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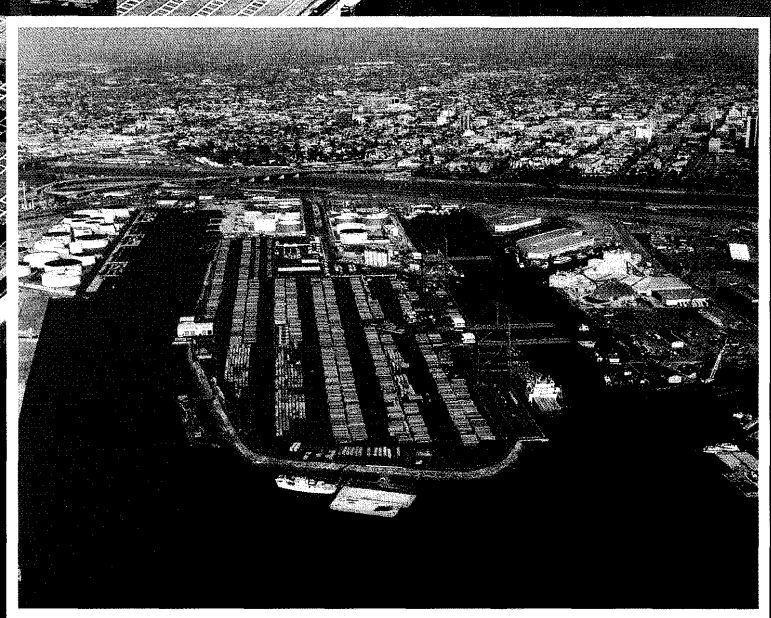
October 1991
Vol.36 No.8

The Publisher
The International Association
of
Ports and Harbors

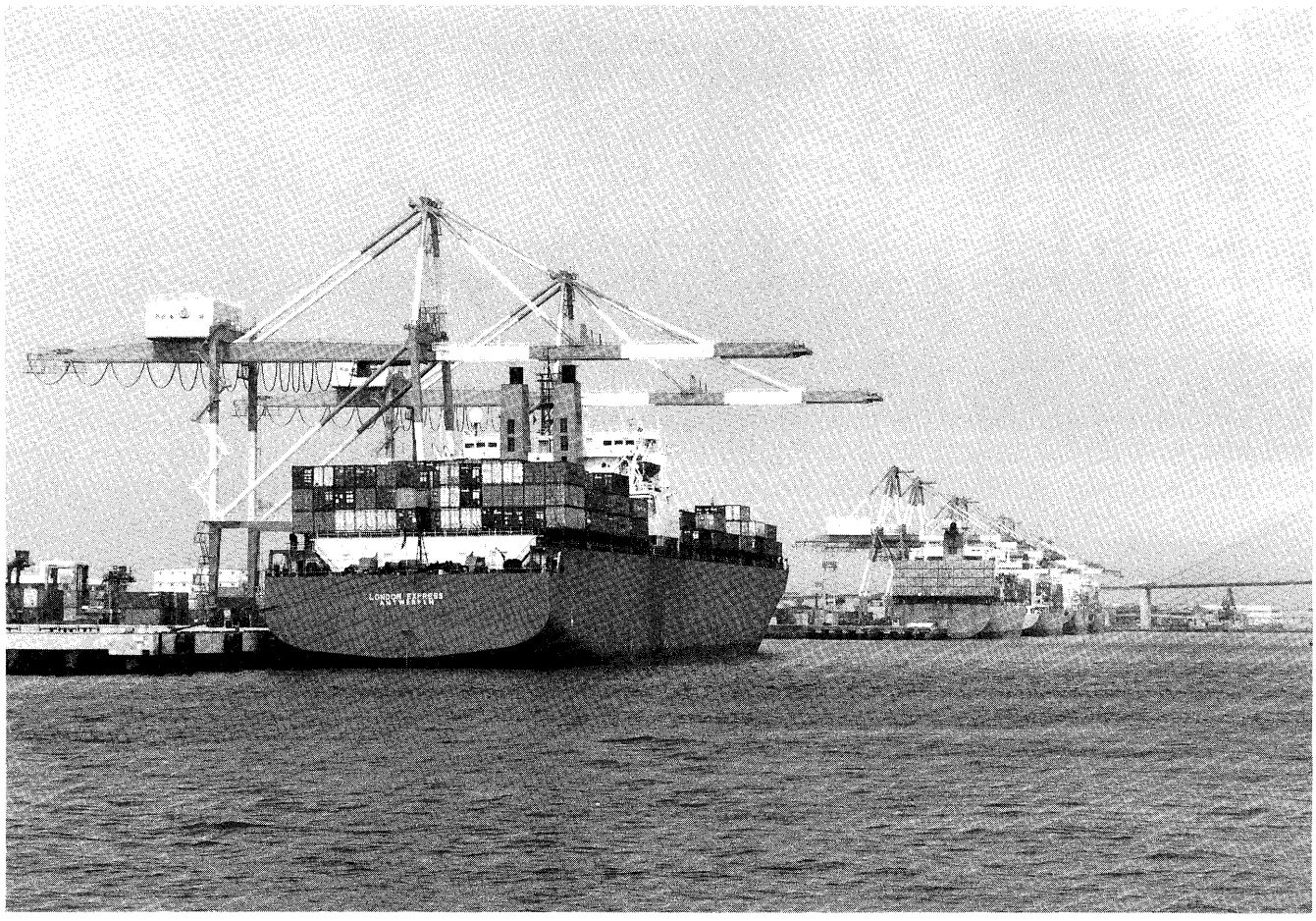
Aerial view of terminal featuring cranes. In addition to their functional purpose, these cranes are visible from several areas of the City of Long Beach and create an impressive landmark for the City as well as the Port and Hanjin Shipping Company, Ltd.

"New Long Beach Terminal Built for the Future" written jointly by E.D. Allen and larry W. Nye is carried in the OPEN FORUM Section of this issue.

New LONG BEACH Terminal



Aerial View of West Seventh Street Container Terminal



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PORT OF NAGOYA

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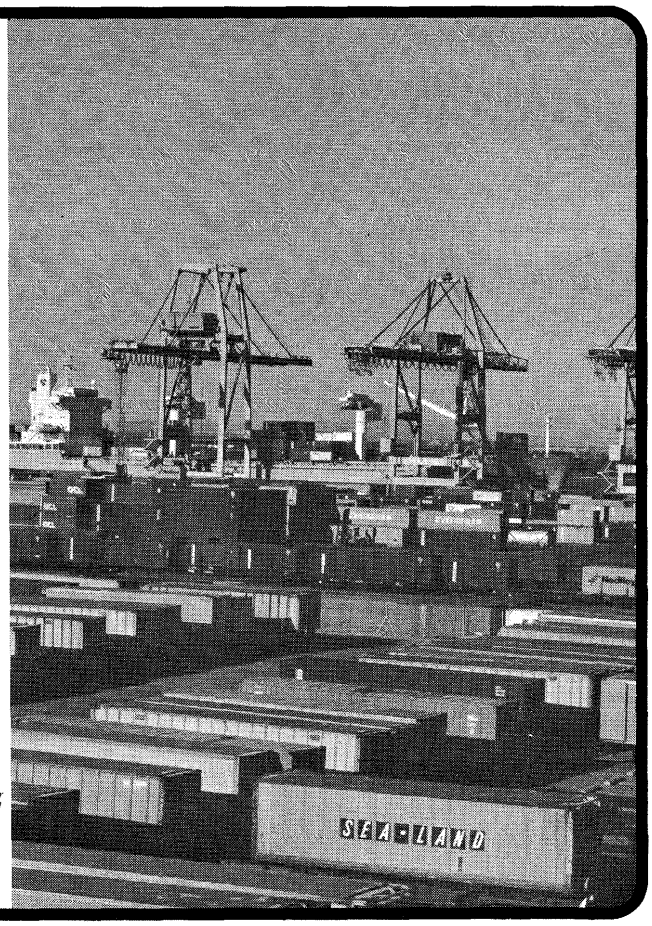


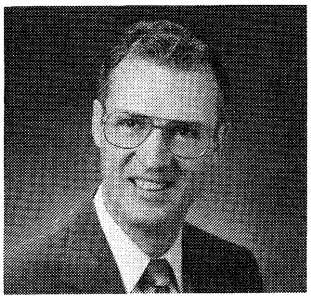
Fos Container Terminal

Atelier Paul Bertrand

IAPH ANNOUNCEMENTS AND NEWS

IAPH Submits Position Paper to UNCED Body

Mr. Dwayne G. Lee, Deputy Executive Director — Development, Port of Los Angeles, who has chaired the IAPH Dredging Task Force since the 17th IAPH Conference in May this year, has prepared a position paper on the consideration of marine pollution prevention strategies on behalf of IAPH for submission for the Third Preparatory Committee of the United Nations Conference on Environment and Development (UNCED), which was scheduled for 12 August — 4 September 1991 in Geneva.



Mr. Dwayne G. Lee

Mr. Lee has sent the paper to Mr. Maurice Strong, Secretary General, UNCED, with his letter of August 6, 1991, in which he outlines IAPH's views on the issues that will be considered at the 1992 Brazil Conference of UNCED in relation to the disposal at sea of dredged material.

In his paper Mr. Lee confirms IAPH's position in support of the concept of "Sustainable Development" as a means of balancing the many varied uses of ocean waters, including the need of many ports to utilize the ocean disposal of dredged material, in appropriate circumstances, so that they can continue operating.

The paper submitted from IAPH is reproduced later in this issue.

6 Members File Increased Dues Units

To arrive at the basis of membership dues to be paid by each Regular Member, and in accordance with the requirement of the By-Laws Sec. 5, a survey of each Regular Member is conducted by the Head Office in each odd numbered year — i.e., in each conference year. This year's survey asking all the Regular Members to file their updated numbers of membership dues units for 1992 and 1993, was sent out from the Tokyo Head Office under the date of July 30, with the closing date set at September 30, 1991.

By the end of August, approximately 25% of the Regular Members had returned their completed forms to the Head Office, informing the Secretary General of the updated numbers of dues units to be subscribed by them for the next two years.

Although full members still have one month to complete their filing, the Secretariat has been encouraged at the results of the survey, according to which some members have filed an increased number of dues units compared with the levels subscribed for the last two-year term.

Among the members who have filed more units are the Ports of **Hong Kong** and **Singapore,** which have now become the top-ranking members along with **Kobe, Rotterdam** and **Yokohama** subscribing 8 units.

Kelang, Malaysia, has leapflogged from 4 to 6 units and has thus to join the group of 6-unit members which comprises 15 members. The Port of **Le Havre** and **London** have respectively reported an increase from 5 to 6 units to join the 15-member group.

The Port of **Kawasaki,** Japan, has become a 5-unit member along with 17 other ports.

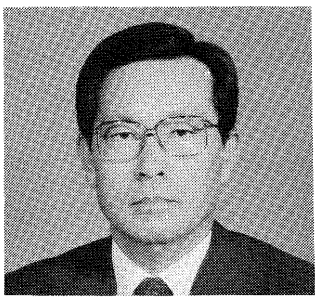
Secretary General Kusaka urges the members who have not yet returned the completed forms of notification to the Head Office to do so as soon as possible, but in any event not later than the closing date set at September 30, 1991.

The updated information on the distribution of dues units by the Regular Members will be available in the new edition of the IAPH Membership Directory 1992, which will be published in late October this year.

New Appointments

Kim Jong-Kil, Pusan, joins IAPH Exco

Mr. Kim Jong-Kil, Director General, Pusan District Maritime & Port Authority (PDMPA), Korea, has been appointed to the Executive Committee of IAPH by President Mather. The appointment was made during President Mather's visit to the Tokyo Head Office on July 22nd to fill the vacancy created by Mr.Cho Young-Hoon, Mr. Kim's predecessor at the PDMPA, who, soon after becoming an IAPH Exco member at the 17th Conference in May this year, was transferred to the position of Director General of the Marine Transport Bureau, Korea Maritime & Port Administration.



Mr. Kim Jong-Kil

In his letter to President Mather, the newly appointed Exco member Mr. Kim states, "I am determined to do my best for the development of the Port of Pusan and IAPH

and in doing so I ask for your continuous support and cooperation."

Philip Okundi, Mombasa, Liaises with UNEP

IAPH was granted formal observer status at UNEP (United Nations Environmental Protection Programme) in June 1991 to participate in the organization's activities. In view of UNEP's headquarters being located in Nairobi, Kenya, President Mather asked Mr. Philip O. Okundi, Managing Director, Kenya Ports Authority and an IAPH Exco member, whether he could serve as IAPH's liaison officer with UNEP. Mr. Okundi immediately confirmed his willingness to accept the role, whereupon President Mather officially appointed him to be our liaison officer with UNEP. This arrangement has been reported to the UNEP's secretariat in Nairobi by the IAPH Secretary General.

Mr. Philip O. Okundi

M. Sirat (Johor) & M. Chapman (Sydney) — New Legal Counselors

At the recommendation of Mr. Patric J. Falvey, Chairman of the Legal Counselors, the Board of Directors at its post-conference meeting in Spain in May agreed to elect the following individuals as new members of the Legal Counselors' Committee. They are Mrs Maimoon Sirat, Executive Secretary, Johor Port Authority, Malaysia, and Mr. Michael Chapman, General Counsel, Maritime Services Board of N.S.W., Australia. As of today, the membership of the Legal Counselors' Committee headed by Mr. Patric J. Falvey is as follows:

Chairman:

Patrick J. Falvey
Special Counsel
Port Authority of New York and New Jersey
U.S.A.

Members:

African/European Region:

K. Jurrien
Head, Legal Department
Port of Rotterdam

Mrs. Eunice Gitau
Company Secretary & Head of Legal Services
Kenya Ports Authority

American Region:

D.E. Johnson
Director of Operations/Harbour Master
Thunder Bay Harbour Commission

John McCarthy
Commissioner
Port of Tacoma

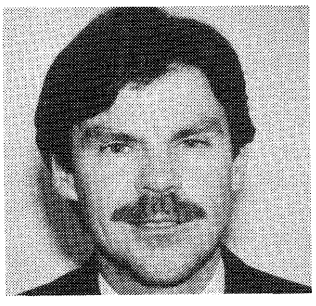
E.C. Petersen
Senior Deputy City Attorney
Port of Long Beach

Asian Region:

Maimoon Sirat
Executive Secretary
Johor Port Authority

Michael Chapman
General Counsel
Maritime Services Board of NSW, Australia

Ms. Maimoon Sirat



Mr. Michael Chapman

The IPD Fund: Contribution Report

The on-going fund raising campaign which started 14 months ago continues in progress but at rather a slow pace. As of September 10, 1991, a total of US$23,823 had been raised from the members whose names are listed in the box, together with the amount donated.

The Secretary General appeals to all members for their continued support of the project so as to achieve the targeted amount of US$70,000, which will comprise the resources to train 20 selected persons from IAPH member ports in developing countries over the two-year term.

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

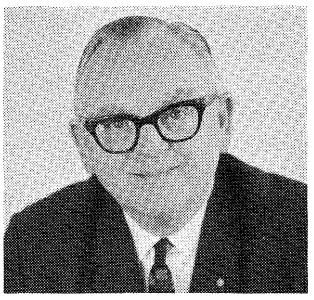
Contributors Paid:	Amount (US$)
Associated British Ports, U.K.	3,000
Nagoya Port Authority, Japan	2,748
UPACCIM, France*	1,989
Port of Copenhagen Authority, Denmark	1,000
South Carolina State Ports Authority, U.S.A.	1,000
Vancouver Port Corporation, Canada	1,000
Puerto Autonomo de Valencia, Spain	1,000
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
Toyama Prefecture, Japan	291
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 Kogoy Co. Ltd., Japan	250
Pacific Consultants International, Japan	238
Bintul Port Authority, Malaysia	200
Gambia Ports Authority, the Gambia	200
Nanaimo Harbour Commission, Canada	200
Port of Redwood City, U.S.A.	200
Mauritius Marine Authority, Mauritius	200
Public Port Corporation I, Indonesia	150
Port Authority of the Cayman Islands, West Indies	100
Port Authority of Thailand, Thailand	100
Ghana Ports & Harbours Authority, Ghana	250
Total	US$23,823
Pledged:	
Empresa Nacional de Puertos S.A., Peru	100
Total	US$100
Grand Total	US$23,923

**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*

Letter from the Late Sir Reginald's Family

The Secretary General has received a letter from Mrs. Ola Burt who is a daughter of the late Sir Regional Savory, former Chairman at the Port of Auckland, who was one of the enthusiastic IAPH activists from the late '60s to the early '70s. The letter reached us via Mr. Robert Cooper, Chief Executive of the Port of Auckland and 3rd Vice-President of IAPH.



The Late Sir Reginald

The letter, addressed to Mr. Cooper, was to express how pleased Mrs. Burt and her sister were that IAPH had passed a resolution of condolence concerning her father on the occasion of the recent Conference in Spain. In her letter Mrs. Burt says;

"I am especially delighted with this token of remembrance for my father for he was a committed and enthusiastic member of the International Association of Ports and Harbors and made many delightful friends during those particular years.

"On behalf of the family, I thank you most sincerely for your thoughtfulness in this matter. I know that my father would be very pleased to think that this mention had been made of his passing!"

United Nations — Gen. Assembly

Preparatory Committee for the United Nations Conference on Environment and Development (UNCED)

Third Session
Geneva, Switzerland
12 August — 4 September, 1991

Original: English

August 6, 1991

International Association of Ports and Harbors

IAPH Submission on the Consideration of Marine Pollution Prevention Strategies

1. Introduction

1.1 The International Association of Ports and Harbors (IAPH) is a worldwide association of port authorities founded in 1955 as a non-profit making and non-governmental organization. IAPH has more than 233 regular members, most of which are port authorities, and 111 associate members of various business sectors related to ports. The IAPH membership encompasses more than 81 maritime countries throughout the world.

1.2 A principal objective of IAPH is to provide governmental and intergovernmental organizations with a better understanding of port operations and to assure that the regulation of port activities is based upon sound technical considerations and an appreciation of port needs in carrying

out these operations. All ports require periodic maintenance dredging for operation. Dredging is also necessary for the construction of new channels and harbors for planned port expansions. Many ports depend upon disposal at sea of this dredged material. For these ports, there is no other feasible disposal option.

1.3 Since 1975, the disposal at sea of dredged material has been regulated under the London Dumping Convention (LDC), the global treaty dealing with pollution at sea, which is administered by the International Maritime Organization (IMO) as Secretariat. IAPH has observership status at the LDC. Since 1980, IAPH has actively participated in the work of Contracting Parties in studying impacts from the ocean disposal of dredged material. IAPH has submitted a number of scientific papers to the Scientific Group of the Convention on the effects of dredged material disposal and has reported upon the experience of IAPH ports in monitoring the impacts of disposal activities and the use of various "special care" measures for the disposal of contaminated sediments.

1.4 Because of its work under the LDC and the commitment of its members to the control of pollution at sea, IAPH has a strong interest in the purposes and goals of the 1992 UNCED and in the work of the Preparatory Committee. IAPH has particular interest in the consideration that will be given at this Third Session to "Marine Pollution Prevention Strategies". IAPH is setting forth in this submission a number of fundamental principles IAPH believes should be taken into account in developing any new initiatives for the control of marine pollution.

2. The Concept of "Sustainable Development"

2.1 Much of the current debate about the need for a new framework to achieve greater protection of the oceans has focused upon the concept of "sustainable development". This was recently defined at the Intergovernmental Meeting of Experts on Land-Based Sources of Marine Pollution (LBS), held in Halifax, Nova Scotia, on 6-10 May, 1991, as "a dynamic process designed to meet today's needs without compromising the ability of future generations to meet their own needs. It requires societies to meet human needs by increasing productive potential and by ensuring equitable, social, and political opportunities for all". (Final Report, Conclusions, Sec.3.1.8).

2.2. The ports of the world play a crucial role in achieving the goal of "sustainable development". Because of the close relationship of ports to national economies and to waterborne trade and commerce, port operations are essential to continued economic development and to assuring the availability of social and political opportunities to all states. At the same time, ports have a unique awareness of the importance of the marine environment and a strong commitment to carrying out port operations — including the disposal of dredged material at sea — in a manner that assures protection of ocean ecosystems.

