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# PORTS and HARBORS March, 1987 Vol. 32, No.3

## Port of Le Havre

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Kotohira-Kaikan Bldg., 2-8, Toranomon 1-chome, Minato-ku, Tokyo 105, Japan

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# PORTS and HARBORS

Vol. 32 No. 3 March, 1987

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# Kobe Maritime Museum to be opened in April

The Kobe Port debuted in 1868 as an international port. Its 120 th anniversary will soon be celebrated. Kobe has grown to be one of the world's major ports through modernization of cargo-handling facilities including containerization and development of pier-facilities for large ships. For further development of the port city of Kobe it is necessary to provide an opportunity for the people to learn more about the port and to understanding the sea and ships.

#### AN OUTLINE OF MERIKEN PARK PLAN

Naka Pier and Meriken Pier have always been popular among people as the origin of the modern development of Kobe Port and also as a landing spot for inland tours.

To increase sightseeing opportunities and add resort facilities for the urban people, the "Meriken Park" will be built by reclaiming the surface area between the existing Meriken Pier and the Naka Pier. This "a park on the port" will contain park areas, the Kobe Maritime Museum and other facilities for sightseeing.



As a symbol of the port city Kobe, the Kobe Maritime Museum is intended to be a museum to present all aspects of maritime matters such as the history of marine technology, the relationship between the sea and people's life, the sea's role in international communication, etc., on the basic theme of "Information Center of Port City Kobe------An Invitation to the Sea and Ships".

The basic theme will be presented in a variety of exhibits which will be grouped into the following four sections interrelated to each other.

- 1. History of the Port of Kobe
- 2. Shipbuilding & navigation
- 3. Port development
- 4. Ports in the world, Outdoor exhibition

## KOBE PORT PROMOTION ASSN.

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## **IAPH** announcements and news

#### Submission of forms of credentials and proxy by Regular Members and Directors requested

The Secretary General, in his recent letter to the Regular Members, asked them to submit a form of credentials advising the name of the delegate of each member organization attending the 15th Conference in person, or one of proxy specifying the names of individuals attending the Conference on behalf of organizations from which no delegates will be able to attend.

At the same time, the IAPH Directors were asked to file to the Secretary General notice of their attendance at the Board meetings scheduled for Sunday, April 26, and Friday, May 1, respectively, by a form of credentials. Moreover, any Directors who will be unable to attend the Board meetings in person were asked to submit a form of proxy.

#### IPD Fund: Contribution Report — Targeted amount of US\$70,000 nearly achieved

Following our announcement in the previous issue that US\$10,000 was still needed, there have been significant developments in our fund-raising campaign, which started at the Hamburg Conference in May 1985.

When one of the Head Office editorial staff was updating the list of donors to the IAPH Special Port Development Technical Assistance Fund (Special Fund) for inclusion in this issue, most encouraging news arrived from Japan's two leading ports, Yokohama and Tokyo, pledging their contributions in the amounts of US\$4,600 and US\$3,400, respectively, to the IPD Fund. Prior to this, Mr. Ezunial Burts, Executive Director, Port of Los Angeles, had sent a letter to the Head Office saying that he has authorized a US\$1,000 contribution to the IPD Fund.

As a result, the amount received in contributions and the sum pledged total US\$68,819 against US\$70,000, which was our original target. Thus the projected amount has nearly been attained.

On behalf of all future recipients of IAPH bursaries, Secretary General Sato and IPD Chairman Mr. Burt C. Kruk jointly take this opportunity to express their sincerest thanks and appreciation to all individuals and ports for their generous contributions which have led to the successful completion of our fund-raising campaign. Nevertheless, they do not forget to say, "It will be never too late for anyone who wishes to make contributions to the Fund, as our account is always open to such generous donors."

With our highest appreciation, the record of contributors as of February 10, 1987 is listed on the next page.



Official Carrier of the 15th IAPH Conference in Seoul

#### Entry paper by Mr. Jose Paul, the first prize winner in the IAPH Essay Contest

As announced in the previous issue of this journal, Mr. Jose Paul of Cochin Port Trust, India, has been selected as the recipient of the first prize, known as "the Akiyama Prize", in the IAPH Award Scheme 1986, an essay contest for port personnel employed by IAPH member organizations in developing countries. The prize for Mr. Paul consists of an invitation to the Seoul Conference, with the airfare and hotel accommodation provided, US\$750 and a silver medal.

In response to the Secretary General's letter of invitation, Mr. Paul, who is now in Cardiff, U.K., for his doctoral research studies in port management at the Department of Maritime Studies, UWIST (University of Wales, Institute of Science & Technology), has confirmed his participation in the Conference, where he will receive the "Akiyama Prize" at the first plenary session on Monday, April 27, 1987.

Another condition for the winning entry was to publish it in this journal, so in this issue we carry a summarized version of Mr. Paul's paper on page 26 for the benefit of all members and readers. The paper has been rewritten by the author with the entire length being reduced to half that of the original paper so as to be accommodated in one issue.

#### Mr. F. Suykens of Antwerp reports on the Conference of European Regions and Towns with Port Facilities

Mr. Fernand Suykens, General Manager of the Port of Antwerp and Chairman of the IAPH Trade Facilitation Committee, represented IAPH at the Conference of European Regions and Towns with Port Facilities held at Vigo, Spain, on 5-7 November 1986. Following his attendance at this Conference as an observer, Mr. Suykens has prepared a comprehensive report on the meeting and sent it to the Secretary General for inclusion in this journal. For the benefit of our members and readers Mr. Suykens' report is published on page 26 of this issue.

#### Visitors:

On December 20, 1986, Mr. Lee Kwang Ro, Assistant Director of the Shipping Promotion Division, Korea Maritime and Port Administration (KMPA), visited the Head Office and was received by the Head Office staff. Mr. Ro's visit enabled the Head Office secretariat staff to learn the latest situation concerning the Seoul Conference preparation work being carried out by his colleagues at the SEPRECO, while the Tokyo secretariat was able to bring our hosts up to date on all the arrangements they must jointly complete for the April Conference.

#### **CONTRIBUTIONS TO THE SPECIAL FUND**

(As of February 10, 1987)(in US\$)(\*: Pledged)

Australia	
Port of Melbourne	1,000
Maritime Services Board of NSW	250
Benin	
Port Autonome de Cotonou	250
Canada	
Port of Halifax	750
Port Alberni Harbour Commission	200
Fraser River Harbour Commission	300
Port of Vancouver	500
Port of Montreal	1 000
Ports Canada	2,000
Cumus	2,000
Cyprus	500
Cyprus Ports Authority	500
Denmark	250
Port of Copenhagen	350
Germany (West)	
Port of Hamburg	3,086
Ghana	
Ghana Ports Authority	500
Indonesia	
Public Port Corporation I	200
Public Port Corporation II	200
Iran	
Ports & Shipping Organization	1,000
Japan	,
Pacific Consultants Int'l	630
Mr. Susumu Maeda	70
Mr. Toru Akiyama	500
Japan Warehousing Association	250
Vokohama Port Terminal Corn	500
Tokyo Port Terminal Corp.	500
Nagova Containar Barth Co. Ltd	500
Shimim Construction Co., Ltd.	250
Shimizu Construction Co., Ltd.	250
Nakagawa Corrosion Protecting K.K.	250
Niigata Prefecture	250
Toyama Prefecture	250
Rinkai Construction Co., Ltd.	250
Osaka Prefecture	500
Saeki Kensetsu Kogyo Co., Ltd.	250
Japanese Shipowners' Association	250
Daito Kogyo Co., Ltd.	1,000
Port of Kawasaki	1,252
Port of Kobe	3,756
Kitakyushu Port & Harbor Bureau	2,502
Nagoya Port Authority	3,125
Penta-Ocean Construction K.K.	1,000
Toyo Construction Co., Ltd.	250
Kobe Port Development Corp.	641
Japan Port Consultants Association	210
Japan Port & Harbor Association	303
Osaka Port Terminal Development Corn	646
Usaka i ori terminai Development Colp.	070

Port of Osaka	3,371
Port of Hakata (Fukuoka)	1,007
Port of Yokohama	4,600*
Port of Tokyo	3,400*
Jordan	
Ports Corporation	1,000
Korea	
Korea Dredging Corporation	200
Korea Maritime & Port Admin.	3,000*
Malaysia	
Kelang Port	200
Johor Port Authority	100
Rajang Port Authority	100
Mauritius	
Mauritius Marine Authority	1,000
Netherlands	
Port of Amsterdam	1,000
Port of Rotterdam	3,000
Delfzijl/Eemshaven Port Authority	250
Shipping & Maritime Directorate	720*
New Zealand	
The Harbours Association of	
New Zealand & 9 Harbours:	2,000
Nigeria	
Nigerian Ports Authority	500
Oman	
Port Services Corp.	500
Papua New Guinea	
Papua New Guinea Harbours Board	200
Taiwan, ROC	
Hualien Harbor Bureau	200
Thailand	
Port Authority of Thailand	100
Trinidad & Tobago	
Point Lisas Industrial Port Development	
Corporation Ltd. (PLIPDECO)	100
U.K.	
Port of London	750
Associated British Ports	3,000
Belfast Harbour Commissioners	300
Clyde Port	1,000
Peter Fraenkel Int'l Ltd.	100
U.S.A.	1 000
Port of Houston	1,000
Port of Tacoma	1,000
Port Authority of NY & NJ	1,000
S. Carolina State Ports Authority	500
Port of Redwood City	1 000
Port of Los Angeles	1,000
	<b>550</b>
Office National des Transport	550

#### Visitors (continued)

On January 6, 1987, Mr. Kiyoshi Kojima, Director-General, Ports and Harbors Bureau, City of Yokohama, Japan, visited the Head Office and was received by Deputy Secretary General Kusaka and his staff in the absence of the Secretary General. Mr. Kojima assured the Head Office staff of the ever-increasing support of the Port of Yokohama towards the various activities of IAPH. On January 22, 1987, Mr. Bala K. Subramaniam, Regional Adviser (Ports & Shipping), UNCTAD, visited the Head Office and was received by the Secretariat staff. Mr. Subramaniam referred to his plan to attend the Seoul Conference, where he will be a speaker at Working Session IV on international port development chaired by Mr. B.C. Kruk, which is scheduled for Thusday, April 30, 1987.

### **Report on the business of IMO**

#### By Mr. A.J. Smith

#### The Council

The fifty-seventh session of the Council was held at IMO Headquarters from 10–14 November 1986, under the Chairmanship of Mr. O'Neil (Canada). Thirty-one Member States attended the session and twenty-three non-members of the Council were invited to attend as observers. There were six representatives from UN and Specialized Agencies, and twenty observers from inter-governmental and non-governmental organizations, including IAPH.

Customarily, issues of particular interest to ports dealt with by Council during the week's discussions derive mainly from reports on the activities of IMO's Committees or from the Secretariat on the status of Conventions and other multilateral Instruments; and so it proved on this occasion.

The Secretariat was able to report with satisfaction, and IAPH members will be particularly interested to note that the 1976 Convention on Limitation of Liability for Maritime Claims will enter into force on 1 December 1986; and that the 1983 amendments to the 1974 SOLAS Convention entered into force on 1 July 1986.

Reports were then received from the Maritime Safety Committee; the Legal Committee; the Marine Environment Protection Committee; the Technical Co-operation Committee; and the 10th Consultative meeting of the Contracting Parties to the 1972 London Dumping Convention.

The substance of these Committee discussions has previously been communicated to IAPH members. It is worth recalling however, that a number of matters commended by

#### Report on the training course in Project Management and Civil Engineering, Port of Singapore

By Mr. Evripidou Andreou Costas (IAPH Bursary recipient) Senior Technical Assistant Cyprus Ports Authority

As a result of an I.A.P.H. bursary during the period of 3–14 November 1986, I attended a training course in Project Management and Civil Engineering, organized by the Port of Singapore.

The course was very well organized and carefully designed so as to meet the requirements of the participants. It mainly covered the following subjects:

- Port planning and design
- Computer applications in port planning and design, case studies
- Engineering search and feasibility studies
- Soil investigation and soil instrumentation
- Hydraulic model/studies
- Computer-aided design and drafting
- Tender procedures and contract administration
- -Port maintenance
- Project maintenance

The attachment to the different technical departments of PSA, the competent training personnel and the training activities supported by excellent library and audio-visual facilities, Council at this meeting now feature in the discussions of IAPH's Technical Committees. For example:

- 1) the Maritime Safety Committee's development of 'Measures to prevent unlawful acts against passengers and crews or board ships'.
- 2) the Legal Committee's conclusion of substantive work on the new Salvage Convention. In that regard Council agreed that the Committee's request regarding a diplomatic conference during the 1988/89 biennium would be considered at its next session.

Council has approved the Secretary-General's proposal that the theme for World Maritime Day 1987 should be "Maritime Legislation for Safer Shipping and Cleaner Oceans".

Council then considered a proposal submitted by the Governments of Austria, Egypt and Italy for the preparation and adoption, under the auspices of IMO, of a convention on the "Suppression of Unlawful Acts Against the Safety of Maritime Navigation"; and agreed to set up an Ad Hoc Preparatory Committee with the mandate to prepare, on a priority basis, a draft convention. That Committee must also take account of the "Measures to prevent unlawful acts against passengers and crews on board ships" developed by the Maritime Safety Committee. A report is expected at Council's June 1987 meeting which would then be considered by the Legal Committee at a specially convened session on 8/9 October 1987.

#### Next Session of the Council

The fifty-eighth session of the Council will be held from 15-19 June 1987, and the twenty-ninth session of the Technical Co-operation Committee on Thursday, 18 June 1987.

offered to me an exclusive opportunity to gain valuable knowledge and experience in the new methods and techniques of port planning and design, as well as the construction and maintenance of port structures. Based on this knowledge and experience my suggestions for improvements in the Cyprus Ports could be summarized as follows:

- a. To introduce computers for port planning and design.
- b. To proceed with the preparation of revised master plans for the ports pertaining to future extensions and the development of back-up areas.
- c. To adopt a comprehensive maintenance programme for the ports in order to reduce repair costs and more important to ensure that facilities are available for use at all times.
- d. To introduce computers to assist the technical services in the design and drafting and contract administration with a view to increasing productivity and improving efficiency.

Moreover the experience I gained during the course, the visits to the port itself as well as the construction sites, will generally help to improve my work in programming and coordinating the different projects as well as the preparation of tender documents and contract administration.

I take this opportunity to express my profound thanks to the staff of the Port of Singapore Authority for their efforts, interests and kindness. My thanks and appreciation also go to IAPH under the auspices of which functions the Bursary Scheme.

# PACOM organizes a display of material introducing port activities for schoolchildren in Seoul

"Improving schoolchildren's knowledge of ports and shipping" has been one of the important themes that the IAPH Committee on Public Affairs (PACOM), chaired by Mr. R.N. Hayes, General Manager of Dublin Port and Docks Board, has actively tackled in recent months. As a result of the discussions conducted at its last meeting held in London in October 1986, the Committee felt that a successful display would be an interesting and efficient way of exchanging information and

SEA LION WELCOME TO THE PORT OF LOS ANGELES ! 011 MANY THINGS COME TO THE PORT. WHICH DO YOU USE?

asked the Seoul Conference Organizing Committee to reserve a room at the Hotel Lotte, the Conference site, for this purpose.

The general idea of the project is to show the Seoul Conference participants a collection of material various member ports have which might be suitable for children, for students and for schools in the form of "colouring books" or "cut-out books". In order to give you an idea of what such material looks like, we reproduce several pages from the books published by the Ports of Los Angeles and Long Beach, which Mr. Kondoh of the Head Office was able to obtain when he recently visited these Ports.



Thus, Chairman Hayes solicits your cooperation in bringing material from your own and from adjacent ports to Seoul for display. Participants are encouraged to bring as many copies of the material as possible so as to make them available to those who may wish to obtain such material from the display stands.





## 15th IAPH Conference, Seoul, Korea Introduction to Conference Theme

#### "Ports Looking into the 21st Century"

As a point of connection between sea and inland transportation, ports are bound to be exposed to external conditions such as the development of various means of transportation, advancement in information management technology and increases or decreases in the volume of goods being moved. As a result, they are required to adjust themselves to changing conditions, if they are to provide efficient and economical services to port users.

As port development is a time-consuming process and requires a huge amount of investment, long-term predictions about future port development will be of tremendous importance.

The theme of the Seoul Conference will deal with the question of what changes will be forthcoming in the world's economic and social conditions in the 21st century and the question of how these changes will affect the ports, including proper ways to cope with such developments.

Suggested topics are:

- Ways to promote mutual cooperation in removing

inefficiency and waste caused by the ever intensifying and excessive competition among the ports in the wake of advances in the means of mass transportation, as in the case of containerized and bulk cargo transportation.

- Port policies meeting the growing needs of communities adjacent to the ports to preserve the environment and to solve various problems between ports and communities arising from the increasing role of the ports in the communities.
- Technology transfer relating to information management systems or information processing systems available to ports to meet the increasing need for information management essential for efficient port management.
- Changing trends in port operations and labour relations in parallel with technological development in the ports, including cargo handling equipment.
- --- Management of port finances to meet the increasing capital costs and investment incurred in connection with port development.
- Development of the Korean ports and shipping industry as well as their future course of development looking into the 21st century.

