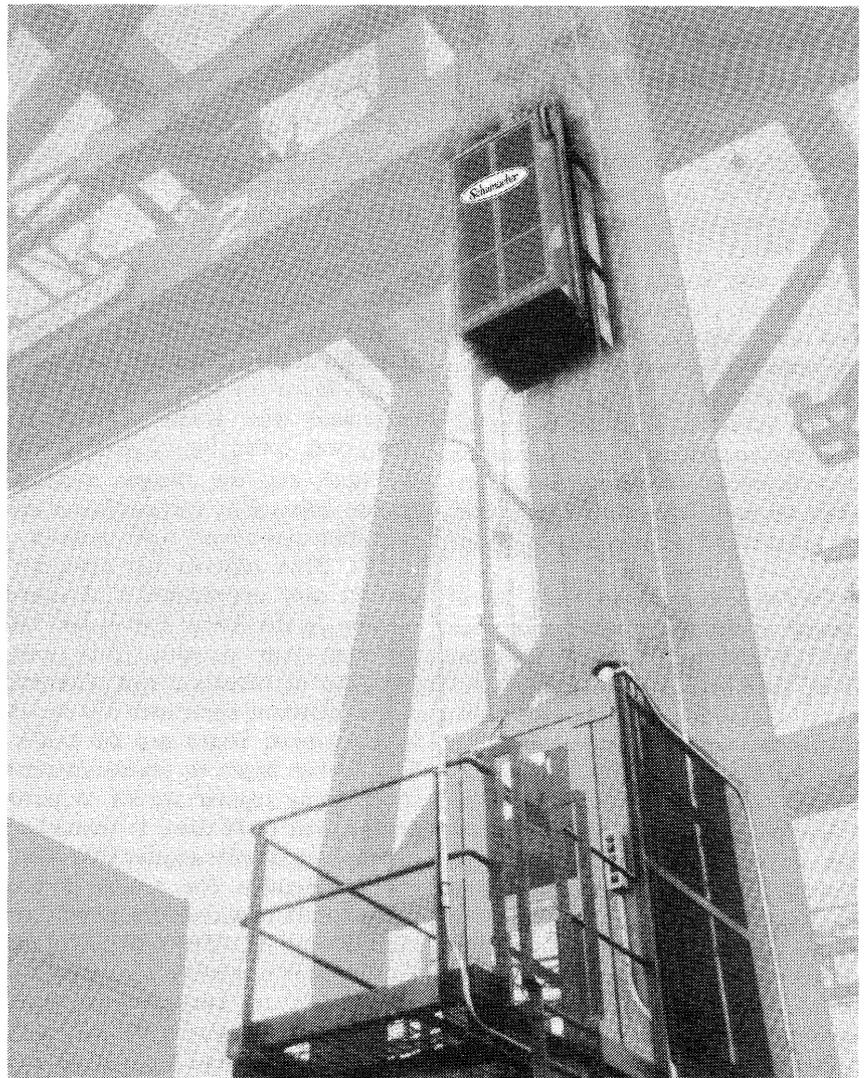
Long Beach: New Elevators Installed

California United Terminals (CUT) in the Port of Long Beach recently installed innovative Schumacher per-

sonnel elevators on two of its container cranes, with plans to add three additional units to the remaining cranes in the near future.

The elevator is designed to take crane operators and maintenance personnel from the ground to cab and machine room in less than five minutes. Operators and service staff had to climb a ladder and steps for the equivalent of a ten-story building before the Schumacher lifts were installed.

"The addition of these elevators will enhance productivity in our daily operation and should significantly reduce downtime during key peak periods," noted CUT Vice President of Operations, Mr. Gary Bedrosian. "They will also enable electrical, mechanical and hydraulics crews easier access to components and reduce the time involved to reach an operator in case of an emergency."



Los Angeles Still Containerport Leader

WORLDPORT LA, the nation's leading containerport, handled 2,116,404 TEUs last year, establishing the highest calendar-year total ever recorded by the Port and representing the second consecutive year that Los Angeles has surpassed the two-million-TEU mark.

Mr. Albert Fierstine, the Port of Los Angeles' Director of Marketing, attributed WORLDPORT LA's continued rise in containerized cargo traffic to an increasing U.S. export market, additional vessel calls and major new accounts such as Zim Container Line, d'Amico/Italian Line and Splosna Plovba Line.

Mr. Fierstine added, "The Port has moved more than two million TEUs in the past two consecutive years, but the trend establishing WORLDPORT LA as the premier U.S. containerport began about five years ago.

"The Port in 1985 surpassed the one-million-TEU (1,103,722 TEUs) standard for the first time, which means that container traffic in Los Angeles, spurred by the Pacific Rim trade boom, increased by 92% in only a five-year period."

WORLDPORT LA's container volume in 1990 eclipsed the Port's previous calendar-year record, set in 1989, by 59,424 TEUs, representing a 2.9% increase.

The Port of Los Angeles' 1990 total of 2,116,404 TEUs reflected 1,011,975 loaded inbound TEUs, 635,810 loaded outbound TEUs and 470,019 empty TEUs. In comparison, the Port in 1989 handled 998,197 TEUs, 612,413 TEUs and 446,370 TEUs, respectively, to finish the year with 2,056,980 TEUs.

Movement of 196,325 TEUs in October 1990 accounted for WORLDPORT LA's highest one-month total last year.

Baltimore: Wildlife Port Of Entry Designation

The Port of Baltimore should soon begin a three-year trial period as a designated port of entry for wildlife and associated products.

The United States Fish and Wildlife Service recently said the trial period

could begin as early as May after the Fish and Wildlife Service holds a public hearing. The Secretary of the Interior then will make the final determination.

Charged with enforcing the Endangered Species Act, the Fish and Wildlife Service must inspect all imports and exports of live wildlife or wildlife products, to ensure they comply with federal law.

"This destination makes the Port of Baltimore more attractive to shippers dealing with wildlife and wildlife products," said Mr. O. James Lighthizer, Maryland Secretary of Transportation and chairman of the Maryland Port Commission. "This is another service we will be able to offer our customers that will save them time and money."

Guide Lists Sailings From New York City

Ocean voyagers will be offered more cruise options with 14 vessels sailing from the New-York Jersey Port this year, according to the 1991 edition of "Cruises from New York," just published by The Port Authority of New York and New Jersey. The comprehensive guide is made available to travelers and travel agents without charge by the bistate agency.

The guide lists 162 sailings from the New York City Passenger Ship Terminal, on the Hudson River in Manhattan between 48th and 52nd Street. The modern ship terminal, consisting of Piers 88, 90 and 92, features attractive, temperature-controlled passenger and visitor lounges, improved U.S. Customs services and baggage handling, and parking for 1,000 vehicles. The terminal is easily accessible from John F. Kennedy International Airport and LaGuardia Airport in New York and Newark International Airport in New Jersey.

Also listed in the guide are eight sailings of the AMERICANA, an Ivaran Lines passenger/cargo ship, which sails on 46-day voyages to the east coast of South America from the Elizabeth-Port Authority Marine Terminal in New Jersey.

Not listed in the guide are four sailings of the luxury liner CRYSTAL HARMONY, operated by Crystal Line, which announced its New York schedule after the cruise guide went to press.

During the 1991 season, 12 cruise lines will operate from the New York-New Jersey Port and include many popular ports of call such as Bermuda, the Caribbean and Eastern Canada.

North Carolina State Ports Authority

Nature of business

"The business of the North Carolina State Ports Authority is to provide competitive services to its users by developing, maintaining and profitably operating for the State of North Carolina the State-owned facilities and systems necessary to efficiently move international commerce through a complex of inland and ocean ports owned and operated by the State of North Carolina."

Mission statement

"The mission of the North Carolina State Ports Authority is to continually enhance the economy of North Carolina by the dynamic and sound growth of international trade through the ports terminals owned and operated by the State of North Carolina."

The N.C. State Ports Authority Strategic Plan is what we are about, and where we are going. One of our priorities sums it up best:

"The North Carolina State Ports Authority will be recognized as the most aggressive, hard working and fastest growing ports complex in the South Atlantic, providing better service than its competitors." The entire North Carolina State Ports Authority team is committed to making our ports be all that they are meant to be.

Mr. Roberts Named Acting Oakland CEO

Mr. Charles R. Roberts, a longtime Port of Oakland executive, has been designated acting Chief Executive Officer by the Board of Port Commissioners.

Mr. Roberts, Director of Engineering at the Port since 1979, replaces Mr. Nolan R. Gimpel, who served as CEO since January 16, 1990.

The vote for Mr. Roberts was unanimous among the five commis-

sioners attending the meeting. Two commissioners were absent.

"Charlie Roberts has an outstanding record of accomplishment," said Ms. Carole Ward Allen, President of the Oakland Port Commission. "He is thoroughly familiar with the Port's operations over the years and with its administration. Indeed, he served for several years as Special Assistant to the Executive Director. I am confident we will be in good hands under his leadership."

Mr. Roberts is a retired Colonel in the U.S. Army Corps of Engineers and a former executive director of the Bay Conservation and Development Commission.

He set a four-point agenda as his goals:

1. To settle in "a mutually acceptable manner" the Port's financial relationships with the City of Oakland and to obtain City support for Port activities.

2. To reorganize the Port structure to be more responsive to tenant needs and to reduce expenses.

3. To solve the Port's dredging problems. (The Port has been trying, without success, for four years to deepen its channels from 35 to 42 feet. The project has been authorized and funded, but there has been no agreement on where to dispose of the dredge materials.)

4. To take "immediate steps" to lease the retail space in the Jack London Square development and reduce the financial burden of the project on the Port. (The Port is the owner and developer of the \$100-million mixed use project. Office space is largely rented, but some 177,000 square feet of retail space is vacant.)

As Director of Engineering, Mr. Roberts was responsible for managing all port engineering, project planning, construction and maintenance activities. His department, the port's largest, has a staff of 235 and an annual budget of more than \$11 million.