2.3 IAPH supports the concept of "sustainable development" as a means of balancing the many varied uses of ocean waters, including the needs of many ports to utilize the ocean disposal of dredged material, in appropriate circumstances, for the continued operation.

3. The Precautionary Approach

3.1 The concept of "sustainable development" has led to discussion as to how this goal might best be achieved. There has been growing support for the use of the "precautionary approach" in connection with disposal at sea - both from dumping operations and from land-based sources of pollution. A fundamental difference in view has arisen, however, as to what the "precautionary principle" means. Some parties view the concept as prohibiting disposal at sea if there is any uncertainty as to impacts from disposal and unless there is proof that no harm will result to the marine environment. Other parties recognize that, while such absolute certainty may not exist, in many cases there is sufficient scientific knowledge to allow an evaluation of the effects of disposal at sea and to make a determination as to whether this can be safely carried out. An excellent discussion of this understanding to the precautionary approach was presented by Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP) in GESAMP XX, Annex IV, II.5, as follows:

> **"GESAMP XX (1990), Annex IV, II.5**
> **Strategy paper on the protection and management of the oceans**
> **(Also LDC 13/INF.8)**
> 'The concept of precaution is intrinsic to scientific prediction and allows the inherent uncertainties associated with scientific analysis and assessment to be accommodated. This concept has recently been adopted as a specific instrument of environmental protection policy under the titles of 'the principle of anticipatory environmental protection' and the 'precautionary approach'. The assimilative capacity concept does not conflict with these expressions of precaution; indeed advice on the WJ1 application of the assimilative capacity concept previously developed by GESAMP clearly emphasizes the need for the adoption of a precautionary approach using scientific conservatism to allow for uncertainty.
> 'Several recent interpretations of the precautionary principle would seem to imply that protection of the marine environment can be attained solely by progress towards a zero discharge policy. This is a flawed approach; rejection of scientifically based impact assessments will prevent proper allocation of priorities and rational evaluation of alternative options.!"

3.2 The precautionary approach has been the subject of extensive debate under the LDC. IAPH has always supported the view that appropriate technical standards do exist for assessing the safety of sea disposal of dredged material and that such disposal, under the appropriate circumstances, is consistent with the precautionary approach. IAPH has worked closely with Contracting Parties to the LDC - and with the Scientific Group of the Convention - in submitting a number of scientific papers that have presented a sound technical basis for evaluating the effects of ocean dumping of dredged material and in the development of innovative "special care" techniques for the safe disposal of contaminated marine sediments. This led to the adoption of special Guidelines for the Disposal of Dredged Material at the Tenth Meeting of the LDC in 1987. LDC Resolution 23 (10)[. In addition, the Scientific Group has recently developed a New Assessment Procedure (NAP) which contains the technical components of the precautionary approach. Together, these procedures provide a sound basis for evaluating and managing the dredging needs of ports.

3.3 In discussions of the "precautionary approach" in

connection with the 1992 UNCED, IAPH recommends that there be a recognition that scientifically based assessment procedures, such as the NAP and the Special Guidelines for Dredged Material developed, are an effective means of implementing the "precautionary principles".

4. Development of a Global Strategy for Controlling Marine Pollution

4.1 At previous meetings of the Preparatory Committee, there has been a growing interest in the development of a global strategy for controlling marine pollution, with reliance upon regional conventions and agreements to take into account variations and differences in conditions on a regional basis. The concept of "sustainable development" and the "precautionary approach" are key components of such a global strategy. IAPH supports the application of these concepts within the framework described above as part of a holistic approach to waste management that allows an equal consideration of all disposal options and use of the disposal option of least detriment.

4.2 The increasing emphasis upon an integrated approach to waste management has been due, in large measure, to a recognition that land-based sources are the dominant causes of marine pollution and are environmentally and economically related to activities such as agriculture, fisheries, coastal and river basin development, and ocean dumping. At the same time, a concern has been expressed that existing institutions are not structured to address pollution at sea from all sources. The LDC, for example, does not directly regulate land-based sources of pollution. This has resulted in a growing call for bringing all sources of marine pollution under a common umbrella and for treatment of all ocean issues in a comprehensive manner.

4.3 IAPH has long supported such an approach to waste management that would allow equal consideration of all options and, in the case of ports, use of disposal at sea where this is the option of least detriment. This approach has recently been endorsed by the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP) in its report on "Protecting and Managing the Oceans". This paper was the outcome of two working groups established by GESAMP to consider scientifically-based strategies for marine protection and management in a comprehensive framework for the assessment and regulation of waste disposal in the marine environment. The paper 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. It recommends a sound comparison among alternative options in a multi-disciplinary approach.

4.4 Support for a comprehensive waste management strategy was also recently expressed at the Intergovernmental Meeting of Experts on Land-Based Sources of Marine Pollution in Halifax, Nova Scotia. The Meeting recommended that, regardless of the form that an international mechanism is given, new initiatives to deal with land-based sources should, **inter alia,** build upon the Montreal Guidelines for the Protection of the Marine Environment Against Pollution from Land-Based Sources (Decision 13/18/11 of the Governing Guidelines council of UNEP, of 24 May, 1985.) These guidelines recognize that an overall approach to the uses and natural values of the marine environment should be taken, while still considering the needs of populations and industries for waste disposal. In some instances, marine disposal is a feasible alternative. The guidelines note that "... compromise and consideration of all alternatives must always be considered.

Consequently, in the course of the decision-making process determining the use of a particular sector of the marine environment, social, economic, and political factors, as well as natural environmental factors must be taken into account". (Mo ntreal Guidelines, Annex 1, Introduction.)

4.5 IAPH supports the application of these principles in the development of any global strategy for controlling pollution at sea.

5. The Future Role of the London Dumping Convention

5.1 The LDC has been the primary international forum for decisions regarding ocean dumping and is the only global regime to take action through precise standards and technical committees. IMO is also the premiere U.N. organization concerned with maritime safety and prevention of marine pollution.

5.2 The development of any new global framework for controlling pollution at sea should build upon the work of Contracting Parties under the LDC and should draw upon the expertise of IMO in those areas in which the LDC has

Membership Notes:

New Members

Regular Members

Port Authority of the Cayman Islands (Cayman Islands)

Address:	P.O. Box 1358, Harbour Drive Grand Cayman
Mailing Addressee:	Mr. Errol L. Bush Director of Ports
Tel:	809-949-2055
Fax:	809-949-5820

Puerto Autonomo de Huelva (Spain)

Address:	P.O. Box 27, 21071 Huelva
Mailing Addressee:	Mr. Juan Arroyo Senra President
Telex:	75594
Tel:	955-21 31 00
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Associate Members

SafePorts AB [A-III-3] (Sweden)

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Mailing Addressee:	Mr. Per H. Olson Managing Director
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Mailing Addressee:	Mr. Jonathan Ignarski Director
Tel:	071-283-8686
Fax:	071-283-5763, 071-929-7928

made the most technical progress.

The LDC has been particularly effective in the regulation of dredged material disposal. Use of the Dredged Material Guidelines, together with the New Assessment Procedure (NAP), has provided a sound basis for assessing the impacts from the disposal of dredged material at sea. In this regards, the LDC should continue in effect as an essential component of any new global strategy to control marine pollution.

6. Conclusion

6.1 IAPH submits the views expressed above for consideration at the Third Session of the Preparatory Committee with the recommendation that these principles be applied in formulating proposals to be presented to the 1992 UNCED in Brazil.

DWAYNE G. LEE
Deputy Executive Director of Development
Port of Los Angles
Los Angeles, California, USA
Chairman, Dredging Task Force
International Association of
Ports and Harbors (IAPH)

Report by Bursary Recipient

The Challenge of Increased Port Competition

By Zulkifli bin Idris
Assistant Traffic Manager
Kuantan Port Authority

1. First of all I would like to thank IAPH for granting me a bursary to attend the seminar "The Challenge of Increased Port Competition", held at La Havre from 3rd June to 7th June 1991. The seminar was jointly organized by UNCTAD and IPER.
2. The seminar was intended for port managers and terminal operators mainly from developing countries. A total of twelve participants from Malaysia, Indonesia, United Arab Emirates, Gambia, Spain and Portugal attended the seminar.
3. The objectives of the seminar were as follows:
   - to determine the key factors in port competition;
   - to analyse the relationship between terminal operators and their main users;
   - to assess the extent of commercial risk existing in terminal management;
   - to survey existing terminal contracts; and
   - to propose methods, techniques and arrangements for containing commercial risks as well as to detail terminal contract conditions which are usually beneficial to terminal operators and users.
4. The seminar covered a wide range of topics concerning port management and competition, such as container services, the establishment of transhipment facilities, port finance, commercial risk and financial liability, privatisation and terminal operator liability.
   The topics covered were as follows:
   1. elements of port competition;
   2. container services and their role in generating increased competition;
   3. the selection of ports;
   4. transhipment and its impact on port marketing;
   5. privatization as a strategic operating tool;
   6. reasons for and examples of internal port competition;
   7. commercial liability of modern port facilities;
   8. an analysis of terminal lease contracts;
   9. the impact of multi-modal operations on port competition;
   10. the importance of terminal liability;
   11. port competition and subsidization policies;
   12. an analysis of port competition;
   13. port pricing;
   14. the convention on the liabilities of operators of transport terminals in international trade; and
   15. the impact of inland transport or port competition.
5. The papers were delivered by officials from IPER, the Port of Le Havre, IAPH, UNCTAD and the World Bank, who are experts in their own field. Apart from lectures given in the classroom, visits were also made to the Port of Le Havre to enable the participants to get a general view of the port's management and operational system.
6. Even though the visit to the Port of Le Havre was quite short, it was very interesting. The visit started with a video presentation and was followed by a visit to the operational area. Since most of the cases highlighted in the seminar referred to the experience of the Port of Le Havre, the visit to the port was most appropriate and relevant, as it gave the participants a better understanding of the subjects taught.
7. The Port of Le Havre presented a good example of a port which has grown to the extent that it not only handles domestic cargoes but also handles transhipment traffic to the European continent. Despite having strong competition from other ports in Europe, the Port of Le Havre has grown tremendously.
8. In 1990, the Port of Le Havre handled 55 million tonnes of cargoes, a 3.5% increase compared to the previous year. The containerised trade with the French and European hinterland showed an 8% increase, giving an average annual increase in tonnage of around 10% since 1986.
9. The factors affecting ports worldwide are the same. Ports are on the receiving end of technological changes promoted by the transportation chain. The shippers have the opportunity to select the ports of their choice for their own reasons. The ports, on the other hand, have to compete among themselves in order to attract the shippers. This is a problem that most of the ports in developing countries are facing now and that the ports in developed countries have faced earlier and managed to solve successfully. Although the same solutions may not be readily available to us, the techniques and methodology used in analysing the situation and arriving at recommended courses for remedy are applicable.
10. It has been stated that ports should be looking hard at their strengths, weaknesses, opportunities and challenges so as to be better prepared to formulate their competitive development strategies. The ports must use what influence the have to gain potential customers and they must liaise with port users, inland transpor-

(Continued on Page 20)

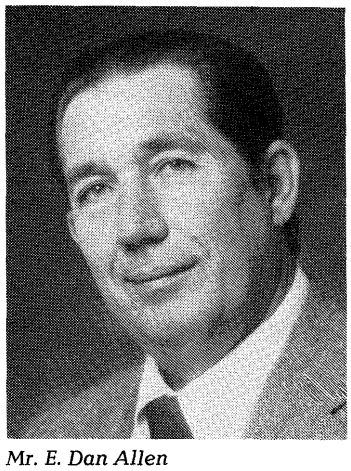
OPEN FORUM

New Long Beach Terminal Built For the Future

by
E.D. Allen, Port of Long Beach
and
Larry W. Nye, Cash & Associates Engineers

A distinctive trio of 200-foot-tall ship cranes joined the skyline of the Long Beach inner harbor this spring. Painted a bright orange visible for miles, the attention-getting post-panamax cranes mark one of the most sophisticated marine terminals on the U.S. West Coast.

Indeed, the new West Seventh Street Terminal combines high technology, maximum security and strategic location with a flexible design. The result is a facility that can maintain high levels of efficiency even under extremes of high and low traffic flow.

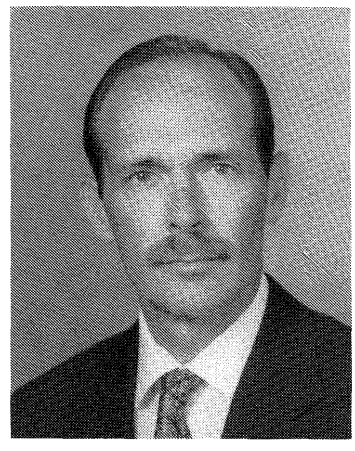


Mr. E. Dan Allen
Chief Harbor Engineer,
Port of Long Beach

The $65-million terminal, leased by Korea-based Hanjin Shipping Co. Ltd. and operated by Marine Terminals Corporation (MTC), was designed for phased expansion to accommodate the continuing growth of cargo volume at the Port of Long Beach.

The 55-acre terminal's first phase includes:

- Two 900-foot long ship berths.
- Three high-speed cranes, from Samsung Heavy Industries, each able to handle up to 30 containers per hour.
- A highly automated ten-lane gate complex with systems capable of more than 1500 in and out moves daily.
- The 55-acre container yard, in Phase I configuration, can accommodate approximately 3,000 40-ft. containers, both grounded and wheeled, including 100 reefer outlets.
- Maintenance/repair and marine operations buildings are positioned to maximize efficient yard operations.
- The gatehouse/office complex houses Hanjin's North American headquarters in a 20,000-sq ft. 4-story administration building.



Mr. Larry W. Nye, P.E.
Principal/Project Manager,
Cash & Associates Engineers

"The number of boxes entering and leaving the harbor will quadruple over the next 30 years, "explained Steven R. Dillenbeck, Executive Director for the Port of Long Beach. "This facility is part of our plan to handle this throughput growth. That's why it's been designed to accommodate increasingly more facilities and equipment."

Designed for efficiency

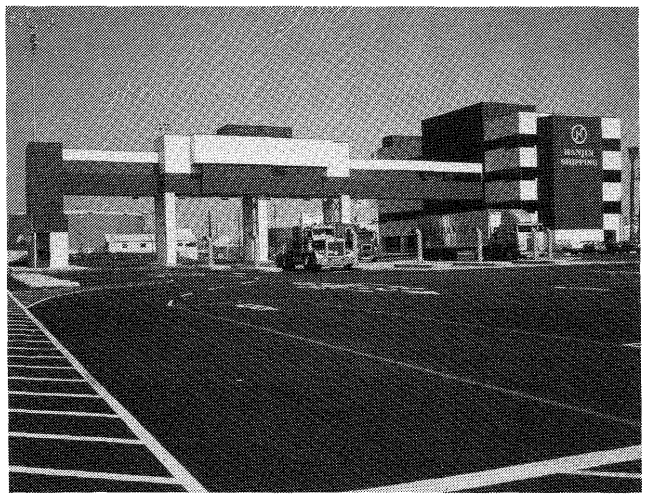
"A harbor terminal is only as good as its gate," explained MTC's Alfred C. Giannetti, terminal general manager. "A modern stevedoring operation requires a gate combining the latest technologies in a flexible, easy-to-use and - most of all - efficient system."

To achieve this, the West Seventh Street Terminal gatehouse integrates a number of proven automated technologies. The goal was to select the computer, communications and operations systems that would cost-effectively increase speed and reduce human error.

For example, the gate complex was designed to switch from two-stage (pre-gate) to single-point processing depending on traffic conditions and operator's choice. This enables the operator to maximize throughput during peak traffic yet minimize labor costs during reduced traffic.

The gate itself has been designed to include a unique "bridge" over the traffic lanes. This allows placement of gate clerks directly above and behind incoming trucks and has several benefits:

- Clerks can personally verify equipment type and



Administration Building/Gate Complex

(Photograph taken by Barbara White/Architectura Photography Laguna Beach, California Cash & Associates Engineers.)

number by sight.

- Mismatched equipment is easier to spot, thus cutting costs.
- Minimizes the human errors of misunderstanding voice communications.
- Eliminates the need for drivers to leave their trucks. Other technical systems have been added to increase processing speed while cutting potential errors:
- Clerks speak with drivers by intercom and log information on PC-based computer terminals with a simple, custom, user-friendly software system.
- Direct visual contact is aided by automatic, remote video cameras that provide close-up views of equipment numbers when needed for verification by clerks.
- The gate also is equipped with high-speed electronic truck scales that are computer-interfaced with each clerk's terminal. Again this boosts processing speed and reduces errors.
- An emergency power system can maintain full operation of all gate systems in the event of a local power interruption.

"Integrating video and computer technology into this system gives clerks power tools for doing their job quickly and accurately," said John Mosier of L.A. King, supplier of voice, video and computer systems. "Designing an integrated system into the terminal as it is built makes the whole operation more reliable and cost effective."

The gatehouse complex includes six receiving lanes and four delivery lanes. Two of the four delivery gate lanes are reversible to handle traffic fluctuations. A bobtail-only speeds processing of pickups. The gate facility is sized to accommodate the full potential of the future expansion of the terminal.

The facility's operational systems have been designed to provide the most effective operation possible. The enclosed, climate-controlled bridge provides working conditions that equal any office environment. Combined with the operating systems, workers are able to get more done with less strain.

All this technical equipment meshes with an operational system developed and refined through years of teamwork by Hanjin and MTC. The end result is a facility that ensures the most efficient operations under both high and low volume conditions. In such a competitive business as terminal operations, MTC's goals are to keep the drivers moving and to eliminate unnecessary paper shuffling. The new facility has been designed to accomplish both these goals. In fact, the average trucker is in and out of the terminal in 15 minutes.

To maintain peak efficiency levels, the new terminal was designed by Cash & Associates Engineers using a specially developed computer analysis of traffic patterns to pinpoint peak hours and days, longest wait, length of queues, cost per move and most economic staffing levels.

And efficiency doesn't stop at the terminal fence. The new facility is only minutes away from key transportation nodes, including Southern Pacific's intermodal container transfer facility (ICTF), with immediate access to the sole freeway serving Long Beach Harbor.

Bounded on three sides by water, the terminal offers a level of high security that is required by companies shipping to and from the Far East.

Flexibility is key to future growth

The West Seventh Street facility's master plan has been designed to accommodate future phased expansion to a maximum of 100 acres, with provision for on-dock rail service and expansion of the container yard. As Hanjin continues to rapidly expand services, this flexibility will make it easier to grow.

"This flexible master plan will enable us to consider a number of options for potential growth," said Paul Laigne, Hanjin Shipping's North American assistant general manager of operations. In 1994 Hanjin will have first option on an adjacent 30-acre site for possible expansion.

The master-planned design of the West Seventh Street Terminal was based on selecting successful technology used at other efficient terminals and incorporating it in a flexible, site-specific design. In this way the benefit of recent research was incorporated in the Long Beach facility.

For example, Cash & Associates Engineers used the experience and knowledge gained through recent studies of existing container terminal gates to integrate the right combination of facilities and proven systems for the Hanjin

This photograph illustrates view of clerk working in the gate complex.

(Photograph taken by Barbara White/Architectura Photography Laguna Beach, California Cash & Associates Engineers.)

gate.

Operating a modern marine terminal one efficiently requires not only a design that works today but one that will also work tomorrow. Facilities were master-planned to accommodate both current and short term operational needs as well as future expansion.

Although the terminal has been planned to operate primarily in a wheeled mode, both the container yard pavement and above ground facilities have been designed to enable either wheeled or grounded operations. The terminal's master plan also enables the addition of an on-dock facility for double-stack railroad cars.

Pedestals containing intercoms used by drivers as well as conduit have been designed for future retrofitting with an Automatic Equipment Identification (AEI) system, which will further speed processing and reduce mistakes. Future "drive-by" recognition systems can easily be added to these facilities.

The wharf itself was designed so that three more gantry cranes can be added to accommodate increased throughput.

Expanding ports face challenge

Construction of the facility was completed within 15 months of ground-breaking, a remarkable schedule given the complexity of the finished facility. Actually, the office complex was built in just under 200 days. Because of the short schedule, construction itself was a challenge. The project involved more than 15 construction contracts, with up to 12 contractors working on-site at one time. Coordinating teams of pavers, trenchers, riggers, crane specialists and many other trades was an enormous job.