#### **Guide to Working Sessions**

#### Working Session I (14:30/17:30, Monday, April 27)

Presentation 1: Management and Finance in Ports—Today's Issues Presentation 2: On Operation, Labour and Logistics



#### By Mr. C.L. Jordan General Manager Port of Melbourne Authority

Mr. Jordan's Paper will discuss some of today's most pressing issues in these areas of ports interests. Our communities expect more of our ports and the organizations which run them each year. This ever increasing accountability brings with it a search for better management within our organizations, the people, the management structure, and our business reporting.

Our understanding of the market place, the development of a service image and a continued emphasis on delivering that service in a cost efficient manner are all important aspects of the port business today, particularly in these times of less buoyant levels of international trade. In paying attention to all these important areas of our business, we must be careful to leave room for the vision and flair which has placed the stamp of greatness on our ports in the past.



#### By Mr. W.A. Abernathy Executive Director Port of Oakland

Intermodalism, the mega-carrier, the post pan-max vessel and the double stack train are having as profound an effect on ports of the world as container revolution did some two decades ago. The changing role of the port to that of facilitator requires that we determine how we can best maximize the efficiencies of the interface systems involved.

This presentation will deal with:

Maritime issues and developments having a significant impact on ports.

- Emerging technologies in facility design and productivity
- Increasing capital investment
- Automation
- Emergence of shipping line controlled double stack trains with economies of scale and fuel efficiencies

Government policy impact

Port access

-Rail constraints

- Highway, city congestion
- Carrier repositioning capabilities
- --- Dredging
- -Local transfer-terminal/truck/rail

Opportunities for efficiency improvements in the interface between various modes of transport.

Challenge for the future...today, maximizing the interface to the transport systems.

#### **Presentation 3:**

An Informatics Network for Ports Worldwide

(Picture unavailable at time of going to press)

By Dr. E.A. Muller Executive Director Lloyd's of London Press Ltd.

The paper describes how a ports informatics network under development for European ports can be extended to ports worldwide. The paper explains in detail the system to be developed, the reasons for the development, how the system will work, and how port authorities and port users will be able to benefit.

The content of this paper will enable ports worldwide to incorporate the latest developments into their strategic thinking for the future, thus enabling them to increase port efficiency and to accommodate any increase in throughput of ships and cargo more cost effectively.

#### Working Session II

(09:00/12:00, Tuesday, April 28)

Presentation 1: Competition and Coordination among Ports



By Mr. F.L.H. Suykens General Manager City of Antwerp General Management of the Port

Competition has always been the rule of the game in the ports industry. Usually the distinction was made between competition among different operators in a given port and the one existing between the ports belonging to a same range fighting for cargo to and from the same hinterland.

With the introduction of new cargo handling methods such as ro-ro and containers and the improvement of inland trans-

portation we are confronted with a new competition between port ranges (land bridges crossing continents or ferry and feeder operations crossing channels and seas).

Notwithstanding this competition, increased co-operation and co-ordination is needed within ports and among ports. Cargo loaded in one port has to be off-loaded in another. The possibilities and the restraints of the one affect undoubtedly the other. Most ports serve the same ships and have to adapt themselves to the challenges coming as much from the introduction of new technologies as from new regulations or even acts of deregulation. From this perspective we should study more carefully which are the real factors influencing port choice.

Presentation 2: Community Affairs, Preservation of the Environment



#### By Mr. D.J. Taddeo General Manager and Chief Executive Officer Port of Montreal

Today's big city ports find themselves in a paradoxical position: on the one hand, as manufacturing industries moved to the suburban rim while service industries took over the core, the daily direct and visual contact between the central business district and port activity was lost and the key role the port continued to play in the economy tended to become invisible; on the other, as the older sections of ports became obsolete and environmental issues came to the fore with urban groups not only confronting the atmospheric, visual and noise pollution of ports but also demanding green space and access to the waterfront, the port gained a high profile. This paradox defines and colors the contemporary relationship between large urban ports and the communities they serve.

This presentation will deal with possible solutions to the above questions on the basis of the case study conducted for the Port of Montreal.

#### (Hints for Visitors to Korea)

#### **Currencies and Credit Cards**

The unit of Korean currency is won denominated in notes W500, W1,000 and W10,000. There are W10, W50, W100 and W500 coins.

Bank notes and traveller's checks can be converted into Won at foreign exchange banks and authorized money exchangers.

Major credit cards are acceptable.

### Working Session III (Korean Port

Development) (15:00/18:00, Tuesday, April 28)

Presentation 1: The Future of Korean Port Development



By Mr. Son, Soon-Ryong Port Management Division Korea Maritime and Port Administration

Korea represents one of the countries which have kept attaining a high economic growth rate based on an exportoriented economy for the past 30 years. The rapidly growing cargo volume has prompted Korea to pursue speedy port development. In so doing Korea has placed the main emphasis on investment in port facilities for handling containers and bulk cargoes.

Korea has learned many valuable lessons in the course of planning and implementing the port development policy to deal with such a rapidly increasing cargo volume, thereby accumulating abundant experience and knowledge related to the port development policy and plan.

This presentation is intended to provide a picture for the future development of Korean ports looking into the 21st century by analyzing and clarifying the factors essential to the short-and long-term policy and plan for port development on the basis of a case study of the Korean port development process with major emphasis on container terminals.

Some basis guidelines and ideas presented in this paper may serve as a referece for the formulation of port development policies on the part of developing countries facing similar problems.

#### **Presentation 2:**

The Development of the Korean Merchant Fleet and its Prospects



By Mr. Kim, Sung-Soo Director Shipping Promotion Division Korea Maritime and Port Administration

Korea's geographical constraints and economic conditions have forced her to heavily depend on external trade based on seaborne transportation. In particular, the nation's rapid economic development since the 1960s has led to an everincreasing trade volume which, in turn, has accelerated the expansion of the Korean merchant fleet.

As is often seen in many countries of the world, the Korean government has been adopting and implementing various policy measures to promote the nation's shipping industry, and these policy measures have had a significant impact on the Korean shipping industry in many ways.

This presentation deals with the role and relative importance of the shipping industry in Korea's economy, the chronological developments relating to the expansion of the national merchant fleet and the changes in the Korean shipping policy since the 1960s, thereby showing the present status of the nation's shipping industry and presenting its future course, including the related shipping policy in the 21st century, on the basis of the anticipated changes in the international shipping environment.

It is hoped that this presentation will enable the participants of the Seoul Conference to better understand the Korean versus worldwide shipping industry while providing useful references for the shipping and port-related policies of their respective countries.

#### **Presentation 3:**

Towards Better Management of the Ports in Korea



#### By Dr. Bang, Hee-Seok Research Fellow Korea Maritime Institute

The Korean ports have played a pivotal role in bringing about the nation's tremendous economic growth of the last 20 years. Among other things, the efficient and scientific port management systems are absolutely necessary for the international trade of Korea because 99.8% of its external trade volume depends on seaborne transportation, thereby resulting in the rapidly increasing demand for port services.

This paper aims at presenting to you some ideas on the existing port management system of Korea and the policy orientation of Korean port management in the coming 21st century on the basis of an analysis of various factors which hinder the efficient management of the ports. We believe this presentation will contribute to working out the measures to efficiently manage the Korean ports and to the formulation of port management policies on the part of other countries at a stage of economic development similar to Korea's.

**Official Carrier** 

Korean Airline (KAL) is designated as an "Official Carrier of the 15th IAPH Conference in Seoul"

## Working Session IV (International Port Development)

(08:30/11:30, Thursday, April 30)

Presentation 1: Regional Port Development Co-operation



By Mr. Barry Cable Acting Head of the Port Section in the Division for Shipping, Ports and Inland Waterways, ESCAP

Over the past decade major developments in shipping and port technology have had a profound impact on ports around the world. Ports, once significant employers in a labour intensive industry, are now faced with the need to consider massive investment and reorientation to a capital intensive industry. With this increasing investment and trade potential, proper utilization of port facilities is more crucial than ever before.

To achieve their utilization objectives, many ports are taking fresh initiatives to upgrade management systems and manpower development but each port is going through the same process almost in isolation even though ports, in general, are all in the same basic business and face many common problems. The reason for this lack of co-operation, of course, includes competition and commercial confidentiality but perhaps the most significant factor is that until recently the opportunities for co-operation were relatively limited. Now, in addition to the Port Associations such as IAPH, other agencies like the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) have strengthened and enhanced their port activities and focussed special attention on the role of catalyst, encouraging regional port cooperation.

Reference to three of ESCAP's port projects:

Port Management Information System (PORTMIS), Computerization in Ports,

Model Port Tariff Structure

illustrate the practical advantages of a co-operative approach to port development.

An assessment of potential benefits and savings which may be derived from increased co-operation will conclude the paper with proposals for Regional Port Co-operation into the 21st Century.

#### (Hints for Visitors to Korea)

#### Climate

K orea has four distinct seasons similar to except winter is not so cold or so long and spring comes much sooner. Spring and fall, with much sunshine and pleasant temperatures, are the ideal times to visit Korea. Presentation 2: Developments and Effectiveness of Regional Port Co-operation

> (Picture unavailable at time of going to press)

By Mr. T.W. Seyoum Secretary General Port Management Association of Eastern/Southern Africa

- 1) Some African Problems
- Introduction: assistance requirements by African ports
- Assistance expected from others including bi-lateral donors, international organizations, UN specialized agencies, etc.
- Assistance expected from African Governments collectively and individually (objective of the United Nations Transport and Communications Decade for Africa in 1978-1988 and its achievement so far)
- Areas in inter-port and inter-association co-operation in Africa: there are three port management associations established in Africa, namely Port Management Association of West/Central Africa (20 Port Authorities are members), Port Management Association of Eastern/Southern Africa (13 Port Authorities are members), North African Port Management Association (6 Port Authorities are members)
- Assistance by developed ports to under-developed ports
- Assistance and co-operation among developing ports themselves
- 2) Developments and Effectiveness of Regional Port Cooperation

The fundamental causes for the failure of African ports to meet their roles, capacity requirements, etc. are inadequate financial resources, lack of trained manpower, management and organizational deficiencies and unawareness of central governments of the importance of the role of ports in the total transport chains of their countries. These are usually manifested as port problems in terms of:

- Inadequate infra and super structures
- Poor utilization of available space in ports and poor land access
- Lobour problems including quality, productivity, incentive, trade unions, etc.
- Equipment, in particular method of financing, selection, procurement, servicing, maintenance and spare parts
- Poor communications both internally and externally in terms of facilities, quality of information, etc.
- Managerial and organizational problems: inexperienced staff, low expertise, poor planning capacity
- Documentation problems and failure to streamline their requirements and the processing thereof
- Poor surface transportation connections between hinterlands and their ports
- Lack of or inexperienced freight forwarders and other agencies located in ports and around ports

#### Working Session V

(11:30/13:00, Thursday, April 30)

Bull sessions (symposia) by the IAPH Technical Committees, except CIPD, on the future direction of committee activities in the light of the Conference theme.

Committee	Chairman	Room	Торіс
PSEC	Mr. J. Dubois and Sub-Comm. Chairmen	Berkeley	Port Safety, Environ- ment and Construc- tion
TF	Mr. F.L.H. Suykens	Astor	Trade Facilitation
CLPPI	Mr. P.Valls	Charlotte	Legal Protection of Port Interests
СНО	Mr. C.J. Lunetta	Peacock	Cargo Handling Op- erations
PA	Mr. R.N. Hayes	Bellevue	Public Affairs



Mr. J. Dubois



Mr. P. Valls



Mr. F.L.H. Suykens



Mr. C.J. Lunetta



Mr. R.N. Hayes

#### Working Session VI (09:30/12:00, Friday, May 1)

().50/12.00, 111day, May 1)

World Business Perspectives Presentation 1:



By Mr. Michael Graham ICS (International Chamber of Shipping)

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The paper will briefly examine the prospects for growth in the world trade, differentiating between the tanker, bulker and liner sectors of the market. It will describe the current over-supply of shipping services in these sectors, noting the reasons for it and the prospects for bringing supply and demand back into balance.

The paper will also point to the dangers of a destabilized shipping industry as a result of any prolonged imbalance of supply over demand and the damage which may result, as a consequence, to world trade.

It will examine various ways by which greater stability may be achieved, including scrapping schemes, reduced shipbuilding subsidies, rationalization of shipping lines and pursuit by governments of free and fair trade practices. In its conclusion, the paper will mention the work of ICS in promoting the health of the international shipping industry.

#### **Presentation 2:**

(Picture unavailable at time of going to press)

#### By Mr. Bernhardt Bünck FIATA (International Federation of Freight Forwarders Associations)

Although transport and freight forwarding services are a derived demand this does not mean that freight forwarders cannot or do not contribute to better world business perspectives. On the contrary.

On the one hand freight forwarders contribute through improvement and rationalization of their services to better trade perspectives.

On the other hand freight forwarders continuously strive for ideas as to how they can help their customers to extend existing markets or open up new ones for their products.

This is done through the introduction of new services, e.g. physical distribution, JIT-services, logistics, etc.

But it also occurs through the search for new solutions like the combination of various carriers-multimodal transport and express services on the ground and in the air—and the invention and application of technical means and specializations.

In this context freight forwarders are studying more and more the various production and distribution methods of trade and industry. The forwarders have become an integrated element of trade and industry.

For this reason trade and industry should involve freight forwarders in their production and distribution problems as early as possible in order that both parties can look for optimum solutions, thereby contributing to improved world business perspectives.

The flow of goods is accompanied by a flow of information which is more and more processed electronically. For this reason all parties involved in transportation should speak a common language, that is, have computer systems and programmes that are compatible. In all this the freight forwarder is at the center of communication. For overseas shipments this means the ports and harbours. Whilst for the transport user it is only the total transport service that will count in future, forwarders still have to deal with the various interfaces where the different services connect.

An important interface in seaborne world trade are the ports and harbours. These are actually the places from where the freight forwarding industry emanates. For this reason FIATA and IAPH should cooperate at the highest level in order that this important interface carries on functioning. This would also be in the best interest of world business perspectives.

Being neutral and knowing the entire transport scene, freight fowarders are best placed to advise their customers as to the best transport possibilities and, for this reason, act more and more as the "Organizers of Transport".

In order to give customers good service, freight forwarders have to rely on other parties that form a part of the transport chain organized by forwarders.

Well functioning ports and harbours with the required technical equipment and know-how are, therefore, something freight forwarders welcome. Luckily many ports and harbours work hand in hand with their forwarders in the interest of our common customers and, thereby, in the interest of better world business perspectives.

#### **Presentation 3:**

(Picture unavailable at time of going to press)

#### By Mr. Sidney Golt ICC (International Chamber of Commerce)

- The world economy is still very frail, and the prospect for anything more than a very short time ahead is extremely difficult to foresee. Certainly any attempt to quantify, with a pretence of even approximate accuracy, patterns of world trade for more than a year or so ahead, must be suspect. The paper will therefore be about qualitative assessment of trends and about problems of attitudes and policies, not about numerical assertions on future trade or forecasts of events.
- 2. To set the scene, we shall look first, in a broad and general way, at a few of the underlying major factors which figure in most futurology analysis: population, availability of resources, especially food supply, and pollution-what one might call the physical features of the business environment-and then at the international monetary and trade systems-the man-made framework within which trade takes place. There is, of course, an even more important factor-the question whether the world will be at peace or at war. We have to make the assumption, if there is to be any meaningful discussion, that we must rule out not only a major, perhaps nuclear, war between the superpowers, but also a substantial "limited" conflict, on the scale, say, of the Korean War, involving them directly or through surrogates. But we must also be conscious that this assumption is being made.
- 3. These factors determine the context for any more specific

analysis. Against this background, we must look at existing patterns of world trade, as they can be derived from available international statistical material, and at the trends over recent years, which have led to the present structure. This can be done for individiual countries and groupings of countries, for geographical regions, and for some significant industries. There have been interesting and important developments in these trade patterns, perhaps one of the most important is that the lists of the top 20 leading trading countries, both as exporters and importers, have become much more fluid, and that the line of demarcation between "developed" and "developing", in terms of international trade, at any rate, is now not rigid and unchangeable.

- 4. On the basis of this survey of the existing scene, we can look at some probable developments in production and trade patterns in the short term, and make some rather more speculative assessments of longer term regional developments and for some of the more important industrial sectors. In particular, any broad assessment has to take into account, however summarily, the emerging—and continuously increasing—importance of "informatics".
- 5. Discussion of prospects for particular regions and industries leads inevitably back to questions of policies and attitudes, and especially to the attitudes, objectives, trends of development and policies of the three major industrial powers, the United States, Japan and the European Community, and to the structure of business, and the outlook of business-men, in those countries and elsewhere. Will the United States finally succumb to protectionism in a form which would mean a much greater measure of western hemisphere isolationism, and a substantial withdrawal from the multilateral involvement in favour of hard bilateralism? Can Japan, at last, after a decade of more of tentative and largely ineffectual effort, produce significant and politically convincing changes towards making her domestic market at least as much par of a "one-global market" as are, in spite of some imperfections, those of the United States and Western Europe? Can the Europeans break out of their apparent inability to adjust to a new structural mix of industry and service activity, and can they recover a capacity for innovation in the new industries? Or have the Americans and the Japanese already so far out-
- paced them that we are headed for a world of two rather than three major trading and industrial powers?
- 6. Much of the substance of these problems of national and international change and development, and of attitudes and policies, will underline the Uruguay round of multilateral trade negotiations, now at last under way in Geneva on the basis of the Uruguay Declaration agreed at Punta del Este last September. But the course and the outcome of the negotiations will be the indicators of the ways in which the factors discussed here work out in relation to international trade over the next decade, not their determinants. It would be idle to suppose that the Geneva negotiations can of their own momentum produce an outcome which would restore the trade policy regime which contributed so significantly to the growth in world trade and prosperity of the 1950's and 1960's. If the last decade of the twentieth century is to repeat that growth, there will have to be a much more positive effort of governments in the reshaping of trade policy than they have shown for the last decade, and a flowering of the enterprise and initiative of business in an environment of encouraging and the stimulus of competition rather than of restriction and protection.