Port of Palm Beach In Profile

The Port of Palm Beach is located in Riviera Beach, Florida and is situated 1.3 miles from the 37 foot contour of the Atlantic Ocean. Vessel transit time

from the seabuoy to dock is normally 20 minutes.

The Port offers a total of 5,039 linear feet of dock space with 6 ro/ro ramps. A total of 183,775 square feet of transit shed space is available at the Port in addition to 43 acres of open storage. A 29 acre container marshaling yard was dedicated to handle the growing volume of container traffic moving through the terminal facility. The Port of Palm Beach handled 121,137 containers in 1989.

Tonnage for the past fiscal year ending September 30, 1989 was 3,832,842 tons. General Cargo totaled 974,854; Cement 598,596 tons; Sugar 978,968 tons; Fuel Oil 969,765 tons and Molasses 206,442 tons. The bulk of general cargo is exported to the Bahamas, South and Central America and the Caribbean. Molasses goes to Canada and Europe. Sugar is exported to domestic United States destination. Imports include Fuel Oil and Bunker C from the U.S. Gulf and St. Croix, Virgin Islands, and cement imports from Mexico and Venezuela. A total of 1,824 vessels called at the Port of Palm Beach last year with the various cargoes mentioned above.

The Port District operates a Class III Railroad which interlines with the Florida East Coast Railway. Service is provided 24 hours a day, 7 days a week, to the Port customers. The Port of Palm Beach is capable of handling railroad cargo direct from railcar to ship and vice versa. Railcars handled at the Port of Palm Beach during the fiscal year 1988-1989 was 1,939.

The main Port entrance is located on U.S. Highway One, which provides direct access to Interstate 95, the Florida Turnpike and other interstate and intrastate highway routes.

Regularly scheduled steamship service from the Port of Palm Beach is listed on the attached sheets.

The Florida Sugar Marketing and Terminal Association, Inc. of Bel Glade, Florida, operates a bulk sugar facility at the Port of Palm Beach. The conveyor system loads vessels at the average rate of 600 tph. Eastern Cement operates a cement storage facility of 20,000 short tons. This is in addition to the General Portland Cement Company's 35,000 short ton facility. The Port of Palm Beach Maritime Office Building provides Port users

with 60,000 square feet of modern office space with all necessary governmental offices on the building's ground floor. A 17,600 square foot freezer/chiller facility is located 5 minutes trucking time from the Port. Railcar siding is available at the site.

Crown Cruise Line commenced cruise ship service from the Port of Palm Beach on December 10, 1985. Daily cruises to Freeport, Grand Bahama, are offered four times a week with a Friday evening cruise and a Sunday brunch cruise along the Florida coast. A second vessel provides five-day cruises to Mexico and two-day cruises to the Bahamas.

Port of Redwood City Contributes \$125,000 to City

The Port of Redwood City has made a \$125,000 contribution to Redwood City. This is an increase of \$25,000 over last year's contribution. Over the past few years, the Port has given the City more than \$500,000.

"We are very proud of our continuing success at the Port," said Port Chairman Mr. Jack Castle. "While most ports in the nation receive subsidies from their local governments, the Port of Redwood City is self-supporting and receives no tax dollars."

Net Port income grew by nine percent to \$544,000 on top of 1989's impressive 88 percent growth. While increasing net revenue, the Port was at the same time able to substantially reduce its long term debt. Last year the debt service was reduced by \$400,000 or 11 percent.

Seattle Posts All-time Container Record

The Port of Seattle, the fourth largest container Port in the nation and the international gateway to Pacific Asia, continues to post impressive numbers. The Port released its final container figures for 1990, and despite a recession due to the Persian Gulf conflict, the Port set an all-time annual record of 1.17 million TEUs through its harbor.

Additionally, the Port increased its market share of Pacific Asia trade by one percent, from 19 to 20 percent. The share increase amounts to over 40,000 additional TEUs on a yearly basis.

The Port, which had never before

surpassed 100,000 TEUs in one month, accomplished that feat four out of the last five months in 1990, including the last three months of the year.

The Port attributes the increase to added capacity from major steamship lines such as NYK, Mitsui-OSK, and COSCO. Matson's decision to load center all Pacific Northwest container cargo through Seattle has also been a contributing factor.

The Port also welcomed the addition of Blue Star Line, Columbus Line, and Associated Container Transportation (A.C.T./PACE), which began calling at the Port of Seattle in mid-1990.

Marine Division Senior Director Mr. Frank Clark said, "Our quality facilities, along with our working relationship with labor, and the inland transportation companies, helped us to have a great year. We are optimistic about the future and we will continue to be the catalyst for international trade development for the benefit of the entire region."

Seattle: Marine Division Sets Course for 1991

On the heels of an all-time best year in 1990, the Marine Division at the Port of Seattle is expecting another successful year in 1991.

Coming off a year which saw 1.16 million TEUs come through its harbor, the Port strengthened its hold as the leading international gateway in the Pacific Northwest to Pacific Asia.

The Marine Division features several new looks this year due to the strategic management plan of 1990. It is designed to make the Port more streamlined in order to stay competitive and more customer service oriented in an ever-changing global marketplace. Port management feels that in this way the port will develop its own "culture," and the changes will serve to benefit the region as a whole.

The Marine Division is planning for the future. Based on trade forecasts, the Port expects a substantial increase in container volume over the next 20 years. To prepare itself, the division plans to unveil a long-range terminal expansion plan this April, which will serve as the framework for adding more capacity for existing customers and attracting new international business into the region. Currently, planned



Port of Charleston

J.I. Case combines roll up the ramp of the HUAL TROTTER at the Port of Charleston. A recent inspection of in-port operations by HUAL representatives resulted in high marks for the Port of Charleston's Union Pier Terminal. Union Pier was designated as the Port's primary roll-on/roll-off (ro/ro) facility in March 1990. The terminal's proximity to the open sea, spacious open storage, and drive-on/drive-off rail service at the pier provide ro/ro customers with fast and efficient handling of cargo.



Garbage collection trucks manufactured by the Heil Co. are loaded for export at the Port of Charleston's Union Pier Terminal. The trucks are destined for Taiwan and will be distributed throughout the country. An uncommon feature of these trucks is that they are equipped with electronic music boxes. The music — "A Maiden's Prayer" — is used to signal the Taiwanese of the approach of the trucks for garbage collection.

on-dock rail expansion will be completed in early 1992 at Terminal 18, which will create more intermodal container capacity for existing and potentially new customers.

Additionally, the Port's Marine Services department will expand Chill facility capacity by 30 percent at Terminal 91 within the next three years, to meet growing import and export needs. The Port currently handles about

four million cartons of fruit annually and estimates that it will double that volume by the year 2000.

The Port of Seattle is a municipal corporation created by King County voters in 1911. The Port develops and manages commerce through the Seattle harbor, Seattle-Tacoma International Airport, Shilshole Bay Marina, and Fishermen's Terminal. The Port does over \$30 billion a year in two way trade.

Plan for Blair Waterway Development Unveiled: Port of Tacoma

Trade volumes through the Port of Tacoma could triple during the next 20 years, according to an ambitious \$450 million terminal development plan unveiled by the Port on Jan. 15, 1991. The Port's comprehensive Blair Waterway 2010 Plan is the result of an intensive eight-month study and outlines the largest marine terminal development program ever undertaken in the Pacific Northwest.

The development plan for the Blair Waterway calls for the Port to spend \$450 million between now and the year 2010 on shipping terminals, intermodal rail yards, and the equipment needed to run them.

"This is a road map that will take us into the next century," Port Executive Director John Terpstra said of the plan. "Developing the Blair Waterway will keep our Port and this region at the forefront of international trade."

The plan was developed by Vickerman, Zachary, and Miller (VZM), an engineering and architecture firm based in Oakland. The Port and VZM began the \$210,000 planning project last May.

The 2010 Plan for the 550-acre Blair Waterway development area was released at a press briefing at Port headquarters on Commencement Bay.

Port Commission President John McCarthy noted that the 2010 Plan calls for pursuing the project in numerous phases. Over the 20-year construction period, Port commissioners will decide whether to move ahead with each phase based on trade statistics, business conditions, and other factors.

The plan's most ambitious scenario calls for construction of eight new container ship berths on 309 acres. Two would be at the site of the current Pierce County Terminal, three at Blair Terminal, two just west of the Totem Ocean Trailer Express terminal and one at Terminal 7 on the Sitcum Waterway.

Up to three new on-dock intermodal rail yards would be built on 75 acres to support those terminals. The Port currently has two on-dock intermodal yards. Tacoma has been a pioneer in the development of on-dock intermodal rail facilities, and has the largest on-dock intermodal yard in the United

States. The plan also calls for construction of two new terminals on 44 acres for non-containerized cargo (break-bulk and neo-bulk); a reconfigured auto-handling area with 18 additional acres; and 107 acres for support facilities.

"This plan ensures that we will retain our flexibility while meeting the growing needs of the container trade in the Pacific," said Mr. McCarthy. "We want to particularly attract those discretionary cargoes that could move through California ports if facilities are not made available in Tacoma."

Port of Tacoma Generating Jobs For Pierce County, State

An Economic Impact Study

The study found that in 1988 more than 19,000 jobs in Pierce County and nearly 70,000 in Washington state were related to Port of Tacoma activity. These jobs generated wages totalling \$507 million in the county and nearly \$1.6 billion in the state.

The Study

The economic impact study, based on 1988 cargo and employment figures, was prepared by Mr. Douglas Ljungren, the Port's business planning manager. Mr. Ljungren followed methodology developed by the American Association of Port Authorities.

The Nation's Fastest Growing Port Of The Decade

Ten years ago the Port of Tacoma was a much smaller operation than you see today on Commencement Bay. In the 1980s we joined the container revolution by building the West Coast's first on-dock, intermodal rail yard, three new major container terminals,

and then a second on-dock intermodal rail yard. The result over the next 10 years was an astounding 752 percent growth in container traffic through the Port. This growth has helped the entire Puget Sound shipping industry grow. Puget Sound's share of West Coast international container traffic increased 3.9 percent from 1980 to 1989.