Because the Port and lead design consultant used the same Computer Aided Design (CAD) software systems, modifications were made more easily than usual, and much time was saved by swapping drawings on computer disks.

In short, the project team had to work closely together to complete the project on time and on budget and that's exactly what they did.

But the West Seventh Street Terminal project wasn't without obstacles. And the lessons learned may be instructive for port officials in other areas.

Originally home to a 50-year-old Proctor & Gamble soap factory, a 30-acre parcel was purchased by the Port and added to an adjoining 20-acre parcel bought previously from Southern Pacific Transportation Company. The combined parcel was then redeveloped at a cost of about $65 million.

The site is located over a very large oil field. More than 20 oil wells had to be consolidated and redrilled to make the container yard operate efficiently. Oil extraction over about 50 years had caused the property to settle until high tide was above ground at the soap factory. As a result, nearly half a million cubic yards of fill material were imported to bring the site to the proper elevation for terminal operations.

Despite the challenges inherent in renovation projects of this type, the Port is planning to purchase and redevelop more existing properties as opportunities arise.

The Port is also pursuing the construction of new land by dredge filing. The recently completed "Pier J Expansion" created 147 acres of new land in the Long Beach Outer Harbor area. But this method of expansion is not without challenges, most significant of which are the environmental aspects of new land construction.

Given the increasing throughput being experienced and projected around the world, the solutions to increasing demand will have to include maximizing the efficiency of existing terminals as well as development of more terminal space through new land construction and redevelopment of existing waterfront properties.

Like any successful harbor terminal project, the West Seventh Street Terminal was a product of teamwork. The combination of port authority, shipping company, terminal operator and facilities designers produced a marine facility that will set a new standard for operational efficiency.

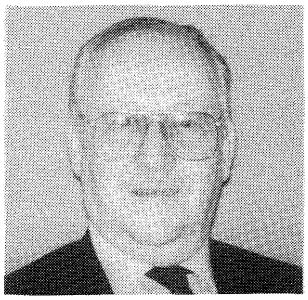
By monitoring performance and refining these systems under real world conditions, we hope to continue to increase that level of efficiency.

Port Performance And Productivity Measurement

By Ernst G. Frankel
Massachusetts Institute of Technology

ABSTRACT

Ports historically have been inward-looking monopolies or oligopolies who considered performance as an internal measure. In fact, most port performance standards are derived narrow operational performance measures designed more for comparison with achievements of other ports in similar operations or measures against proposed supplier standards. Though these port productivity measures have been used by ports to convince potential users and others of the quality and efficiency of services, they have failed miserably in meeting these objectives. As discussed in this paper, port user interest in port productivity and service quality has many more and different dimensions than those addressed by ports who would be wise to reconsider their management strategy to remain competitive.



Mr. Ernst G. Frankel

INTRODUCTION

As ports increasingly lose their monopolistic or oligopolistic position, and in many cases become truly commercial or private enterprises, the approach to the measurement of port performance and productivity must be reevaluated. Traditionally ports claim productivity achievements based on narrow operational performance measures such as tons per gang hour, number of container cycles per hour, and container dwell time. While such measures may, under some circumstances, provide the port with insight into its performance in narrow operational terms, they are of little interest to port users who are more concerned with total ship turnaround time and cost and total cargo throughput time and cost, including the effectiveness and cost of the port-land transport or feeder interface, as well as the efficiency and cost of the inland modal links provided at a port.

Port users look at a port as an overall service link with associated costs in terms of direct port charges as well as time costs, where the latter includes delay costs of transport vehicles such as ships, trucks, railcars, etc., delay costs of cargo such as cargo inventory holding costs, financing costs such as additional costs of financing goods in transit, and various other transaction costs such as involved in data handling, documentation, information transmittal, and communications.

In many ports, cargo safety (insurance) and security as well as inspection costs must also be considered as these often contribute both directly and indirectly to the costs of the users of the port. Port users usually fall into several categories such as shipping companies, shippers, cargo owners, freight forwarders, and more, and their involvement in port use was fairly diverse. In more recent use and with increased application of intermodal through bills, documentation and cargo control, port users are often represented by a single party.

Most users, and particularly integrated multi-modal operators, today have a choice in their selection of a port, and ports as a result must be able to prove to users the advantage of their port in user port performance and productivity terms and not narrowly defined port operational performance terms. This problem is sometimes complicated by the direct or indirect involvement of users in port investment, port equipment, or facility provision, or actual performance of some port operations.

PORT USER-ORIENTED PORT PERFORMANCE

Port users typically consider port performance in financial or economic terms. They consider the net revenue contribution of a port call which is usually defined as the difference between the added revenue generated by the port call minus the costs of making the port call. As shown in Figure 1, port costs from a user's point of view consist of (1) ship related costs, (2) ship port related costs, (3) cargo handling costs, (4) cargo storage costs, and (5) feeder costs. Users usually confront one of two problems in choosing or evaluating a port.

a. Does the port provide advantages over competing ports serving roughly the same hinterland?
b. Does the port offer advantages as an additional port of call either on an existing liner route or service or in the design of a new mainline or feeder service?

Port productivity and performance measurement here is considered mainly from the liner or multi-modal operator's and related cargo owner's (or its agent's) point of view. The approach is somewhat different in bulk operations, where service or charter contracts may define port use explicitly.

A liner operator, particularly in the container trade, faces very high fixed costs and, as a result, must try to maximize capacity utilization in terms of revenue slots filled, because the ship and its container inventory are such a large investment. Land or feeder transport is usually somewhat more flexible. Fixed costs in large container ship operations, including costs of the containers, often exceed 80%. Land transport by truck or rail, on the other hand, usually only faces fixed costs of about 40-55%. At the same time, ship capacity provided is much less flexible than land transport capacity which can usually be rapidly changed at little cost, if and when the need arises. This is a dilemma for ship operators, whose fixed and average costs are therefore high, while their marginal costs are usually low.

A typical containership operator of, say, a 3,000 TEU

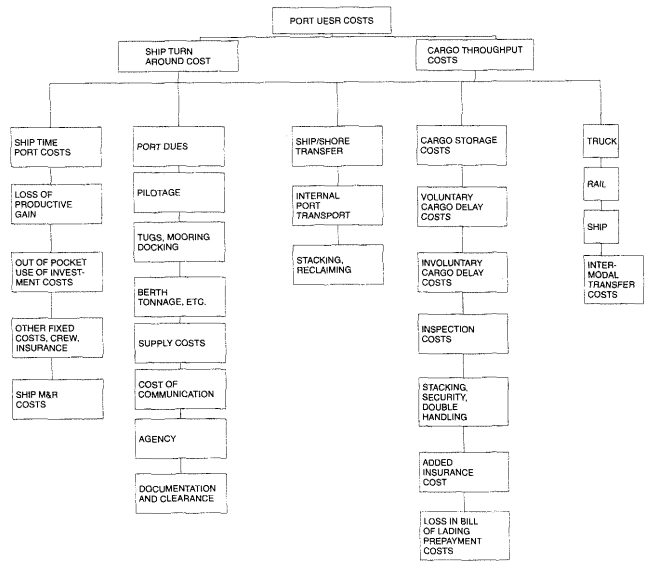


Figure 1. Port User Costs

vessel usually has fixed ship costs of about US$20,000/day or US$833/hour. His opportunity costs (or loss of potential revenue costs) may be significantly higher. Total ship costs, including container use charges, usually add 60% to the direct fixed costs of a containership for an hourly cost of about US$1,388. In addition, there are variable ship costs.

Ship port costs depend on the port tariff for the different fees and ship related services. These, with the exception of supply (water, etc.) costs, tonnage fees, and wharfage or berth charges are independent of the ship's port time. Total ship turnaround costs therefore consist of time related costs and non-time related charges.

Cargo handling costs which may only involve ship-shore, transfer, and stacking costs or, as in the case of an integrated intermodal operator, may involve also port-land transport or feeder transfer and transport costs, include port, stevedoring, equipment use, storage, and related charges, over which port users have little control. In fact, in many ports today total cargo throughput costs are several times the actual costs of cargo handling (and feeder transport if these are included). As a result, a port user notes the following types of costs:

1. fixed charges related to the use of the port, such as pilotage, tug use, communication, documentation, agency, supplies, etc. which are independent of cargo volume handled and port performance = FC;
2. cargo volume and port performance related ship turnaround time costs (loss of opportunity costs);
3. cargo volume related costs such as tonnage charges and cargo handling costs;
4. cargo storage and transfer costs — voluntary and involuntary;
5. cargo security and inspection costs;
6. cargo transfer costs to feeders;
7. feeder costs; and
8. overhead, pay-off, loss of cargo, and other costs.

It is interesting to note that port users have little, if any, control over most of these costs unless they are directly involved in the operations and control of the terminal.

More importantly, basic published port charges such as pilotage, wharfage, tonnage, container handling and container storage costs, when applied to a proforma cal-

culation of the user cost of a port call, will usually only add up to 20-60% of the total costs of such a port call. The range is so large that operators or port users have become increasingly skeptical of port performance claims.

Ultimately a port user is only interested in the net contribution a port call makes to his operations, after all costs related to a port fall are subtracted from all revenues generated by the port call. Obviously users may also be influenced by market factors such as the potential of a port's hinterland and competitive factors, such as the presence of competing operators in this or competing ports, as well as political or strategic requirements.

The bottom line, though, for most operators is the short- and medium-term financial benefit from the use of a port, and in this respect he is only concerned with his total or net benefit from the use of the port, and not parochial operating performance claimed by the port.

USER CONCEPTS OF PORT PERFORMANCE

Port users, who are usually ship or intermodal operators judge port performance in terms of the contribution of the port to the user benefits. These, in turn, are measured as net revenue contributions per unit time or per voyage. They may also be expressed as return on investment, revenues or assets.

A port user will usually compute the marginal financial (cost and revenue) effects of adding a port in the itinerary (or conversely, of deleting such a port call).

A user when considering a port call will estimate its contribution to revenues by computing expected added freight revenues from cargo generated at the port and for the port, the impact of cargo movements to and from the new port on cargo capacity to and from other ports and resulting revenue losses, the resulting net change in expected revenue per voyage (or unit time) and the added voyage time and port costs as described in Figure 1. The net revenue contribution obtained from the addition of the new port, then, is:

The net change in expected revenue — the added costs of calling at the new port, which include ship turn around as well as cargo throughput costs borne by the port user.

Most port users will divide the resulting net revenue contribution obtained by the number of added days per voyage a year to compute the change in the returns achieved by this change in itinerary.

The results will indicate the advantage of adding (or deleting) the port in terms of total net revenue per year, total net returns on investment, total net returns on assets, or total net returns on revenues. Users will ultimately choose a port on the basis of the marginal effect on some of the above measures of financial performance.

CONCLUSIONS

A study of port user perception of port performance indicates dissatisfaction with the approach taken by many ports in determining their support performance.

To be effective in marketing, a port should assume a user approach to port performance measurement and adjust its tariffs, operations, controls, and procedures to satisfy user and not only port interests.

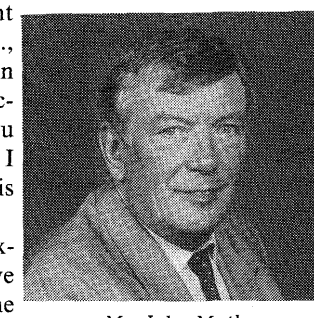
NOTE: A more detailed economic analysis of Port Productivity and Performance from the User's Point of View is under preparation.

United Kingdom Ports & the European Scene

BY John Mather
Managing Director, Clyde Port Authority
President of IAPH

(Speech delivered at the gathering of IAPH Japanese members held on July 24, 1991 in Tokyo)

I was delighted to receive the gracious invitation from Mr. Shizuo Asada, President of the IAPH Foundation, inviting me and my colleague to Japan and to have the opportunity of delivering a talk concerning the current situation of port development and future plans in the U.K., as well as the future direction of the European ports. I recognize the honour that you bestow on me and trust that I will fulfill my obligation in this respect to your satisfaction.



Mr. John Mather

It is important before expanding on the remit that I have been set, that I first revisit the immediate post-war years for the political, economic and social reforms and changes which occurred during this period that have established the present position and climate within the U.K. ports industry and pointed the way to future development.

After 1945 we had four years of Labour government which heralded in a New Age through the deliberate building of a welfare state. This was followed by 10 years of a Conservative government who claimed that the people of Great Britain "had never had it so good". Then back and forward for another 20 years, neither the left nor the right dominating for particularly long. We perhaps went too far too quickly in building a welfare state. We built what many now argue was a dependency culture. The expectation that the State would provide from "cradle to grave" imbued in many citizens a lack of will to succeed.

We entered the post-war years on a tidal wave of socialist idealism!! We built vast new areas of housing. Some of these new areas in Glasgow, my home city, contained upwards of a hundred thousand people. But in this haste to build these 'New Jerusalems', no thought was given to the provision of shops, belatedly only to schools, but certainly not to social amenities and also not to industry.

Only in our New Towns did we have a measure of success in which more calculatingly did we seek to plan and build a total environment; and, of course, these New Towns attracted the very best and most skilled of our young people, who migrated in increasing numbers from our cities, contributing in time to the dereliction of the inner areas.

It is certainly not my intention today to dwell over-much on the mistakes of the past but simply to paint a snapshot view of the U.K. The costs to the nation and its wealth as we emerged from the 1940s had been considerable, yet instead of concentrating our resources wholly on rebuilding our economy, we dissipated our energies throughout the world in a vain attempt to cling on to the days of Empire and to act as the world police force.

At home our embrace of the then current socialist ideology, both by the left where it was expected, but more

significantly in allowing a leftwards drift of the right, we helped to indoctrinate a generation with the belief that they were owed a living. We passed to them the concept of Empire and what was seen as Britain's world role, and at the same time led them to believe that they could have employment but they did not necessarily need to work. I do not believe I am being over-harsh in these statements.

We encouraged the dominance of our society's working life by unionised labour whose will was ideologically strengthened whilst our management's was weak, poorly motivated and badly directed. It was always easier to surrender than to fight, and it was soon the case that a sense of apathy and a belief that matters could not be changed spread across the entire U.K. management structure.

This, then, was the social-economic background as I perceive it in my nation over a span of some 40 odd years. Its implications for the ports industry, specifically, were replicated right across Britain's industry — perhaps more acutely in the ports than elsewhere — but, nevertheless, the whole of our industry was trapped in a downwards spiral contributed to and abetted by the forces of mismanagement and lack of backbone on the part of our politicians and other leaders.

1946 saw in the U.K. a Dock Labour Scheme enshrined in law, which was introduced at a time of new social justice to overcome what was seen as previous exploitation of dock workers. In practice, over the 40 odd years of the life of the Scheme, and more particularly after the Aldington Jones agreement of 1972/73, we attempted through legislation to create a idealised world which could not be sustained in reality due to our economic under-performance.

Under the Dock Labour Scheme, as reinforced by the Aldington Jones findings which had the effect of creating jobs for life for registered dock workers, a special class was created within our industry, a new privileged class, and down through the years managers learned not to manage men but to manage the Scheme. Over the years it developed its own life, one that was ever more debilitating.

The Scheme promulgated absurdities where it became possible for men to earn without actually being present, a practice known as ghosting, spelling or whelting. Only registered dock workers in many of the traditional ports could by law be employed to carry out a range of tasks associated with the loading and unloading of ships, even if it were cheaper and more efficient for an independent operator to utilise his own often more skilled workforce. He could be allowed to do so by negotiation, but only on the condition that he nominally employed a specific number of Registered Dock Workers (RDWs) who would, by tacit agreement, not actually appear but would be paid as if they had done so.

This lunacy drove away trade from the traditional Scheme ports, and a whole range of ports, which were not so bound by the Scheme (because they were considered to be too small and too unimportant), developed at the expense of their 'big brothers'.

The most famous case of this which may be known to you is Felixstowe, and this is a port I will return to later in my paper because of its undoubted importance.

Other factors, of course, also contributed to the changed face of the port industry in Britain. Some of these factors were more debilitating to some than to others. Geographical location has been a major factor over the past ten years, and here I can specifically mention the west coast ports of Britain, which grew and developed through their trading links with the Americas. As these trade links diminished and those with Europe strengthened, ports on the east and south coasts of Britain fared much better at the expense of their west coast rivals.

Britain's trade with Europe now accounts for 76% of all traffic into and out of British ports.

The most fundamental and far-ranging shift in political direction seen in Britain since the war commenced with the election of Margaret Thatcher, leader of the Conservative Party, in the late 1970s, and her winning of the May 1979 General Election. Her initial monetarist policies gave way quickly to more fundamental reform of what could be described as the cost relationships that the previous labour pacts between men and management had engendered and which had been built up over the previous 35 years. She made it known very quickly that her government would stand firm against the continuance of support for what she considered to be "lame duck" industries — overmanned, over-supported financially, and still underperforming.

Fundamentally, not just individual companies but whole industries were to be exposed fully and unmercifully to market forces. Indeed, she went much further and was determined that state ownership and state monopolies should end or be substantially eroded. The consequences have been far reaching, and in some ways Britain has led the world in its 'embrace of privatisation', in its spreading of accountability and popularising of capitalism. Indeed, as I stand here in Japan I am reminded that the most recent UK privatisation was that of Scottish Power, 25% of whose shares have been taken up locally in Scotland but 20% of which are also now owned by Japanese investors.

Regrettably, there is much evidence to support the view that there was indeed constant government interference despite the law. If nothing else, the current state of privatisation could be seen as an admittance by government of the failure of the system in practice and that these industries should now be free of government intervention and interference. There is a great deal of public debate in the U.K., and the principle of privatisation has been queried on the basis that privatising these industries exactly as they stood simply seemed to be a substitution of a private monopoly for a public monopoly. Indeed, at the present time the newly-privatised enterprises seem to be the only companies in which profits are increasing at a time of recession generally in the U.K.

There are many who cynically believe that, if the first objective of privatisation was to limit the amount of public ownership and control, then the second objective was to earn considerable sums of money for the Treasury. The government, of course, have never admitted to this, but in the energy sector alone, in gas and electricity the Treasury got no less than £20 billion (20 thousand million pounds), and, of course, they got considerably more for British Telecom and the others.

The third objective was to increase competition. In these sectors where the State's monopolies have been replaced with private ones, it is difficult to see how this objective has been achieved, other than that it is now possible, for instance in the electricity industry, for private companies to generate electricity into the market place. However, it is thought it will prove very difficult for them to gain a foot hold, given the need to compete against the two major generating companies which will presumably continue to dominate the generating scene, at least in England.

The European Commission is watching these develop-

ments with interest and will doubtless seek to introduce more flexibility into the Continental system, while retaining the principle of the closely-controlled public monopolies.

Privatisation, of course, has not stopped just at energy, water and telecommunications, but — more significantly, for my own industry — in 1983 the government determined to privatise the British Transport Docks Board. The success of this operation was outstanding. The capitalisation of this company is 10 times what it was when initially brought to the private sector market place. Together the ports, 22 in all, account for approximately 25% of the U.K. ports business.

Traditionally the U.K. had four main types of port administration, viz:

The government owned ports of the British Transport Docks Board (which had emerged out of the earlier Railway Ports), local authority-owned ports, the most notable being Bristol on the Severn Estuary on the west coast of the U.K., private company-type ports, notably Manchester Ship Canal Company and the major Port of Felixstowe. Lastly, there is a more major group of 70 or so Public Trust Ports operating under their own individual Acts of Parliament, and who account for some 35% of the UK port business, although only 20 or so have a turnover of more than £1 million per annum.

Management of ports underwent dramatic change in the '60s, brought about in the main by the introduction of containerisation into the movement of goods on deep sea trades. It could be said that the '60s, altered the running of the port from a steady growth pattern to one of constant change.

It would seem that, from an almost unchanged pattern extending over 200 years since the industrial revolution in Europe, the development of containerisation was the first of many major changes. Since containerisation ports have had to contend with the increasing size of ship, the development of new classes of vessels, such as ro/ro, lash, combination carriers and self sustaining vessels, the latter of which have not need for the craneage facilities which had been provided traditionally by the ports at which these vessels called.