## **Conference Programme**

Saturday, Apri	125	Mo
08:00-18:00 09:00-12:00	Registration and Information (Hotel Lotte) Budget/Finance Comm. (Carlton)	
	(Barkeley)	10.
	Port Safety Sub-Comm PSEC (Astor)	10.
	Engineering Sub-Comm PSEC (Charlotte)	12.
	Ship Sub-Comm PSEC (Peacock)	14.
	Dredging Sub-Comm PSEC (Rellevue)	1 11
10.30 - 13.30	Courtesy Call by the IAPH Officers on:	
10.50 15.50	Prime Minister of the Republic of Korea	
	Minister of Transportation	
	Mayor of Seoul Metropolitan Government	
	Administrator of KMPA	
14:00 - 17:00	Constitution & By-Laws Comm. (Carlton)	
1,100	Cargo Handling Operations Comm.	
	(Barkeley)	
	Trade Facilitation Comm. (Astor)	
	Port Safety, Envrionmental & Construction	
	Comm. (Bellevue)	
16:00-17:00	Nominating Comm. (Peacock)	
17:00-18:00	Ad Hoc Comm. (Charlotte)	
Sunday, April 2	26	
08.00 18.00	Pagistration and Information	
08.00-18.00	(Hotel Lotte)	
09.00-12.00	Membershin Comm (Carlton)	
09.00 12.00	Comm on Legal Protection of Port	
	Interests (Berkeley)	
	Comm. on International Port	
	Development (Astor)	
	Public Affairs Comm. (Charlotte)	
	PSEC (Reserve) (Bellevue)	
10:00-10:30	Ribbon-Cutting Ceremony of Photo Exhibi- tion	
11:00-12:00	Ad-Hoc Comm. (Peacock)	
	Credentials Comm. (Carlton)	
	Resolutions & Bills Comm. (Berkeley)	
14:00-17:00	Pre-Conf. Joint Meeting of the Board and	
	EXCO (Emerald)	
17:00-18:00	Meeting of Chairmen/Speakers/Panelists/	
	Group Leaders of	
	Working Sessions (Astor)	
18:30-20:00	IAPH Reception(Hotel Lotte)	
Monday, April	27	
08:00-18:00	Registration and Information (Hotel Lotte)	
08:00-08:30	Resolutions & Bills Comm. (Berkeley)	
08:30-10:00	Official Opening Ceremony	
	(Crystal Ballroom)	
	1) National Anthem and Silent Prayer	
	2) Introduction of VIPs and welcome	
	address by Conference Chairman	
	3) Declaration of the Opening of the Con-	19
	ference and welcoming address by H.E.	1)
	Prime Minister	
	4) Address by Dignitaries	
	Minister of Transportation	
	Mayor of Seoul Metropolitan Govern-	
	ment	
	J Keynole Speech by H.E. Lamine Fadika, Minister of Marina, Juany Coast	
	winnster of wiarine, tvory Cuast	

Monday, April 27 (continued)

	6) Address by the IAPH President			
	7) Closing of the Ceremony by Conference			
	Chairman			
10:00-10:20	Intermission			
10.20 - 11.40	1st Plenary Sess	ion (Crystal Ballroom)		
12.20 12.50	Lunchoon	(Hotal Latta)		
12:20-15:50	Luncheon	(Hoter Lotte)		
14:30-17:30	Working Session	n I (Crystal Ballroom)		
	Session Chairma	an: Sir Keith Stuart, Associ-		
		ated British Ports, Third		
		Vice-President of IAPH		
	Presentation 1:	Management and Finance in Ports—Today's Issues		
		Mr. C. I. Jordan Port of		
		Malhauma Authoritu		
		Melbourne Authority		
	Presentation 2:	On Operation, Labour and		
		Logistics		
		Mr. W.A. Abernathy, Port of Oakland		
	Presentation 3:	An Informatics Network for		
		Ports Worldwide		
		Dr F A Muller Lloyd's		
		London Bross Ltd		
	<b>c</b>	London Press Ltd.		
	Group A:	(Berkeley)		
	Leader:	Mr. J.H. McJunkin, Port		
		of Long Beach		
	Co-Leaders:	Mr. H.H. Abdullah,		
		Kelang Port Authority		
		Mr. J. Bayada, Cyprus		
		Ports Authority		
	Group B:	(Astor)		
	Leader	Mr R P Leach Port of		
	Deuder.	Houston		
	Co Loodoro	Mar I Domenously inch on		
	CO-Leaders.	NII. J. Kommerskirchen,		
		Port of Hamburg		
		Mr. D.A. Hall, Depart-		
		ment of Marine, Hong		
		Kong		
	Group C:	(Charlotte)		
	Leader:	Mr. J. Dubois, Ministry		
		for the Sea, France		
	Co-Leaders	Mr H N Fotedar Indian		
	CO-Leaders	Ports Association		
		Mr. C. L. Lurratta, Dant of		
		Mr. C.J. Lunetta, Port of		
		Miami		
	Group D:	(Peacock)		
	Leader:	Mr. P. Okundi, Kenya		
		Ports Authority		
	Co-Leaders	: Mr. F. Richardson, Port		
		Authority of Trinidad and		
		Tobago		
		Mr R Cooper Auckland		
		Harbour Board		
10.00 22.00	Walaamina Dia	non & Folly Dorformonics		
19:00-22:00	weicoming Din	ner & FOIK FEHOIMance		
	hosted by Conference Chairman			
	(Little Angels Performing Arts Center)			
	(Folk singing w	ith Kayakum, Doll Dance,		
	Mask Dance, F	an Dance, Flower Crown		
	Dance, Toy Sol	diers)		

#### Tuesday, April 28

, F			
08:00-18:00 08:00-09:00 09:00-12:00	Registration and Honorary Mem Working Session Session Chairma Presentation 1:	d Information (Hotel Lotte) bership Comm. (Carlton) n II (Crystal Ballroom) an: Sir Keith Stuart Competition and Coodina- tion among ports Mr. F.L.H. Suykens, Port of Antwerp	11:30-1
	Presentation 2:	Community Affairs, Pre- servation of Environment Mr. D.A. Taddeo, Port of Montreal	
	*Group Leader	s and Co-Leaders are same as	
	Working Session	on I.	
12:00-14:00	Luncheon	(Hotel Lotte)	
15:00-18:00	Working Session	n III (Crystal Ballroom)	
	Theme: Korean	Port Development	
	Administrator	rann, rae-rour, Deputy	
	Presentation 1:	The Future of Korean Port	
	resentation 1.	Development	
		Mr. Son. Soon-Ryong.	
		KMPA	13:00-1
	Presentation 2:	The Development of Korean	15:00-1
		Merchant Fleet and Its Pros-	Friday 1
		pects	inday, i
		Mr. Kim, Sung-Soo, KMPA	08:00-0
	Presentation 3:	Towards Better Manage-	08:30-0
		ment of the Ports in Korea	
		Dr. Bang, Hee-Seok, Korea	
		Maritime Institute	
	Slide Presentati	on: The Ports of Pusan & In-	
19.00-21.00	Recention	cneon	09:30-1
19.00-21.00	Reception		
Wednesday, Api	ril 29		
08:00-18:00 09:00-12:00	Registration an Study Tour of In	d Information (Hotel Lotte) ncheon Port	
12:30-13:00	Luncheon		
13:30-16:30	Tour of Korean	Folk Village, Seoul Olympic	
	Stadium		12:00-1
Thursday, April	30		13:00-1
08.00_18.00	Registration an	d Information (Hotel Lotte)	14:00-1
08:30-11:30	Working Sessio	n IV (Crystal Ballroom)	16:00-1

8:30–11:30 Working Session IV (Crystal Ballroom) Theme: International Port Development Chairman: Mr. C.B. Kruk, Port of Rotterdam, Chairman of the IAPH Committee on International Port Development Presentation 1: Regional Port Development Co-operation Mr. Barry Cable, ESCAP

#### (Hints for Visitors to Korea)

#### Tipping

H otels generally add a 10 Percent service charge to the bill while some other hotels may add another 10 percent VAT (value-added tax). Tipping is not needed in. these establishments.

#### Thursday, April 30 (continued)

	Presentation 2: Devel ness o opera Mr. So East a Port N tion	opment and Effective- f Regional Port Co- tion eyoum Tegegn-Work, and Southern African Management Associa-
11.30-13.00	Working Session V	
11.00 10.00	Bull Session (sympos with Chairmen and M Technical Committees Port Safety, Environn (COPSEC) and its Sul	ia) for Port Managers embers of the IAPH s nent and Construction o-Committees—
	Chairman: Mr. J. Dut	oois (Bellevue)
	Trade Facilitation—C	hairman: Mr. F.L.H.
	Suykens	(Astor)
	Legal Protection of Po	ort Interests—
	Chairman: Mr. P. Val	ls (Charlotte)
	Cargo Handling Oper	ations—Chairman:
	Mr. C.J. Lunetta Public Affeire Chair	(Peacock)
	I ublic Alfalis—Cliali	(Berkelev)
13:00 - 14:30	Luncheon	(Hotel Lotte)
15:00-18:00	Half Day Tour of the	City
Friday, May 1	2	2
08.00 08.45	Deschation & Dills Co	·····
08:00-08:45	Resolution & Bills Co	mm. (yet to be known)
08.30-09.30	Chairman: Sir Keith S	(yet to be known)
	(1) Synthesis of th	e Working Sessions I
	and II by Sir Keith	Stuart
	(2) Synthesis of th	e Working Session IV
	by Mr. C.B. Kruk	
09:30-12:00	Working Session VI	(Crystall Ballroom)
	Theme: World Busine	ss Perspectives
	Chairman: Dr. Hahn,	Tae-Youl, Deputy
	Administr	ator, KMPA
	Presentation 1: Mr. M	ichael Graham, ICS
	Presentation 2: Mr. B	Bunck, FIAIA
12.00 12.30	Presentation 5: Mr. SI Resolutions and Bills	Comm (Carlton)
12.00 - 12.00 13.00 - 14.00	Press Conference	(vet to be known)
14:00-16:00	2nd Plenary Session a	nd Closing Ceremony
	1 101101 j 2 0 0 0 0 0 1 u	(Crystall Ballroom)
16:00-17:00	Post Conf. Joint Meet	ing of the Board
	and EXCO	(Emerald)
17:30-18:00	Post Conf. Meeting of	EXCO (Emerald)
20:00	Farewell Dinner	(Hotel Lotte)

#### (Hints for Visitors to Korea)

#### Visa

Visitors with confirmed outbound tickets may stay up to 15 days without visa. Those who plan to stay in Korea for longer than 15 days must obtain visa before coming to Korea. There are three types of visa depending upon the length of stay and purpose of visit: entry visa, tourist visa, and transit visa.

## **Post Conference Tour**

From ancient times, Korea has been known as a land of scenic mountain ranges and crystal clear waters. Post Conference Tours of this year's IAPH Conference will be nothing short of a dazzling array of Oriental destinations. Tour options include 1. Cheju-do island (1 night/2 days), 2. Kyongju & Ulsan (2 nights/3 days), which will offer the visitors a wealth of beauty and cultural tradition of Korea.

Seoul Preparation Committee will do its best to help our guests to appreciate what Korea is and its people's kindness while staying in Korea. Let us introduce some tourist attractions SEPRECO has chosen for the Post Conference Tours available to the IAPH delegates and their spouses visiting Korea.

#### Cheju-do

To thoroughly enjoy Korea is not to miss Cheju-do, often called "Samdado", or "Island of Three Abundance: Women, Wind and Stones". This island was chosen as one of the ten unspoiled tourist paradises in the world by the international new magazine, Newsweek.



Cheju Woman Driver

Isolated by distance and a sunny, subtropical climate, Cheju-do is where Koreans themselves escape from it all: a posh playground: a haven for sporting or courting: an array of splendidly contrasted land and seascapes. It is an intriguing repository of colorful ancient legends, beliefs and customs. To the Koreans in the old days the island was a dim rumour of what lay beyond the horizon. They named it simply "that place over there". But modern transport and amenities have brought the fabled island into close focus, revealing it as the treasure at the end of every traveler's rainbow.



Cheju Island



Chonjiyen Waterfall (Cheju Island)

For sightseeing, Cheju-do boasts of exquisite waterfalls, quaint thatched roof houses, grotesque lava and rock formations and huge subterranean caverns. The modern Cheju-do dweller may live in a quaint fishing village of thatched roof, black basalt houses with their roofs weighted down with stones against the high winds, where perhaps a husband stays home and keeps house while his wife joins a team of deep-sea divers in search of edible seawood and shellfish. Women divers of Cheju-do give the island its unique atmosphere and win constant admiration from tourists.

#### Kyongju & Ulsan

If a visitor has time for only one trip onuside of Seoul, then Kyongju should be the choice. Kyongju, now a country town of less than 100,000 population, was once one of the halfdozen great cities of the world. Between one thousand and fifteen hundred years ago it was the capital of the Shilla Kingdom. The city, then called Sorabol, still retains in its precincts and environs enough remains of this proud past to deserve its name of "museum without walls" and its growing reputation as one of the most fascinating places to visit in the Orient. Especially since around 1965, the growth of international tourism in the area began to awaken the city from its age-old sleepiness. Pulguksa Temple with its magnificent pagodas, and Sokkuram Grotto, home of a serene stone Buddha, are the most well-known historical sites. On the outskirts of Kyongju is Pomun Lake Resort boasting of deluxe hotels, extensive shopping and recreation facilities.



Korean cars line up for loading in the Ullsan Port

This tour also includes a visit to the Ulsan Hyundai Motor Company and shipyard where you can have an opportunity to look into the Korean Economic Miracle. Hyundai Heavy Industries Co., Ltd. is located in a 5 square kilometer area at Ulsan Bay. The company's shipbuilding division has the capacity to build 9.5 million tons a year, making it the largest single shipyard in the world. The company is the forerunner of Korea's heavy industries.



**Pulguksa Temple** 



**Buddhist Temple of Sokkuram Grotto** 

There is an old Korean saying, "Seeing is believing". Including the Post Tour schedule in your itinerary will prove that your choice is right for yourself upon arriving in Korea. Warm hospitality and kindness of Korean people will greet you during your stay in this Oriental nation. Pleasant trip to Korea!

## Report on the Conference of European Regions and Towns with Port Facilities *Comprehensive re-ordering of the ports has a low political priority*

by Fernand Suykens General Manager of the Port of Antwerp IAPH Observer at the Conference

Some remarks about the above conference which took place at Vigo (Spain) on 5–7 November 1986 on the initiative of the Standing Conference of Local and Regional Authorities of Europe from the Council of Europe.

At the Conference in Vigo quite a number of interesting papers were presented and some interesting discussions took place, mainly concentrating on four major themes, i.e.

- changes in sea-transport;
- the role of local and regional authorities in port policy and port management;
- the future of medium-sized ports;
- European policy.

It is not possible to summarize all the papers in the framework of this article. One should therefore not try to be complete but only to give some relevant details which could be of interest to the members of IAPH.

Mr. J.R. Fells, Ports Division, Department of Transport, Marine Directorate (London), started by stating that

"as in so many things in Britain, the ports world does not present a tidy pattern. The ports have developed, both physically an administratively, in a haphazard way through a series of historical accidents."

Administratively, British ports can today be divided into 3 categories. There are those owned and run by local authorities (usually the municipality but sometimes a county council), those owned and run by publicly-owned companies and those run by "trusts", established by acts of Parliament. The state sector has dwindled. The present British Government's policy is to stand back from the country's ports. It leaves them, whatever their administrative constitution, to operate as commercial enterprises in competition with each other (and to some extent with nearby ports on the continent of Europe). It leaves future development plans and decisions on, and the financing of new capital developments to the initiative of individual port administrations without making any attempt to prescribe an overall development plan, not even in the broadest terms.

The national political tide in Britain is flowing against municipal enterprise. The government has recently promoted legislation to compel local authorities to convert their public transport and airport undertakings into separate, selfcontained companies operating at arm's length from the local authority under the disciplines of company law. This more readily opens up the possibility of such undertakings eventually being sold off into the private enterprise sector. So far there has been no similar legislation for seaports. Why does this traditional separation of port and local authority prevail so widely in Britain, and why has nothing been done to close the gap in recent years.

Mr. Fells suggests 3 reasons:

- i. In the 19th century, when most of Britain's main ports first came into being in anything like their modern form, there was a strong culture both of company enterprise (the railway companies built many ports) and of the creation of statutory independent boards to administer things that were regarded as being in the public interest:
- Many British ports are situated in areas where there has not been a strong dominant local authority. The large old ports were usually beyond the resources of local authorities to manage:
- iii. Politically, any more logical, comprehensive re-ordering of the country's ports has had a low priority.

When reading these remarks of Mr. Fells, the impression was that in many parts of the world the ports should be modest as they very often have a lower political priority in the country than they sometimes think.