Tacoma is now the sixth largest container port in North America, and grew from 72nd largest in the world, in 1980, to 20th largest in the world in 1988. Our economic impact study is aimed at translating just what all that growth has meant in terms of jobs and dollars.

Direct Jobs

The study showed that more than 11,000 Pierce County jobs are directly related to activity at the Port. Among their employers are what we call "Port Industries," which include the Port itself and companies directly involved with handling ships and cargo. The workers might be truck drivers, railroad employees, longshoremen, warehousemen, or tugboat crew members.

Other jobs directly related to Port activity include employees working for the manufacturers of export cargo, or manufacturers using import cargo. Also directly impacted are people employed by companies that lease land at the Port, construction workers, and employees of firms on land originally developed by the Port within its Industrial Development District.

Tax Dollars at Work

Cargo movement and construction activity at the Port generated \$7.3 million in local tax dollars to Pierce County in 1988. That's 18 percent more than the \$6.2 million that the Port received in property tax revenue that year. State wide, those activities at the

PORT OF TACOMA JOB IMPACT

JOB TYPES	PIERCE	COUNTY	WASHINGTON	STATE
	DIRECT	TOTAL	DIRECT	TOTAL
1. Port Industry	3,043	5,178	4,622	8,849
2. Port Users	2,978	5,680	15,606	47,673
3. Lease Customers	786	1,218	786	1,454
4. Construction Jobs	520	805	568	1,189
5. Private Firms on Private Land Developed by Port of Tacoma	3,898	6,858	4,219	10,622
TOTAL JOBS RELATED TO THE PORT OF TACOMA	11,225	29,739	25,801	69,787

Port of Tacoma generated \$31.6 million in taxes.

That revenue went to our schools, universities, and to support other public services devoted to making this community and the State of Washington a better place to live.

Containers Mean Jobs

Containers are now big business at the Port of Tacoma, with the three largest international container shipping lines at the Port being Sea-Land Service, Maersk Line and "K" Line. Domestically, Sea-Land and Totem Ocean Trailer Express (TOTE) carry more than 80 percent of all waterborne cargo from the lower 48 states to Alaska.

The Port's international container business accounts for the highest number of jobs created by cargo moving through the Port. In fact, the study showed that every trans-Pacific container vessel calling at the Port supports 15 jobs in Pierce County. And that business is expected to grow as more land is opened up for container terminal development. Plans are currently underway to build three to four new container terminals on the Port's Blair Waterway.

Serving Washington From Puget Sound to the Palouse

While containers have accounted for more growth than any other sector of our business, the Port of Tacoma remains a full-service port. We continue to handle various bulk and breakbulk cargoes, some generated here in Washington, and others imported for use in our state. Measured by tons, Washington-generated cargo comprised 44 percent of the Port's business. By value, it totaled 29 percent.

Handling a diverse combination of cargoes is an important part of our mission, and we intend to continue serving all Washington industries as we plan for growth.

Africa/Europe

Le Havre-Greenock Service Opens

A good example of the fruitful cooperation between two members of IAPH is undoubtedly the opening of



From L: Captain Schmiedeberg, Master of M/V ISNIS, Smagghe and Mather

a new service between Greenock and Le Havre. The first call of a ship fully laden of whisky in Le Havre took place on 11 February. On this occasion, John Mather visited Jean Smagghe and a cocktail party was organized on board the M/V ISNIS to congratulate the Captain. This event inspired the author of these lines to write a recipe:

A recipe to improve port exchanges

by John Mather, Clyde Port Authority, and Jean Smagghe, Port of Le Havre Authority

Choose two good ports well located in countries famous for their wines and whisky;

Add two (dynamic) Executive Committee members of IAPH;

Choose a shipowner of high quality; Merge the whole;

Then add a glass of whisky and a drop of champagne, and on 11 February 1991 offer a medal of each port to the Captain of the ship opening the line!

Copenhagen Approves Cruise Terminal Plan

Copenhagen City Council has just approved a US\$400 million private investment at the Langelinie Pier in the Port of Copenhagen.

The Langelinie Pier, which is the cruise area of the Port serving between 100-130 overseas cruise vessels annually, can accommodate 8-10 vessels simultaneously.

This new 130,000 m² project, designed by the famous Danish architect, Mr. Jorn Utzon, whose credits include the Opera House in Sydney, will consist of shopping arcades, restaurants, convention & exhibition centres and a new hotel complex. It will be called "The Mermaid Centre."

Included in the project are also new

Passenger Terminal facilities to cope with the increasing number of cruise passengers using Copenhagen as their Cruise Gateway to the Baltic Sea and the North Cape. "The Mermaid Centre" will be inaugurated at the end of 1993.

Le Havre: Lock Rails Changed in Tunnel

Twenty m of water overhead, a strain of about 10,000 tons, changing with the tide, is exerted on the roof of the tunnel which is 65 m long, 12 m wide and 2.50 m high. In the middle, pillars bear 200 t each. The workers from the PAIMBOEUF company in Caen and TERH, a Le Havre civil engineering company, now work in dry conditions at the bottom of the Francois I lock which connects the Tidal Dock with the constant-level docks in the Port of Le Havre. As main gate components subject to wear, the running rails were also the lock's Achilles' heel. Divers could go 25 m down to carry out repairs on the rail fixing sockets. You could easily imagine in what particularly hard conditions they did it, owing to low visibility and weightlessness.

After 18 years of good and faithful service, it was necessary to find another means which could enable the lock to remain in operation with no stoppage at all, because it was unthinkable to interrupt navigation. Competitive consultations between offshore companies produced no satisfactory results, none had experience in this field. There was in Edinburgh, Scotland, an underwater caisson which made it possible to reach the rails of the gates of a small lock; the idea could be studied further. There was in Kiel, Germany, a maintenance tunnel designed when the lock was constructed. The engineers from the Port of Le Havre Authority went there and the idea was carefully studied

to lead to a project, to specifications and a precise invitation to tender, owing to the cooperation of the Departments of Bridges and Locks and Technical Studies.

The PAIMBOEUF Company, in Caen, took up the challenge: four tunnel sections, from 80 to 140 t, and two entrance holes with watertight doors installed in the upper part of the gate recess stoplog. At the northern end of the tunnel is an emergency exit chimney 25 m high which is also used as a ventilation shaft for the structure. The atmosphere in the tunnel is entirely renewed with fresh air every ten minutes. The tunnel was laid down on the granite edges used to guide the gate. Then it was drained off. The tunnel is held in position at the bottom by water pressure only and there are very few leaks.

The reinforced rails will be changed and the method of repair improved. Men work under safe and environmentally sound conditions. The tunnel is painted white, for instance, to improve lighting and avoid claustrophobia. When a ship comes, the men stop work and leave the tunnel. The construction is strong, but it would not resist the incidental shock caused by a container-ship anchor.

The work began in August and should be completed in April 1992 for gate P2, which has been entirely refurbished (careening, sandblasting, painting, repairing of the driving trolley). Then it will be the turn of the other gates which will also get new shoes and brand new clothes for another period of time of at least 20 years.

The tunnel will not remain idle. Measurements were calculated to make it possible to repair the gates of the lock Wattier and Charles de Gaulle, in Dunkirk.

The high cost of these operations is being borne by the State (80%) and by the Port of Le Havre Authority (20%). It actually means 32.8 million francs for the painting of the four gates. The cost of construction and setting-up of the tunnel, and replacement of the rails of the 4 gates, will total 32.95 million francs.

To carry out such work in dry conditions on the running rails of the lock gates without stopping the traffic passing through the lock is a world premiere. The South Koreans have

studied this idea for use in their country. This is indeed an achievement making Le Havre rank as a leader in the mastering of technical innovations in the field of lock maintenance, as was the case in their construction.

Hamburg 1990: Positive Quantity Development

The growth expectations with which the port economy had entered the year 1990 were fulfilled to a broad extent. In important sectors the growth rates even exceeded the originally assumed prospects. In addition to the continuing favourable sales possibilities for German products on the world market, a stronger import trend made itself felt. This resulted on the one hand from the high capacity-employment rate of German industry, and on the other from the clear rise in consumer inclination.

To a considerable extent, which cannot yet be proved in statistical terms, the additional traffic — particularly with regard to imports — is probably a result of German unification. The results in quantity terms of the year 1990 (the data for two last months had to be estimated) justify a judgment of "good." Unfortunately there was again no corresponding showing with regard to returns and yield.

Total handling probably 61.2 million tons

According to the course of 1990 to date, an overall quantity result of 61.2 million tons can be expected. Compared to the preceding year, this means a rise of 5.8%.

Unexpectedly high growth rates in general cargo traffic

In the case of general cargo (including containers) the volume for 1990 will turn out to be 28.4 million tons. Vis-a-vis 1989 this means 10.2% additional traffic amount, and at the same time represents a new record result in the Port of Hamburg's history. This growth rate is much higher than that of the other German seaports and also clearly above the alterations in the competing universal ports in the Rhine estuary region.

The general cargo rate (related to total handling) is calculated at 46.4% (1989: 44.6%). The tendency which had already become apparent in the pre-

ceding year towards rising development in incoming traffic has continued. This corresponds with appropriate changes in German foreign trade as a whole.

Within general cargo traffic the structure effect has admittedly made itself felt for a long time to the benefit of containers, but simultaneously a rise was also registered in conventional traffic. At 9.1 million tons it exceeded the previous year's value by 4.4%.

The high capacity employment was maintained throughout the whole year. If the statistical analysis indicates higher growth rates for the first half year, the reason for this lies in a corresponding weakness in the comparative period of 1989.

Container handling rise again clearly in double-digit range

Within the framework of overall extremely positive development in general cargo handling, the container sector received a strong growth boost in 1990. On a weight basis (only loaded containers) there was an increase of 13.2%. This means that the containerisation degree rose from 66% in the preceding year to 68% at the present time. At the HHLA, as the leading port operator, a containerisation degree of even just over 80% was achieved. In 1990 the Port Hamburg is expecting a total of 1.95 million TEUs (20' units) with an overall weight (only loaded containers) of 19.3 million tons.