Of the above changes, the principal factor affecting most ports was the development of containerisation in the deep sea trades. Containerisation created rationalisation in the number of ships serving particular trades and the ports of call. The cargo was required to go to the ship instead of the ship calling at a number of ports, as had been the traditional practice in conventional general cargo services, leading in turn to the loss of traffic from the geographically disadvantaged areas to the eastern and southern ports of Britain, due to the developing and strengthening links with Europe. The result has meant a reduction in port facilities and in labour requirements on the west coast of the U.K.

The example and success of the privatised Associated British Ports has obviously been widely observed, and during the last five years there has been a great deal of changed thinking among Port — Authority managements, indeed a group of eight or so of the Chief Executives of Major Ports in the Public Trust sector approached the then Minister of Transport, Paul Channon, in 1988 and requested him to introduce legislation to enable the Trust Ports to move into the private sector. Private port operations were already well established in the U.K. and the Trust Ports faced increased competition from that source, principally from ABP but also from Liverpool and Felixstowe. At that time the Minister declined to pursue the matter on the basis that the government had insufficient time in the legislative programme, but it was made known that the government would welcome initiative on the part of any port which felt that it was in its best interest to follow this course, and this led to my own port, the Clyde, starting the whole process of preparing and lodging a Private Bill in Parliament.

Some two years after initiating the process which would take my port to privatisation, the government decided, after considerable pressure from some of the ports who were interested in privatising, to introduce a Ports Bill in January of this year, which will enable all Trust Ports to privatise and to do so under government-sponsored legislation. There will be a degree of compulsion, in this insofar as ports with a turnover in excess of £5 million (and there are 16 or so who fall into this category) will be expected to bring forward schemes to the Secretary of State for Transport within a period of two years from the date of the Act. Each port, to meet the exigencies of the enabling legislation, will need to draft a scheme for the sale of their Authority, its business and assets, for approval by the government. The ports will be put up for sale in the marketplace under a competitive bidding procedure and we hope, of course, to persuade the government that there should be some preference given to Management/Employee bids.

It may be that, over the next month or two, dependent on the guidelines established by the government for the sale of these enterprises, some or indeed all will refuse to take up the opportunity afforded to them simply because of the perceived dangers that management could lose control to third parties.

Within the two-year period, of course, we could have a Labour government. The Labour Party does not at present have a specific or detailed ports policy, however, it has some principles which they would wish to see given practical expression. Of most importance amongst these is its strong belief in an "integrated transport policy". So far, most of their policy development in this area has been in relation to inland transport, particularly relating to passengers and public transport. As yet, few ideas have been developed relating to ports, but nevertheless they do seem to wish to include ports within a wider policy.

Whatever happens, if we do have a change of government, the future for the ports must be uncertain. The establishment, as quickly as possible, of a successful commercial port business must be sensible and must provide protection against government intervention in the future.

We have a background of a whole new more enterprising ethos created during the Thatcher years, and there is a belief that we have to adapt to the changed business culture in an unfettered way, or we could end up as a complete anachronism. Today we attempt to operate modern day businesses within a legislative structure which is outdated in regard to our needs. I therefore remain committed to the concept of privatisation, despite a possible incoming Labour government. On this, as in so many other things, one will simply have to take that calculated risk.

I have spent perhaps over-much time in this paper painting the background against which the ports have developed in the U.K. over the past 45 or so years. I think it is necessary to understand the socioeconomic factors that have been involved. Mainly I have concentrated on the U.K., but of course, although we are an island we are not isolationists by perspective and certainly cannot be insulated against events that occur at home and abroad, and certainly

not in the port industry, where we act as an interface between our separate regions or hinterlands and the outside world. Indeed, in our embrace of privatisation it could be said that we are encouraging ever more interchange between ourselves and the rest of the world.

I mentioned Felixstowe earlier and did say I would come back to it because of its importance recently in illustrating this particular point. Most, if not all of you, will be aware that this port was owned by P & O but very recently was sold to the Hong Kong based Hutchinson Whampoa Group, for, some 80 million pounds. The acquisition of Felixstowe provides Hutchinson's 60.5% owned Hong Kong International Terminals, the world's largest privately-owned Container Terminal, with a major springboard for further expansion into Europe.

Many ports, I believe, appreciate that their involvement in the transport chain is fairly limited, and it has been estimated that the port accounts for only some 4 to 6% in cost terms of the total transport charges incurred by customers. It is therefore more likely that ports, through predatory action or by agreement, will become more closely linked and identified with specific customers operating on a worldwide basis. The ports grew up at a time when there was a multitude of shipping lines, all of which competed fiercely against one another. Whilst the competition today may be no less fierce, the number of lines has diminished dramatically and to an extent that they have the ability to exercise considerable control over traffic and the routes both nationally and internationally. In the U.K. there is much speculation concerning the break-up of conference monopolies, and indeed there is some evidence to support this belief. However, the future may bring quite the opposite, with a considerably increased involvement embracing door-to-door services in which all parts of the transport chain are under the control of a single operator. This already occurs, of course, on a small scale but could perhaps be developed much further in future.

The resolution of the Gulf crisis has raised hopes of early economic revival, inflationary pressures have eased and oil prices have remained subdued. There is every sign that headline "inflation" in the U.K. could fall below 4% by the end of this year. With regard to recovery, it must be said that there is considerable opposing argument as to whether Britain's entry into the ERM will assist or have the opposite effect in slowing down and tempering the rate of recovery. Opinion seems evenly balanced on this and, as so often is the case, one is left to make one's own judgement.

Of course, in looking ahead the performance of our own economy is dependent not just on our own abilities but also on how the other major economies will flourish in Europe. Certainly all eyes are focused on the newly emerged former Communist countries. The new, re-united Germany certainly remains the focus of attention, and the considerable problems that it has to face will inevitably mean a weakening of its own economy, at least in the short to medium term.

In the U.S. the economy apparently continues to remain soft and interest rates could decline further, though the dollar, it must be said, has made a remarkable recovery, which I am led to believe may continue.

Already we are starting to see the signs of trade being opened up between ourselves and traditional — even ancient — former trading partners. In the case of my own port, links are again being established with France, and more recently Polish traffic has been on offer. It will be interesting to see the ultimate impact that the developing economies of the new fledgling democracies of eastern Europe will have on western Europe.

I doubt if we will see a total embracing of the West's culture and commercialism by the emerging Eastern bloc countries. It is more likely I would think that they will seek, initially at least and perhaps for many years to come, to attain a compromise position not unlike that reached in Britain in the '50s and '60s, a sort of halfway house, neither one thing nor the other.

However, in the meantime there is new-found hope in these radical changes taking place and Europe once again is coming back together. There is a possibility in time — perhaps not during the next decade, as some would hope — of seeing the European Community being evermore enlarged to 20 or more nations in a marketplace of 600 to 700 million, representing a very powerful counterbalance in economic and trading terms to the other world markets of influence, the Americas and Southeast Asia.

Internally, an expanded European market might tend to support land transport, and therefore maritime transport which remains on the fringes would weaken. This position is one which supports the view of a Europe within a ring fence and which is introspective — one which looks in on itself and does not support the possibility of an invigorated and expanded Europe looking outwards beyond its borders. The opposite view may also be valid, and the one to which I prefer to subscribe. The ports of Europe grew and became dominant in the late 19th century because of the opening up of Europe and the expansion of European horizons beyond continental Europe. In those days, before the intervention of proletarianism in whatever political shape it came, Europe was run on a free market economy basis. I certainly hope that there will be no wish to be over-protectionist and would favour the dropping of trade barriers, not just in word but also in deed. Certainly, in so doing, the Atlantic Seaboard ports of Europe will have as much to gain as those on the Pacific Rim.

Today we look in awe at those ports on the Pacific Rim which have, over a relatively short period in time, become so important — Singapore, Hong Kong, etc., all of them serving strong economies and large hinterlands — and we have still to see the impact which a liberalised China might have on the situation.

Certainly, I believe firmly that there could be a new future for the Atlantic European ports but this would take a liberalism of view within the centre of the EC. I hope that a way forward can be found to enable the current GATT talks to succeed. I would like to see an end to the present Economic Community's Common Agricultural Policy, which has led to the creation within Europe of so many food mountains.

In other ways, too, Europe can benefit from looking beyond its shores. This would clearly be welcomed by ports such as the Clyde, whose grain trade with America has been so badly hit by European subsidies.

"Green" politics will continue to be a force within Europe and certainly many, many more people are now very much more environmentally conscious. The ports are not unaffected by this change and it is something which must be recognised throughout the world if we are to have a world of any quality in which to live.

The opening up of Europe, the Soviet transition and the entry into the world economy of all the states of eastern Europe will — slowly, perhaps, but gaining momentum over the next ten to twenty years — open a vast new European

marketplace which will very quickly begin to face outwards and internationally, and when it does Europe will look perforce to its great maritime ports which are concentrated on its Atlantic and Mediterranean seaboards. These will be the natural gateways for Europe and, given a new employment climate, particularly in Britain but generally throughout Europe, then there will be new opportunities for development within the port area. Ports will become increasingly transition points, not simply for transfer from ship to road or to rail, of raw materials and finished products.

There are, I believe, opportunities for many more functions to take place in and around port areas which, in themselves, will lead to the generation of ever more activities which add value and create employment. This has been seen already in the Pacific area — Japan, Hong Kong, Singapore and Taiwan — and this, I believe, can be replicated in Europe. New strategic commercial centres can be developed at and around the ports of Europe. Returning to the environment for a moment, I believe also that, in the development of the ports, opportunities will also be opened up once again for short sea feeder services and other forms of coastal shipping, taking much traffic off road and rail to the benefit of our countryside and to that of our main arterial motorway systems in the U.K. and Europe. The further development of the coastal routes will increase the links between the large, medium and the small ports of Europe. The climate for the reintroduction of such services has been created in Britain through the abolition of the Dock Labour Scheme, but of course removal of geo-political barriers will also assist and there is, I believe, now a much greater desire for co-operation amongst the fringe regions of Europe.

Over the rest of this decade, and increasingly so into the next century, the international movement of energy will become increasingly important.

Since the abolition of the Dock Labour Scheme there have been many changes in the port industry. Cargo handling has been abandoned by some, while others have seen benefits in taking on that role.

This is bound to have a major impact on the world situation, especially when one considers the forward energy situation and the suppressed demand for energy by the third world. Developing countries have been held back in growing their economies by their indebtedness. If this problem is ever solved, then one can imagine that, as their economies start to grow, so too will their need for energy. The question of the environment and the need to pay much more attention to conservation will also affect attitudes to energy production. However, the only point I wish to make in this context as far as ports are concerned is that, over the next few years, energy — oil, coal and perhaps liquefied gas — will continue to be traded, and in ever increasingly larger ships. These ships will make their demands on ports and infrastructure, which we must be ready to respond to.

Some ports have gone headlong towards becoming what might be described as landlord ports' conservancy/property businesses. Others, perhaps less well endowed in land terms though otherwise geographically well positioned, have plans to invest heavily in equipment and training.

For the future, privatization will add to the share of the industry managed by private sector business (currently around 50%) and various consequences can be envisaged. The Port of Tilbury, principally a cargo-handling port and treated separately within the Ports Bill, will no longer be part of the Port of London Authority (PLA). There may emerge groupings of private port interests under a Common Holding Company. There may be takeovers of one port by another. There may be takeovers of ports by interests strictly outside the ports industry, for example by shipping companies. There may be diversification of activities by privatised ports into other transport activities. Outside the U.K. and on the broader European scene, the Commission are believed to be intent on having the Community's ports industry included within infrastructure transport planning. At present the Commission's activities are limited to involvement in rail and road plans and, to a very limited extent, in inland navigation. This has resulted from decisions of the European Council, which has always been reluctant to agree an all-embracing transport infrastructure fund or policy. So far, ports have not been included in either planning or funding.

The Commission's plans, however, contain significant potential problems for the U.K. The most important of these is the degree of control over port planning and activities that may result from a more centralized approach. For example, it is not unrealistic to envisage a situation whereby ports, including those operating as private companies, might in the future have to submit for approval development plans to the Commission, who would then assess how they relate to other plans of other ports and to transport planning in general. This must be seen as a threat to the more open market forces which are being promoted so much in the U.K.

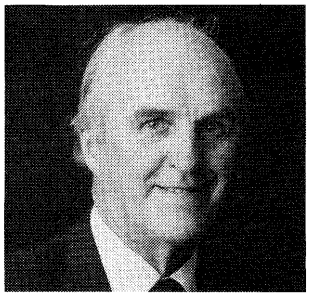
Ladies and gentlemen, your deep courtesy in receiving my paper only matches the warmth of your welcome to Japan — and for both I am extremely grateful.

Port-related Events in IAPH's Africa/Europe Region

By Alex J. Smith
IAPH European Representative

(Speech delivered at the gathering of IAPH Japanese members held on July 24, 1991 in Tokyo)

It is with gratitude and also with much humility that I once again accept the gracious invitation extended to me by President Shizuo Asada of the IAPH Foundation to address such an authoritative audience on port-related events which have occurred, or continue to do so, in IAPH's Africa/Europe Region.



Mr. Alex J. Smith

Introduction

Those of you who may have heard me speak last year on contemporary issues facing our ports will have registered my astonishment at the changes wrought in little over a year to the area's political, social and economic orders. I was, of course, mindful then, as now, of the effect of these changes on our port structures and operations — indeed, on the well being of our ports

generally.

Now, less than a year later, we have again been brought face to face with violent change, sudden in its impact and quite unexpected.

I refer, of course, in these terms directly to the Gulf War — both the event itself and its aftermath.

IAPH, as the representative organization of a number of member ports in the Gulf area — and on behalf of them — should express its pride in the fact that the successful prosecution and outcome of that tragic, uncalled for conflict was due in no small measure to the extraordinary and effective professionalism and expertise of port personnel in the Gulf and elsewhere in processing very large quantities of military personnel and material through their ports in a limited period and under massive constraints.

The unexpected, however, also includes, as we now know, the severity of the traumas experienced, or still to be borne as a consequence of the breakdown of command economies in our eastern sector and their move towards nationalism and market economics. That situation, moreover, is happening at a time of deeper than expected recession.

The Region's ports are by no means immune from the effects of these events. We can at least be thankful, however, that continuing economic expansion in this part of the world impacts positively on the world's sea-borne trade and, to an extent on our ports sequentially.

Regional Port Traffic and Related Port Development

We are all aware that traffic patterns can quickly change; port infrastructures, however, are not so easily changed. Corporate plans and their implementation aim for a stable situation over a longish period. It would be expected, therefore, that expansion projects do not normally reflect anticipated short term changes.

Ports, moreover, are notoriously vulnerable to commodity fluctuations, as in cereal harvests, oil production programmes and/or disasters. There has been much volatility in these respects of late.

What then is the present situation of the Region's ports? To what other factors must ports also have regard before committing themselves to expansion programmes?

The Region generally is undergoing a variable growth situation. There is increasing unemployment. There is reduced demand. Even so, governments separately, and collectively, are planning or proceeding with major expansion projects to upgrade the Region's transport infrastructure. Motorways and tunnels, for example, are under construction and rail networks are being improved.

Governments are focussing attention on environmentally-friendly transport modes such as waterways, which are under-used. The Rhine-Main-Danube Canal is to be opened in September 1992 to give a "no hindrance" movement from the North Sea to the Black Sea, thereby opening up the interior of Eastern Europe.

We must note, however, in that regard, that whilst one study by Ocean Shipping Consultants has estimated sea borne trade with Eastern Europe would increase from 563 to 602 million tonnes by the year 2000, others would say that view was unduly optimistic and that substantial increases of that order could take 20 or 30 years to materialise.

These situations and activities might be expected to impact adversely on the Region's ports — and to an extent, of course, and in some specific locations, they do. There is clear evidence, however, that ports, widespread, are planning or proceeding with the upgrading of their activities and/or initiating major expansion projects to realise perceived longer term opportunities even in circumstances where their respective Governments are now less willing to assist financially.

The Belgian government, for example, is providing between 6 and 7 billion Belgian Francs for port infrastructural development assistance which is about half the level of six years ago. Nonetheless Zeebrugge, possibly Europe's fastest growing port — from 1 million tonnes in 1960, to 20 mt in 1988, to 30 mt in 1990 — continues its momentum with a BF2.7 billion expansion.

In the oil market, and in chemical products terms, this broadly is a time for strategic stocking. There may also have been a realignment by shippers of these products leading to consolidation of product movement into particular ports. The result, in the event, is expansion projects at many storage terminals.

Another consideration: — bad results for shipping companies as a consequence of events such as increased liner competition, low dollar rates, and the Gulf crisis has led to a process of restructuring in which rationalisation programmes can and do lead to a rearrangement of port calls. Shipowners are also interested at this time of uncertainty, significantly, in investing in ports. They are encouraged by the appearance of perceived benefits from effective port managements and changing (for the better) attitudes adopted by dock labour in the Region. In more basic terms, they are also buying into port and port-related enterprises as a springboard for their expansion into the Region's market potential.

Our President has given examples in his lecture. The process described, however, does point to a sharp move away from our traditional view of the raison d'être for port expansion.

The traditional approach remains valid in other respects. Ship design and operation changes continue to influence port expansion programmes. Fast ferries, for example, or faster cargo vessels to transport high value cargoes — an extension, in effect, of the just-in-time concept — or the impact at the very least on port thinking of the Japanese "intelligent" ship approach, all have special operational requirements entailing special infrastructural commitments which sooner rather than later must be undertaken.

Recent events have also highlighted a change in the pattern of passenger ship port calls. That is equated to a growth of facilities in key locations to cater for the needs of the more discerning, sophisticated and more affluent passengers.

Finally, at least for my purposes, we must reflect on the need for ports to include in their plans provision for the needs of shipowners and/or other port users searching for new handling techniques to make better use of ever more scarce labour and capital. Examples of these techniques in our Region can and do affect ports in producing and consuming nations alike viz, cocoa beans traditionally transported in jute sacks may now be carried in a jumbo-sized sack within a bulk container.

I do not think that I am unreasonably optimistic in expressing the view that there are sufficient projects on the ground and underway both as a reaction to circumstances as described in the foregoing comments and as a response to more traditional port development programming to suggest that the majority of the Region's ports are in good

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MIT Program for Port Planners, Engineers

As part of the Advanced Study Program, the MIT Center for Advanced Engineering Study is offering a 16-week program for practicing port planners and engineers consisting of a core course on Port Planning and Development and two or three additional courses chosen by each participant to meet specific needs. The Program is intended for those interested in the broad areas of:

- Port Planning and Management
- Port Development and Construction Management
- Port Engineering and Maintenance

The fee for the Program for the 1992 Spring Term is $11,950. This fee does not include books or living expenses.

For a brochure, application form, and additional information contact:

Dr. Paul Brown, Director, Advanced Study Programs
Center for Advanced Engineering Study, Room 9-335
Massachusetts Institute of Technology
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U.S.A.

Telephone: (617) 253-6161 or 253-6128
Telex: 650-220-6541
Telecopier (FAX): (617) 258-8831

IMO Concerned About Lack of Port Training

The IMO's Carriage of Dangerous Goods Sub-Committee at its 42nd session expressed concern at the lack of training given to port workers in the handling of dangerous goods. It recommended that a number of IMO instruments be revised to improve matters.

Although the International Maritime Dangerous Goods (IMDG) Code is primarily directed at the mariner, it also affects many other industries and services. These include manufacturers, packers and shippers, feeder services such as road, rail and harbour craft, and port authorities.

The Sub-Committee agreed that training in all these areas was important and welcomed the suggestion that the matter should be discussed at the level of the United Nations Committee of Experts on the Transport of Dangerous Goods with a view to encouraging all other modal organizations to take appropriate steps within their area of competence.

Concern was expressed that much effort is directed towards training the mariner himself while not all Administrations have realized as yet that the shore back-up personnel should also receive proper training in the identification and handling of dangerous goods, packing of cargo transport units, environmental aspects, etc.

The lack of training for port workers and workers at container packing stations is also causing great concern to the Sub-Committee. In this context, the Sub-Committee noted the ILO Convention on the Use of Chemicals at Work, recently adopted, where transport is covered by the term "use". Several delegations expressed the opinion that IMO should become more involved in port matters, including the training of port personnel.