As the conclusion of this article will show, the port sector also has a rather low priority in the European Common Market. Another interesting British contribution was the one from **Mr. John Potter, Deputy Executive of the Port of Dover (United Kingdom)** who gave a ranking of British ports in terms of the value of trade:

	Table 1		
Ranking of major	UK seaports by	value of	trade (non-fuel)

	<u>1966</u> <u>1985</u>		985	
	Port	Lm	Port	Millions of Pounds
1	London	3476	1 Dover	21019.6
2	Liverpool	1964	2 Felixstowe	15630.5
3	Hull	608	3 London	9801.9
4	Manchester	411	4 Harwich	5905.2
5	Southampton	335	5 Southampton	4886.4
6	Glasgow	313	6 Liverpool	4517.6
7	Harwich	287	7 Immingham	4486.5
8	Bristol	233	8 Hull	4193.9
9	Dover	199	9 Medway	3912.4
10	Immingham	156	10 Ipswich	3250.4
11	Middlesborough	127	-	
12	Felixstowe	127		



Two main factors contributed to this startling change in fortunes. The first was represented by the unitisation of cargo, the introduction of containerisation and the development of roll-on, roll-off techniques for sea transportation, and the second by the entry of the United Kindgom into the European Community.

These two factors created a third — the concentration of port trade in the south-east corner of England. In 1966 seven of the top twelve in the national ranking of ports were located away from the south-east and the total represented a wellbalanced distribution throughout the United Kingdom. By 1985, the South-east England port of dover, Felixstowe, London, Southampton and Harwich had taken the first five places and represented 53 per cent of all UK seaports' trade, excluding fuel, and well over 80 per cent of the United Kingdom's seaborne trade with Europe.

Table 2 UK/Europe Non-Fuel Trade 1965–1978 (by value)

	UK/Western	Total UK	UK/Western
Year	Europe Trade	Trade	Europe Trade as
			Proportion of Total
	(Lm)	(Lm)	(%)
1965	3524	9909	36
1968	4961	13272	37
1971	8277	17527	47
1974	18425	34490	53
1977	34450	63014	55
1978	40333	71127	57

Source: C.S.O. Annual Abstract of Statistics

Distance is time and time is money, especially where high value goods are concerned. The south-east of England, closely linked with the mainland, has therefore become an important cornerstone of the UK's trade with Europe to the detriment of other British Ports. It has also been placed in a more advantageous position in relation to regional economic development, and it is perhaps a factor in the decline of the north-eastern and north-western areas of Britain. The figures given by Mr. Potter of the Port of Dover no doubt give an impressive indication of the (r)evolution which took place in the British Ports industry.

Some remarks can, however, be made as to the question if the value of the cargo handled is a good yardstick to rank the ports and to measure the value added in a port, mainly when the bulk of it consists of unitized goods such as containers and ro-ro traffic.

Mr. Ole Vathan, General Director, Coast Directorate, Harbour, Lighthouse and Pilotage Services (Oslo, Norway) and Mr. S.E. Wilthil of the Norwegian Association of Local Authorities indicated that the management of ports in Norway is governed by a new revised edition of the Port and Harbour Act, which entered into force on January 1, 1985.

The purpose of the new Act was mainly to delegate more responsibility to the municipal Authorities than before and to make port planning and development part of the County Transportation and Communication Plans.

However, certain decision still have to be made by central port authorities.

Cargo handling and storage of cargo are normally taken care of by private companies leasing facilities from the port authorities (warehouses, storage areas, cranes). Further, as a general rule, public ports should be financially self-supporting.

Mr. Werner Stoppembach, Director of Operations, Port of Gothenburg A.B., Sweden, being a representative of a special case in the port industry whereby a stevedoring company took over the operation of the whole port, infrastructure included, recommended that in order to maintain positive development within the European port sector, the following should be considered:

- New investments in port facilities in order to avoid overcapacity
- The need for ports to exist without subsidies
- Extended and organized cooperation between existing ports in the technical and social fields
- The environmental problems which hamper the efficiency of a port
- The maintenance of a positive attitude to new technology
- Focusing expansion on a few efficient, high-handling central ports in Europe
- Maintaining and increasing efficiency amongst feeder ports
- An efficient information network structured so that new technology is still controlled by human influence.

Mr. Niels Peter Thomsen, Secretary General of the Danish Ports Union/Denmark, described the Danish Ports' policy as follows:

The port system in Denmark consists of many small and a few large ports. Furthermore, the system is characterized by deficits in many of the ports. The local authorities cover these deficits. In Denmark they are of the opinion that the port is a big asset to trade in a local authority, it provides work and is an important element in the character of the town.

Thus the ports have an independent, economic, and cultural value. All this means that the ports have a far larger social value than the narrow managerial economic points of view in the port accounts.

However, some ports in Denmark yield a profit.

The Danish ports are governed — except for the Copenhagen port - by a common Act. The Copenhagen port is self-supporting and is ruled by a special Act.

One of the advantages of the port Act is the establishment of a special National Harbour Board consisting of representatives from the Ministry of Public Works, trade and the ports. The Capital Board co-ordinates the different plans and investments.

As they should be, environmental problems in ports were also discussed. This was done after Mr. Bengt Mollstedt, Director of Environmental Health Protection in Gothenburg, gave an introduction.

He recommended that the following should be considered in order to reduce pollution problems in ports:

- no dwelling close to harbours
- traffic to and from harbours to be directed straight to main traffic routes
- as much traffic as possible to go by rail to and from harbours
- combustion of oil with low sulphur content
- control of diesel engines
- noise control of all engines
- separate traffic systems within harbours to prevent accidents
- solid waste containers close to ships
- closed systems for waste water treatment

- enforced control of the handling of toxic materials
- no dumping of oil residues, chemicals or solid waste into the water (neither in ports nor at sea)
- proper facilities in ports for the handling of oil, chemicals, etc.
- review of international quarantine rules.

Although these remarks are certainly pertinent, a great number of observers thought that he was going rather far. In the course of history a great number of houses have been built in the ports' neighbourhoods. Rail freight can be interesting from the environmental point of view but road haulage won the day with its flexible capacity and customer efficiency, amply demonstrated in the roll-on/roll-off mode, which has spread right across Europe.

The French Port Management System was described in the paper presented by Mr. Y. Gauthier, Director of the Operations and Works of the Port of Nantes — Saint Nazaire Authority (France).

Under the French system, the largest commercial seaports are managed by the authorities known as "autonomous ports", which are financially autonomous public corporations answerable to the Minister responsible for seaports and subject to state economic and financial supervision.

The object of each of these authorities is, within a general policy laid down by the Government, to manage a port or group of ports, i.e. it is responsible for extension, improvement and renovation works and for operation, maintenance, policing and management of the land and buildings allocated to it.

Administration is the responsibility of a Management Board assisted by a Director.

Financial autonomy is the general rule, although the State bears the cost of maintenance and operation of the entrance locks and maintenance of the entrance channels and outer harbours. The State also pays 80% of the cost of the following modernization operations: excavation of dock basins, provision and extension of entrance channels and outer harbours, sea defences and entrance locks. Other infrastructure works are financed to the tune of 60%.

Anxious to develop traffic that would generate jobs and added value, the local and regional authorities began to support port investments in Nantes-Saint Nazaire actively in 1981. The aim was to make the port less vulnerable to the commercial risk inherent in the unguaranteed recovery of this traffic, which is subject to considerable variation.

Examples of local and regional authority participation are: the 1st terminal at Montoir (Region 20%, Department 20%), the 2nd terminal (Region 30%, Department 30%) the agrifoodstuffs terminal (Region 15%, Department 15%) and the early fruit and vegetable warehouse (City of Nantes 2 million francs, Department 2 million francs, i.e. 50% of the cost of the scheme).

The remainder was financed by the State and the Autonomous Port. The latter also financed the machinery and the various facilities (platforms, railway tracks, warehouses, sewerage).

Furthermore, the State, the Region, the Department and the Autonomous Port have decided to join forces to finance 300 million francs' worth of investment between 1984 and 1988, in accordance with a three-point programme:

- 1. deepening of the channel for the reception of ore carriers of 120,000 dwt. fully laden:
- 2. development of bulk agri-foodstuffs traffic with construction of quays and continuous handling facilities:

3. development of general cargoes with opening of a second berth at the general cargo terminal and the acquisition of two container gantries.

In his impressive paper on "the role of local and regional authorities in organization, financing and development of Seaports of North-West Europe," **Professor Andre Vigarié**, the famous **director of the Institut des Sciences Humaines de la Mer** — **University of Nantes (France)**, who gave a full description of Port Management in Western Europe, described the advantages and disadvantages of the French management system as follows:

The system admittedly has definite advantages. By providing for state financial intervention where local or regional investment capacity cannot meet the need for facilities of international standard, it enables the government to pursue a ports policy on a national scale, provided that it concentrates on a few carefully chose ports. That was the case with the remarkable schemes carried out between 1965 and 1980.

The other side of the coin, however, is that the decisionmaking process requiring parliamentary approval for all works conducted under state authority is slow and cumbersome, while the selective nature of the investments causes resentment among the ports not chosen. But the greatest disadvantages concern local and regional authorities. They have a poor share in essential decision making on ports of "national importance", but now as in the past they are under strong pressure to invest, even to the extent of contracting large debts, as is the case with chambers of commerce.

Municipalities, and indeed Independent Port Authorities, have little say in management and finance, which makes it difficult to maintain ties based on common interest or attitudes between the urban population and "its" port. Yet the population, its elected representatives and regional officials are in a better position to identify the ports' needs than parliamentary and even ministerial circles. It was not his purpose to justify the French system, which results in joint local and national financing. The latter share of the investment burden has been described as a state subsidy, which, in absolute terms, is condemned by the Treaty of Rome (Articles 92 to 94). But there are sound arguments in favour of government intervention in port management:

- it is fully consistent with the system of maritime state public property;
- it enables ports which are vital to the national economy to maintain internationally competitive standards;
- it therefore complies with the principle of serving the national interest: the port of Antifer-Le Havre and Fos-Marseille, for instance, were largely designed to suit France's choice of energy policy;

— it enables ports to be used as spatial planning instruments.

For these reasons it would seem illogical in his opinion, to burden local or regional economies with the huge cost of port facilities serving the national interest.

By the same token, however, the logical effect of the system is to restrict both financial participation and the decisionmaking powers of local and regional authorities.

Other contribution were made about the port systems in such countries as Belgium (Antwerp), the Netherlands (Rotterdam), Germany (Bremen) and in great detail about the Mediterranean ports of Spain, Italy, Greece and Turkey.

For obvious reasons it is not possible to highlight them in detail in one short article. Moreover, they have been published widely. A round table was set up to discuss the merits of these different national approaches and the conclusions were drawn by Messrs. Vallega and Vigarié.

**Professor Vallega** in his conclusions underlined four major aspects:

The first concerns the evolution of port areas, the changes in activities of ports obliging them to construct new zones and infrastructures and the fact that, in the light of these new developments, the importance of private operators who contribute to the investments in this infrastructure has increased.

The second important theme concerns competition between ports, a competition inherent to the nature of port activities but which has different considerations according to geography. In Northern Europe this competition takes place principally between private enterprises, in Southern Europe, it takes place principally between public bodies.

The third theme concerns the relationship between the port and the town. It is above all the problem of the waterfront, in other words the area of contact between the port and the town when there is a need for reconversion of their port infrastructure and the redefinition of the relationship between the town and the sea. It is furthermore a problem of human resources, with professional reconversion in those sectors affected by technological change and other needs following the new technology of maritime transport.

Finally, it is impossible to consider European ports without bearing in mind the distinction between those of the south and those of the north for which, in the face of the same problem, there are significant differences in approach according to their historic and geographical factors.

**Professor Vigarié** finally put the question "Is there an ideal port model?" The reply was: Yes, obviously. It is that which permits harmonious relations between the port, local and regional authorities and national interests. But such a model is necessarily specific to each of the ports and its achievement is not yet at hand.

The last point which was discussed was that of the **Ports Policy of the European Community**. The remarks which were made during the discussions can be summarized as follows: **No mention** is made **of the ports** in the Common Market Treaties, nor is any measure concerning the ports indicated in the draft proposals on maritime policy which are being discussed right now.

The general rules of the Treaty do, however, apply also to ports (no discrimination, no subsidies, no misuse of dominant economic power, etc.).

It is also clear that many measures which are taken on the Community level can have a great indirect influence on ports. For example: the European **energy** policy might influence the growth of nuclear energy and increases or decreases in imports of either oil, gas or coal; the **agricultural** policy has increased the export of grain, sugar and butter and the import of grain substitues; the **industrial** policy has consequences for the import of coal and iron ore as well as the import and export of iron and steel products; the **transport** policy which should be implemented by 1992 will be felt due to its impact on interior transport to and from the seaports; **regional** policy affects seaports in certain countries as well.

For all these reasons the European Commission has been having contacts with the Ports through the Port Working Group, which produced an interesting **fact-finding report**, describing the organization and operation of the European ports.

The majority of this Port Working Group was, however, of the opinion that the differences indicated in the report did not lead to a major distortion of competition between the ports. The public dues and charges do indeed only constitute a minor part of the total disbursement account of the vessels calling at a port.

The fact-finding report indicated that there is a great variety between ports in the Common Market: some ports are big, others are medium-sized or even small.

Historical traditions differ between countries and lead to "hanseatic" (i.e. municipal), "latin" (i.e. rather centralized) or "commercial" (i.e. integrated) port undertakings, but sometimes the differences are also big within the countries themselves.

On the Continent most ports are landowning, in Great Britain, Ireland and Denmark some of the major ports are "operating" ports, i.e. are also responsible for cargohandling.

Some ports are estuarial authorities responsible for dredging of the navigational channels, whilst in the majority of German, Dutch, Belgian, French and Italian ports maritime access to ports falls under the jurisdiction of the national or federal governments.

Are these differences responsible for the fact that a European Ports Policy has been so slow to be formulated? Should we perhaps indicate that few countries have a clearly-stated national ports policy and that also, for this reason, most countries have found it difficult to indicate which line should be followed on the European level?

There is certainly a big difference between those countries following a micro-economic approach whereby ports are micro-economic entities supposed to cover more or less all their costs and those countries where ports are considered in a macro-economic framework as important elements for stimulating regional economic development and/or the national economy.

Ports are partly public infrastructures (a public good) and, as far as cargo-handling is concerned, commercial enterprises.

Does it, moreover, make sense to start to try and solve a problem at its most difficult points, i.e. the knot between sea and inland transport, or would it be preferable to regulate first sea and them inland transport, whereby as a consequence the knot between both would be much easier and simpler to tackle?

Some people are even of the opinion that there is no need for a European Ports Policy just as the U.S.A., for example, does not have a ports policy on the Federal level.

Whatever the opinion may be, there is and will always be a need for the ports to make themselves heard on the level of the Common Market. Some even indicate that there should be a ports lobby.

It is also clear that a European Port Policy will only grow slowly. (Ports never take the lead, they usually follow what shipowners or shippers want.)

In other words, as was stated at the beginning, a comprehensive re-ordering of the Common Market Ports has had a low priority up to now.

#### CORRECTION

In the article captioned "Vessel Traffic Management System: Hong Kong", which appeared on page 45 of the September 1986 issue of this journal, there was an error in the figures. Please be advised that the cost of installing, commissioning and implementing the system is US\$18.5 million, instead of US\$50.5 as published.

### How could the Efficiency of Indian Major Ports be improved?

#### By Jose Paul MA, MBIM\* Additional Traffic Manager Cochin Port Trust India

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\*NOTE: The views expressed in this paper are the personal views of the writer and should not be attributed to those of the Cochin Port Trust or the Government of India.





#### 0.0 PREFACE

#### 0.1 Mode of presentation of essay

Ports are the sub-systems of a country's total transport system and are seen to have been subjected generally to varied influences and pressures of a country's political and economic philosophies, social and cultural traditions, regional and local initiatives and enterprise. An attempt to study port systems and to suggest measures to improve efficiency in port operations should, therefore, begin with a clear understanding of the country as a whole, its geography and location, political and economic structure, administrative systems, related transport infrastructure and the institutional framework of the port authorities charged with the responsibility of administering a country's ports.

The essay is divided into three parts. The first part deals with the geography, location, general characteristics and special features and the importance of ports in national economic development. The second part consists of a detailed discussion of a highly professional nature on present operating practices in cargo handling at Indian major ports which brings to the surface the underlying imperfections and inefficient operating practices inherent in the system. This is followed by suggestions to improve efficiency in cargo handling particularly in the break-bulk cargo sector. The discussion also includes a search for an efficient operating policy for container terminals in India and suggestions to improve efficiency in the handling of bulk cargoes at dedicated bulk cargo terminals.

The third part forms a summary of the conclusions and a look at the future potentialities of Indian major ports.

#### **1 INTRODUCTION**

#### 1.1 Geography and location

India, the second largest country in Asia and the seventh largest country in the world, has a land area of 3,287,588 sq.km extending 3,214 km north to south and 2,933 km east to west, is located in the Indian sub-continent in South Asia. The length of the total coastline on the Bay of Bengal, Arabian Sea and the Indian Ocean is 5,110 km. India shares its total international land boundary of 9,988 km with six neighbours: China (excluding the Pakistan controlled portion of Kashimir) — 1,893 km, Nepal — 1,508 km, Bhutan — 573 km, Burma — 1,403 km, Bangladesh — 2,583 km, and Pakistan — 2,028 km,  $\frac{1}{2}$  and is distinctly separated from the

rest of Asia by the mightiest chain of mountains in the world, the Himalayas and bordered on all other sides by great seas and oceans which makes it a peninsula. Between the snowcapped peaks of the "roof of the world" in the north and Cape Comorin in the south at the southernmost tip and only 8° latitude from the Equator there lies the complete spectrum of climates and landscapes our planet can offer.