The most important trading area, which again also accounted for a decisive share of the traffic growth, was East Asia. However, several other trading areas are also indicating changes in proportions in the Port of Hamburg.

Port policy facing fresh challenges

In the Port Developing Plan of 1989, which serves as the basis for port policy decisions of the Free and Hanseatic City of Hamburg, the fundamental changes in the economic and geographical position could not have been foreseen. The assumptions contained in it for altered structures, as for instance in the rapidly growing importance of services in distribution and in logistics, by and large continue to be valid. However, the situation is different with regard to the expected quantities. The port economy assumes that in 1995 container traffic will amount

to between 26 and 30 million tons. The port economy expects total general cargo traffic via Hamburg to range from 35 to 40 million tons in 1995.

This decisive alteration of the quantity framework must have as its consequence that the surface planning starts from a greatly shortened time horizon. At the same time the necessity arises for rapid expansion of large sections of the infrastructure.

Exploiting chances also depends on German traffic policy

Actual and foreseeable growth makes it necessary to effect lasting improvements in the supra-regional traffic connections of the Port of Hamburg. Initial signs of a threatening traffic infarct have already become visible in the Hamburg area, in its connection with the German traffic network and with the interior traffic junctions. This applies, among other things, to the efficiency of the inland terminals of the German Federal Railways and of Transfracht in container traffic.

In the medium and longer view, the Elbe as a traffic route will again take on growing significance. The port has therefore emphatically advocated that economic and technical planning ideas to expand the Elbe into a fully navigable inland waterway should be pressed ahead with urgency.

The change in ships' sizes in international container traffic makes it imperative to deepen the fairway in the Lower Elbe and in the area of the Port of Hamburg. There must be guarantees that the water depth conditions on the Elbe and in the port region accord with the demands of the largest ships in container traffic, that is to say the Post-panamax ships. The necessary procedures for deepening the Lower Elbe must be prepared at once and the work carried out.

Schooling measures effected by the "Fortbildungszentrum Hafen Hamburg e.V." are of particular importance, also in the coming years.

(Port of Hamburg continuation Center)

Outlook for 1991

Although German industry's export prospects are clearly dimmed, the framework data for the development of marine traffic in 1991 can be observed with confidence from Hamburg's point

of view. Declining growth rates in outgoing traffic can be overcompensated by an import boom. The committee of the experts charged with appraising economic development concluded in its forecast of November, 1990 that there would be effective growth of 3.5% in exports, and 7.5% in imports. Because of the special influences favouring Hamburg, this global prediction does not of itself have any great meaningfulness. It does make it clear, however, that as far as the port economy is concerned the coming year can provide not inconsiderable scope for growth.

Ivar Lauritzen Calls At Port of Cork

The world's largest refrigerated vessel, the m.v. IVAR LAURITZEN, recently called at the Port of Cork on her maiden voyage from South America. The vessel loaded 34,000 cartons of bananas in Guayaquil, Ecuador, and her voyage time to Cork was fifteen days at 19 knots.

The 16,950 D.W.T. vessel is Danish registered and was built and is owned by Lauritzen Reefers, also of Denmark. The vessel has a highly integrated bridge which by the extensive use of computers means that the navigation, supervision of the engine room and cargo can be controlled by one man on the bridge.

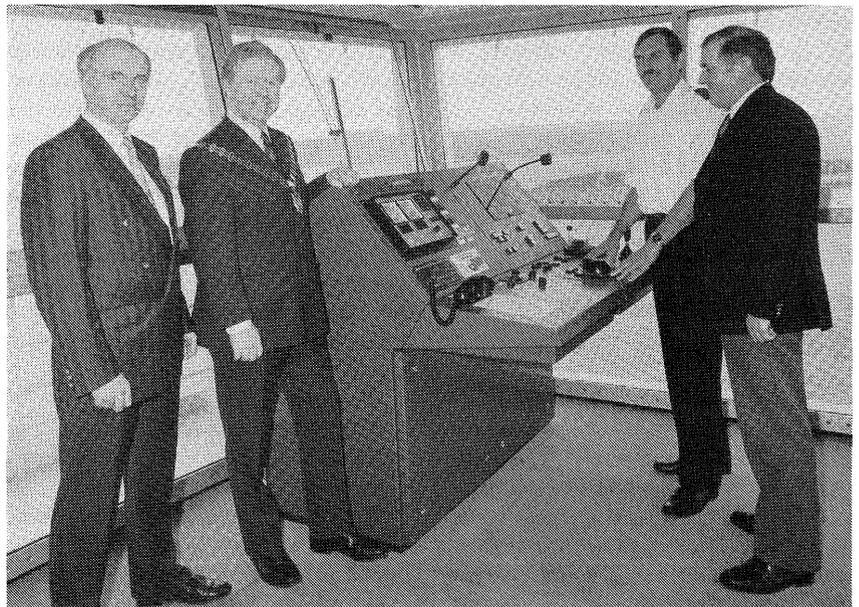
Various products can be safely carried in temperatures reaching down to -29°C.

The vessel sailed from Cork bound for Antwerp and Hamburg to unload her remaining cargo.

The importers of the cargo were Fyffes Group Ireland Ltd., who discharge regular weekly cargoes of bananas at Cork for distribution to all parts of Ireland and to Britain. The company has been using the Port of Cork for some twenty years and are major contributors to the local economy.

Performance Soars At Port of Mombasa

Cargo Handling performance at the Port of Mombasa last year soared to an impressive figure of 7.5 million tons, which is a 3.97 percent or 287,332 ton increase over the 1989 figure of 7.2 million tons. During the year, export tonnage registered a dramatic increase in which a total of 2.3 million tons was handled compared to the 1989 total of 1.9 million tons. The increase was by 15.13 percent or 301,851 tons. Unlike the exports, total imports handled decreased from 5,199,536 tons in 1989 to 5,192,656 tons in 1990. The decrease was by a small figure of 6,880 tons, thus showing an upsurge in the exporting position of the Kenya economy and the



Left to Right: Sean Geary, Marketing Manager, Cork Harbour Commissioners; Conor Doyle, Chairman, Cork Harbour Commissioners; Capt. Klostermann, Master of the "Ivar Lauritzen"; Capt. Pat Farman, Harbour Master, Cork Harbour Commissioners.

countries in the region served by the port of Mombasa.

According to the cargo throughput figures released by the Kenya Ports Authority comparing 1990 and 1989 performance by the port, total dry exports were 1.9 million tons in 1990 against 1.4 million tons in 1989. The increase recorded is 30 percent of 440,833 tons. Total bulk liquid exports decreased from 528,584 tons in 1989 to 389,602 tons in 1990. The total dry imports increased from 2 million tons in 1989 to 2.1 million tons in 1990, an increase of 97,365 or 4.65 percent, while total bulk liquid imports decreased from 3.1 million tons in 1989 to 2.9 million in 1990.

The Kenya Ports Authority thereafter embarked on a performance improvement plan (P.I.P) in which the port's equipment availability and maintenance and operational staff capability were highly prioritised to being about high productivity and faster ship turnaround times.

In the initial year of the plan (1989) the Kenya Ports Authority achieved a recorded tonnage of 7.2 million at the port and in the second year (1990) beat that figure by making 7.5 million.

Meanwhile, the Kenya Ports Authority is to embark on efforts to streamline procedures that will effectively bring in more transshipment cargo.

According to the Kenya Ports Authority Managing Director Mr. P. Ok, the potential for higher harvests is enormous taking into account the port of Mombasa's strategic location.

Last year, the port recorded a total of 35,502 tons of transshipment cargo against the 43,141 tons recorded in 1989. This is a decrease of 7,639 tons or 17.71 percent.

Port of Amsterdam – A Tradition in Trade

The Port of Amsterdam, located 15 minutes west of the city centre, is a part of two economic entities. The first, operating under the name of TRIPLE PORT AMSTERDAM, is the cluster of the Airport (Schiphol), telecommunication port (Teleport) and seaport (the western port area). The second cluster is made up of the collaboration with the other seaports on the Amsterdam North Sea Canal, Zaanstad,

Velsen and Beverwijk. This operates under the name AMSTERDAM SEAPORTS. The port of Amsterdam plays an important role in both clusters. Together these areas form the rapidly developing north flank of the important Rhine-Schelde Delta area.

Since the oil crisis in 1972 records for transshipment of goods and materials have been continually broken in the port of Amsterdam (from 17 million tons to 30 millions tons). In the whole North Sea canal area total tonnage is now at some 45 millions tons. A record turnover is also expected in 1990. The incidental decline at the beginning of this year (-11% in the first quarter) has been fully recovered and is up approximately 6.7% in the first nine month of this year.

The total number of vessel movements of professional shipping in the harbour area (excluding pleasure craft) has risen to 80,000 per year. The most frequent arrivals are auto carriers, cruise ships, bulk carries, container vessels, oil tankers, general cargo vessels, Ro-Ro ships and ferries with bow doors as wide as a four-lane highway and four unit push barges (larger than many sea vessels).

Amsterdam has been the fastest growing harbour area on the Western European coast between the ports of Le Harve and Hamburg since 1980 (approx. 140%, 1980 index 100).

For years the average land development was about seven hectares (17 acres) per year. Here also a remarkable growth is to be found. Since 1986 this land allocation has grown to some 100 hectares in 1989. The Harbour area has thus developed into one of the largest providers of development land in the Netherlands.

The Amsterdam North Sea canal area ranks as the 7th harbour area of Europe and 17th in the world.

The appeal of Amsterdam as a European trade port is due to:

- the concentration of trading activities in the Amsterdam area (trading houses, international commercial headquarters, etc).
- the unique triple port character of greater Amsterdam within Europa (seaport/airport/teleport within 20 minutes of each other).
- the international financial character of the city (stock exchange, options exchange, insurance centre, banks).