The Sub-Committee requested that the Maritime Safety Committee add the training of port personnel to its work programme. It also decided that amendments dealing with training should be made to the following instruments:

- IMO Recommendations on the Safe Transport, Handling and Storage of Dangerous Substances in Port Areas.
- The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978: it was noted that this convention only deals with the training of seafarers.
- Resolution A.537(13): this resolution was adopted in 1983 and deals with the training of officers and ratings responsible for cargo handling on ships carrying dangerous and hazardous substances in solid form in bulk or a packaged form. The Sub-Committee intends to review this resolution and identify those parts if that could be made mandatory by incorporating them into the STCW Convention.

(IMO News)

Airport and Seaport Police Resolutions

Resolution No. 5

WHEREAS, the International Association of Airport and Seaport Police recognize that Law Enforcement Officers are entrusted with extraordinary authoritative powers and are constantly exposed to a work environment of inordinately high levels of stress and volatility

AND WHEREAS, organized crime and illicit narcotics operations have become more sophisticated through the use of money and extortion rather than physical violence to protect their illegal operations

AND WHEREAS, most Law Enforcement Agencies do not have written procedures identifying specifically who can initiate investigations and how they are to be initiated

AND WHEREAS, in large part effective law enforcement depends on public trust and confidence

THEREFORE BE IT RESOLVED, that the International Association of Airport and Seaport Police encourages all member agencies to develop written procedures identifying specifically, within their respective agencies, who may initiate organized crime and illicit narcotic operations investigations and how they are to be initiated.

Resolution No. 6

WHEREAS, restricted access to technology needed to produce sophisticated incendiary devices has been relatively ineffective

AND WHEREAS, the knowledge needed to assemble destructive incendiary devices is available on the open market to those who use this oppor-

tunity to promote acts of terrorism

AND WHEREAS, canine sniffers have been proven to be the most effective detection method available to assist law enforcement efforts to prevent subversive activity and to curtail drug trafficking

THEREFORE BE IT RESOLVED, that the International Association of Airport and Seaport Police recommends that minimum standards be developed, internationally, regarding the screening of passengers, luggage and cargo

AND BE IT FURTHER RESOLVED, that minimum standards be developed, internationally, for the training and use of canine sniffers.

Resolution No. 7

WHEREAS, internal corruption and impropriety within law enforcement and amongst other governmental officials and agencies is a cancer which destroys the very fabric of society and its trust in government

AND WHEREAS, the trust and confidence placed on airport and seaport entities is such that a major portion of the world economy is entrusted to their control

THEREFORE BE IT RESOLVED, that the International Association of

Port-related Events—

(Continued from Page 18)

shape and by no means lacking in confidence in their respective futures.

That is my view, notwithstanding the potentially constraining influences of environmentally-related legislation in the Region, and the continuing lack of a coherent collective strategy for the ports of the European Economic Community (EEC), particularly so far as the overt designation of ports as strategic centres is concerned.

Ports and the Environment

Environmental legislation is increasingly being tightened and implemented, at least in the Region's European sector.

Air and marine pollution protection measures are being put into place, with ports very much in the front line as respects their obligatory responsibilities and consequential costs.

One result of the Third Ministerial Conference on the Protection of the North Sea (1990), for example, demands that ports improve their handling equipment and arrangements to ensure that chemical tankers can discharge all cargoes to specific minimal residue quantities.

These, and the rapidly growing number of other protective measures, can on occasion give rise to conflicting regulatory requirements. The imperative, therefore, is for ports to be aware of and to be in a position to resolve any difficulties at their inception.

On the other hand, ports are themselves initiating environment related developments, usually theme-based, to take account of the city/ports leisure-time activities, emphasis on urban/rural attractions and "quality of life". These so-called "total" developments are now considered to be quite attractive from a capital investment standpoint.

Ports and the European Economic Community

You will already have been bombarded by comment, views and argument as to the implications for ports of Europe's Open Frontier policy, 1993. Indeed, I have made my own small contribution to that comment.

There is general agreement, however, that the stated intention of Member States to free cross-frontier services, de-restrict international road haulage, liberalise the conditions of rail transportation and to harmonise inland waterway codes were bound to have a profound effect.

When coupled with an intention to proceed with standardisation to remove incompatibilities and to create a free movement of goods, services, capital and persons; and to harmonise taxation, transportation, telecommunications and financial services, the potential is nothing short of spectacular.

We do still expect higher economic growth; and an increase in world trade and in the sea borne movement of cargoes will surely follow.

Competition within the Ports of Europe for that traffic will become even more intense.

We must now take note of a new factor. By the so-called Schengen Agreement Germany, France, Belgium, Luxembourg and the Netherlands intend to scrap all border controls by the end of 1991, one year earlier than planned.

Administrative costs and delays will be cut back. To help the process, the European Commission is contemplating putting a Network Policy into place covering such areas as transport, telecommunications, energy and training so as to create and maintain an adequate infrastructure for the Single Market. Our port managements will need to ensure that the strategic situation of ports in that infrastructure is well-understood and clearly established.

Final Remarks

This abbreviated commentary has necessarily had to leave so many gaps in so many areas of acute interest to the Region's ports. I must therefore express my personal regret for that, and also for providing you in that event with only a limited perspective on our Region's ports.

Your courtesy, however, in according me the great honor of allowing me to address you — even briefly — on the subject is greatly appreciated.

Thank you.

The Challenge—

(Continued from Page 8)

tations networks and local and national governments on plans which all must believe are to their mutual advantage. The ports should also stay closer to their customers.

11. The seminar was very beneficial to the personnel from developing countries because the experiences of the Port of Le Havre and other ports were shared and a lot was learnt from those experiences.
12. In conclusion, my participation in the seminar was a valuable experience and the knowledge I gained from it will be helpful to me in performing my duties and meeting my responsibilities.

Airport and Seaport Police is concerned with the potentially tragic consequences of internal corruption and impropriety and encourages all Law Enforcement Agencies to develop specific policies and procedures to ensure that a high level of public trust and confidence is developed and maintained.

BIMCO Hits California's New Sales Tax Law

BIMCO has sent a letter to the Governor of the State of California protesting against a new sales tax law. In Contrast to previous legislation, under the law all quantities of bunkers and lubricants sold at Californian ports are subjected to tax without exemption. At the major ports of Long Beach, Los Angeles, San Francisco, Oakland, Richmond and San Diego, the sales tax is levied at the rate of 8.25%. The rate of other ports is 7.0%.

In the letter BIMCO Secretary General Mr. Torben C. Skaanild refers to the new law and states:

"The new sales tax will significantly increase the operating costs of shipowners and operators calling at Californian ports. It will also create an undue adverse impact and financial hardship on suppliers and providers of ancillary services such as barge and trucking companies, ship's agents and the like. These parties will be forced to cut costs and compete in a shrinking market as vessels obtain bunkers elsewhere.

"Furthermore, with the decline of production and sale of bunkers in California, the world's third largest bunker supply area, bunker prices in other parts of the world may rise in response to a shift in demand. Such increases will burden shipowners and operators worldwide with extra operational costs; costs which will eventually be passed on to the users of the transportation services in the form of higher transport costs."

It is BIMCO's belief that the legislation which is intended to raise revenues to reduce the State's budget deficit will have the opposite effect due to the above-described detrimental effects on many local industries.

BIMCO urgently appeals to the State of California to consider repealing the new sales tax law.

Videos on Dangerous Goods Now Available

International and national rules and codes of safe practice are essential for the carriage of dangerous goods at sea. It is equally important that they be fully understood by all concerned.

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Dangerous Goods at Sea, Part 1 (23 minutes), covers the updated 1990 edition of the International Maritime Dangerous Goods Code, providing a brief description of the revised volumes and showing how they differ from the now outdated ones. It also introduces the new Supplement.

Topics covered include: labelling and packaging, pollution prevention, identifying dangerous goods, and procedures to follow when handling and transporting them.

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The Americas

Port of Nanaimo Marks 30th Anniv.

This year marks the 30th anniversary of the Nanaimo Harbour Commission. The Commission was formed by an Act of Parliament at the initiation of the Greater Nanaimo Chamber of Commerce and the City of Nanaimo.

From the very beginning, Nanaimo and its harbour have been interlocked. Their past, present and future are the same. From the time when a few homes of early settlers hugged the shoreline and water transport was the only contact with the outside world, the community and the harbour have been interdependent.

Logging and sawmilling, which came into prominence in the post Second World War years, turned into an economic giant for the community. At that time the management of the Assembly Wharf's two berths was in the hands of a private contractor. New developments in and around the Harbour needed policy-making decisions and Ottawa was a long distance away. The desirability of a local administration was evident; if the port and the community were to grow it had to have local management.

The bill establishing the Nanaimo Harbour Commission became law in November, 1960, and three commissioners were named — George Muir, a former mayor, Max Blunt who was a car dealer and John Thompson, who was in the lumber business.

Since that time the Nanaimo Harbour Commission has provided a leadership role in many instances, helping the community in its long-term development.

(Port of Nanaimo Harbour News)

Reports on Nanaimo Reef Favorable

A newly-created artificial reef in Nanaimo, off the North end of Newcastle Island, is adapting well as a fish habitat.

In the first report of ongoing studies, Mr. Rob Russell, a Habitat Specialist with the Department of Fisheries and Oceans, states initial reports are favourable. The reef was established by the Nanaimo Harbour Commission in January 1990, using concrete materials from the demolition of buildings on Cameron Island.

"Surveys indicate considerable development of the reef as a fish habitat

occurred over the summer and early fall. Algaes and invertebrates colonized the reef quickly and several species of finfish common to the Newcastle Island area were noted in association with the reef by the September sampling," Mr. Russell says in his report.

"Detailed surveys of the reef were conducted by DFO scuba divers in July, September and November. In November most of the brown and green algaes had died back for the winter, leaving the filamentous and leafy red varieties as the primary vegetative cover. Rockfish and greenling that were common on the reef in summer had apparently migrated away from the site, leaving three species of perch as the dominant finfish. A small number of rockfish, greenling and lingcod remained however, probably as over-wintering residents," states the report.

Mr. Russell adds there is every indication that the Newcastle Island reef will continue to develop as a stable, productive fish habitat.

"A more or less permanent assemblage of plants and animals should continue to establish at the site over the next few years until the reef takes on the appearance of other natural rocky reefs in the Newcastle Channel area. To this end, the DFO habitat management section intends to continue to monitor the reef's development in 1991 and 1992," states Mr. Russell.

He adds that expansion of the reef toward Tyne Point by the addition of new demolition material over the next few years should add to its complexity and over-all value as a fish habitat.

(Port of Nanaimo Harbour News)

Georgia Ports Authority Officers Elected

Mr. Thomas J. Dillon of Savannah has been elected chairman of the seven-member Georgia Ports Authority (GPA) board of directors.

Other officers elected at the July 28 board meeting included Mr. J. Dewey Benefield, Jr. of Brunswick as vice-chairman and Mr. Harry C. Jackson of Columbus as secretary-treasurer.

The seven-member authority board is appointed by the governor to oversee activities of Georgia's deepwater ports at Savannah and Brusnwick and the barge terminals at Bainbridge and Columbus.

Mr. Dillon, who joined the GPA board of directors in 1986, is associate general counsel and an officer of the Union Camp Corp. He replaces Mr. Smith Foster of Dalton as chairman.

Vice Chairman Benefield has served on the GPA board since 1986 and is executive vice president of Sea Island Properties. Secretary-Treasurer Jackson, chairman of Morton Machine Works, Inc. and former state senator, has been on the GPA board since 1985.

The other GPA board members are Mr. William O. Faulkner, Jr. of Macon, immediate past chairman Foster, Mr. Thomas T. Johnson of Augusta and Mr. E.J. Vann IV of Camilla.

Container Volume Up 9.1% at Savannah

Container volume at the Port of Savannah increased 9.1 percent to 440,923 TEUs during the fiscal year ending June 30, 1991.

The increase of 36,836 TEUs pushed container tonnage to 3,405,801 tons, a jump of 6.1 percent.

"In a recession year when other ports' container business was down or flat, Savannah proved once again to be a leader in the South Atlantic," said Georgia Ports Authority Executive Director George J. Nichols.

The increase in container traffic was attributed to the growth of the port's existing ocean carriers, plus the addition of seven new ocean carriers and services. Savannah is now served by 50 regularly scheduled lines serving the northern European, Mediterranean, Middle Eastern, Asian, Central and South American, African and Australian trades. Some of the carriers also offer around-the-world services.

Containerships are handled at the six-berth Containerport located within the Port of Savannah's 856-acre Garden City terminal.

Breakbulk tonnage also posted a robust 15.1 percent increase to 1,763,690 tons at the Garden City and Ocean terminals due in part to the port's handling of military cargoes during the Desert Shield/ Storm/ Sortie deployment and return operations.

Combined container, breakbulk, dry and liquid bulk tonnage for the GPA's two Port of Savannah terminals advanced 1.7 percent to 6,396,434 tons. Strong gains in container and breakbulk tonnage were diminished by last year's drought which affected soybean and wheat crops leading to a decline in dry bulk exports through the port.

Group to Discuss Uses Of Dredged Materials

An interagency group expects to make a proposal this fall regarding beneficial uses of dredged material from the Houston Ship Channel.

The Beneficial Uses Work Group is a coalition of state and federal resource agencies studying possible beneficial uses of dredged material. A large-scale disposal plan will be necessary if federal approval is given for a proposal to widen and deepen the Houston Ship Channel. Harris County voters approved the project in November 1989.

The Beneficial Uses Work Group planned to meet with Galveston Bay user groups through the summer to discuss possible uses for the dredged material.

"Our work group will evaluate all suggested beneficial uses and, by October, submit three to five possible disposal plans to the U.S. Army Corps of Engineers," said Mr. Dick Gorini, chairman of the group and environmental affairs manager for the Port of Houston Authority.

The proposed dredging project calls for removal of some 72 million cubic yards of material if the channel is enlarged to 45 feet deep and 530 feet wide. Further enlargement to 50 feet deep and 600 feet wide — which require another referendum — would generate an additional 64 million cubic yards of material.

The work group has sought public comment on uses for the dredged material by meeting with bay users groups, including the Galveston Bay Foundation, Houston Audubon Society, Clear Lake Area Chamber of Commerce, La Porte City Council and Planning and Zoning Commission, and local boating groups and marinas.

"We've had a number of thoughtful suggestions," said Mr. Gorini. "The key is determining which potential beneficial uses are the most economical and environmentally friendly."

The uses most frequently suggested during the meetings include: protection

and restoration of eroding shorelines and islands; restoration or creation of wetlands and wildlife habitats; and creation of multi-purpose "destination islands" that offer recreational and environmental benefits as well as protected anchorages. *(Port of Houston)*

LA Harbor Commission Officers Elected

Mr. Ronald S. Lushing has been elected to a second one-year term as president of the Los Angeles Board of Harbor Commissioners. Mr. Floyd Clay, meanwhile, was elected vice president of the Harbor Commission.

Mr. Lushing originally was appointed as a commissioner on the five-member Board by Mayor Tom Bradley in June 1989. He was elected 11 months later to serve as president of the Harbor Commission, which oversees the Port of Los Angeles' operations and development.

Mr. Clay, who was appointed to the Board by Mayor Bradley in 1988, replaces Mr. Jun Mori as vice president.

Baltimore Cargo Continues to Increase

For the first time in three years, the percentage of general cargo moving through the Port of Baltimore has surged for two consecutive quarters. Port officials report a gradual positive climb in the quarterly trend line.

During the second quarter, 1.4 million short tons of cargo moved over state piers, representing a 4.1 percent increase over the second quarter of 1990. This increase follows a 6.5 percent increase reported for the first quarter and a 5.2 percent increase compared to the first half of 1990.

"It has taken a concerted effort on the part of everyone involved in the port and we are beginning to see signs of real progress," said Transportation Secretary O. James Lighthizer. "All the parties involved including management, labor, and the maritime community as a whole have played crucial roles in strengthening the port's performance."

Strong export commodity gains in iron and steel and other break-bulk cargoes including roll on/roll off cargo contributed to this quarter's statistics.

Despite a decrease in overall imports, break-bulk tonnage increased 9.2 percent for the quarter and 6.5 percent for the half year.

"We are pleased to report that the port is continuing to increase its cargo base. We feel these figures represent a sign of an easing of the recession which has gripped the nation," said Mr. Adrian Teel, executive director of the Maryland Port Administration. "It is essential now that we are on the move again we seize every opportunity to continue these gains."

Challenge at Canal Threatens World Trade

(Reproduced from 'Port of New Orleans RECORD')

The canal that pierces the isthmus of Panama handles a large portion of the cargo that moves through the Port of New Orleans, but it faces challenges that could compromise that role by the end of the decade.

In 1990, about 39 percent of the Port's general cargo trade — 2.7 million tons — transited the Panama Canal, according to reports from the U.S. Department of Commerce. The top five commodities were iron and steel, metal ores and scrap metal, crude fertilizers, manufactured goods of cork and wood, and crude rubber.

Trade with Asian nations topped the list at 2.1 million tons, followed by cargo from the western coast of South America, 434,537 tons, and freight form Australia and New Zealand totalling 228,139 tons.

The U.S. Gulf Coast also has a major stake in the canal between the seas. According to information released by the Panama Canal Commission, 54.7 percent of all the cargo moving from the Atlantic Ocean to the Pacific during 1990 originated on the Gulf Coast. Of the cargo moving from the Pacific to the Atlantic, 15.5 percent of it was going to ports on the Gulf Coast.

In all, about 14 percent of all U.S. seaborne trade goes through the canal, according to Richard A. Wainio, a Panama Canal Commission Director and head of its executive planning office. Wainio was interviewed during a recent business trip to New Orleans.

Its importance to the rest of the world trade community is so large it is difficult to calculate. Traffic through the canal is dense. In 1990, more than 157.3 million tons of cargo moved through the canal in 12,052 transits by ocean-going ships.

Preparing for Change

Yet the challenge facing the canal has nothing to do with ships or locks. It has to do with a treaty signed by the United States and Panama in 1979. Under the terms of that treaty, the United States relinquished its sovereignty over the 553-square-mile Canal Zone and began a transition that will end all U.S. control at noon, Dec. 31, 1999 — 95 years after the Panamanian government gave it up for $10 million from the U.S. Treasury.

In 1990, a watershed event in the transition occurred. For the first time in the 95-year history of the Panama Canal Commission, a Panamanian citizen, Gilberto Guardia, was appointed administrator. Guardia is the only foreigner in charge of a U.S. agency. Raymond Larrity, an American, is the deputy administrator.

"That event, putting a Panamanian in charge of our organization, was the last important milestone that was required by the treaty until we actually turn the canal over to Panama," says Wainio, a native of the Canal Zone.

Since the treaty, an increasing number of Panamanians have been placed in the workforce. The goal is to reach the turnover date with a completely trained and experienced Panamanian workforce, ready to continue the operation of the canal after noon on Dec. 31, 1991.