#### 1.2 General characteristics and special features

#### 1.2.1 Ports — their Constitutional position

Article 246 of India's Constitution confers exclusive powers to make laws with respect to the matters enumerated in the Union List, contained in the Seventh Schedule thereof, on the Parliament. Entry 27 in this list mentions ports declared by or under law made by Parliament or existing law to be major ports, including their delimination and the Constitution and powers of port authorities therein as one of the matters of responsibility of the Centre. All other ports fall within the jurisdiction of the authority of the State Governments for which the respective State Assemblies have powers to legislate.

At present the eleven major ports in India (one of them is under construction at Nhava Sheva, off Bombay) and 139 minor/intermediate ports<sup>2/</sup> in all the maritime states of India are governed by the Indian Ports Act 1908 and the Major Port Trusts Act 1963.

#### 1.2.2 Indian economy

India ranks second in the world population with 749 million people (1984). It has a mixed economy in which the public sector is dominant. India's GNP per capita at \$260 in 1985 has been showing an annual average growth rate of 3.5, 0.4, 4.2 and 2.0% during the years, 1981, 82, 83 and 84 respectively and a target of 5% for 1985–90 and 1990–2000 has been set. India's GDP has been showing an annual average growth rate of 5.8, 2.6, 6.5 and 4.2% during the years 1981, 82, 83 and 84 respectively and a target of 5% in the Seventh Plan (1985–1990) and also for the subsequent Ten Year period has been set. $3^{1/2}$ 

#### 1.2.3 Foreign trade

An examination of India's foreign trade figures will reveal that the balance of payments has been a persistent weakness associated with Indian economy right from the First Five-Year Plan (1950–51).

Table 1.1Value of India's exports and imports and balance<br/>of payments 1950–1986.

Year	Exports Rs in millions	Imports Rs in millions	Balance of payments Rs in millions
1950-51	6,010	6,500	- 490
1960-61	6,420	11,220	- 4,800
1970-71	15,350	16,340	- 990
1980-81	66,830	125,600	-58,770
1982-83	88,340	143,600	-55,260
1983-84	100,000	150,000	-50,000
1984-85	118,550	171,710	-53,160
1985-86**	104,200	183,700	-79,500

Source: Statistical outline of India 1986/7, Tata Services Ltd., Department of Economics & Statistics, Bombay

\*\* Figures announced by Commerce Ministry, Govt. of India

Table 1.1 shows that the value of India's export earnings has not matched the value of imports and the country has to rely heavily on invisibles and foreign remittances of Indian nationals working abroad to help bridge the widening trade gap.

#### 1.2.4 Importance of ports in Indian economy

Leaving an insignificant proportion of India's foreign trade accounting for less than about 5% of the total trade (by weight) taking place with neighbouring countries by land and with other foreign countries by air, about 95% of the country's foreign trade by weight involves transportation by sea. Out of the 95% of foreign trade passing through the seaports about 90% is handled by the country's ten major ports (including Haldia) and the balance passes through minor ports along the east and west coast of India. The dominant role played by major seaports in channelling over 90% of the country's foreign trade, not only highlights their importance, but also demonstrate that the country is heavily dependent on its seaports for the development of its foreign trade. About 45% of India's foreign trade is concentrated in OECD countries (Australia, Belgium, Canada, France, Federal Republic of Germany, Japan, Netherlands, UK and USA, etc.) approximately 20% with OPEC countries (Iran, Iraq, Kuwait, Saudi Arabia, etc.) about 20% with East European Countries like East Germany, Romania and USSR, etc.) and about 15% with other developing countries of Africa and Asia.<sup>4/</sup>

Table 1.2 shows the total commodity-wise traffic at India'a major ports. A diagrammatic representation of the share of import/export traffic, major commodity groups of existing and projected traffic and the incremental share of containerised cargo in the total general cargo traffic are shown at Figure 1.1.

## Table 1.2Traffic handled at major ports(under major commodity groups)(imports and exports)

Name of Port	Petroleum, oil, lubricants & other liquid	Iron & other ores	Fertiliser & raw materials	Foodgrains	Coal	Containe- rised cargo	Others	Total
		1	April 198	4-March 19	 85 (in '000	tonnes)	L	
	70.0			100				
Calcutta	796	-	525	188	94	248	2,137	3,988
Haldia	4,441	6	273	16	1,614	77	109	6,536
Paradeep		1,807	37	11	148		134	2,137
Visakhapatnam	4,585	5,981	904	107	701	1	594	12,873
Madras	7,371	4,702	1,153	312	106	342	1,019	15,005
Tuticorin	882	25	693	114	1,759	12	289	3,774
Cochin	2,841	6	558	50		187	432	4,074
New Mangalore	471	1,821	247	83	-	8	752	3,382
Mormugao	982	13,020	290	33	-		186	14,511
Bonbay	18,395		1,041	117	-	2,128	4,089	25,770
Kandla	13,609	65	788	- 282		112	889	15,745
Overall	54,373	27,433	6,509	1,313	4,422	3,115	10,630	107,795
	April 1985-March 1986 (in '000 tonnes)							
Calcutta	872	_	605	2	65	397	2,222	4,163
Haldia	5,309	1 -	166	-	2,254	65	170	7,964
Paradeep	49	2,034	135		869		244	3,331
Visakhapatnam	6,360	5,903	970	82	1,737	3	857	15,912
Madras	9,273	5,221	969	73	169	680	1,762	18,147
Tuticorin	788	20	519		2,409	32	457	4,225
Cochin	4,003	1	508		-	238	355	5,105
New Mangalore	451	2,340	219	2	-	-	674	3,686
Mormugao	1,206	14,435	308	7	_	- 1	142	16,098
Bonbay	15,977	3	1,052	79	-	2,405	5,407	24,923
Kandla	13,719	92	631	302	-	171	1,570	16,485
Overall	58,007	30,049	6,082	547	7,503	3,991	13,860	120,039

%Variation over

March 84–85 (+6.7) (+9.5) (-6.7) (+58.3) (+69.7) (+28.1) (+30.4) (+11.4) Source: Journal "Indian Ports" January — March, 1986, Indian Ports Association, New Delhi, India. Figure 1.1 Share of import/export traffic, major commodity groups of existing and projected traffic and incremental share of containerised cargo in the total general cargo traffic, through Indian ports.



#### 1.2.5 Ports and national economic development

#### Since port services are essentially intermediate goods any increase in the cost should be reflected in the cost of final goods for consumption and any decrease reflected in the opposite manner.

R B Oram and C C R Baker commented:-

No single cause more directly affects the cost of living of a maritime country than the speed with which ships are turned round in her ports. More than half the price of an imported article is made up of cost of the transportation that has linked the producer with the consumer. At no point in this chain can costs so easily get out control as at the port — the vital link that enables seagoing traffic to be transferred to road or rail; this is the primary function of all ports, whatever their shape or size. The speed at which this physical transfer takes place is the criterion of the **port's efficiency**.<sup>5/</sup>

So an attempt to improve port efficiency should then concentrate on this most important area of activity, i.e. the handling of cargo from ship to shore and vice-versa.

#### 2.0 IMPROVEMENT OF PORT EFFICIENCY

#### 2.1 Definition of efficiency and its application to ports

Before start to examine how the efficiency of cargo handling operations in a port could be improved, we must be quite clear of what we mean by the term "efficiency". Economic efficiency is concerned with the relationship of inputs to outputs, minimising inputs for a specific output or maximising output for a given input. Pearson explains on what the achievement of efficiency depends:

....efficiency output attainment is dependent upon the quantities and price of the factor inputs of labour and capital employed, the state of technical knowledge and its availability; the manner in which the factors of production are utilised and more generally the skill with which the entire production process is organised by management over time in relation to changes in demand, competition, relative factor prices, technical knowledge and external factors of various kinds.<sup>6/</sup>

In business and industry 'efficiency' is used in the sense of cost effectiveness - the cost per unit of production or the profit per unit of capital investment. When applied to the context of port operations a useful measure of efficiency in cargo handling operations is the cost per tonne of cargo handled.<sup>2/</sup>

Tables 2.1 and 2.2 show the performance of ships in terms of rate of handling per day, per ship at Indian major ports during 1982–83, 83–84 and 84–85 and also the turn round time of ships during the same period, respectively.

#### 2.2 The structure and components of port costs

Professor R O Goss has found that a general cargo liner spends in a year on an average about 60% of its time in ports and 40% at sea and if the time spent in ports is reduced to 20% the ship owner's expenses could be reduced from 18.1% to 35.1% depending upon the round voyage undertaken.<sup>8/</sup> An UNCTAD study has shown that in liner cargo trade port charges represent only about 5% of the shipping freight rates and that stevedoring charges represent about 30%. The cost of ship's time in port represents another 30%. So the components representing the stevedoring operations and the cost of ship's time in port can be identified as the two specific areas in the liner trade as offering the potential for effecting maximum improvement.

Table 2.1Performance of ships in terms of rate of handling<br/>per day per ship during 1982/83, 1983/84 and<br/>1984/85

Name of port	General break-bulk	Dry bulk	Liquid Bulk	Overall
Calcutta				
1982-83	412	658	1,532	507
1983-84	407	540	1,461	487
1984-85	370	409	1,336	433
Haldia			-,	
1982-83	536	3,548	10.345	4,829
1983-84	386	2,664	12.865	4.629
1984-85	354	1,717	10.240	3,376
Paradeep				
1982-83	432	3,657		3.133
1983-84	482	2,775	·	2.145
1984-85	321	3,261	_	3.035
Visakhapatnam				-,
1982-83	781	6,419	6,918	4,344
1983-84	763	4,890	6,496	4,059
1984-85	579	4,458	6.443	3.865
Madras		.,	0,,,,0	0,000
1982-83	403	3.332	9.540	2,229
1983-84	423	2,605	9.374	2,558
1984-85	451	3.007	8 430	2,640
Tuticorin		0,007	0,150	2,010
1982-83	947	1.681	6 257	1 779
1983-84	932	2 236	4 615	1 909
1984-85	655	1 702	5 550	1,909
Cochin	000	1,702	5,550	1,025
3000000000000000000000000000000000000	361	727	12 063	2 031
1983-84	295	613	11,414	1 781
1984-85	309	439	5 540	1 232
New Mangalore		105	5,510	1,202
1982-83	522	2.739	5 500	1 811
1983-84	625	2.027	5,585	1 571
1984-85	483	1.716	5,640	1,319
Mormugao		2,0.20	0,070	1,015
1982-83	656	10.693	6.394	7.487
1983-84	713	16,197	7,213	9.098
198485	521	9.379	6.297	6 780
Bombay		- ,	<b>,</b> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0,,00
1982-83	452	839	11.313	1 766
1983-84	404	824	12,285	1.941
198485	413	868	12,108	2.029
Kandla			,	_,,
1982-83	897	1,226	13,559	5,529
1983-84	1,209	1,136	16,757	6,199
1984-85	892	1,066	15.306	5,346
All ports		,	,	- ,
1982-83	470	2,689	10,159	2,246
1983-84	473	2,388	10,716	2,401
1984-85	435	2,345	9,404	2,314

Source: Indian Ports Association, New Delhi, India

Table 2.2Turn round time of ships at Indian major ports<br/>during 1982/83, 1983/84, 1984/85

Name of Port	Average time in days				
Name of Fort	1982/83	1983/84	1984/85		
Calcutta	13.80	14.30	15.30		
Haldia	07.00	07.40	06.10		
Paradeep	07.28	09.67	09.40		
Visakhapatnam	05.67	06.72	07.53		
Madras	08.20	07.50	05.50		
Tuticorin	08.71	07.96	06.56		
Cochin	03.79	04.48	05.05		
New Mangalore	05.04	07.92	08.21		
Mormugao	06.27	06.23	06.91		
Bombay	06.83	08.61	09.43		
Kandla	07.05	07.04	07.43		

Source: Indian Ports Association, New Delhi, India

At this stage it is necessary to have a clear idea of the components representing the port costs. Port costs are made up of two parts:—

- a fixed component (which is independent of tonnage output including the capital costs of quays, sheds, cranes, equipment, etc.), and,
- b a variable component (which depends on tonnage throughput, including labour, staff costs, fuel, maintenance costs, etc.)

As the tonnage handled at a berth increases so the fixed component, when expressed as a cost per tonne, decreases. The variable component when expressed as a cost per ton will probably remain fairly stable until the berth comes under pressure to achieve higher tonnage throughput, at which point the variable cost per tonne will tend to rise owing to the need to use more costly methods of cargo handling. Figure 2.1 illustrates this relationship between the port cost per tonne and the throughput. It can be seen that the port cost curve (which is the sum of the fixed and variable components) reaches a minimum value when the rate of reduction in the fixed cost per tonne equals the rate of increase in the variable cost per tonne. (point 'A' in the graph).

Then there is the cost of ship's time in port. This time is also made up of two parts:

- a the time the ship spends at the berth, and
- b the time the ship spends waiting for a berth to become vacant.

As traffic increases, the time ships spend waiting to obtain a berth increases. At high berth occupancies, this increase in ship waiting time is quite dramatic, as shown in Figure 2.2.

The total costs incurred by ships in port are found by adding together the actual port costs and the cost of ship's time in a port, as illustrated in figure 2.3. The total cost per tonne curve also has a minimum point (point "B' on the graph) but this minimum is achieved at a lower throughput than that at which the lowest port cost occurs (point 'A'). The most important point to be noted here is that a planning exercise to minimise port costs alone will generally result in an unsatisfactory level of service to the ship owners which can lead to congestion surcharges and will not be economically acceptable.<sup>9/</sup>

#### 2.3 Application of economic principles to port working

We can now apply these economic principles to practical port working conditions. When the traffic handled at a berth increases and the component representing the fixed cost per tonne decreases then the investor in the infrastructure and superstructure facilities is benefited. If the investor is not the operator then the increase in traffic does not accrue any benefit to the operator as his expenses largely representing the variable costs will more or less remain the same. However, when the berth comes under pressure and when more resources are to be mobilised (like overtime, holiday wages, increased incentives, temporary or casual labour, etc.) then the variable cost per tonne of cargo handled tends to rise making the operation uneconomical for the operator. There is, therefore, a strong economic disincentive for an operator (if he is not the investor too) to increase output. As Thornburn observes:

...if stevedoring is speeded up so that a larger quantity of goods can be loaded or discharged in the same period of time, shipowners' day cost in harbour per tonne of cargo will fall. If more goods can be dealt with per year in the



Figure 2.2 Variation of the cost of ship's time in port with increasing traffic



Figure 2.3 Variation of total costs in port with increasing traffic.



Source: Port Development — a Handbook for planners in developing countries, UNCTAD, Geneva, p.29

same sheds and warehouses as a result of steps taken by the warehouse owners, the cost per tonne of cargo will fall for the owners of those storage places. Stevedoring firms often gain no economic advantage from the increased speed of handling, and do not, therefore, always give its effects the attention they deserve.<sup>10/</sup>

This situation does not happen in the stevedoring, quay handling and storage operation in many of the 'landlord' ports in developed countries. Cargo handling operations are being efficiently performed by the terminal operators under the private sector in the ports of Rotterdam and Antwerp. The real reason for this efficient operations appears to be that here the operator is also the investor who controls both the components representing the fixed and variable costs. The terminal operator constructs the sheds, warehouses, open storage areas, provides the quay cranes, mobile equipment, staff and labour and functions as an investor cum operator, taking full economic advantage from increased output. In such an organic, investment-related and integrated operating mechanism cargo handling operations will tend to be more efficient as the potential for economic advantage can be fully exploited.

Equally convincing is the case for efficiency in cargo handling operations in comprehensive ports like Singapore and Israel Port Authorities where the port authorities are the investors in physical facilities and operators as well. Professor R O Goss observes:

...Singapore, and those operated by Israel Ports Authority are good examples; and let no one say they are not efficient for almost any user of those ports will contradict him...<sup>11/</sup> ...Singapore, a largely comprehensive port, is one of the world's most efficient.<sup>12/</sup>

So, the real determinant of efficiency in cargo handling does seem to lie in what operating philosophy is adopted and how it is implemented; not so much on which sector undertakes the operations, as cargo handling seems to have been efficiently organised under the public and private sectors. The investment-related operating philosophy appears to be the most influential factor in making cargo handling operations more effective and efficient.

#### 2.4 Identification of problem areas

Let us now examine how cargo handling operations at Indian major ports are organised and to what extent the factor inputs are organised to maximise output. Cargo handling operations at Indian major seaports present a spectacle of an ill-assorted mixture of both public and private sectors with no uniform patter of operating policy. Indian major ports appear to have clearly three options to follow to become efficient:—

- a The port authorities being the investors in physical infrastructure facilities should also undertake stevedoring, quay handling and storage operations to maximise output to exploit the maximum economic advantage,
- b Make available all the infrastructure, superstructure and equipment to private terminal operators on long-term basis, the lease rent to reflect all the capital cost incurred by the port.
- c Make the private terminal operators invest in the superstructure, like the transit sheds, quay cranes, all cargo handling equipment and complete operational freedom to manage cargo operations as seen in the landlord ports, renting the infrastructure as in b above.