– availability of a complete transport infrastructure (road, rail, inland waterway, air, telecommunications).

- clean environment (no serious industrial polluters), and clean surface water that has been cleared for swimming and professional fishing.
- excellent residential areas in Amsterdam and immediate area.
- an international array of cultural and recreational facilities.
- excellent company locations.
- rapid handling procedures and full cooperation with government.
- efficient customs facilities and procedures (FEMAC/FEMBAC).
- distance from city to harbour area is maximum 20 minutes.
- multilingual capabilities and business acumen of Amsterdam's residents are excellent.
- available personnel (trained and untrained work force)
- concentration of universities and continuing education institutes.
- educational opportunities for foreign children (international, Japanese, French and Chinese schools – a Korean school is planned for 1992).

Recently the traditional Eastern Port area of Amsterdam was an eyesore in the city. It was a busy, noisy and smelling gateway to the European hinterland. The trade port has been moved to the western part of the city where millions of tons of products, more than ever before, are being traded, transferred, stored, produced and distributed. It is a new, green and clean business and industrial area with its own identity on the north flank of the Rhine-Schelde delta. Together with Amsterdam Schiphol, Teleport, IJmuiden, Beverwijk and Zaanstad it is now developed as the modern and efficient distribution hub for Europe 1992 and beyond and a place where industry will feel at home.

Record Year for Port of Amsterdam

At the end of the year, provisional tonnage for the Port of Amsterdam in 1990 was put at 30.5 million tonnes, but last year's definitive tonnage is a record 31.3 million tonnes, according to the Port Management of Amsterdam (GHB). Compared to 1989, this is an

increase of 9.1%.

Bulk cargoes played an important role in the total. In 1990, the port handled nearly 14 million tonnes of dry bulk cargo (+38.6%) and 15 million tonnes of liquid bulk cargo (+18.5%). Unfortunately, general cargo fell by 7.5% to 2.7 million tonnes.

1990 was an excellent year for giving out commercial sites in the port area. A total of 46 hectares (36 separate projects) was let on long lease, while the lease of an additional 25 hectares is still pending. Based on the speeded-up leasing (in 1989 98 hectares), the GHB expects the still available 130 hectares to be snapped up quickly in the future. The GHB therefore expects new port areas to be developed in the municipality of Haarlemmerliede as quickly as possible.

There were 57 cruise vessels in the 4,676 ocean-going vessels (with total gross registered tonnage of 33.7 million tonnes) which called in the Port of Amsterdam in 1990. The previous record for cruise vessels was 53 in 1989.

General cargo sector

General cargo transshipments fell by 7.5% to 2.7 million tonnes when compared to 1989. Container transport and conventional break-bulk general cargo lead the losses. The absence of major container shipping services to Amsterdam and the increasing containerisation and unitisation of conventional general cargo is the cause of the less favourable development of these two cargo categories. Roll-on/roll-off transport and unit loads rose respectively by 58.8% to 794,000 tonnes and by 41.3% to 417,000 tonnes last year.

Mainport of Europe: Rotterdam

In 1992 the borders between a large number of European countries will disappear. United Europe comprises a market of some 350 million consumers. And that is not the only development. The changing economic situation in Eastern Europe and Russia offers plenty of new perspectives.

The central distribution point for goods to and from the new Europe is

Rotterdam. The port of Rotterdam — the world's largest for almost thirty years now — can rightly call itself the mainport of Europe, thanks to its favourable location, the good connections with the hinterland, the great diversity of facilities and its huge amount of know-how. This is a position which Rotterdam expects to be able to expand on even further in the future.

Mainport Rotterdam

The mainport concept means that the logistic decision-makers tend to concentrate their goods flows on only a few ports per continent. The goods are then transported on into the hinterland by pipeline, feeder, barge, rail or road. A hinterland which for Rotterdam includes North Africa, as well as for example Russia and Scandinavia.

The choice of mainport hinges on the amount of modern industries, large scale distribution centres and high quality hinterland connections available.

Predictions

The Rotterdam Municipal Port Management regularly presents predictions on the future transshipment of goods in the port of Rotterdam. The most recent results show that a growth of 300 to 400 million tonnes is possible up to the year 2010.

With specific reference to the container sector, expected growth is even more pronounced. Whilst at present some 2.5 million containers are handled in the port of Rotterdam, the Municipal Port Management expects almost 5.8 million by 2010.

This growth in the number of containers is particularly significant. The transshipment of containers and the associated processing of their contents involves considerable added value for Rotterdam. Examples are activities such as stuffing and stripping, grouping, warehousing and assembly.

Expansion

The predictions make one thing clear for Rotterdam. In order to be able to cope with the growth, the port facilities must be expanded. As separate container terminal for the trunk line Sea-Land is already under construction and is due for completion in 1993. Furthermore, plans have recently been presented, under the name Delta

2000-8, for the further development of a large number of new container terminals on the Maasvlakte, near the sea.

'Dedicated' terminals, which combine the advantages of maintaining the shipowner's own identity with the possibility of exchanging personnel, material and berths whenever necessary and possible.

More and more opportunities

Rotterdam also offers more and more opportunities for the storage, processing and efficient distribution of goods shipped in the containers. The Distripark idea is an example. These centres attract companies involved in the different aspects of distribution. Goods entering the port by container can be transported to such a Distripark. There they are, for example, regrouped, stored and labelled. The products then go on to one or more destinations in the hinterland, by feeder, barge, rail or road.

Rotterdam is busy setting up three such parks. All of them are situated strategically with respect to the large container terminals and to the connections with the hinterland. The establishment of five Trade and Distribution Centres for Middle Eastern countries is another way in which Rotterdam is fulfilling its role as mainport of Europe. Hong Kong, Singapore and Thailand are already actively trading via Rotterdam. Korea and Taiwan will follow in 1991.

Hinterland connections by water

Another important factor in the success of the port of Rotterdam is the quality of the connections to the hinterland. Rotterdam is unrivalled especially when it comes to inland shipping. The Rhine and Maas see to it that inland shipping is able to transport the goods far into Europe. When the Rhine-Main-Donau canal is completed in 1992, the ships will even be able to reach such East European countries as Bulgaria and Rumania.

Rotterdam has at its disposal an extensive network of feeder and short-sea services. Goods arriving in Rotterdam by deep-sea carrier are transported further via smaller sea-going vessels to, for example, British ports, Russia and even Mediterranean countries.

... and by land

35% of European road transport is in the hands of Dutch carriers. Transport into the hinterland by road from Rotterdam goes smoothly. Despite this, Rotterdam is hard at work trying to extend the European rail freight network. Trains are a clean and economical alternative for the transportation of goods over long distances. The train which travels weekly between Rotterdam and Milan, without stopping, is an early result of these efforts.

Automation

Another form of service in the port is automation. In fact, the degree of automation determines the level of service. Rotterdam has an information service for companies inside and outside the Netherlands which provides data concerning goods and the flow of goods. Companies using this system do so by means of an electronic data system (INTIS). Data such as details of destinations and origins of goods, method of transport and the like can all be called up.

Besides service, security is also important to the port authorities. The Vessel Traffic System (VTS) is an advanced network designed to keep an eye on everything happening inside the harbor area. It consists of a number of radar installations with direct computer link and an information source, enabling quick recall and checking of data. The draught, origin, load, name, mooring location and agent for a particular ship can be examined and checked.

The VTS will soon be watching over the port, keeping tabs on which ship is where and what each one has on board.

A clean environment

Rotterdam attaches considerable importance to a responsible environmental policy. A healthy environment is not only essential for the social climate, but also for Rotterdam's attractiveness as business location. That is why Rotterdam is taking care that the port is cleaned up. After all, who wants to set up business in a polluted port? Staff must be offered optimum working conditions. A clean port radiates quality. And Rotterdam wants to be such a quality port; in every way.

Customer Service at Port of Lisbon

Customer Service at the Port of Lisbon is already in operation, and the Authority of the Port of Lisbon plans to arrange for the systematic handling of complaints and suggestions for all branches of activity connected with the port and also contact the various economic agents in order to boost port traffic.

This innovation is designed to provide better service for those who are building an outstanding place for the Port of Lisbon in the national market and even throughout Europe, by cutting down the red tape in port management, mainly through the introduction of modern managerial techniques.

A recent example of the reduction in red tape was the free distribution at service points of all the forms required in spite of the fact that this decision will involve a drop in revenue of some 15 million escudos per year.

The improvement in the port installations is an important feature of the development plans for the Port of Lisbon. The Santa Apolonia Container Terminal has been completely remodeled at a cost of some 400 million escudos, refacing the pavement with highly resistant materials which are not affected by heavy weights or oil.

Since this is the terminal which handles the largest number of containers in the Port of Lisbon — which in 1990 showed an increase of more than

10% — it is hoped that such improvements will also help to better serve the customers' interests.

The Baltic Sea Area

Thoughts on trade and industry in the past, at present and in the future

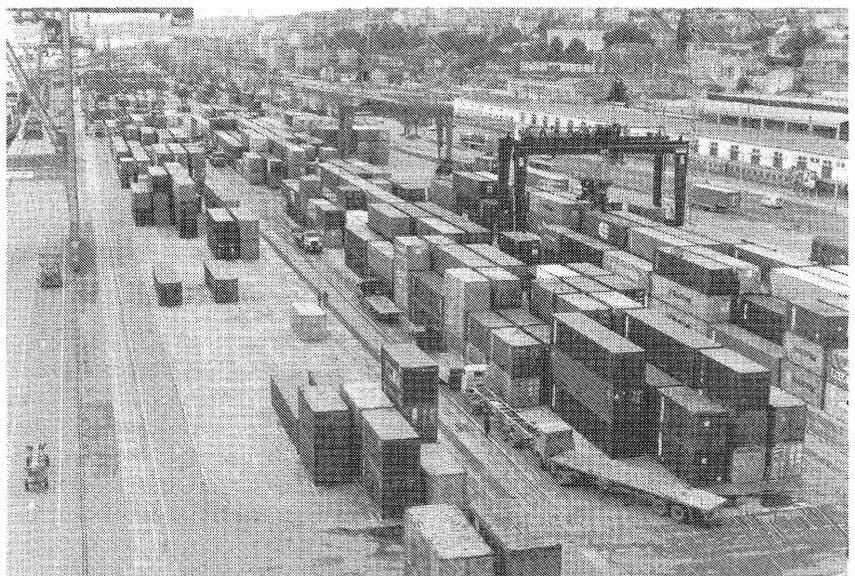
By Swedish Ports Association

All great civilisations as centers for trade and culture have originally developed around sea areas. Examples are to be found in the Mediterranean, who has seen many mighty empires come and go, and in our days the Atlantic and Pacific Basins. The Baltic Sea has played a similar role for the people around its shores, even if on a much lesser scale.