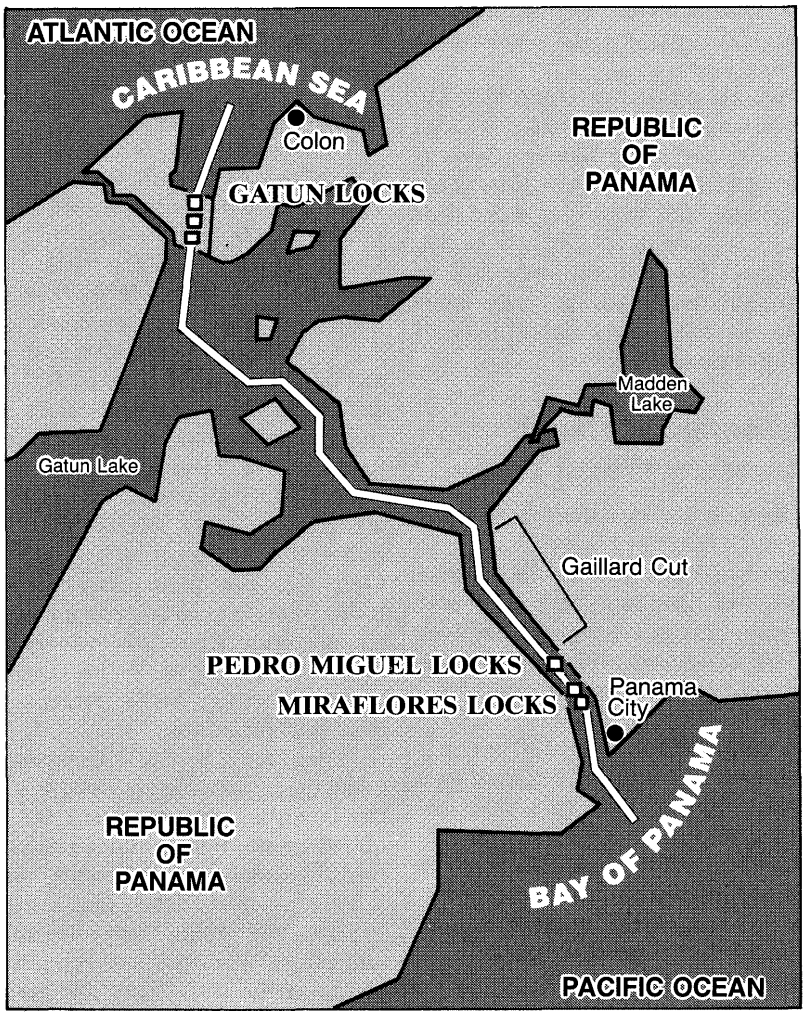
Keeping the Best

The change to a Panamanian workforce is well-along. By the end of 1990, almost half the professional and managerial personnel, four-fifths of the agency's skilled craftsmen, over 70 percent of its floating equipment employees and nearly a third of the canal pilots were citizens of Panama. Overall, 87 percent of the 7,000 permanent employees are Panamanian.

"The first days following the treaty should be no different than the last days leading up to Dec. 31 to the users of the canal," predicts Wainio.

The only hitch might come from the government of Panama. While the Commission is moving towards its goals for the takeover, the government must make some fundamental decisions.

The crux of the matter is money.



Working for a U.S. government agency, the employees of the Canal Commission, American and Panamanian, are paid double, triple and more than what they would be paid if they were employees of the Panamanian government, according to Wainio.

"Panama doesn't yet know how to deal with that." he says. "If they were to let things slide until 1999, it would be harder and harder to recruit qualified people."

And harder yet to keep them. Wainio speculates that many of the best qualified would leave the Commission for higher paying jobs in the private sector if their salaries were cut in half.

"So the Panamanian government, well before 1999, has to determine what kind of structure they want. Is it going to be a government organization? Is it going to be a private organization? Is it going to be semiprivate, semiautonomous? They have to decide what organizational structure, what organizational entity (to use), and how it will fit into their own system.

"There's a lot of things that Panama has to prepare for, and they haven't yet really started that process," worries Wainio. "They've started thinking about it, but not much else has been done."

Improvements and Changes

While there is uncertainty about how the government of Panama will choose to organize the successor to the Panama Canal Commission, the canal itself remains much the same as it was constructed. Stretching from northeast to southwest across Panama, the canal raises ships 85 feet through a series of three locks to the level of Gatun Lake before lowering them through three more locks on the opposite side.

Nearer to the Pacific, Gaillard Cut severs the continental divide. Originally a pass 275 feet above sea level, steam shovels lowered the floor of the pass to 40 feet. With a channel 500 feet wide, the eight-mile-long cut is the narrowest part of the channel. "We are mandated to change and improve the canal to make sure what gets turned over to Panama in 1999 is a canal that is working well and prepared to handle world shipping demands well into the next century," Wainio says.

About 25 percent of all the revenue collected by the Canal Commission is spent directly on maintaining the canal and making capital improvements. Of that $100 million, $70 million will go to operating maintenance and $30 million to capital improvements, including the acquisition of new equipment and the construction of new facilities to enhance the safety, efficiency and capacity of the 51-mile canal.

"Right now, our capital program is more focussed on efficiency and safety because we feel we have sufficient capacity to handle shipping demands for at least the next decade," says the Commission director.

The improvements include an increased number of larger tugboats, new towing locomotives for the locks and high-mast lighting to allow round-the-clock operation for all vessels. In addition, the Commission is dredging the approach channels to straighten and widen them for safety.

Widening the Cut

But looking beyond this decade into the next century, that focus could change.

"We are looking at the possibility of widening the Gaillard Cut, which is one major project that we could undertake to increase our ability to handle Panamax-size ships," says Wainio.

Panamax ships, the largest that can be accommodated in the 110-foot wide by 1,000-foot long locks, must proceed one at a time through the cut. Widening the cut to allow two-way passage of such ships would eliminate waits to transit the cut, and significantly increase the capacity of the canal to handle more tonnage.

21st Century Dinosaurs

"I think that one of the major misconceptions people seem to have about the canal is that the canal is obsolete because many ships are already too big for the canal," declares the Commission director. "When we look at the nature

of world trade...we do not think that the (larger than Panamax) ship is going to be that popular. We think the Panamax ship is going to remain the most popular size ship in the world. The (shipyard) order books right now confirm that."

Wainio notes that the "post" Panamax ships are generally restricted to hauling three commodities: oil, coal and iron ore.

"We are not on major world trade routes for any of those commodities," he notes.

"The only other ships too big for us in the entire world are those four or five APL post-Panamax container ships. Whether you have a bigger canal or not, if somebody decided to build post-Panamax container ships, it's because they are going to use the intermodal system. With or without post-Panamax ships, the intermodal system form any of the Pacific Rim trades simply has an advantage over the all-water route. That relationship wouldn't change much, even if we were able to handle a bigger ship."

There is a trend toward Panamax ships, however. In 1965, 112 Panamax ships made the trip between the oceans. In 1990, more than 4,000 Panamax ships were hauled through the locks.

Of the world's oceangoing fleet, 91 percent can transit the canal. That's up from 84 percent 10 years ago, according to Wainio. He says the big ships are being scrapped faster than they are being built.

"When you are talking about the very large ones, eventually, they will go the way of the dinosaur when you are looking down into the next century," predicts Wainio. "The demand for the big ships is going to decline because the demand for what they carry is going to change and go down.

"The basic assumption in forecasting world trade," he continues, "is lighter, smaller. That's one of the driving trends in transportation. What you want to do is minimize your transportation requirements to gain economics."

This will come because shippers will increasingly limit the amount of waste material they ship, especially in bulk commodities.

"You start doing the things they've been doing all the time, but do it more, everything from pelletizing iron ore to all kinds of processing of bulk materials closer to the source," he predicts.

New Trade Growth

But the canal will continue to affect ship size. Grain, for example, is the largest commodity handled through the canal. Although grain merchants might like to use 100,000-ton bulk carriers, the fact is that even at that size, the economies of scale do not justify shipping that amount of grain around the horn of Africa.

In addition, Wainio sees substantial growth in the trade moving from the west coast of South America, especially Ecuador, Peru and Colombia. He expects traffic from that region to grow at twice the rate expected from the rest of the world.

There is even a new product coming out of Venezuela. "It's a tar-like petroleum product. They actually roll it up. They are talking about moving several million tons of this product ... that they have just started developing," reports Wainio.

Despite the concerns surrounding the turnover of the facility to the government of Panama in 1999, the utility of the waterway between east and west continues to grow.

NJ Sludge Treatment: $40 Million Committed

At the request of the New Jersey Governor's Office, the Port Authority on August 8 committed $40 million from the State's share of Regional Economic Development Program funds to advance the development or capital improvement of sludge treatment facilities operated by six sewerage authorities in the State.

Port Authority Chairman Richard C. Leone made the announcement following the monthly meeting of the bistate agency's Board of Commissioners.

"The agreement between the states and the Port Authority on our 1991 budget and five-year capital plan provided $200 million for each state to use for Regional Economic Development Program projects," Chairman Leone said. "High priority projects selected by the Governors are being funded under this agreement."

The Port Authority funding of these projects will increase the financial capacity of the six sewerage authorities and help them to comply with consent decrees that require them to implement land-based sludge management. The need for the projects stems from a recent federal ban on ocean disposal of the products of waste-water treatment.

Chairman Leone noted that the cost of land-based disposal is expected to be more than double the cost of ocean disposal.

Port Newark-Chicago Double-stack Service

The Port Authority of New York and New Jersey and Consolidated Rail Corporation announced the expansion and improvement of intermodal rail service for shippers of Midwestern and Canadian cargo via the New York-New Jersey Port. The program includes:

- The only direct, daily double-stack container service between a North Atlantic port and Chicago.
- Reductions in Conrail's rates of 20 percent for westbound loaded containers and 50 percent for empties.
- Direct Conrail-CP Rail route for intermodal shipments between the on-dock Maher Terminal and the Elizabeth Port Authority Marine Terminal and Montreal and Toronto.

"In conjunction with the Port Authority's container incentive program, as well as the joint New York Shipping Association-International Longshoremen's Association assessment reduction program, these improvements should now make the New York-New Jersey Port the most competitive in the North Atlantic range," said Lillian Liburdi, Port Department Director for the Port Authority.

Conrail has teamed up with Burlington Northern to provide the daily double-stack service between Burlington's Chicago terminal in Cicero, Illinois, and Port Newark in New Jersey. Conrail said it was able to reduce westbound rates to Chicago because of the introduction of double-stack intermodal service.

Preparing for double-stack service, Conrail invested more than $2 million in terminal facilities at Port Newark, improving the facility and increasing track capacity. Last year, Conrail completed a $33 million clearance improvement project between northern New Jersey and Chicago to accom-

modate high cubic capacity double-stack containers.

"The new Conrail-CP Rail service cuts the distance to Montreal and Toronto almost in half when compared to the nearest competing Canadian port, and makes New York significantly closer to Montreal and Toronto than any other North Atlantic port," said Ms. Liburdi.

Northbound, the daily service originates at Maher's on-dock Marport Terminal in Elizabeth, travels on Conrail to Albany, where CP Rail takes over and delivers the containers to the two Canadian cities. Containers are delivered to Montreal in only 24 hours and to Toronto 30-32 hours after leaving Marport.

These improvements were made possible by a series of aggressive, cost-cutting actions in 1988 by the New York-New Jersey Port's maritime industry management and labor organizations and the Port Authority.

A joint action undertaken by the International Longshoremen's Association and the New York Shipping Association in 1988 reduced the tonnage assessment paid by steamship lines on containers moving more than 260 miles to and from the port. It was further reduced by joint action in 1990.

In addition, the Port Authority in 1988 offered shippers an incentive of $25 per import container and $50 per export container for rail shipments to and from points more than 260 miles from the New York/New Jersey port. The incentive offset cost of drayage, or transport, of containers between local marine terminals and regional rail ramps. The incentive program was extended through 1990 and again, through 1991.

"These joint Conrail/Port Authority programs will reinforce the New York-New Jersey Port's position as the premier inland container load center on the Atlantic seaboard," stated Ms. Liburdi.

Unique Service Offered At Charlotte Terminal

The operation of a 70,000-pound capacity top lifter at the North Carolina State Ports Authority's Charlotte Intermodal Terminal (CIT) places the facility in the unique position of being the only trailer depot operation in Charlotte which offers grounding and mounting capacities for empty and loaded containers.

The top lifter positioned its first container (an NYK Line box) on Monday, August 19 at the CIT, located at 5400 Hovis Road. The N.C. State Ports Authority pioneered the establishment of inland intermodal terminals when it opened the CIT in 1984.

Since it opened, the Charlotte Intermodal Terminal has served as a gateway to the west for both exporters and importers.

Through the CIT, the N.C. State Ports Authority offers Sprint Truck Service to its customers. This service allows the State Ports Authority to match loads between Charlotte and the deepwater terminal at Wilmington, and provides significant inland freight savings for the shipper and the steamship line.

Interchange, inspection and storage services are also offered to steamship lines that presently do not have ships calling at Wilmington.

Several major steamship lines are regular customers of the Charlotte Intermodal Terminal: Yangming Marine Line, Polish Ocean Line, NYK Line (North America), and Maersk Inc.

"With the top lifter operating at the CIT, the State Ports Authority now provides its customers the flexibility of being able to ground empty and loaded containers. This frees up chassis for improved utilization of the chassis pool," said Mr. Jack L. Wilson, N.C. State Ports Authority Director of Marine Operations. "Since the top lifter can stack containers 3-high at Charlotte, the terminal also enjoys the benefit of increased storage capacity," he added.

An additional service to its customers will be offered in mid-September when the Charlotte Intermodal Terminal goes on line with the N.C. State Ports Authority Container gate Electronic Data Interchange (EDI) system.

CIT customers then will be able to monitor directly their equipment at the gate. And the truck interchange process will be expedited.

"Our improvements at the Charlotte Intermodal Terminal are being implemented to serve our customers to the greatest extent possible," said Mr. Wilson. "These expanded capabilities also will allow us to handle additional business," he said.

Impacts of Ports on N.C. State Considerable

The North Carolina State Ports Authority 1990 Economic Impact Study illustrates the importance of the state's ports operations on the state's economy. Based on cargo tonnage and capital investment data from Fiscal Year 1990, the analysis is the first in the history of the State Ports Authority using methodology developed by the U.S. Maritime Administration (MARAD) for use in the U.S. ports industry. Use of the MARAD Port Economic Impact Kit (Port Kit) provides comparability of North Carolina ports' impact with that of ports in other states. The study was conducted by Dr. Gary L. Shoesmith, Assistant Professor of Economics, Babcock Graduate School of Management, Wake Forest University.

The results of the study show that the impact of the ports' cargo activities is substantial for the state as a whole. In the succeeding charts and graphs are details of the statewide impact of activities at the state's two deepwater ports of Morehead City and Wilmington and inland intermodal terminals at Charlotte and Greensboro. The economic impacts are measured in terms of jobs, personal income, sales and taxes.

The first chart outlines the total economic impacts of the NCSPA ports (Exhibit A). Each classification of employment, income, sales and taxes is subdivided into three separate categories of economic impacts: Port industry, which relates to the movement of cargo through the ports; port capital spending, which reflects port construction, expansion and maintenance; and port users, those businesses in the state that use North Carolina port facilities to ship or receive their products and/or factors of production. Of these, port users account for over 80 percent of the total economic impacts.

Another significant component of the study measures the economic impact of the ports' activities upon the 18 statewide multi-county planning regions (Exhibit B). Most port industry economic impacts occur in the planning region where the port is located. The remaining effects are associated with inland transportation of cargo and, therefore, occur throughout the state. Port capital spending impacts occur

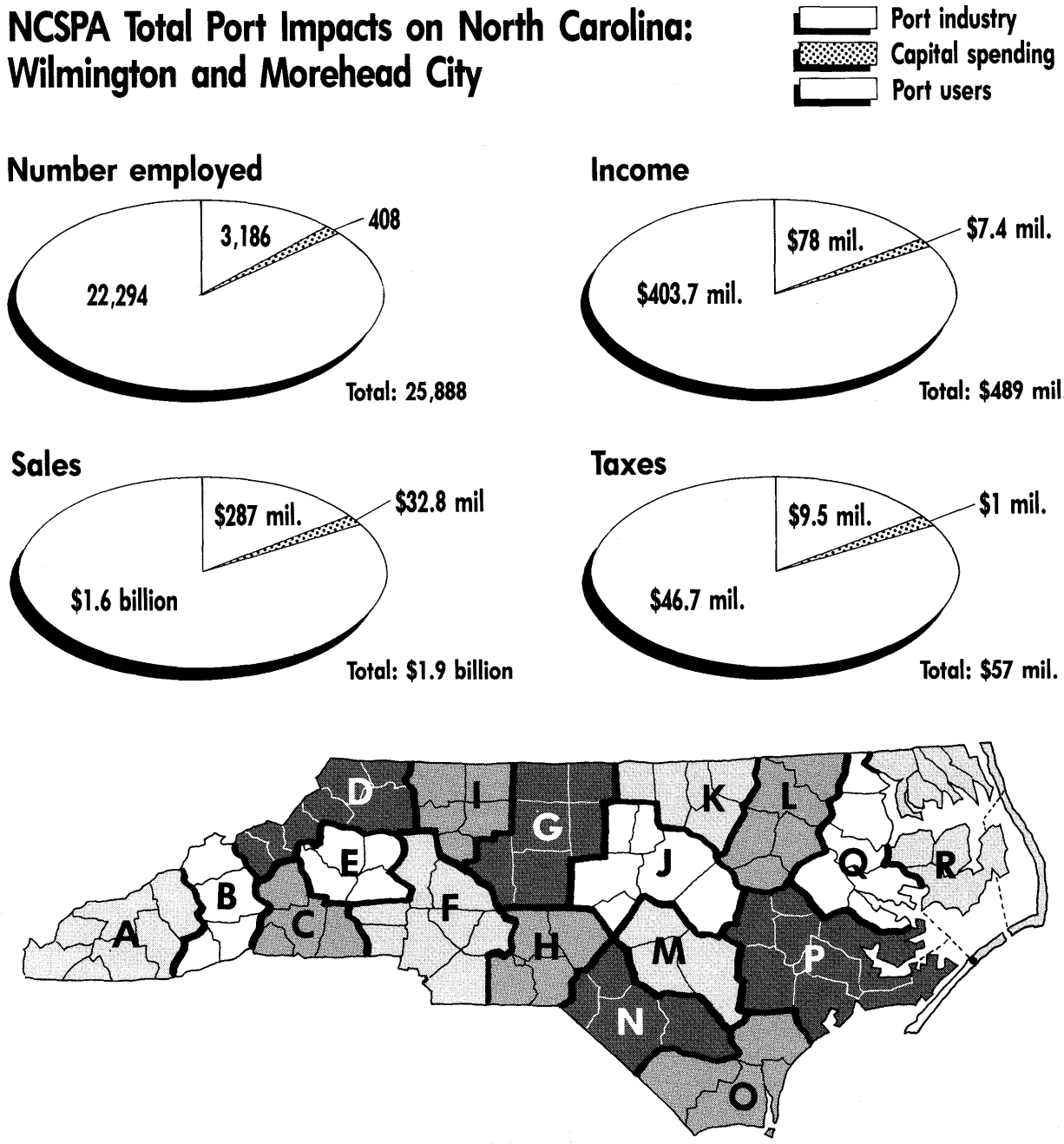
only in the regions receiving payment for port capital improvements. Port user impacts are calculated as the percent of each business activity that is port-related multiplied by the total number of employees for each company surveyed using the N.C. State Ports Authority ports.

Given that the North Carolina State Ports had an important role in the North Carolina economy during fiscal 1990, projections are that the North Carolina State Ports should have an even greater impact on state employment, income, sales and taxes by 1995 (Exhibit C). This forecast is based on capital investments made at the Morehead City and Wilmington facilities during 1990, plus those planned in 1992 and 1993. N.C. State Ports Authority projected yearly cargo tonnages and other data necessary to employ the PortKit model were also used to make the forecast.

Since tonnage is forecasted to increase by 50 percent by 1995, employment impacts are also forecasted to increase by roughly 50 percent. Projections for income, sales and taxes parallel the employment figures, except that various price escalations inflate the results further.

The forecasts indicate an expanding role for the North Carolina ports throughout North Carolina over the next several years. The economic impact of the North Carolina ports can only be enhanced with increased support of the state's international trade community. The N.C. State Ports Authority 1990 Economic Impact Study clearly shows that each ton of cargo moving through the state's ports facilities means jobs and income statewide for North Carolina's citizens, sales statewide for North Carolina's busi-

NCSPA Total Port Impacts on North Carolina: Wilmington and Morehead City



nesses, large and small, and tax revenues for North Carolina's state and local governments. *(Cargo)*

Based on the 1990 North Carolina State Ports Authority Economic Impact Study, cargo tonnage forecasts and other significant data, cargo activities at the North Carolina State Ports are projected to produce an even greater impact on the state's economy by 1995. The number of jobs alone attributed statewide to activities at the state's ports is expected to increase by 50 percent. Projectoins for personal income, sales and taxes should grow correspondingly.

Realization of these projections, impressive though they may be, can come about only with the support of North Carolina's international commerce and industry. With increased use of our state ports' facilities, we will retain within our state many of the jobs, income, sales and taxes that now move out with cargo shipped elsewhere. With increased use of our state ports' facilities, the North Carolina State Ports Ahtority will realize the economy of North Carolina by the dynamic and sound growth of international trade through the ports of North Carolina.