The second and third alternatives appear impracticable in Indian conditions as the private sector lacks both the financial resources and organisational capabilities to take over the responsibility of the public sector in such capital-intensive sectors like ports. Moreover, there is no political consensus in favour of privatisation and, in fact, almost all political parties emphasise the strategic role of the public sector in India's development. Thus any attempt at large-scale privatisation is unlikely to find favour with public opinion.<sup>13/</sup>

This would naturally leave us with the first alternative of the port authorities who are already the investors inphysical port facilities and partly the operators as well, in quay handling and storage operations in most of the ports, to take over stevedoring operations as well to have complete operational control over the cargo handling operations from ship to shore and vice-versa, which may provide a recipe for efficient performance. The classical example of this principle as an efficient operating philosophy can be seen in many facets of transport services. The airlines are the investors in aircraft and they are the operators too. The railways are the investors in rail tracks, rolling stock and workshops, rail terminals and they operate the railways. Passenger carriers like the state transport undertakings running passenger and freight coaches are the investors and they are the operators too. Nowhere there do we find a separation of operational responsibility taking place between the investor and the operator.

## 2.5 Suggested measures to improve efficiency in cargo handling — break-bulk cargo

Table 2.1 shows the performance of ships in terms of rate of handling per ship day at Indian major ports. From this it can be seen that on an average break-bulk handling at Indian major ports does not exceed more that 473 tonnes per day. According to an UNCTAD study,<sup>14/</sup> the achievable daily ship output at a well-run conventional general cargo berth has been shown as 1,440 tonnes (at the rate of hourly ship output at 80 tonnes and the berth working day of 18 hours —  $80 \times 18$ = 1,440 tonnes). Against this attainable maximum of 1,440 tonnes, India's major ports seem to achieve only about 32%. The consequential effect of a higher turn round time for ships in port is particularly transparent in Indian major ports as evidenced by Table 2.2.

There is thus clear evidence to show that cargo handling operations at Indian major ports have been organised in a manner far from being efficient, that the factor inputs of physical facilities, labour and equipment and the advantage of a reasonably well organised institutional and managerial skills available, with the port have not been used to maximise output. On the contrary, there is sufficient evidence to show that while the port authorities invested in capital intensive infrastructure and superstructure facilities, the stevedoring operators at Indian major ports who have hardly made any capital investment in physical facilities except to the extent of providing handling gear and supervisory staff, have been extracting disproportionate financial benefits as a result of the inability of the port authorities to undertake a very important segment in cargo handling operations that would have given enormous financial benefits to the port authorities and economic benefits to the country.

#### 2.5.1 Organisational and institutional re-structuring

Port Authorities in India have been endowed with a reasonably good organisational set-up and take over of stevedoring operations and to have complete control over car-

go handling should not pose any major organisational problem. With the integration of dock labour with the Port Trust, the dock labour board would become redundant and a new department of cargo handling could be formed under the Port Trust which could control both the dock and shore labour. As the employees of the DLB can automatically become the employees of the Port Trust organisational problems relating to personnel are likely to be marginal.

### 2.5.2 Benefits of undertaking stevedoring/integrated cargo handling operations by Port Authorities

#### Economies of scale and scope

With the dock labour and shore labour coming under the direct operational control of the port authorities the manpower resources can be rationally and economically employed, interchangeability can be attempted if not immediately at least in the long run. Suitable incentive schemes can be applied to improve productivity and an effective control could be exercised by the port authority on costs and a regular monitoring of cargo handling operations and a comparative cost analysis per tonne of cargo handled among the different major ports in India could be attempted on a scientific basis. (the Kelang Port Authority (Malaysia) which took over break-bulk stevedoring operations from the private sector on 1st May 1973 introduced integrated gang operations with effect from 1st January 1985 which is reported to be working satisfactorily.)

#### **Operational effectiveness**

With the complete control over cargo handling operations taking place between the storage shed and ship's hold and vice-versa under the direct responsibility of the port authority, improvements in port operations could be effected in a systematic and orderly fashion. All the major ports should be encouraged to work round the clock in three shifts (as is the practice in Singapore) with standard working hours of 8 hours and half-an-hour recess within the shift period.

#### Managerial effectiveness

Those ports which are still working two shifts could profitably benefit from takeover of cargo handling operations by the port to introduce three-shift operations round the clock, with most of their redundant staff strength being absorbed in this extended operation. In a competitive environment ports which undertake a variety of services, including cargo handling, would have considerable flexibility to balance their rates between cargo handling and port charges, depending on fluctuations that might develop in cargo traffic and shipping services.

#### Financial benefits

The most striking and attractive is the financial benefit the port authorities are likely to derive by undertaking stevedoring operations. The financial statements of those ports which are undertaking stevedoring over a number of years would give us an idea how much their total revenue is represented by the receipts from stevedoring activity. Three ports, namely Singapore, Kelang and Sri Lanka Port Authorities, which undertake stevedoring as part of the Port Authority functions, are selected for this comparative study and the anatomy of their revenue structure is examined to find the proportion represented by this important activity area.

The container terminal operations, cargo handling and wharf services together represent about 70-71% of the revenue account of Singapore Port Authority. These revenue

centres mask the real revenue obtained from stevedoring. Kelang Port Authority has not separated the revenues from stevedoring in container berth operations. However revenue from stevedoring, container berth, cargo and storage dues together represent about 75% of the total revenue receipts. Sri Lanka Ports Authority presents a clear picture whereby cargo handling activity area generates 56.08% of the total revenue is contributed by stevedoring. In other words, stevedoring as a revenue item represents nearly three times the revenue obtained from wharfage.

In Indian major ports after implementation of the directing group's recommendation on simplifications and rationalisation of port procedures,  $\frac{15}{}$  what fage appears to have been calculated on ad valorem rate ranging from 0.3 to 0.5% and a differentiation seems to have been made with regard to imports being calculated on CIF value and exports on FOB value. In respect of containerised cargo box rates seem to apply. These factors, along with the continuous fluctuations in CIF and FOB values of imports and exports respectively make it extremely difficult to compute the likely revenue Indian major ports may obtain under wharfage account. Leaving the liquid bulk cargoes and the dry bulk cargoes like ores, coal and fertilisers which are mostly handled by mechanical means, we are left with about 18 million tonnes of break-bulk cargo (15.32% of 120 million tonnes of total traffic) that may need effective stevedoring operations.

Average wharfage receipts of Bombay Port Trust for 1983– 84 for break-bulk cargo appear to be around Rs:15.05 per tonne (US\$1.20 — Exchange Rate July 1986 One US\$ = Rs:12.51). Bombay accounts for about 45% of the total break bulk-cargo handled at Indian major ports. Assuming that the recent increases in wharfage in general at Indian major ports which seem to have come into effect from April 1986 have pushed up the rate by about 30%, then the present rate will work out to Rs:20/— (US\$1.59), approximately

$$\frac{15.05 \times 30}{100} = 4.51, \ 15.05 + 4.51 = \text{Rs}:19.56 \text{ rounded up to}$$
  
Rs:20/---

Then the revenue from wharfage receipts of Indian major ports for about 18 million tonnes of break-bulk cargo may come to around Rs:360 million (US\$28.62 million).

The ratio of revenue receipts between wharfage and stevedoring in Sri Lanka Port Authority works out to 1:2.73. As the general level of stevedoring costs in Indian major ports appears to be marginally higher than what is prevailing in Columbo, we may round off the ratio to 1:3. In that case, when the average wharfage receipts yield about Rs:20/— per tonne, the receipts from stevedoring operations are likely to yield Rs:60/— (US\$4.77). This should mean that when port authorities undertake stevedoring operations, also it should yield an additional revenue of Rs:1,080 million (US\$85.86 million).

 $(18 \text{ million} \times \text{Rs:}60/ - = \text{Rs:}1,080 \text{ million}).$ 

#### 2.5.3 Cost of undertaking stevedoring/integrated cargo handling operations by Port Authorities

The port authorities in India are already the investors in the physical facilities like quays, transit sheds, shore cranes and other cargo handling equipment. In most of the ports they are the employers of the shore labour and supervisory staff as well. In seven out of ten major ports the stevedore labour and supervisory staff come under the institutional umbrella of the Dock Labour Board and extension of the port authority function to cover stevedoring operations can easily be attempted by the proposed new Department of Cargo Handling. In new major ports like Haldia, Paradeep, New Mangalore and Tuticorin where there are no DLBs the Traffic Department of the port can perhaps undertake this responsibility, as the work load of the department in such emerging ports may not be so heavy as to warrant the establishment of a separate department of Cargo Handling.

What is likely to be the cost of integrated cargo handling operations at Indian major ports? Excepting the Bombay Port Trust, none of the major ports seems to have worked out the direct and indirect cost of handling a tonne of break-bulk cargo and the average wharfage receipts per tonne of cargo handled. The total cost inclusive of depreciation on historical cost basis is reported to be Rs:41.74 per tonne (US\$3.33 in 1983–84 which represents a direct cost of Rs:22.97 (US\$1.83) and an indirect cost of Rs:18.77 (US\$1.50). Against this total unit cost of Rs:41.74 the wharfage receipts have been only Rs:15.05 (US\$1.20) per tonne in 1983–84).<sup>16/</sup>

There is thus clear evidence to show that the average wharfage receipts at Indian major ports generally for breakbulk cargo could not even meet the direct costs, let alone the indirect costs. Had the indirect costs in Indian major ports been worked out on full replacement cost basis as is done by the Israel Ports Authority the indirect cost per tonne would have been at least 15% higher.<sup>11/</sup>

Commenting on the poor resource generation of public sector units in India, Dr Man Mohan Singh observes:

If depreciation is valued at replacement cost rather than historical costs, some of these enterprises would be seen to be a negative value adding activity.<sup>18/</sup>

Thus, there is clear evidence that Indian major ports which could not even recover their indirect costs at least on historical cost basis have been operating inefficiently as negative value adding activities for a number of years and that crosssubsidisation from other activity areas has been going on to a very substantial extent of about 64%.

In the absence of published figures about the indirect cost of other major ports for break-bulk cargo handling, an assumption has to be made of the general level of indirect cost applicable to all Indian major ports. If we add about 25% to the indirect cost of BPT which stands at Rs:18-77 then the average indirect cost for all major ports may work out at Rs:18-77+Rs:4-69 = Rs:23-46 per tonne (US\$1.87). The direct cost per tonne of cargo handled at Bombay which stands at Rs:22-97 can be generally accepted as applicable to all major ports as the pay scales and wage settlements affect the staff and dock workers at all major ports almost uniformly at the same time. IF we add an amount of 15% of the then prevailing rate of direct cost at Bombay (Rs:22-97 in 1983-84) to account for a four-year wage settlement reached between the Government of India and the four federations representing the port and dock labour we get an amount of Rs:26-41 (22.97+3.44 = Rs:26.41, US\$2.11) which may be accepted as the average direct cost per tonne of cargo handled at Indian major ports. The total unit cost per tonne of cargo would then work out to:

Direct cost	Rs:26-41 per tonne
Indirect cost	Rs:23-46 per tonne
Total cost	Rs:49-87 per tonne

Assuming that take over of stevedoring operations may result in the same amount of direct costs (it should be much less because of the economies of scale and scope) and also indirect costs (since almost all fixed assets are provided by the ports) per tonne then the total cost per tonne of integrated cargo handling operation may come to approximately Rs:76/ -(US\$6.07)

Direct cost Rs:
$$26.41 \times 2$$
 = Rs: $52.82$   
Indirect cost Rs: $23.46$  = Rs: $23.46$   
Rs: $76.28$   
(rounded off to Rs: $76/$ — per tonne — US\$6.07)

The revenue that is likely to be earned from integrated cargo handling operation can now be worked out as follows: ---

Revenue from stevedoring	=	Rs:60/ per tonne
Revenue form wharfage	=	Rs:20/ per tonne
Total revenue	=	Rs:80/- per tonne
		(US\$6.29)

#### 2.5.4 Revenue earnings and other economic benefits

It should now be possible to calculate the total cost for integrated cargo handling operations, the total revenue receipts and the savings likely to be effected.

Cost of operation	Revenue receipt	Savings
Rs:76/tonne×18 m	Rs:80/tonne×18 m	Rs:4×18 m
Rs:1,368 m(US\$109.35 m)	Rs:1,440 m(US\$115.10 m)	Rs:72 m(US\$5.75 m)

The above mentioned calculation showing the savings Rs:72 m does not reflect the true position. The real saving is the transformation of the break-bulk cargo sector in Indian major ports from a negative value adding activity to a positive one netting an additional revenue receipt to the tune of about Rs:1,080 m i.e.  $Rs:60 \times 18$  m (US\$86.33 m). There would thus be no need for any cross-subsidisation; rather a source of additional revenue could appear. Moreover, the profits from private stevedoring operations do not get re-invested in port development whereas the savings that are likely to be available with the port authority undertaking stevedoring operations would be available for re-investment. Thus the new situation when developed would transform the break-bulk sector to a commercial success.

#### 2.6 Technological changes and selection of an efficient port operating policy for container terminals

We have seen that in 1986 about 22% of the total breakbulk cargo handled in Indian major ports is containerised and the proportion is likely to rise to 50% in 1990 and about 80% by 2000.AD. As a container terminal is capable of replacing at least about six break-bulk berths and the investment in container terminals needs heavy capital outplay, private stevedoring firms do not seem to have either the financial resources or the organisational ability to become involved in container terminal operations. The situation might thus gravitate into port authorities providing the infrastructure, superstructure and equipment in all the container terminals in India namely Bombay, Calcutta-Haldia, Madras and Cochin. If port authorities in India become the investors and operators of container terminals as well, in the absence of intra-port and apparently limited scope for inter-port competition can container terminal operations organised by port authorities become efficient?

With the development of the container concept the traditional hinterland boundaries of ports in India are fast becoming non-existent. The improvement in transport and communication facilities has brought the production centres in India closer to ports and also to alternative ports. The establishment of Inland Clearance Depots (ICD) within a reasonable proximity from production centres and the linking of such ICDs with more than one gateway port has given Indian shippers/receivers flexibility to move their cargo to a distant alternative port if other factors become favourable. A recent report indicates that by 1990, 21 ICDs are proposed to be established at major production centres all over India<sup>19/</sup> and they are to be linked to two or more gateway ports to enable shippers to have a wider shipping choice.

The introduction of negotiated box rates and the offer of combined transport by the container shipping lines are the other two developments which help the shippers to pass on a part of their transport and handling expenses to the shipowner. All these external factors coupled with a keen competition in the container freight market due to overcapacity tend to place strong and effective counterweight in the hands of the Indian shippers against the monopolistic tendencies of port authorities. With the envisaged proliferation of ICDs and the progressive development of transport and communications offering faster transit times, the latest 'land bridge' concept of moving boxes cross-country for consolidation at load centre ports and the introduction of aggressive marketing strategy by the container shipping lines using feeder and mainline services based on cargo inducements provide further evidence that the counterweight in the hands of the shipper is continuously on the increase capable of effectively neutralising the monopoly power of the public port container terminals in India. Already there is evidence of intense interport competition between the container ports of Cochin and Madras, Madras and Bombay, Bombay and Calcutta and also with container ports of Columbo and Singapore in the neighbouring countries.

There is, therefore, sufficient reason to believe that container terminals at Indian major ports, although they seem to enjoy near monopoly power, are likely to become efficient when operated by public port authorities despite the charges of bureaucracy and red-tape that are being generally levelled against this sector. This is because the challenges of the market forces, the intensity of commercial pressures and the threat to by-pass a port altogether are of such magnitude and gravity that public ports in India would no longer be in a position to survive with inefficiency, complecency and insensitivity. Moreover, economists agree that it is changes in market structure rather that changes in ownership or operation as such that tend to be most important factors determining business performance.

Public port authorities may perhaps be far more appropriate agencies that the private sector to accommodate with sympathy and understanding the numerous social repercussions that arise out of technological developments and consequent redundancies in the port labour market.

### 2.7 Suggestions to improve operational efficiency of dedicated terminals for bulk handling

A close examination of the traffic pattern of Indian major ports would reveal that liquid bulk cargoes account for about 48% of the total traffic while ores account for about 25%. Coal represents about 6% and fertilizer represents another 5%. Thus the share of liquid and dry bulk cargoes account for about 85% of the total traffic. The bulk cargoes are traded in large quantities and are shipped almost exclusively in bulk carriers. Lately, the term 'neo-bulk' has come into use for cargoes such as vehicles, forest products, etc., because they are often shipped in full ship loads.<sup>20/</sup>

Generally, bulk cargoes are handled at Indian major ports at specially designed, purpose-built, dedicated terminals for almost the exclusive use of the captive users. Thus, the character of these terminals is mostly <u>single user terminal</u> markedly different from <u>the common user terminals</u> that we have dealt with under break-bulk and container terminal operations. In view of this special character, the investments made in dedicated bulk terminals generally follow a different pattern. The infrastructure, i.e. the berth an quay wall, are provided by the port authority and the superstructure, i.e. the ship loaders/unloaders/conveyors/stackers/reclaimers, etc. for cargo handling at the berth is generally provided by the user interests.

The nature of shipping services offered in the bulk trade appears to be substantially different from that offered in the break-bulk/container trades. Since in the bulk trades shipping services are organised under non-liner terms (voyage or time charter) the benefits of quicker turn round normally go to the charterer. In most cases dispatch/demurrage claims are incorporated in charter party agreements by which the shipowners are well-protected from any delay caused to the ship at the port. Any increased output in handling and improved turn round become the direct concern of the charterer, i.e. the shipper or receiver. Port authorities may be interested in the quick turn round of bulk vessels but they are not bound by charter party conditions. Consequently the strong economic incentives arising out of profitability from improved performance are not enjoyed by them. In the same way, port authorities may be largely insensitive to the strong economic disincentives associated with a less efficient handling performance. There is no reason to suppose, therefore, the dedicated terminals if allowed to be operated by the concerned user interests themselves, would neglect the operation as the contractual obligation of charter party is such that they would be penalised for their inefficiency.