It is believed that Scandinavia was populated some 10,000 years B.C. and that the first inhabitants came from South over the Sound and the Baltic Sea. During the Bronze Age — 3,000 - 3,500 years B.C. — trade flourished in the area; much important in this respect were the islands Öland and Gotland.

In the Middle Age, the North German Hansa organisation dominated the trade and founded many cities and trading centers, always at strategic places in river mouths, islands and archipelagos.

The Hansa influence ceased in the 16th century and was followed by a period of Dutch tradesmen and sea-



Port of Lisbon container terminal

warriors coupled with a latent rivalry between the states at the Baltic Sea, Poland, Denmark, Sweden and the various German Kingdoms and principalities.

For a short period 1620-1720 one can say that Sweden/Finland dominated the area in view of its military power and its trade. The beginning of the 18th century saw — however — a new great power. Russia, who had expanded since the beginning of the 16th century, became after acquiring Finland, the most part of Poland and the Baltic States Lithuania, Latvia and Estonia, the dominating power until at least the First World War.

Even if the Baltic trade was important for Sweden, other markets weight became greater. In the later part of the 19th century, a network of shipping lines was established to almost all parts of the world with Gothenburg in the west as the dominating port. Sweden, and for that instance also the other Baltic states except perhaps Russia, turned for trade and culture to the west, to the great empires of Central and Western Europe and the oceans. The Baltic trade became less important.

The period between the two world wars saw four or five "resurrected" states: Finland, Estonia, Latvia, Lithuania and Poland emerge as independent states, while Russia (now the Soviet Union) lost much of its previous dominance. During that period there was a noted positive trend between the Baltic states in trade and culture. The trade volume remained, however, comparatively small compared with the foreign trade in general, and 1929 - 1930 saw the great depression and later the second world war.

After the war, the political picture of the Baltic area had completely changed. Finland was the only country on the eastern and southern shore that would be described as an independent state. The others, the Baltic Republics, Poland, and the "new" German Democratic Republic (DDR) were all annexed into the Soviet Union or politically and economically dependent to that Union and forced to accept socialist and marxist patterns. (An exception was the Federal Republic of Germany.)

The Baltic republics were in a way "sealed off" from the western world. Whatever could be done in trade etc.

was dependent on Moscow's decisions and although some trade links existed, it was mostly delivery of raw material such as oil, coal and minerals from the Soviet Union through the Baltic ports Riga, Tallinn and Klaipeda and others.

For Poland and DDR the situation was somewhat different with a growing trade, for Poland delivery of coal and for DDR industrial products. Sweden — Finland trade — flourished as never before and Finland became one of Sweden's most important trade partners and vice versa. A network of very modern and well equipped ferrylines have been established and are continuously growing.

As everyone knows, great things happened in the Soviet-dominated area in 1989 and later. "Perestrojka" and "glasnost" have been keywords. Poland has today a rather liberal government striving at market economy while DDR as from October 3 has become a part of the Federal Republic of Germany. The three Baltic republics have declared themselves independent and are turning from Moscow, socialist planning and ideology. Optimists believe that independence, market economy, convertible currency and economic growth is around the corner.

In Sweden, this development has been followed with profound interest. Delegations from the central government, local governments, trade organisations and public companies have been travelling around. Somewhat less frequent, the country has received visitors from the Baltic countries. It has been much talk of trade agreements, joint ventures and tourism and apparantly some progress has been made in these fields. But there are many obstacles that must be considered at a later review of the future.

What actions have so far been taken from the Swedish side? A ferryline has been established between Stockholm and the port of Tallinn in Estonia — mainly for tourism, which has enjoyed some success. A number of coastal cities on the Swedish east coast are in various degrees engaged in new ferrylines to the Baltic states and Poland. The city of Norrköping has invested or is about to invest some 3 million dollars (20 mkr) in a ferry-terminal in the port of Riga in Latvia, a hitherto unknown municipal activity. All are very hopeful and anxious to reach not only the Baltic

states but also the big potential markets in the Soviet Union itself.

Similar trends can also be noted in Finland, a country with traditional common interests with the Baltic republics.

Prospects for the future

As far as can be ascertained, no prognoses or analyses have been published regarding the future trade between Scandinavia and the Baltic republics. Since then "perestrojka" things have — as everybody knows — from an economic point of view not moved forward but the opposite, and it should be remembered that the Baltic republics are very small in area and population.

Their economy is integrated in the Soviet economy for 40 years, and will be very dependent for many years to come. As a market, the republics themselves are not very interesting. Even if they are reported to have the highest standard of living in the Union, it is far away from Western European standards.

Their products from the industry cannot be sold abroad, with few exceptions. The roads are inferior, and that in all probability also goes for the railway system. Prospects for trade with the Baltic republics are in view of the above description, not very good in the short perspective.

Poland is in a better position and has certain advantages. Politically, the country is fully independent from the Soviet Union. Its economy is not so dependent and Poland is free to deal with the Western world. There is a surplus of comparatively cheap labour. One can in Poland feel an air of optimism despite Lech Walesa, strikes and present shortages in the daily life. Poland and Sweden are connected by railroad and ferries from most ports in south Sweden; there is another from the port of Oxelösund, south of Stockholm, and at least two other ferry connections are in various states of realisation.

Czechoslovakia is not a Baltic state but dependent on Polish and German ports for its trade with the Scandinavian countries. The country has an industrial tradition and enjoyed in the period between the two wars some prosperity. Its fight for freedom and independence has been admired by the whole world. Poland and Czechoslovakia has prob-

ably the best possibilities in the former East-European bloc and will become interesting trade partners for the Baltic sea states in the future.

Considering the prospects for increased trade etc. in the Baltic area for Sweden, one must know that at present about 70% of its trade is with Western and Central Europe, and about 15% with the Far East. The Baltic trade today (Finland excluded) covers only 2% or slightly more. The point of gravity in the economy of Europe will gradually turn to the south, to the countries around the Mediterranean and the Common Market (ECC).

The transport patterns will become all-important and recent political developments — the perestrojka and the freedom of the former satellite countries — opens up new or rather old but forgotten connections.

Sweden is today connected to continental Europe, its main market, with ferrylines to West German and Danish

ports. Since the beginning of this century there has been a railway and later also roadferries between Trelleborg in the south and Sassnitz in the former Germany which, until the socialist power period, were the main roads to the Continent. Ferry lines to Poland were opened up after the war.

Although these lines have prevailed as important links, they have been hampered by insufficient service, fear of industrial and trade espionage and the secrecy that prevailed in all dealings with the socialist countries.

Now, all this is gone. The political upheaval will not fail to make a heavy impact and it must be expected that transports that for the above reasons went through Denmark and North Western Germany will partly go through Polish and East German Ports. The process will of course take some time as roads and railways will have to be lifted to competitive standards, but is certain to come.

Conclusions

Great expectations are on hand for an increased trade between Scandinavia (Sweden), Soviet and the Baltic countries. For reasons stated above, it is to be feared that in this decade the increase will be limited, if any. The reason for this is the enormous problem the Soviet Union encounters when trying to reform its economy. The Baltic republics are wholly dependent on what happens in the Union in general and prospects are, as everybody knows, not very bright.

In the more distant period — let's say in 2000 - 2020, prospects are brighter as one must assume that the painful process of transforming a planned economy that has all but collapsed, into a market economy, at last will succeed. If so, then there is a giant market in the Eastern Europe and in the Soviet Union. At a recent meeting by trade experts, it was held by year 2000 30% of Sweden's foreign trade could be with this market.

Environment and Ports: British Ports Federation

Growing public concern and accompanying political pressure regarding a wide range of environmental issues are progressively requiring all areas of industry and commerce to adopt considered environmental policies.

Emphasis is increasingly being placed on reduction at source of waste, together with pollution prevention and environmental control measures, rather than solutions being sought after pollution has occurred.

In accord with its long-standing commitment to monitoring and advising upon international thinking and

proposals likely to affect the ports industry, in 1988 the British Ports Federation took stock of the rapid environmental developments and suggested a programme of action.

At the same time, BPF has assumed a continuing role in assessing the burdens and benefits of legislation, as well as generating greater awareness of longer-term issues.

The volume of legislative initiatives addressing environmental concerns has increased dramatically in recent years.

Of particular importance to ports and harbours are: the Oslo Dumping

Convention controlling disposal at sea; the MARPOL Convention controlling the disposal of waste (oil, chemicals, sewage and garbage) from ships; European Community Directives; UK legislation including the Environmental Protection Act expected to come into effect in late 1990; and the recent Environment White Paper "This Common Inheritance".

The BPF is involved in representing its members in both European and UK contexts, and in providing advice and guidance regarding environmental aspects for key decision-makers.

International guidelines established under the Oslo Dumping Convention control disposal of sediments at sea.

Before a licence to dredge and dispose is issued to an individual port, account is taken of the marine environment and the chemical composition of sediment - which may be contaminated by industrial pollutants.

A proposal to improve the quality of dredged material by reducing inputs of contaminants to rivers and estuaries was made in March 1990 at the 3rd North Sea Conference.