Mitsui OSK in Pact for New Oakland Terminal

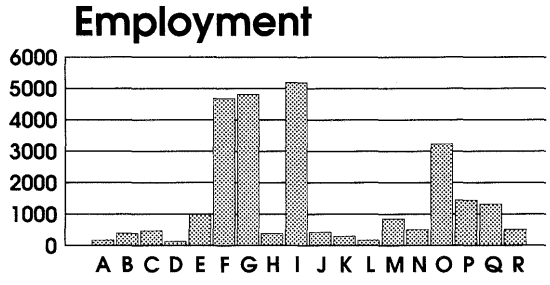
A unique $71.5 million public-private financing package will fund Oakland's first new container terminal in nearly a decade under an agreement ratified on August 6 by the Oakland Port Commission.

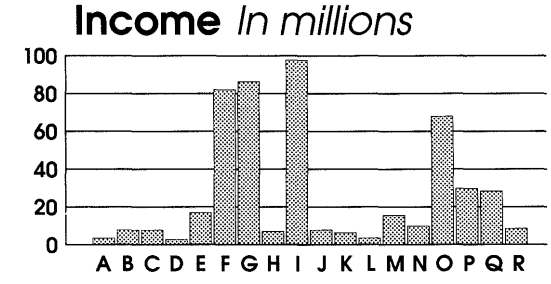
The deal, using what is known in banking circles as special facility tax-exempt financing, calls for Tokyo-headquartered Mitsui O.S.K. Lines (MOL) to pay dept service on tax-exempt bonds that the Port will issue to pay for the project. It substantially cuts the interest expense the shipping line would incur if it was to sell bonds on its own.

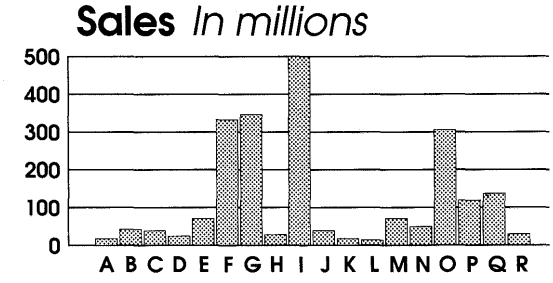
The agreement calls for MOL to finance more than half the cost of the new facility, to be built on a 38-acre (15-ha) site next to the existing Seventh Street terminal complex. The shipping line will furnish two post-Panamax container cranes and develop the gate and yard, administration building, maintenance and repair shop and other improvements totalling $60 million. The Port will pay $11.5 million for site preparation and relocation of a street that now runs through the property. The Agreement's term is 25 years, with a five year option.

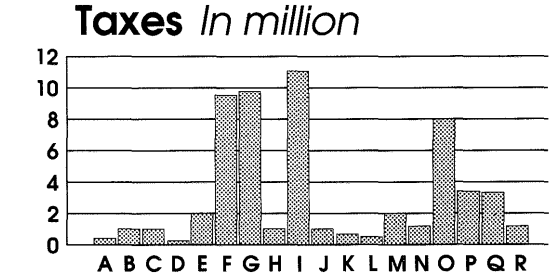
"Mitsui O.S.K. Lines and the Port of Oakland have prospered together since the dawn of the container era 23 years ago," noted Oakland Port Commission President Carole Ward Allen. "This innovative new agreement will advance our partnership into the coming century," she said.

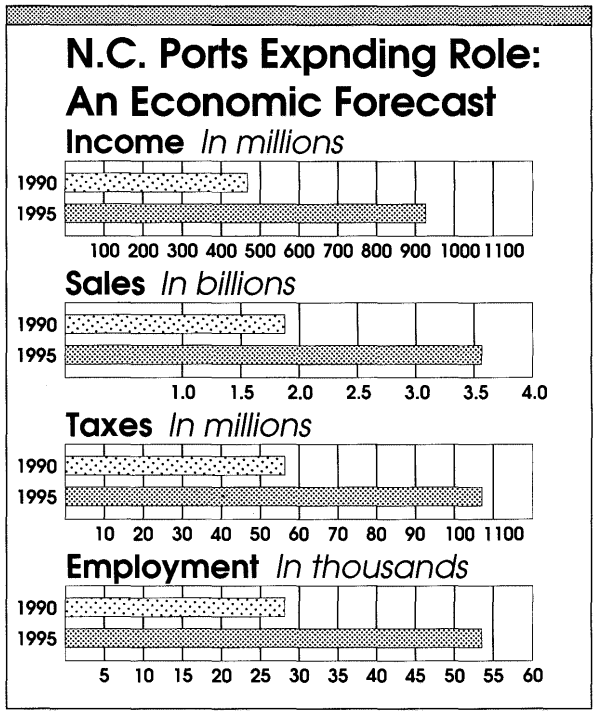
Construction is expected to start shortly. The site was occupied for years by a now-demolished bulk grain terminal operated by the Carnation Co., and the project was called the Carnation Terminal during the planning process.











When it opens in 1993, however, the new facility will be known as the MOL/TraPac Berth 30 Terminal. TraPac (for Trans Pacific Container Service Corporation) is a wholly owned subsidiary of MOL. It is expected to handle some 60,000 containers annually in its first years of operation.

Mitsui O.S.K. Lines now uses Berth 35 at the Seventh Street terminal complex, with TraPac providing the operations. The line's Pacific Southwest service sails weekly from Oakland to Singapore, Hong Kong, Kaohsiung, Kobe, Nagoya, and Tokyo, among other destinations.

While the Port invested more than $100 million in marine terminal improvements in the past decade, the MOL/TraPac terminal will be the first completely new container facility at Oakland since the Howard Container Terminal opened in 1982.

Seattle: All-time Container Records

The steady increase in container volumes through June 1991 has resulted in two all-time records for the Port of Seattle.

The 586,099 TEUs handled through the Seattle Harbor represent an eight percent increase over the 540,471 TEUs handled the first six months of 1990. The Port also broke its all-time container volume record for international traffic.

The 385,037 full international TEUs in the first half of 1991, hit a 10 percent increase over last year's mid-year volume. Additionally, Seattle was the only U.S. Port to move more full export containers than full import containers over the Pacific Asia trade route, maintaining the Port's position as the top U.S. Port in container tonnage exports to Pacific Asia.

The Port's strong performance, achieved in spite of a recessionary economy, was led by a 16 percent increase in container export volumes: NYK, Mitsui-OSK, Matson, and APL showed impressive increases in their volumes. Import commodities such as computers, textiles, and automotive parts showed sharp increases. Exports of note include frozen vegetables, dairy products, and lead ingot.

Seattle has exceeded one million TEUs for four consecutive years, setting a record in 1990 of over 1.17 million TEUs through the Seattle harbor. With the second half of the year traditionally the strongest, the Port is positioned to surpass last year's totals.

"These figures show how efficient and productive the Port has been," said Mr. Jack Block, Port Commission President. "To do so well in such tough economic times demonstrates the teamwork, commitment, and resolve we share with our partners in the regions."

Charleston — the Productivity Port

State-of-the art cranes and their operators have gone into high gear to push productivity rates through the roof at the Port of Charleston. The Port of Charleston operates three container terminals and fifteen container cranes of second- and third-generation design. Five IHI post-Panamax cranes have been in use at the Port for just over a year. With one of the Ports Authority's professionally trained operators at the controls, the new cranes are able to reach the forty-to-fifty lift range.

Evergreen Line Starts Service Through Tacoma

The Port of Tacoma's recently expanded Terminal 4 is the new home for Evergreen Line's service through the Pacific Northwest. Evergreen, which is said to be the largest container shipping line in the world, has two vessels calling in Tacoma each week. Their first vessel called Tacoma in early July.

Evergreen is leasing a 33-acre terminal from the Port, which can later

The "Ever Lyric" Calls at Evergreen Line's New 33-Acre Terminal at the Port of Tacoma

be expanded to 50 acres. According to Port of Tacoma Commission President John McCarthy, "With this terminal, and its unequalled dockside intermodal facilities, we believe Evergreen Line is best able to manage their future growth and expansion plans in the Puget Sound region."

The Port made over $11 million in terminal developments, new equipment purchases, and rail yard improvements to prepare for Evergreen Marine Corporation (Taiwan) Ltd., which signed a long-term lease with the Port in February. Evergreen uses the Port's North Intermodal Rail Yard, which is directly adjacent to their Terminal 4 location.

Africa/Europe

Intercargo Trains for Bremen-South Germany

The German Federal Railway's new Intercargo express trains transport containers and swapbodies between Bremen and the economic center Stuttgart/Neckar at top speeds up to 100 miles per hour. The previous transport time for this route has been reduced by two hours. This 383-mile-long stretch now takes only 7 1/2 hours. Loading times as late as 8 or 9 p.m., fast transport, and quick delivery the next morning are important advantages for forwarders and the transporting businesses. Thus, manufacturers as well as forwarders located in Bremen, make us of the Intercargo express trains when they need to transport their products and general cargo in a hurry.

The BLG Bremer Lagerhaus-Gesellschaft, the port operating company of the Ports of Bremen/Bremerhaven, regards this new possibility for fast transportation of general cargo as beneficial for port customers in the area of import and export. The Bremen port business welcomes the German Federal Railway's improvements in connections between the Ports of Bremen and the hinterland.

The railway terminal "Bremen-Roland" is located directly adjacent to the BLG handling facilities in the Neustädter Harbor. Covering almost 40 acres, this terminal for combined road-rail transport is certainly the most modern one in Europe. Transferring a container from a truck to a rail car takes only two minutes at most.

Amsterdam Port Growth Continues in First Half

The transshipment of goods in Amsterdam's expanding harbour grew further in the past half year. According to figures from Amsterdam Port Management this increase was 7.8% against the first half year of 1990 by which transfers reached 15.7 million tons for the first six months of 1991.

In the dry bulk sector transshipment increased by 24.8% to 7.7 million tons. Liquid bulk transshipment decreased by 9.4% to 6.3 million tons. In spite of a slightly less favourable second quarter the general cargo sector had an increase in transshipment of 17.7% to more than 1.7 million tons.

In the last six months 325 more vessels visited Amsterdam than in the same period last year, 2,506 against 2,181. The total volume capacity on the other hand grew from 14.5 million tons in the first half of 1990 to 14.6 million tons.

Bremerhaven: Time Savings for Asian Lines

The decision of the ACE group to switch from Hamburg to Bremerhaven has proved to be a good move for the three Asian shipping lines Kawasaki Kisen Kaisha (K-Line), Neptune Orient Lines (NOL), and Orient Overseas Container Line (OOCL). "Last November ACE decided to drop Hamburg from its schedule and use Bremerhaven as its only German port. The determining factor was Bremerhaven's quick accessibility, which avoids time-consuming river steaming," according to Mr. Manfred Kuhr, the Managing Director of Sales for the BLG Bremer Lagerhaus-Gesellschaft.

Since their switch to Bremerhaven, the three Asian lines have shown gains and have made up for time lost due to bottlenecks in handling in other European ports. There is always a berth available at the Bremerhaven quay, which is mentioned in the Guiness Book of Records as the longest quay in the world (2,300 meters). The consortium's ships have been able to reduce their travel time from 64 to 56 days without running into time pressure. In Bremerhaven, even the biggest container vessels are frequently dispatched in a single shift. An additional advantage over competing ports is the direct transfer to container block trains right in the terminal. Every day, twenty of these reliable trains connect Bremerhaven in night-hops with all important economic centers.

BLG has reported a growth of almost nine percent in container handling in the first six months of 1991. A two-digit growth rate in East Asian traffic was responsible for most of this increase in container traffic.

Expert Committees on Port of Lisbon Formed

The first meeting of the Advisory Council to the APL was held in the Auditorium of the Alcantara Passenger Terminal under the chairmanship of the President of the Authority of the Port of Lisbon.

This statutory body, which is designed to advise the APL, is comprised of all the departments that have interests connected with the jurisdiction, and operation of the Port of Lisbon.

- General Directorate of Tourism;
- General Directorate of Territorial Planning;
- General Directorate of the Protection of the Environment;
- National Service of Parks, Reserves, and the Protection of Nature;
- General Directorate of Fisheries;
- National Road Board;
- Coordination Committee for the Region of Lisbon and the Tagus Valley;
- National Institute of Port Pilots;
- Institute of Port Work;
- Town Councils of Alcochete, Barreiro, Benavente, Lisbon, Loures, Moita, Montijo, Oeiras, Seixal and Vila Franca de Xira;
- National Railway Company;
- Portuguese Association of Merchant Shipowners;
- Association of Shipping Agents in Central Portugal;
- National Association of the Port Operators;
- Lisbon Commercial Association;
- Portuguese Industrial Association;

- Portuguese Shipping Agents Association;
- Trade Unions of the APL workers (3);
- Stevedores Trade Unions (3);
- Local fishermen's Trade Union;
- Association of Local Fisheries Shipowners.

According to the statutes—set out in the Bye-Laws for Operation approved at this meeting—the main purpose of the Advisory Council is to draft opinions regarding questions connected with problems of the Port of Lisbon submitted by the Government or the Port Authority and consider proposals submitted by the members regarding measures designed to develop and improve the pot and above all to make the best use of its resources.

Under the terms of the Statutes, in opening the meeting, the President of the APL, Mr. Alfredo Conceição Rodrigues, summarized the previous activity of the APL and what it intended to do in view of the "Plan of Activity and the Budget for 1991," where the overall activities are broken down into more than 300 different branches involving an overall investment of 3,500 million escudos.

During the meeting in question, the Advisory Council discussed a proposal from the President regarding the "Formation of Expert Committees," and the following were formed:

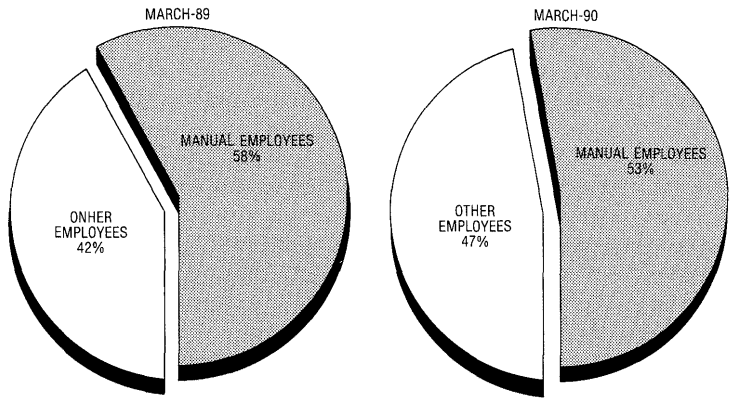
- Committee on Port Management
- Expert Group on Port Operation
- Expert Committee on Port Costs
- Expert Committee on Ship Clearance
- Committee for the Reanimation of the River Banks

(Porto de Lisboa)

Manpower in UK Ports: Employees Total 36,101

The number of employees in the U.K. port industry declined by 11.2% over the year ended 30th March 1990. U.K. port employees totalled 36,101, compared with 40,674 at 30th March 1989. Of these, 53.2% are manual employees compared with 58.1% in 1989.

These figures form part of the BPF's "Report on Manpower in the U.K. Ports Industry," which was published in May. The Report gives one of the first indications of the changes that have taken place in the ports industry's employment situation since the abolition of the Dock Labour Scheme in July 1989.



The survey gives the position at 30th March 1990, just under a year after the Scheme's abolition, so it cannot reflect the full extent of the changes that have been made up to the present date. Nevertheless the survey identifies some clear trends and provides some useful pointers for the future:

- The largest group of employees at 30th March 1990 was dock workers and operational/cargo handlers, who accounted for 37.4% of port employees compared with 42.4% in 1989.
- Thames and Kent was the largest area of employment, with 18% of the industry's total workforce. Second largest was the Humber region with 11.1%.
- There were 10 port areas employing more than 1,000 workers at 30th March 1990. The port area of London had the largest number of employees, with 9% of the total U.K. port workforce. Liverpool was second with 6.5%, and Felixstowe third with 6.3%.
- The number of employing companies had fallen from 647 at 30th March 1989 to 622 at 30th March 1990. The majority of U.K. port employers are small companies with less than 100 workers.

"Report on Manpower in the U.K. Ports Industry" is available from the BPF at £20.00 per copy. *(Review)*

British Ports Federation: Ports Bill Progress

As *BPF Review* went to press, the Ports Bill was expected to receive Royal Assent before the end of this parliamentary session. Parliament rises at the end of July.

When the Ports Bill was first introduced at the beginning of this year, the BPF broadly welcomed its provisions enabling Trust Ports to move into the private sector. However, many of the Federation's members were unhappy about the powers which the Bil would confer on the Secretary of State for Transport under which the minister could enforce privatisation against a port's wishes. The Federation therefore mounted a vigorous campaign to have the element of compulsion removed from the Bill altogether. Whilst the Government was not prepared to abandon this provision entirely, there have nevertheless been a number of important amendments to the Bill which the Federation believes improve it significantly from our members' point of view. These include:

"Affirmative Resolution" Procedure

Any Order to bring about the compulsory privatisation of a Trust Port will be subject to the approval of both Houses of Parliament, and will be debated in full. This ensures that the Secretary of State will have to defend his decision to direct a privatisation, and subjects the Act's compulsory powers of privatisation to much greater scrutiny than originally proposed by the Government. This provision was welcomed by many Trust Ports, as it will require the Secretary of State to take into account all the circumstances relating to a particular port before reaching a decision.

A further amendment made to the Bill in the House of Lords requires that, where the Secretary of State decides not to direct a privatisation, a period of five years must elapse before privatisation of the same port can be

Main Provisions of Ports Bill

- Gives Trust Ports the power to form "Successor Companies" and to transfer their assets to them.
- Provides for such Companies to be sold, either by competitive tender, negotiated sale, or public flotation.
- Empowers the Secretary of State for Transport (or other appropriate minister) to direct the privatisation of a particular port with a turnover of £5 million or above in real terms, subject to "affirmative resolution" procedure; the minister may not exercise these powers for two years after Royal Assent.
- Requires privatised ports to pay a levy to the Government amounting to 50% of the proceeds of the sale.
- Imposes a levy on any disposals of land by ports after privatisation amounting to 25% of the proceeds for the first five years, 20% in years 6 and 7, and 10% for the remainder of the 10 year period.
- Makes special arrangements for the disposal of the Port of Tilbury by the Port of London Authority.
- Amends the law relating to lighthouses, buoys and beacons and provides for the transfer of local lights from GLAs to appropriate harbour authorities.

considered again. The BPF believes this amendment will ensure that ports will not be subject to continual uncertainty about their future.

Simplified Procedures for Voluntary Privatisation

Where a port has initiated its own privatisation, the Government has now agreed that this may go ahead without any parliamentary process. Originally, the Order confirming such a privatisation would have been subject to "negative resolution" procedure in Parliament, which would have involved a 40 day delay.

Management and Employee Buy-outs

Under a new amendment, port authorities will be given powers to reimburse managements and employees who mount bids, for their expenses in so doing. The BPF has welcomed this as increasing the feasibility of management and employee buyouts. The Government has indicated on many occasions that it intends to encourage such buy-outs by a system of preferential prices, although the degree of price preference which will be on offer is not contained in the Bill and is still unknown.

The Government is now proceeding with all possible speed to ensure that the Ports Bill becomes law before the end of this Session. The Lords Committee debate on the Bill took place on 26th June, following which amendments made to the Bill were debated by the House of Commons.

(Review)

Asia/Oceania

Port of Melbourne Renourishing Beaches

Ever increasing numbers of Victorians, together with interstate and overseas visitors, enjoy the benefit offered by the beaches of Port Phillip Bay.

The recreational resource offered by these bayside areas is continually threatened by the natural effects of wind and waves, requiring human intervention to restore and preserve beaches for future generations.

Traditional methods of protecting cliffs and foreshores from erosion by the elements was to build sea walls and associated groynes to reduce the destructive action of waves and slow the movement of sand. However, the subsequent slowing of cliff erosion lead to a reduced natural supply of sand, and beaches steadily diminished.

The Port of Melbourne Authority, with funding from the State Government, now manages a Beach Renourishment Program which successfully reconstructs these beaches for the community at large.