If the captive users turn out to be the direct beneficiaries from increased output and quicker turn round of ships at dedicated bulk terminals for their exclusive use, it would then appear to be logical that to achieve greater operational and economic efficiency they would be the most appropriate agencies to be the investors too. When the captive users become the investors and operators as well at dedicated bulk terminals then they would control those components representing the fixed and variable costs and exploit the economic advantages arising out of increase in ship size, increase output and improved performance to the maximum extent.

Here the investment-cum-operator philosophy adopted by the landlord ports of developed countries can be gainfully employed by the port authorities at Indian major ports with no seeming risk to public interest. The infrastructure constituting the berth and quay can be provided by the port authority and leased on a long-term basis to the captive users for providing the superstructure with complete flexibility to operate the dedicated terminal in the best way the user interests would think fit. This operating philosophy is likely to make the port:—

- (a) more efficient in its investment strategy
- (b) ensure greater operational efficiency
- (c) help recover its capital investment within shorter time, and
- (d) insulate itself from the fluctuations of rise and fall in traffic volumes.

The capital so recovered could be diverted to provide more modern facilities at the common user terminals.

It must be clearly understood that in future the efficiency of Indian major ports would depend largely on the specialisation of their terminals for bulk handling and transport; the sophistication of their handling technologies; the refinement and productive capacity of their investment and operating philosophies and in their ultimate pursuit to achieve excellence and efficiency, if capital, technological specialisation and operational responsibilities are to be shared in legitimate proportions, Indian major ports would need to show a far greater sense of realism and commitment than that shown in the past.

The operating strategy recommended for Indian major ports in the handling of bulk cargoes seems to be compatible with what Bohdan Nagorski advocated for developing countries in general:

...concentration of many functions in the hands of port management offers the advantage of unified command and easier planning. However, a public trust is usually less qualified than a purely commercial organisation to perform certain kinds of services. The best policy is to disregard general theories or principles and to select for each field of port activity a form — public or private, which appears to give the best practical results.<sup>21/</sup>

#### **3 CONCLUSION**

The responsibility to make the best use of factor inputs to maximise output is essentially that of the investor — here that of the national government and port authorities. Therefore it is the government and port authorities who are the investors in social capital, who should be genuinely concerned to devise the most effective operating policy by which these investments result in net economic gains to the country as a whole.

#### 3.1 General

There appears to be a sense of unprecedented awareness and concern on the part of the policy makers and planners in India recently to take the country into the 21st Century by an ambitious programme of technological upgradation and progressive idealism. Ports are, perhaps, the nodal centres where this new and progressive idealism needs to be translated into efficient port operating policies. There appears to be a compelling urgency and imperative need on the part of the government and port authorities to unshacke themselves from obsolete, uneconomic and inefficient operating practices and to embrace a new package of operating philosophies which have been tested on the touch stones of sound economic principles and found successful in the major ports of developed maritime nations.

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## International maritime information: World port news:

#### Training Courses for 1987: Port of Singapore Authority

The Port of Singapore Authority will be offering the usual range of port management, operations, engineering and safety courses in 1987. Course titles and confirmed dates are indicated below. Course details are provided in the 1986/87 courses information (see *Ports and Harbors*, March issue, 1986).

The contents of these courses are generally based on PSA's experiences in port management and operations. Methods of instruction include lectures, discussions, classroom exercises and programmed visits to operational and administrative departments of the Authority. The medium of instruction is English and participants will be expected to have a good working knowledge of the language.

#### **Training Courses for 1987**

		Course Fee
		Per Participant
Course Title	Date (Duration)	(Sing dollars)
Port Management & Operations	8-19 Jun 87	\$1,850
с .	(2 weeks)	
Port Policing & Security	12-16 Oct 87	\$ 950
	(1 week)	
Management & Operations of	29 Jun-10 Jul 87	\$1,850
a Container Terminal	(2 weeks)	
Cargo operations at	14-25 Sep 87	\$1,500
Conventional Wharves	(2 weeks)	
Management & Maintenance	13–17 Jul 87	\$ 800
of Port Equipment	(1 week)	
Civil Engineering & Project	2-13 Nov 87	\$1,800
Management	(2 weeks)	
Ship Inspection	20-24 Apr 87	\$ 700
	(1 week)	
	5-9 Oct 87	\$ 700
	(1 week)	
Shipboard Fire-Fighting &	12-16 Oct 87	\$ 950
Prevention	(1 week)	
Oil Spill Control	28 Sep-2 Oct 87	\$ 950
	(1 week)	
Oil, Chemical & Liquefied	6-16 Apr 87	\$1,300
Gas Tanker Safety	(2 weeks)	
Familiarization		
Advanced Petroleum Gas Tanker	6–10 Jul 87	\$ 700
	(1 week)	

For further information, please write to: Training Manager Training Department, Port of Singapore Authority 7, Keppel Road, #02-28, Tanjong Pagar Complex, Singapore 0208,

**Republic of Singapore** 

#### International Seminar on Port Management 1987: IHE, Delft

The International Seminar on Port Management provides port administrators from all over the world with new information and know-how on port management. Twenty-two previous seminars have brought together more than 600 port officials from almost 90 different countries. Every year the contents of the seminar are renewed according to the latest developments in ports in Europe as well as in other parts of the world. Special attention is drawn to subjects which are of paramount importance in that particular year. This time such a subject is the automation and computation of data on goods transportation handling from the place of origin till the final destination.

The seminar is being organized by the International Institute for Hydraulic and Environmental Engineering in Delft in close cooperation with the Port Authorities of Amsterdam and Rotterdam. The Directorate General for International Cooperation of the Netherlands Ministry of Foreign Affairs is giving its valuable support.

The International Institute for Hydraulic and Environmental Engineering is also offering an eleven-month postgraduate programme for port and coastal engineers. It is obvious that the same ground cannot be covered in a six-week seminar as in a full eleven-month course. Therefore the seminar programme does not include constructional and hydraulic aspects but rather is confined to a thorough treatment of the organization and management of ports.

The seminar programme comprises regular study visits to the ports of Amsterdam and Rotterdam. These cities are located at only small distances from the Institute at Delft. Also a few smaller ports in the Netherlands will be studied. As part of the programme a study tour will be made to ports in the United Kingdom and the Federal Republic of Germany.

#### Dates for the seminar: May 18-June 25, 1987

The programme will start on Monday, May 18 and will be concluded on Thursday, June 25, 1987. All participants are expected to take the entire programme of the seminar. Therefore, those participants who have other business to attend to in the Netherlands are expected to arrive a few days prior to the beginning, or stay on after completion of the seminar.

#### Programme

The seminar will be conducted in the form of lectures and discussions alternated by day-trips or half-day visits to the ports of Amsterdam, Rotterdam and other ports in the Netherlands. There will be sufficient opportunity to study the ports organization and various port operations. The study tour to the United Kingdom and the Federal Republic of Germany will give an extra opportunity for comparison of the organization of various harbours. Considerable time will be devoted at Delft to exercises in the organization of cargo handling, labour relations and traffic management.

#### Themes of the seminar

Special theme: Automation in ports

- Telematrics for port communications and information
- 1. Transportation
  - Logistics and quantification of transport processes.
  - Integration of the transport chain from producer to consumer.
  - Functions of road, rail, pipe line, inland water, air and sea transport.
  - Merchant shipping.
  - Economy of sea transport.
  - Interests of the shipowner and of the shipper.

#### 2. Patterns of port organization

- Functions of a port authority.
- Relation to other public bodies and to industry.
- Political context.
- Internal structures.
- 3. Port finance
  - Financial autonomy.
  - Ownership of facilities.
  - Sources of revenue and of loan capital.
  - Pricing of port services.
  - Port accounting.
- 4. Reception of ships
  - Tasks of the harbour-master.
  - Traffic management.
  - Pilotage and navigation aids.
- 5. Various port operations
  - Marketing and public relations.
  - Conservancy of the fairway and dredging.
  - -- Port security, access to the port area.
  - Control of cargo losses.
  - Fire prevention and fire fighting.
  - Prevention of pollution.
  - Legal liabilities of various parties engaged in port operations.
- 6. Dock labour
  - Manpower planning.
  - Forecasting of requirements and of availability of workers.
  - Training and career planning.
  - Occupational health and safety.
  - Systems of payment and relations with organized labour.
- 7. Systems approach to solving port problems
  - -Introduction.
  - Port management defines objectives.
  - Review of port operations.
  - Injection of port policy.
  - The 'environment' as a constraint.
  - Project phasing and cases.

- 8. Cargoes
  - Classical general cargo.
  - Mass break-bulk cargo.
  - -Bulk cargo and liquids.
  - Requirements and equipment for handling.
  - Cargo unitization, warehousing and storage.
  - Handling of dangerous goods.
- 9. Terminal operation
  - Planning, management and operation of terminals.
  - Productivity indicators and their measurement.
  - Improving productivity.
  - Exercise in resource management.

#### Application and admission

The seminar is open to port officials and other qualified candidates who in their daily activities are regularly confronted with problems of port management. Preferably, candidates should have a university degree, although in special cases experience can replace university background. No simple formula can be given for the conditions of admission and for this reason applications will be considered individually. In order to make a proper judgment of applications possible, candidates should fill in the enclosed application form as completely and clearly as possible and return it to the Registrar. Candidates are required to submit a letter of recommendation from their employer. In order to promote a close contact between the lecturers and participants and to stimulate discussions, the number of participants will be limited to 30.

#### Language

Since the seminar will be held in English, a good working knowledge of this language is a prerequisite.

#### Fees and other expenses

The participants' fee is Dfl. 3200, which includes the tuition fee, travel cost for all study tours and lodging during these study tours outside the Netherlands. Participants will pay for their accommodation during their stay in the Netherlands. The organizer will upon request take care of hotel reservations. The participants' fee should be paid on or before the day of registration. Those preferring to pay in advance are requested to have the participation fee paid to the account number 47.35.75.108 of NUFFIC at the Amsterdam-Rotterdam Bank, 14 Wagenstraat, Den Haag.

#### Fellowships

It is expected that a number of participants will be supported by their employers or by national or international organizations, such as the United Nations, UNCTAD and the International Labour Organization (ILO). For countries that are associate members of the European Economic Community the Commission of the European Communities may make fellowships available. The European Economic Community and the Association of South-East Asian Nations (ASEAN) have a special fellowship programme for Asian countries. EEC and ASEAN fellowships may be obtained by applying to the office of the EEC delegate in the home country of the candidate. Government services and private organizations in developing countries who wish to inquire about fellowships of the Netherlands Fellowships Programme (NFP) for their staff,

#### Topics

should contact the Netherlands' Diplomatic Representative designated for their country as soon as possible. Eventual applications should be submitted to the said representatives in time for them to reach the Netherlands before March 18, 1987. These NFP fellowships do not include travel facilities to the Netherlands and back.

All participants who need a visa for the United Kingdom and Germany are advised to obtain it in their own country before the seminar begins because getting it in the Netherlands may take much time.

#### Insurance

Participants are expected to insure themselves against the financial consequences of illness, accidents and third-party liability risks for the duration of the seminar.

Further information can be obtained from the Registrar's Office, P.O. Box 90734, 2509 LS THE HAGUE, The Netherlands.

#### 9th International Harbour Congress

Antwerp, Belgium, 20–24 June 1988

#### Organized by:

Koninklijke Vlaamse Ingenieursvereniging (Royal Society of Flemish Engineers)

The Royal Society of Flemish Engineers — Harbour Section — invites the world harbour community at a 5-days International Harbour Congress to be held in conjunction with the 6th International Harbour Exhibition in Antwerp from 20th till 24th June 1988.

#### Topics

#### Planning

Planning of the harbour extension and renovation within the context of the area development of the region surrounding the port.

Composition and methodology of the planning groups. Cooperation with harbour users (transhipment firms and industry).

Environmental regulations (environmental impact assessment).

Building permits.

Information to the general public.

Simulation processes.

Econometrics.

#### Renovation

Specific building procedures employed in renovation.

 demolition of structures, while maintaining harbour activities.

- construction of deeper quay walls close to existing structures.
- rebuilding of the road and railway infrastructures.

#### Information data network --- Vessel Traffic System

Hardware for the internal network on a terminal and for the communication between harbour users among each other and with their correspondents.

Use and organization of the teleport concept.

Vessel traffic system (VTS)

- actual development and technical characteristics.

operational aspects — authority and qualifications of the operators.

Hydro-meteo information system for shipping: permissible draught depending on tide, wind, current and wave-pattern.

#### Maintenance dredging work

Determination of the nautical bottom.

- Dumping of dredged material on land or at sea.
- Transport of dredged material.
- Cost price.

Environmental protection.

Agitation dredging and special dredging technique (trench dredging).

Alternative methods.

#### **Harbour construction**

New foundation and induration techniques for harbour sites.

Fender technology.

Sand migration caused by (bow) propeller impact and adapted dock floor protection.

Techniques for wave and sedimentation measurement in harbours.

#### Storage of hazardous products

Construction of specific storage areas and sheds.

Planning of the transportation infrastructure to and from. Intervention plans for emergency situations due to the spill of hazardous products.

#### Terminal Equipment

Innovation in equipment for specialized terminals: roll-on/ roll-off, containers, fruit, steel and bulk.

#### **Third World**

Harbour facilities adapted to the possibilities and needs of the Third World. Efficient, cheap and easily serviceable cargo handling equipment for ports with a limited and growing throughput.

#### Language

The official language is English. Abstracts, papers and proceedings will be published in English. However, during the sessions, simultaneous translation from and into Dutch, English, French and German shall be provided.

#### Papers

All persons who intend to contribute a paper on one of the themes of the congress are requested to send 3 copies of a 300-word abstract of their paper together with the attached application card to the Secretariat by **April 1, 1987**. Papers will be selected on the basis of these abstracts by the Scientific Committee.

Only original papers describing significant new work will be accepted. Authors will be notified not later than **June 1**, **1987** and will receive instructions for the preparation of their paper. The final version of accepted papers will be required by **October 31**, **1987**.

#### **Organization of the Sessions**

The activities of the congress are divided into eight sessions dealing with a particular subject of harbour activity.

During the working sessions of the congress no individual lectures will be made, but a general review of the accepted papers will be presented in each section by the general reporter and commented on by the chairman.

There will be a large opportunity to discuss the papers.

Preprints of papers and general reports will be sent to all members of the congress.

#### Exhibition

The 6th International Harbour Exhibition — in conjunction with the 9th International Harbour Congress — will be held from 20th June till 24th June 1988.

Exhibits should relate to the scope of the congress and prospective exhibitors are asked to complete the attached form if they wish to receive further details.

#### Secretariat

9th International Harbour Congress attn. Mrs. Rita Peys c/o Technologisch Instituut-K.VIV Jan van Rijswijcklaan 58 B-2018 Antwerpen Belgium Tel. 03/216.09.96 Telex: 71758 tikviv

# International symposium on reception facilities for noxious liquid substances: IMO

An international symposium on reception facilities for noxious liquid substances will be held at IMO Headquarters in London from 13 to 15 May 1987.

Annex II of MARPOL 73/78, which contains regulations for the control of pollution of the sea by noxious liquid substances, will enter into effect on 6 April 1987. Consequently, operational discharge into the sea of noxious liquid substances from chemical tankers will either be prohibited or restricted. In accordance with the regulations contained in Annex II, governments of States Party to MARPOL 73/78 undertake to provide facilities for the reception of ballast water, tank washings or other residues or mixtures containing noxious liquid substances which chemical tankers are obliged not to discharge into the sea.

With this in view, the symposium will provide a forum for the presentation to maritime and environmental administrators and representatives of the shipping industry, port and terminal operators, the chemical industry and others interested in the subject, of a series of papers concerning technical and economic aspects of the provision of reception facilities and ultimate disposal of noxious liquid substances.

The symposium will be conducted in English only and is open for registration to persons with an interest in the subject matter.

### How to become PORT/SHIPPING MANAGER: By first following the IMTA-course of Shipping Management.

To obtain a leading function, diplomas and certificates are required. Therefore, IMTA\* (International Maritime Transport Academy), Den Helder-Netherlands, organises a course in Management for Port and Shipping for future management functions.

At the end of September '87 begins once again this international 'Post-Graduate' training-course, in English. Duration of the course is 3 and 4 months (Sept.-Dec. and Jan.-May). Requirements for entrance: Higher Professional Training; Master Mariner Certificate; Chief Engineer Certificate; Professional Accountancy Training; Bsc Economics or equivalent, etc. Also invited to apply are those with (as yet) training unfinished, but with sufficient practical experience.

The syllabus comprises: management, marketing, technology, economics, business policy, finance, manpower and organization, port and shipping practice. Guest lectures from Industry teach case studies. The course can also be taken in two parts in successive years (leave periods). The IMTA course opens up new horizons, at sea or ashore.

A limited number of fellowships are available.

Fill in the coupon below for further information. You can also apply by phone or via telex aboard ship. **Do it Now.** 

Coupon	To IMTA, F tel. (02230 information	P.O. Box 137, 1780 AC De ) 25070, telex 57072 DO as soon as possible.	n Helder – Netherlands, TC NL. Send me your
Name:			WTK
Street:		Place:	
Postal cod	le:	Name of ship:	
Employed	at:		Date:

Funds have been provided by the Swedish International Development Authority (SIDA) to support limited participation from developing countries, particularly those which import/export noxious liquid substances in bulk.