INITIATIVE

A fee required from licence applicants pays for scientific and technical assessment involving chemical analysis of potential contaminants, inspection visits to ensure that licence conditions are adhered to. A new Government initiative will make the monitoring of sediment disposal sites more rigorous.

BPF VIEW

BPF welcomes the North Sea Conference initiative to reduce contamination of sediments by reductions at source. A licence for disposal will not be granted if sediments are heavily contaminated.

A campaign to have statutory ports and harbours listed in Schedule 1 of the Environmental Protection Act has also been mounted by BPF. This would require the enforcing authority to consult with the harbour authority before permission can be given for the release of any substance into a harbour.

MARPOL (73/78) is the International convention controlling pollution of the marine environment from ships.

Ports are required to provide reception facilities for ship-generated wastes, i.e., waste oil from engines and oil tanks, noxious chemical and garbage from all ships.

Measures relating to sewage from ships have yet to be fully ratified.

INITIATIVES

An extensive publicity campaign, supported by BPF, has ensured that UK ports are aware of their responsibility to have facilities for garbage and waste oil readily available to ships using the ports.

Reception facilities for chemical wastes are only required at ports handling chemical tankers.

Because difficulties arise in ensuring that ships make use of such facilities, the 3rd North Sea Conference agreed a number of measures - including one aimed at improving control and enforcement and deterring all ships from contravening the requirements of MARPOL.

BPF VIEW

Strengthening of measures implemented under MARPOL will increase pressures on port reception facilities. Wastes discharged from ships must not be allowed to accumulate in ports, so assured arrangement for safe onward disposal are imperative.

BPF has been campaigning for a change to current legislation in order to ensure that licences for onward disposal of waste are granted.

A very wide variety of port operations come under the heading Estuarine and Coastal Management.

As more and more stretches of coast are designated Sites of Special Scientific Interest, it is becoming increasingly important to reconcile port progress with environmental protection.

INITIATIVES

Under a recently-implemented EC directive, ports now actively consider the environmental impact of planned development and consult widely with interested parties prior to work commencing.

Yet despite precautionary anti-pollution measures, recognising that unforeseen accidents do occur, many ports have contingency plans to enable them to react swiftly and efficiently to most eventualities.

Recently, a group of major oil ports have, with BPF support, successfully instituted an amendment to the Environmental Protection Bill extending the power to detain ships in the event of an oil spill within a harbour to foreign-flagged vessels.

BPF VIEW

It is entirely equitable that port operations proceed with proper regard to other users of the coastal margins.

Nevertheless, the important primary role of the ports industry in the smooth facilitation of international trade and transport and in providing significant centres of employment and enterprise must be recognised at all times.

Inevitably, some of the wide variety of cargoes passing through ports every day are potentially dangerous if proper precautions are not taken.

Since 1985 several environmental and safety legislative measures governing cargo operations in ports have been brought into effect - among which the Dangerous Substances in Harbour Areas Regulations represent a significant standard.

Prior notification to a port of the nature of both imports and exports of such substances is a major feature of these Regulations.

INITIATIVES

BPF has assumed active consultative and strategic development roles regarding health and safety regulations affecting the ports industry.

In collaboration with the Health & Safety Executive, BPF prepared a comprehensive interpretation of the Control of Substances Hazardous to Health Regulations.

A similar document has been agreed regarding the application of new Noise Regulations to cargo handling and marine operations.

BPF VIEW

Port experience is a vital input for ensuring that regulations designed to enhance safety are workable.

Suitable industry-wide training is currently being provided by BPF and the HSE in respect of a number of new Regulations, while on-going co-operation and structured consultation will continue to maintain an efficient and safe industry.

(BPF Review)

Clyde Port Authority Begins New Services

Clyde Port Authority hosted a reception at their Head Office in Robertson Street on Friday 8th March to celebrate the inauguration of two new services to France and Spain. The weekly services have been introduced by United Transport Lines and Eurobox Container Services. United Transport Lines will operate between Greenock and Le Havre and Eurobox between Greenock and Bilbao.

Sir Robert Easton, Chairman said "Today is a get together to mark a celebration of the return of container traffic back to Greenock after an absence of almost three years. During that time while our marketing team has toiled ceaselessly to win back container ships and 'boxes' I must confess there have been occasions when we questioned their continuing optimism. The fact that we are here today is testament to that persistence. Their achievement will, I am certain, be of benefit not only to the port but also to many sections of the Scottish business community." Sir Robert continued "In the heyday of the terminal when it handled 13 regular North Atlantic container services, its facilities and the quality of its service were often commended by customers as among the finest of their kind in Western Europe. The fact that such a large volume of traffic subsequently dwindled away was due entirely to changing patterns of trade and the emergence of European Community countries as Britain's major export markets."

It is hoped that this is the beginning of a new era for the Greenock Terminal which suffered badly with the rationalisation by container lines in the early 80's.

Asia/Oceania

Fresh Corporate Look For Port of Brisbane

An in-depth review of the management/corporate structure of the Port of Brisbane Authority has been completed. Basically, the new structure is not dissimilar to that which applied

pre-review.

However, the operational units of the Authority have been redefined to three divisions: Commercial Operations; Trade Development and Planning; Development and Technical Services.

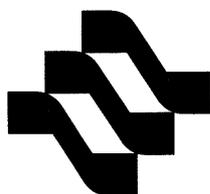
The units are headed by a 'general manager,' each reporting to the chief general manager, who is responsible to the board.

The work of a Policy and Planning team, introduced in more recent times to the administrative profile, was confirmed as an on-going requirement by the review. In the next 12 months or so, it will place particular emphasis on the development of the port's strategic plan to the year 2005.

One important position in the new structure, manager, Trade Development, which has been established to increase the Authority's international and interstate marketing thrust, has not yet been filled.

New Logo for Fremantle Port

The Fremantle Port Authority Board of Commissioners has approved a new logo — but it will complement, not displace the well known crest which



FREMANTLE
PORT

has helped identify the Authority for more than 20 years.

The logo has been designed to enhance the national and international marketing activity of the Authority by presenting a dynamic, efficient identity for its overall commercial operations.

The new mark, in the words of its designer, Mr. Rick Lambert, "symbolizes Fremantle Port as a hub of activity with emphasis on container movement and handling — an intermodal gateway to Australia."

"This combination of shape, form and colour (navy blue) becomes a powerful statement embodying the es-

sence of the Fremantle Port Authority's new stance — competitive, responsive, efficient and international.

"The logotype establishes ownership and strengthens credibility."

The Port Authority's well-known crest will continue to be fully used in a ceremonial context, a utilisation for which it is most suited.

For example, the plaques presented to vessels making maiden voyages will continue to feature the crest.

Port of Napier Chairman's Report

(Extracts from the Annual Report for the Port of Napier Ltd for the year ended 30 September 1990)

Change at the Waterfront

Deregulation and reform of the waterfront has opened up a whole new range of possibilities for most ports. The mystery and uncertainty of port operations has been replaced by open, commercial decision-making and the Port of Napier has made major gains because of these changes.

There is no doubt that customer service and competitive pricing are vital factors to stay in business and to increase market share. The company therefore spent considerable time and energy in assessing what the industry demanded.

The commissioning of our new mobile barbour crane gave the company and the port a new perspective and it has opened the way for a wider customer base. We have been fortunate to obtain a number of new shipping services utilising the crane and the business generated has added to the increased cargo handled at the port.

Record Trading

Record cargo throughput, productivity, fast turnaround of shipping, and an excellent financial result have all been achieved during the year. Cargo throughput of 1.8 million tonnes is up 360,000 tonnes over 1989 and ship turnaround has improved dramatically. Port statistics show that the average ship time in port has come down by 38% in only 5 months, from 4.47 days to 2.77 days.



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Finance

The additional cargo has had a large bearing on the years financial result, with a net tax paid profit of \$3.4 million. Shareholders can be well satisfied with this result, which will provide a worthwhile dividend for our shareholders and a satisfactory level of retained earnings for re-investment in the port.

The year, therefore, has been an excellent one. Other highlights included the commissioning of the Omniport Spiralveyor Terminal, and a major port open day for commercial business people in Hawke's Bay and the neighbouring Manawatu/Wanganui areas.

Port Ownership

Ownership and shareholding of port companies received considerable attention during the year, and changes to legislation opening up the previous restrictive requirements was passed by Parliament. Diversification of shareholding will need to be considered carefully in relation to the best interests of the port, its customers and its shareholders.

A special thanks to our customers who have stayed with the Port of Napier during the changes which have taken place over the past two years. We appreciate your loyalty and support.

Outlook

For the year ahead we will continue to put our efforts into meeting our principal aim of ensuring the necessary infrastructure is in place and that all essential facilities and services are provided at a cost effective rate. We must also be prepared to think strategically to best meet the ports customers and their requirements.

Prudent financial management, and a good working environment for our employees, will feature during the coming year as we build on the new possibilities available within the reform of the waterfront.

MISSION STATEMENT

"To ensure that the necessary infrastructure is in place and that all essential facilities and services are provided at a cost effective rate."

OBJECTIVES

For its users, the Company intends to provide a safe, effective and efficient port operation at minimum cost.

For its shareholders, the company intends to manage the financial assets and liabilities prudently and in a manner which will yield a satisfactory profit.

For its employees, the Company intends to promote a good working environment where positive contribution is encouraged and rewarded.

Ports of Auckland: 1990 Highlights

- Profit before tax of \$21,052, for the second year of the company's operations.

- An overall increase in trade of 10.8 percent, achieved by improved performance and productivity in cargo handling, and strong aggressive marketing.

- Further progress with the port equipment upgrading programme with the ordering of additional Valmet heavy hoists, the ordering of a fourth post panamax portainer crane from the Noell Group, of Germany, and the

introduction of new Hyco reach stackers, and the new fast pilot boat, "Waitemata."

- The introduction of expanded port services and facilities, including a 2000 sq m coolstore at Queens Wharf, a 1000 sq m timber store at Bledisloe Wharf for kiln dried timber, and the setting up of a new joint venture in stevedoring and marshalling company, Cargo Movers Ltd.