The technique for beach renourishment begins with sand being dredged and transported to an eroded foreshore area. This process is carried out by dredgers using suction to collect sand form suitable deposits in the Bay. The sand is pumped onto the foreshore and aligned using earthmoving equipment to a scientifically-designed profile, ensuring maximum resistance to the effects of the elements.

Another important factor in minimising erosion is the selection of correct grades and quantities of sand for each area.

The results are wide and sandy beaches with natural off-shore buffers to ensure they remain in place for many years. Several of the Bay's beaches have already benefited from the Beach Renourishment Program. These include beaches at Elwood, Geelong, Rosebud, Sandringham, Blairgowrie, Brighton, Portarlington, Williamstown and Mentone. In total, 18 areas have received almost 20 kilometres of renourished beach at a cost of $4.2 million. The ongoing program of Beach Renourishment is a valuable contribution to protecting the natural resource of Port Phillip Bay, ensuring its continued recreational use of decades to come.

ADB's $45 Million Loan To Indonesia Approved

The Asian Development Bank approved a $45 million loan and two technical assistance grants totalling $1,250,000 to Indonesia for the Inland Waterways Project.

The loan will be from the Bank's ordinary capital resources. It is for a 25-year period, including a grace period of five years. The interest will be determined according to the Bank's pool-based variable lending rate system.

The Project aims at increasing the capacity of inland water transport and thereby contributing to the overall economic and social development of East, South and Central Kalimantan. As such, the Project is consistent with the Government's development objectives of providing greater nationwide access to economic opportunities and supporting more balanced regional development.

The Project is designed to increase the capacity of the inland waterway system in East, South and Central

Kalimantan by allowing the operation of larger vessels, reduced vessel transit times and increased navigable days per year; reducing soil erosion in the populated sections of the canal systems; curtailing the medium- to long-term maintenance requirements of the canals; and promoting safer and more cost-effective operation of river traffic.

The scope of the Project covers two principal inland water transport systems in the area. The first involves the rehabilitation of inland water transport facilities from Banjarmasin to Palangkaraya including four canals located near Banjarmasin. The other is the Mahakam River Component, covering selected development works on the Mahakam River from Samarinda to Longiram, which will benefit East Kalimantan.

The Bank will provide an advisory technical assistance grant of $1,000,000 to examine the issue of cost recovery, and increase the overall planning and implementation capacity of the Executing Agency in support of the Government's expanded role in inland waterway transport.

The Bank will also provide a project preparation technical assistance grant amounting to $250,000 to finance a part of the cost of the consulting services for the feasibility study for the future inland waterways projects.

The Project's Executing Agency will be the Directorate General of Land Communications under the Ministry of Communications.

New Cargo Throughput Record at Port Hedland

Cargo throughput of 43,092,939 tonnes has created a new port record for Port Hedland. Announcing the figures, the Port Authority's Chairman, Mr. Jack Haynes, OAM, congratulated the Authority's staff on the achievement of the 1990/91 year.

The major product, 94% of the record cargo, was iron ore—40,390,098 tonnes to be exact. Salt comprised 4.5%, at 1,994,439 tonnes, with miscellaneous bulk, oil products, and general cargo being the balance of 609,952 tonnes.

Mr. Haynes said that the goal of his Authority was once more to become the largest tonnage port in Australia. With the recent expansion plans announced for BHP's Nelson Point and Goldsworthy operations, Mr. Haynes opined that in two years, Dampier could again be second best to Port Hedland.

Dredging of Port Klang Channels Completed

Third generation container ships and other deep-draft vessels will now no longer need to wait for high tide to cross the North or South Channels to enter or depart Port Klang.

Deepening of the port's navigation channels was completed recently (August 17, 1991). The $9.9 million project involves the dredging of the North and South approach channels, the Labuhan Gurap Bar and Anchorage Reach at the entrance to South Port and the provision of a new deep turning basin also in the South Port.

The declared depth for the North and South Channels is 11.3 metres below chart datum.

The dredging of the Labuhan Gurap Bar and Anchorage Reach and the new deep turning basin will facilitate the berthing of vessels of up to 40,000 tonnes displacement even at night, in the South Port. Additional navigation aids such as buoys and beacons will also enhance safety.

The passenger jetty at the South Port has also been dredged to a depth of 3 metres to provide safe and direct access for boats ferrying passengers to and from the nearby islands of Pulau Lumut and Pulau Ketam.

Corporate Statement: Ports of Auckland

The prime purpose of Ports of Auckland Limited is to provide port facilities, resources and an appropriate range of competitive and cost-effective services for the efficient development and handling of trade through its ports.

In pursuing this purpose the Company is guided by the key principles:

Service: The Company recognises that the needs of the customer are paramount and is committed to meeting those needs.

Productivity: The Company is com-

mitted to striving continuously to improve the productivity of all its resources.

Employee Relations: The Company will develop with its employees a shared commitment towards customer service and improved productivity and on that basis will provide secure and fairly rewarded employment.

Environment: The Company will have proper regard in all its activities for the natural environment in which it operates and will at all times strive to operate in a way that minimises the impact on that environment.

Shareholders: The Company is committed to operating as a successful business and achieving its financial objectives. *(Ports of* Auckland)

Philippine Authority: BOT, BT Guidelines Out

Projects for port infrastructures like piers, wharves, quays, storage, handling, ferry services, and related facilities are eligible for private sector construction under either the Build-Operate-Transfer (BOT) or the Build-Transfer (BT) schemes.

Constructions under both schemes include but are not limited to engineering, rehabilitation, improvement, expansion and modernization, supply of equipment and machineries, and operation and maintenance of a port facility.

In guidelines issued by the Department of Public Works and Highways (DPWH) last April pursuant to Republic Act. No. 6957 which was approved July of last year, government agencies/units authorized to contract infrastructure projects under BOT and BT, besides the Philippine Ports Authority, are: DPWH, Department of Transportation and Communications, National Irrigation Administration, Metropolitan Waterworks and Sewerage System, Local Water Utilities Administration, Philippine National Railways, Light Rail Transit Authority, Manila International Airport Authority, National Power Corporation, National Electrification Administration, Philippine National Oil Company, Export Processing Zone Authority, and Public Estates Authority.

These government bodies may issue their own guidelines implementing BOT and BT projects, as long as they are not inconsistent with RA 6975 or the DPWH guidelines.

The BOT and BT are schemes whereby the private sector, its capital and its technical know-how, are given wider participation in providing public works projects.

All projects under these schemes are undertaken after public bidding, except in only four cases spelled out in the DPWH guidelines, where it may be negotiated.

The BOT is a contractual arrangement whereby the contractor undertakes the construction, financing, operation and maintenance of an infrastructure facility for a fixed period not exceeding fifty years, sufficient to enable the contractor to recover his investments and operating and maintenance expenses plus a reasonable rate of return. After the contract period, the contractor transfers the facility to the government.

The contractor collects tolls, fees, charges, and rentals on the users of the facility subject to the approval of the concerned government agency, local government unit (LGU), or Toll Regulatory Board. Fees and charges mandated to be collected by the government agency/LGU, however, must be remitted in accordance with law.

The BT is similar to the BOT except that the contractor does not operate the facility. After construction, the facility is turned over to the government. The contractor is repaid his total investment on the project plus a reasonable rate of return based on an agreed amortization schedule.

The BT scheme is used in the construction of critical facilities, which, for security or strategic reasons, must be operated by the government.

The contractor may obtain financing from foreign or domestic sources and engage the services of a foreign or Filipino contractor.

A foreign or foreign-controlled contractor may avail of financing from the Philippine government not to exceed twenty percent of the total project cost. Financing from foreign sources must not require a guarantee from the Philippine government or from government-owned or controlled corporations.

All national projects proposed under the BOT and BT schemes must be included in the medium-term infrastructure program of the government agency concerned. A list of such projects, prepared at least once every six months, must be submitted to Congress for approval.

Local projects usually funded and implemented by LGUs are submitted to the local development councils for approval or confirmation.

The agency/LGU concerned lays down the minimum design and performance standards and specifications, as well as the economic parameters, to be observed by bidders or contractors. These standards and parameters are used in the comparative evaluation of the bids and in supervising and monitoring the project's construction and implementation.

Thailand Port Authority Development Plans

Board of Commissioners

Present Board of Commissioners comprise the followings:-

Chairman
Admiral Vichet Karunyavanij

Commissioners
Mr. Aran Thammano
Mr. Amphon Tyabhorn
Police General Sawat Amornvivat
Mr. Sompol Kiatphaibool
Vice Admiral Prida Karasuddhi
Mr. Kiti Sindhuseks
Mr. Jongarch Bodhisunthorn
Mr. Photipong Lamsam
Mr. Bhairote Chiyasak

Commissioner, Director General and Secretary to the Board of Commissioners
Vice Admiral Somnuk Debaval

At present, the Port Authority of Thailand (PAT), a public utility state enterprise under the general supervision of the Ministry of Transport and Communications, manages the Bangkok Port and the Laem Chabang Port. The former Sattahip Commercial Port which used to be under the responsibility of PAT is now transferred to the Royal Thai Navy, and still provides the services to the port users.

For effective development of the two ports, PAT has introduced modern technology and upgraded the standard of services to cope with the increasing demand due to traffic growth. The

future development projects of our ports comprise the followings:

1. Bangkok Port

There will be more than 30 major construction maintenance and procurement projects at the cost of 2,685 million baht such as follows:

— Construction of additional container yard, resurfacing storage area and rehabilitation of transit shed.

— Installation of computer for administrative, financial and cargo operation work

— Procurement of various equipments for navigation aid and cargo handling such as hopper dredgers, tug boats, rope boats, fork lift trucks, motor trucks, yard hustlers, towing tractors, top loaders and trailers, etc.

2. Laem Chabang Port

The Laem Chabang Port is designed to render services to large container ships and bulk carriers which cannot be accommodated at the Bangkok Port. It is also an infrastructure for the Eastern Seaboard Development Program, and for the country's export promotion.

The construction work which started in December 1987, is now partly completed. The first two terminals (Multipurpose Terminal and Container Terminal) are opened for cargo handling. It is expected that the construction work will be completed as scheduled which is December 1991.

According to the Government policy, the Laem Chabang Port will be under the PAT management. However, two container terminals will be operated by private firms while another two terminals will be operated by PAT. On December 17, 1990 PAT has signed the contract agreement for the management and operation of the two container terminals with the Eastern Sea Laem Chabang Terminal Co., Ltd. and the TIPS Co., Ltd. respectively.

Apart from the above, PAT is also tendering for the lease to develop, manage and operate the bulk terminals at Laem Chabang Port, the signing of contract agreement of which is scheduled in January 1992.

Towards Building A Maritime City Of Excellence

(PSA Chairman's review)

1990 marked Singapore's 25th anniversary as an independent nation. It was also a significant year of achievements for the Port of Singapore Authority.

The Port emerged tops on three counts.

Firstly, with a record-breaking throughput of 5.22 million TEUs, we became the world's busiest container port for the first time in history. In July 1990, Singapore handled its 25th million TEU since the commencement of container operations in 1972. Handling an average of 63 containers per ship hour for third generation container ships, Singapore also remained one of the most efficient container terminals in the world.

Secondly, a record number of 44,606 ships, with a tonnage of 483 million gross registered tons, called at Singapore. This was an increase of 15% in terms of vessel arrivals and 12% in terms of shipping tonnage. The achievement consolidated Singapore's position as the world's busiest port in terms of shipping tonnage, a position we have held since 1986.

Finally, Singapore remained the top bunkering port in the world. About 11 million tonnes of bunker fuel were supplied to the vessels in the Port.

The Port also performed well in other areas. The total volume of cargo handled by the Port increased by 8% to 187.8 million tonnes. The tonnage included mineral oil in bulk handled by the oil terminals which rose by 3% to 86.9 million tonnes. The cargo throughput at the four PSA terminals, viz Tanjong Pagar Terminal, Pasir Panjang Terminal, Keppel Terminal and Sembawang Terminal, together with Jurong Terminal, grew by 12% to reach 100.9 million tonnes.

PSA's commitment to a sound financial policy has resulted in a satisfactory performance in 1990. The operating income earned by the Group (ie PSA and its subsidiary companies) was $999 million, 17% higher than that in 1989. Operating surplus by the Group increased by 17% to $376 million in 1990. The Group's net surplus before tax amounted to $485 million, an increase of 5%.

The Port's good performance can be credited to Management and staff of PSA. A disciplined workforce receptive to change, a corporate commitment to modern technology for productivity, an innovative management with a flexible attitude towards meeting the needs of its customers, all add up to the winning combination of people and machines at PSA. Our value-added increased by 19% to $139,000 per employee in 1990. This is three and a half times the national average.

The success of the Port is not restricted to an accumulation of a string of "Best in the World" titles. We are committed to serving our customers and to contributing to the economy. Our vision is to establish Singapore as a Global Technoport and Distriport. The Port will co-exist with the community to establish Singapore as a maritime city of excellence in both business and leisure. The Keppel Distripark, for example, has been aesthetically designed to meet the changing needs of the customers and to blend with the environment. Maritime leisure facilities like the World Trade Centre, the Singapore Cruise Centre and the Singapore Maritime Showcase will bring the people closer to the Port.

Together with the shipping community, our customers and port users, PSA will build on its success today to realise the vision of the maritime community of tomorrow.

Lim Kim San
Chairman
Port of Singapore Authority
(PSA Port View)

PSA: APAA Working Committee Meeting

By Rosemary Wong
Public Relations Dept
Port of Singapore Authority

Thirty-five delegates representing the major port authorities in the ASEAN countries gathered in Singapore from 6 to 8 June 91 for the 12th ASEAN Port Authorities Association (APAA) Working Committee Meeting hosted by PSA.

Commodore (Res) James Leo, Executive Director of PSA, delivered the welcome address at the Opening Ceremony on 6 June 91 at the PSA Auditorium. He said:

"The discussions by delegates at the various Working Committee Meetings have helped resolve many past technical and administrative issues faced by APAA members as well as identify new areas of cooperation for the Main Committee meetings each year."

One of these is the establishment of an Electronic Data Interchange or EDI network among the port authorities in ASEAN to facilitate exchange of information. This topic was first discussed at the 15th APAA Main Committee Meeting in 1989. "When such an electronic link is fully established, ASEAN ports would be much better equipped to move cargo within the region and with ports in the world that are similarly tied up," CDRE (Res) Leo added.

In the keynote address, Mr. S.F. Makalew, Chairman of APAA and Managing Director of the Public Port Corporation I of Indonesia reiterated the contribution of the APAA Meetings in promoting the interests of ASEAN port authorities:

"APAA has made increased progress towards the promotion of the interest of ASEAN port authorities. Many projects have been successfully completed."

The Opening Ceremony was attended by about 200 people comprising senior officials from the shipping community, delegates and top executives from shipping lines and agencies.

Delegates at the three-day meeting also visited PSA's automated container gate and the Freight Auto Service Terminals (FAST).

The 17th APAA-Main Committee Meeting will be held in Malaysia in November/December 91.

(PSA Port View)

Rationale for Galle Development

A vital facet of the Master Plan for Sri Lanka's Southern Province Accelerated Development Programme is the extension and widening of the Port of Galle.

Situated within a natural harbour of 320 ha. with facilities to berth vessels in the stream as well as alongside the jetty, the port facilities at Galle are located between the Quay and the Breakwater off Gillbert Islands.

In the seabed on the bay are boulders and rocks, and between 1982-1984 the channels outside and inside the Breakwater were dredged to a depth of 9.9 metres and 8.9 metres.

The Overseas Coastal Development Institute of Japan (OCDI) have suggested improvements to be effected, which include:

a) a Breakwater and/or a new wharf system to minimise monsoonal effects,
b) Seabed rocks and boulder clearance
c) Dredging of channels

The JICA report states that "the development of the Port of Galle must take place in conjunction with the development of the regional economy." President Ranasinghe Premadasa appointed a Task Force to direct operations of the Southern Province Accelerated Development Programme, which has, under its purview, the Koggala Export Processing Zone (KEPZ).

From 1960 to 1965, the Galle Port handled a total freight tonnage of around 106,000 which rose to 110,000 tonnes from 1977, but decelerated to 69,554 tonnes in 1985. After nationalisation, the cargo discharged at Galle declined significantly and the port only handled rice, flour, sugar and certain general imports and clinker for the Galle Cement Factory.

Since large vessels could not reach the jetty, without releasing a part of the load temporarily at anchorages located outside the harbour, port development was undertaken to deepen the access passage which was completed in 1984 at a cost of Rs. 100 m.

Another aspect of the problem is its inability to cope with containers, and of course the larger problem of the hiatus in economic development in the southern province till now, to feed the Galle port.

There is tremendous scope for multiplying port operations of cargo both destined to and originating from the southern province.

At present around 100,000 tons of rice imported to Sri Lanka could be handled through the port of Galle.

Galle could well accommodate another flour mill using imported wheat to meet the demand for flour in the southern province, raw sugar molasses, and about 11,000 tons of general cargo.

Low-grown and mid-grown teas, rubber, coconut products, cinnamon, essential oils, salt, frozen fish, fruits and vegetables could also find a new loading bay at the Port of Galle, since these industries are to be located within the environs of the southern province.

Once the KEPZ gets into full swing both discharging and loading cargo is expected to increase significantly.

In the long run, development of containerisation at the Port of Galle will be given priority through transit sheds, vehicle parks, container tracks, trailer parks, workshops and office buildings. *(Sri Lanka Ports)*

Container Temperature: PORTNET Update

By Chan Fook Seng
Cargo Systems Dept
Port of Singapore Authority

The monitoring of the temperature of reefer containers is an important task undertaken by PSA. Close monitoring is necessary to ensure the required temperature range is maintained to prevent the deterioration and subsequent devaluation of the stored cargo.

The temperature of the reefer containers stacked at the PSA reefer yard is taken at four-hour intervals. Agents are informed when any abnormality is detected to give advice to PSA on the necessary remedial action.

The New PORTNET Facility

Now, PORTNET goes online for the enquiries on:

(a) a particular reefer container
(b) all the reefer containers for a particular vessel/voyage
(c) exceptional/abnormal temperature readings
(d) a list of reefer containers unplugged during the last 24 hours

With this facility, shipping agents can have access to the temperature recordings of their reefer containers any time from the comfort of their offices. At the same time, PSA will continue to monitor the temperature of reefer containers and check for abnormalities. Another benefit of the online facility is that shipping agents can have access to the list of reefer containers that have been unplugged to help them verify PSA's bills on charges for electricity and monitoring service.

For those companies with computerised reefer monitoring systems, PSA will be glad to explore the possibility of transmitting the information to them directly via computer-to-computer links. *(PSA Port View)*

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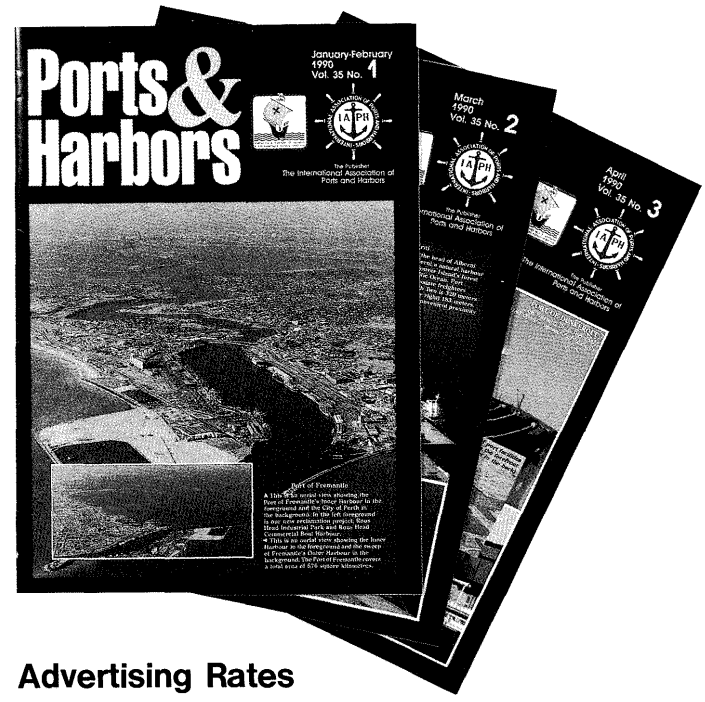

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