- Introduction of new industrial agreement which now provide ability to operate the entire port 24 hours per day, 364 days of the year.

- Major improvements in productivity as a result of handling more cargo, quicker and more efficiently with fewer people.

PSA-NCB Strategic Corporate Partnership

By Lee Gek Tiang

**Public Relations & Marketing Dept.
Port of Singapore Authority**

PSA has become the first partner in the National Computer Board's (NCB) Strategic Corporate Partnership Programme.

A Memorandum of Understanding on the partnership was signed by Mr. Ng Kiat Chong, Executive Director of the PSA and Mr. Ko Kheng Hwa, Acting General Manager of the NCB.

NCB's Strategic Corporate Partnership Programme was announced by Mr. Tan Chin Nam, Chairman of NCB, on March 90 at the National Information Technology (IT) Application Conference. This programme is aimed at helping organizations exploit IT to build world class businesses. Through this programme, the NCB will enter into strategic partnerships with selected organizations in order to advise and support them in intergrating IT into their business strategies.

With the business expertise of the PSA and the technological support provided by the NCB, two expert systems modules will be developed: the Computer Integrated Terminal Operations Systems (CITOS) and the Computer Integrated Marine Operations Systems (CIMOS).

CITOS will automatically allocate, monitor and control all handling resources at the Tanjong Pagar Terminal.

These resources include yard space, berths, quay cranes, yard cranes and prime movers. It uses real-time monitoring, electronic identification, fault tolerant computing and expert systems technologies to automate container operations in order to improve overall container terminal productivity and achieve better use of scarce container yard space.

CIMOS is a real-time command and control system which will enable PSA to manage marine activities in the Singapore port waters. The system integrates radar, image, voice and computer-based technologies to track, control and manage port resources. It includes a series of expert systems aimed at improving the management and utilization of pilots, tug boats and launches in our waters to meet the growing demands of the shipping community. CIMOS will enhance the safety of navigation and facilitate efficiency of marine traffic in the Singapore Strait, one of the busiest channels in the world.

CITOS and CIMOS are critical components of PSA's overall strategy to exploit state-of-the-art technology to further enhance its premier position as a world-class seaport. These two systems will play a key role in helping PSA meet the challenges of the growing traffic and the maritime businesses in the 1990s and beyond.

(PSA Port Review)

Port of Singapore Improving Port Services

By Julie Lim

**Public Relations &
Marketing Dept.
Port of Singapore Authority**

More than 40 port users participated in the Marketing Seminar-cum-Workshop organised by the PSA on 7 Dec 90.

The theme for the Seminar-cum-Workshop was "Towards Customer-Oriented Service." PSA's objective in organising the event was to gather feedback from major customers on the key services offered at the Tanjong Pagar Terminal (TPT). Participants for the Seminar-cum-Workshop included representatives from shipping lines and agencies, freight forwarders, hauliers, shippers and consignees.

In his opening address, Mr. Ng Chee Keong, Deputy Director (Operations), encouraged the participants to be frank and open in voicing their opinion and giving their suggestions. From the feedback gathered, PSA would draw up an action plan to further upgrade and streamline port operations to improve customer service. This was followed by a brief rundown on the services provided by TPT. Miss Chung Suat Lay and Mr. Velusamy Mathivanan from the Cargo Systems Department then gave a presentation on the benefits of computer applications, in particular, PORTNET and CITOS, to port operations.

The workshop sessions provided the participants with the opportunity to discuss port-related issues more in detail. The workshop topics included:

1. Applications and advantages of Just-In-Time (JIT) operations to the Container Terminal and port users.

2. Measures to improve the speed of vessel operations.

3. Maximizing the productivity of TPT's and port user's resources.

4. Customizing TPT's services to meet customers' needs.

5. Expanding the services and information available through PORTNET.

6. System of One-Stop Application for port services.

Ms. Elaine Lim, Assistant Manager (International Business Planning and Control) of Sony Logistics said, "The seminar has given me better insight into port operations in PSA."

Mr. P. C. Sim of TSK line Agencies (S) Pte. Ltd. commented, "The seminar was conducted professionally and with open-mindedness amongst all the participants. Such open and comprehensive dialogue between PSA and the various port users is most welcomed within the shipping community."

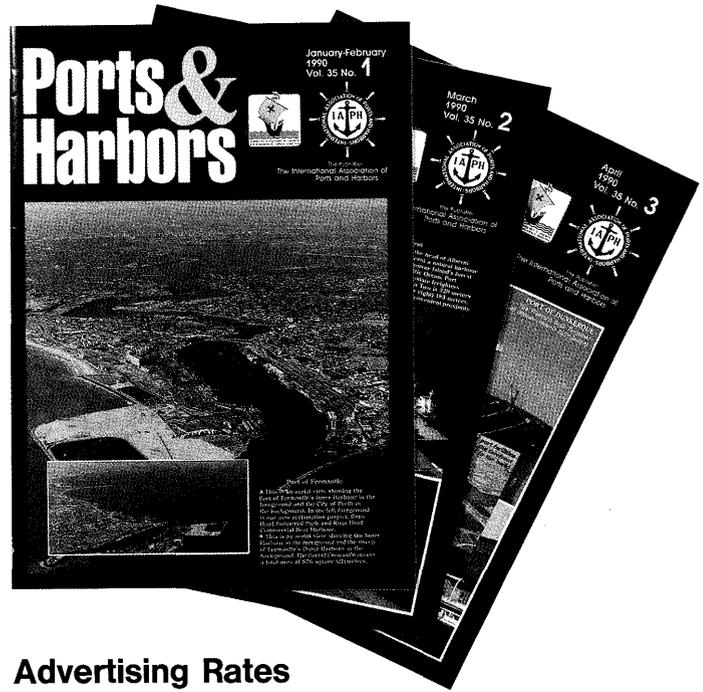
Following the workshop, representatives from the respective workshop groups presented their findings and views on how the shipping community and PSA could work together to improve the port services at TPT. It was a lively discussion filled with wit and humour.

Many participants felt that the Seminar-cum-Workshop was an excellent idea to further enhance the working relationship between PSA and the shipping community.

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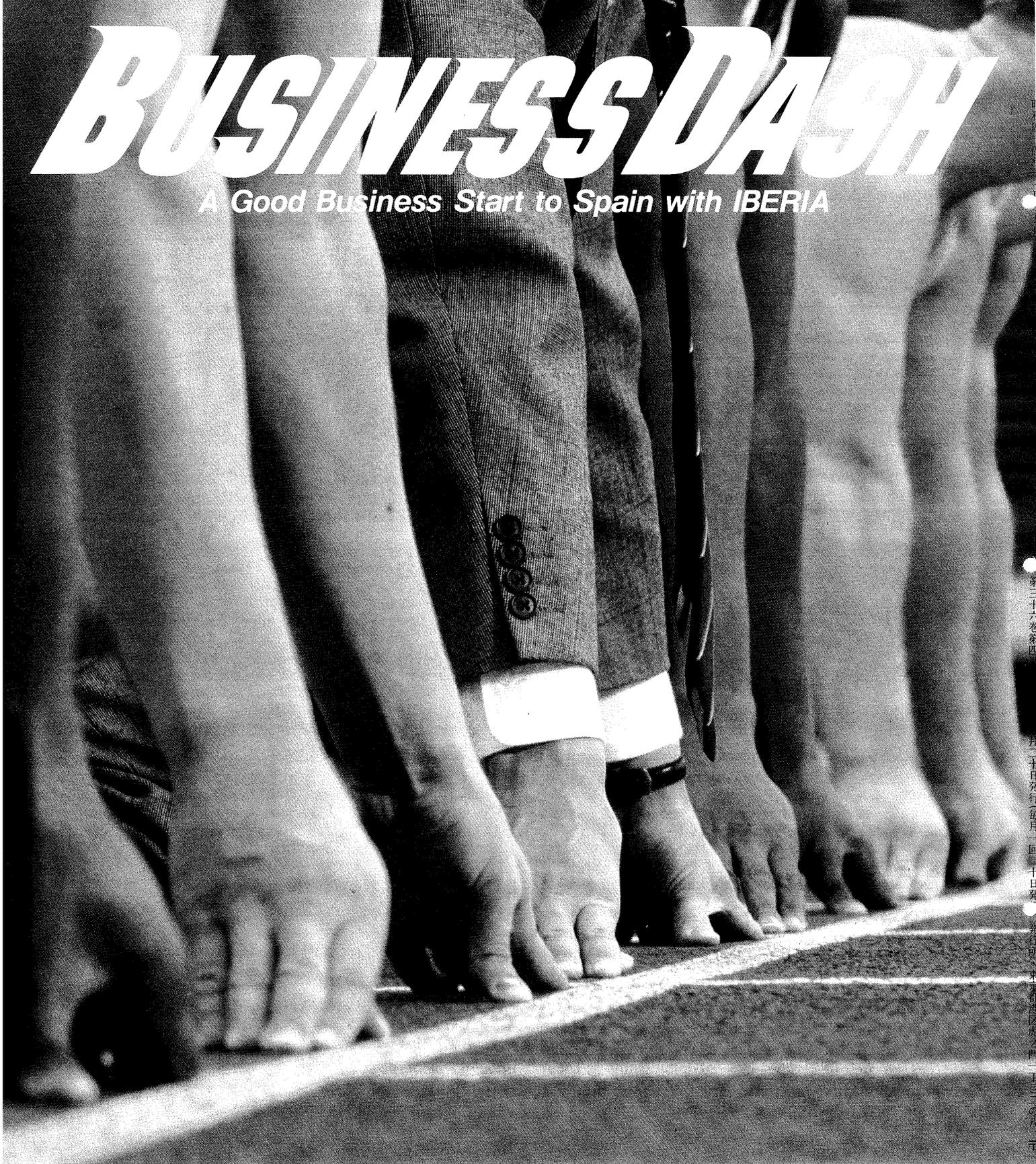
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