For further information, please contact: Director Marine Environment Division International Maritime Organization 4, Albert Embankment LONDON SE1 7SR United Kingdom Telephone No.: (01) 735 7611 Telex No.: 23588 IMOLDNG Telefax: 5873210

#### IMO's programme of meetings, 1987

12–16 January	Sub-Committee on Safety of Navigation — 33rd session
26–30 January	Sub-Committee on Fire Protection — 32nd session
16–20 February	Marine Environment Protection Commit- tee — 24th session
2–6 March	Ad Hoc Preparatory Committee for a Draft Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation
23-27 March	Sub-Committee on Containers and Cargoes – 28th session
6-10 April	Sub-Committee on the Carriage of Dangerous Goods — 39th session
27 April–1 May	Maritime Safety Committee — 54th session
11-15 May	Joint IMO/UNCTAD Intergovernmental Group of Experts on Maritime Liens and Mortgages — 2nd session
18-22 May	Sub-Committee on Bulk Chemicals — 17th session
18-22 May	* Ad Hoc Preparatory Committee for a Draft Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation
1–5 June	Sub-Committee on Ship Design and Equip- ment — 30th session
15–19 June	Council — 58th session
18 June	Technical Co-operation Committee — 29th session
22–26 June	Sub-Committee on Life-Saving, Search and Rescue — 19th session
13–17 July	Sub-Committee on Radiocommunications – 33rd session
7-11 September	Sub-Committee on Stability and Loadlines and on Fishing Vessels Safety — 32nd session
14-18 September	Facilitation Committee — 17th session
5-9 October	International Oil Pollution Compensation Fund — Assembly — 10th session
12-16 October	Legal Committee — 58th session
19-20 October	Legal Committee — Extraordinary session
19-23 October	Intergovernmental Panel of Experts on Radioac- tive Waste Disposal at Sea
28-30 October	Sub-Committee on Standards of Training and Watchkeeping — 20th session
6 November	*Council — 14th Extraordinary session

9-20 November	*Assembly — 15th session				
20 November	*Council — 59th session				
30 November– 4 December	Marine Environment Protection Committee — * 25th session				
Programme of 1	Intersessional Meetings of Working Groups for 987 as approved by the Council**				
5–9 January	Editorial and Technical Group of the Sub- Committee on the Carriage of Dangerous Goods				
19–23 January	Intersessional Meeting of the Working Group on Machinery and Electrical Requirements of the Sub-Committee on Ship Design and Equipment				
6-10 April	Scientific Group on Dumping				
27 April–8 May	Joint LDC/OSCOM Meeting of Experts on In- cineration at Sea				
19-23 October	Ad Hoc Group of Legal Experts on Waste Disposal at Sea				
* Tentative					

\*\* Working groups held without interpretation and with documentation in English only.

#### Port of Montreal presents goldheaded cane to Captain Viktor Zibrov, Master of M/V Nadezhda Obukhova



Mr. Ronald Corey (left), Chairman of the Board of Directors of the Port of Montreal, and Mr. Dominic J. Taddeo, General Manager and Chief Executive Officer, with Captain Viktor Zibrov, Master of the M/V Nadezhda Obukhova and winner of the Gold-Headed Cane of the Port of Montreal.



The M/V Nadezhda Obukhova

#### The Americas

In keeping with a tradition which dates back to 1840, the Chairman of the Board of Directors of the Port of Montreal, Mr. Ronald Corey, and the General Manager and Chief Executive Officer, Mr. Dominic J. Taddeo, on January 5, 1987, presented the famous Gold-Headed Cane to Captain Viktor Zibrov, Master of the M/V Nadezhda Obukhova, first ocean-going vessel of the year to reach port without a stopover.

The M/V Nadezhda Obukhova is a container carrier under Russian registry. Owned by the Baltic Shipping Company, it is represented in Montreal by Morlines, steamship agents. The ship left the port of Felixstowe, England, on December 23, 1986, and opened the navigation year in Montreal by crossing the port's limits at 9:29 a.m. on January 1st, 1987. It then proceeded to tie up at berth 66 of the Cadillac terminal where its cargo of 765 containers was handled by Cerescorp Inc., terminal operators and stevedores.

Captain Zibrov won the Gold-Headed Cane on his first voyage to Montreal. It was also a first for the Baltic Shipping Company, which through its Balt-Canada Line provides weekly sailings between Montreal, Bremerhaven Hamburg, Rotterdam and Felixstowe.

Since the beginning of year-round navigation at the Port of Montreal in 1964, eight different Masters of Russian registered vessels have been presented with the Gold-Headed Cane, a record matched only by British Masters during this period.

The port of Montreal also paid tribute to the Pilots of Saint-Laurent Central Inc., who brought the ship safely into port. Pilots Yvon Carré and Roger Guertin were each presented with a sculpture from a Quebec artist.

Before an audience of dignitaries, among them the Mayor of Montreal, Mr. Jean Doré, the Chairman of the Montreal Urban Community, Mr. Michel Hamelin, and the Consul General of the U.S.S.R. in Montreal, Mr. Alexandres S. Yereskovsky, the Chairman of the Board of Directors of the Port of Montreal, Mr. Ronald Corey, and the General Manager and Chief Executive Officer, Mr. Dominic J. Taddeo, spoke of the reasons that still motivate the Port to perpetuate the 146-year old tradition of the Gold-Headed Cane.

Mr. Corey stated: "Today, with vessels coming and going constantly 12 months of the year, we're a long way from that era when the Port was closed in the Winter. Year round navigation at the Port of Montreal doesn't detract from, but rather enhances our reasons for perpetuating the Gold-Headed Cane presentation."

In his address, Mr. Taddeo said: "We want to acknowledge the experience, training and sound judgment of the ship's officers and crew who bring the first ocean-going vessel safely into port each year.

"We also want to pay tribute to the imagination, the ingenuity and the determination of those Canadians who have made winter navigation a reality.

"We wish to express our gratitude to all our colleagues in the maritime industry whose clientele help the port of Montreal generate over \$750 million in economic benefits each year and provide employment to more than 17,000 persons in various sectors of our economy."

The Port of Montreal is active and opened 12 months a year to navigation. Winter traffic is particularly important. The months of January, February and March account for approximately one quarter of the general and liquid bulk cargoes for the year.

Thus, the Port of Montreal can retain its position as Canada's Number One Container Port. All those responsible for such a success are to be gratefully acknowledged on this day of the traditional presentation of the Gold-Headed Cane.

#### Robert W. Tytaneck appointed to General Manager & Chief Executive Officer: Prince Rupert Port Corporation



Mr. Robert W. Tytaneck

Mr. Allan Sheppard, Chairman of the Prince Rupert Port Corporation, announced the appointment of Robert W. Tytaneck to General Manager and Chief Executive Officer of the Prince Rupert Port Corporation effective December 1, 1986.

Mr. Tytaneck formerly held positions with the Canada Ports Corporation in Ottawa and the St. Lawrence Seaway Authority. He holds a Masters Degree in Economics from the University of Waterloo.

The Prince Rupert Port Corporation is the second largest port on the West Coast of Canada, with cargo exports exceeding 10 million tonnes.

## Canaveral receives first Chilean fruit shipment

Port Canaveral received its first of ten shipments of fruit from Chile on January 8.

The **Bungo Reefer** off-loaded 414 tons of grapes, nectarines, peaches, and plums divided into 46,000 18-pound boxes. The fruit is destined for Rotterdam.

Pat Lee, Manager of Mid-Florida Freezers Warehouses, Inc. and port officials worked for four years to persuade the Chilean Winter Fruit Association to ship fruit through Port Canaveral. A coalition of 40 importers and exporters, the fruit association ships fruit through Tampa, Philadelphia, Los Angeles, and Seattle. Port Canaveral and Galveston were added this year to supply a growing demand in the southeast and southwest.

The fruit association will ship \$15 million worth of cargo through the port from January through April 1987, calling on an average of once every two weeks. The ten ship calls will off-load a total of 600,000 boxes at Canaveral.

Coming from Chile, the ships will stop first at Canaveral,

unload approximately one-third of its cargo then proceed to Philadelphia and unload the remaining two-thirds. Philadelphia's larger share of the fruit is due to that city's greater population base and area.

The shipments will add approximately \$20,000 to Port Canaveral's revenue and have an economic impact on the East Central Florida area of \$360,000.

#### Lakes largest heavy-lift project nearing halfway mark: Seaway Port Authority of Duluth



Movement of the heaviest cargoes ever lifted in a Great Lakes Port has reached the halfway mark. The third of five massive oil refinery reactor vessels left the Port of Duluth January 14, 1987 destined for the Newgrade Energy, Inc., Heavy Oil Upgrader Project in Regina, Saskatchewan. The four largest reactors are 80 feet long, over 15 feet in diameter and weigh 750 metric tons each.

The reactor vessels are being shipped to Regina from Duluth aboard a 36-axle Schnabel Car, operated by Combustion Engineering, Inc., of Windsor, Conn. By the time the third unit reaches the Co-op Upgrader Project in Regina, the world's largest railcar will have racked up almost 4,500 miles between the Regina site complex and the Port of Duluth.

Officials report that despite some "glitches" on the first run, travel times between Duluth and Regina are ahead of schedule, averaging ten days. Original travel estimates had assumed a 12 to 15 day one-way trip. Because the massive car and load are the largest ever carried by the Burlington Northern Railroad in the United States, and the Canadian Pacific Railroad in Canada, roadbeds, bridges and other obstructions had to be strengthened and carefully negotiated by the Schnabel Car and power units. The car itself has the capacity to shift its load two feet side-to-side and lower or raise 30 inches up and down. Still, the huge load must be carefully handled. The train moves at a speed of 15 miles per hour loaded (25 miles per hour unloaded). When loaded the train is restricted to running during daylight hours, requiring stopovers at various points along the way.

## Port of Corpus Christi building container facility

The Port of Corpus Christi has now received the go-ahead from the Port Commissioners to construct a container han-

dling facility. This facility will significantly affect the growing prominence of the port on the Gulf coast.

The container facility will be located on the existing Harbor Drive pad which covers approximately six acres. This pad will be improved by covering it with a layer of geotextile fabric and then with a ten inch thickness of crushed limestock rock. This should give the pad sufficient strength to support the multi-ton loading from the container handler. Cost estimates of these improvements are around \$350,000. Additional construction around the pad will include fencing, railroad crossings and approaches, a truck scale, clerk's office and other ancillary supplies, which bring the total estimated costs to around \$512,000 for the storage yard.

The container handler will be able to lift loaded 40 foot containers and move them to any part of the storage area. This machine will have an adjustable specialized spreader bar which can handle either 20 or 40 foot containers and can stack them up to three high. Costs for the container handler vary depending on whether it is new or used.

An additional spreader bar is needed to use with the stiffleg derrick or shore-based mobile cranes. Approximate costs of the spreader bar is \$65,000. Total projected costs of the entire project are under \$1,000,000.

Since many European and Far East shipments have called at competitive Gulf ports such as Houston and New Orleans, the Port of Corpus Christi believes that the development and operation of the container handling facility will give the additional edge it needs to maintain its increasing status as a general cargo port.

The containerization facilities will save local shippers the cost of transporting their containerized cargo to other ports such as Houston or New Orleans for loading. It will also allow shippers from the Rio Grande Valley, and Central and West Texas to reduce their inland transportation costs. Both shippers and receivers will benefit from the personalized service they will receive at the Port of Corpus Christi — service that the larger, more congested ports can't provide. Already shippers and shiplines have expressed interest in utilizing the container facility. (PORT PROGRESS)

#### Historic Water Resources Act signed: Georgia Ports Authority

"It's a great day for Georgia!" Opening remarks by Colonel Stanley G. Genega set a jubilant tone at a press conference held in Savannah just hours after President Reagan signed the Water Resources Development Act of 1986 into law.

In its far-reaching scope, the legislation forges a new and realistic charter for Federal water projects. The omnibus bill breaks the long-standing impasse over user fees and costsharing, establishing requirements for these programs while clarifying the role of the Federal government in future water resources development.

Colonel Genega, District Commander for the Army Corps of Engineers, announced those projects named in the bill which directly impacted the Savannah District.

Chief among those projects is the widening of the Savannah Harbor. Out of an estimated total cost of \$14,700,000, the government of Chatham County, as local sponsor, will provide \$7,600,000. The authorized project calls for widening the navigation channel from 400 to 500 feet between the Fig Island and King's Island turning basins, a distance of 5.6 miles.

George Nichols, Executive Director of the Georgia Ports Authority, lauded the efforts of Federal lawmakers as well as Chatham County and the local citizenry in pushing for passage of the bill and the inclusion of the important widening project. "Widening of the channel will help solve a critical safety issue," said Nichols, "by improving the angle of turn and making it possible for two ships to negotiate the channel simultaneously. And, along with the future replacement of the Talmadge Bridge, it will provide seed money for growth beyond the year 2000."

Funds for acquisition of the land, easements, and rights-ofway are now available through appropriations from the state of Georgia legislature. Construction contracts are scheduled to be awarded during June 1987.

Another important aspect of the legislation provides for incorporating the GPA's channel in the South Brunswick River into the navigation project for Brunswick Harbour. The 30-foot-deep by 300-foot-wide by 8,000-foot-long channel serves Colonel's Island Terminal, the site of GPA's recently completed bulk facility, along with industrial leasing space.

(Georgia AnchorAge)

#### PHA requests \$100 million for improvements

The Port of Houston Authority has requested Harris County, Commissioners Court approval for a bond election to fund \$100 million in capital improvements for the port. Presentation of the request was made by Port Commission Chairman Archie Bennett, Jr., and Managing Director James Pugh.

"The Port of Houston is a world-class international gateway for the city," said Bennett. "We must maintain the important economic position provided by the port by investing in the future of the facility. The \$100 million in improvement projects we propose offer a high payback for Harris County in terms of increased trade, generation of Houston area jobs and improving the Port of Houston's competitive edge."

Port officials estimate that the capital improvement projects will create more than 1,200 construction jobs in Harris County, result in more than 500 permanent jobs annually, increase trade and enhance Houston's position as an international business center.

"It is important that voters consider bonds for the Port of Houston as an investment in the future of Harris County," said Bennett. "Shipping has become very competitive worldwide, and expansion and upgrading of the port's facilities are necessary if Houston is to attract more trade and remain a leader among world ports."

Ninety percent of the bonds will be used for the Barbours Cut Container Terminal, according to Pugh.

"Barbours Cut is now the most efficient public terminal in the U.S. and has experienced a 4.5 percent growth annually," said Pugh. "Our investment in Barbours Cut will keep the Port of Houston competitive in meeting the increased demand for containerized freight."

Harris County Commissioners will review the PHA's recommendations, and, if approved, the request will become part of a Harris County bond election presented to voters in 1987. If the voters approve, port officials said initial work on the projects could begin by mid-1987.

"The Port of Houston is currently the most successful among Gulf ports," said Bennett. "To maintain that position and set the stage for future growth, approval of the bonds for the port is one of the best investments that can be made by county voters — and one that will continue to pay dividends for us all for many years." (PORT OF HOUSTON)

#### Richard P. Leach, Port of Houston Authority President, installed as AAPA Chairman

Port of Houston Authority President Richard Leach has been installed as Chairman of the American Association of Port Authorities (AAPA). Leach was installed to a one-year term during the recent AAPA convention in Miami.

The association has 117 corporate members, which are port authorities, and 209 contributing members, which are port-related companies and agencies.

As chairman, Leach is AAPA's chief policy officer. His new responsibilities include supervising other AAPA officers and the organization's business affairs and presiding over meetings of the AAPA Board of Directors, Executive Committee and members. The AAPA chairman is an ex-officio member of all standing committees and appoints committee members and officers.

#### Record books rewritten on bulk cargo shipments: Port of Los Angeles



The record books on bulk cargo shipments have been rewritten. WORLDPORT LA's Kaiser International Corporation's Bulk Terminal has just completed the largest bulk cargo movement from a dock at any United States port. Here, the Hyundai Island, sitting low in the water, receives the last of 125,314 metric tons of coal and pet coke for shipment to Pohang Steel in Korea. During the weeklong loading, 75,362 tons of coal from Mid-Continent Resources, Inc., of Carbondale, CO, and 49,952 tons of petroleum coke from Applied Industrial Material Corp., of New York, crossed the wharves at Berth 49-50 in Los Angeles Harbor's Outer Harbor facility.

#### Trusthouse Forte, Inc. to develop Long Beach Harbor hotel

Trusthouse Forte, Inc., American holding company of the British hotel and catering conglomerate has entered into an exclusive negotiating agreement with the Port of Long Beach to develop a \$7-million, three-story, 250-room TraveLodge on an 8-acre waterfront site on Queensway Bay.

The agreement was unanimously approved by the Long Beach Board of Harbor Commissioners following an intensive review of three proposals.

Board President C. Robert Langslet noted that Trusthouse Forte was selected because their design of a low-rise, moderately-priced hotel "fits well into the theme sct by the adjacent Queen Mary and Spruce Goose. Trusthouse Forte's track record virtually assures the new hotel's success".

#### Maryland Port Administration extends CSX drayage financial support pact

The Maryland Port Administration has decided to continue its financial support for inland rail service from the Port of Baltimore.

Under the program, operated jointly with CSX Transportation, inland rail rates to key Midwestern markets are \$100 lower than they were before the program began in the Fall of 1985. The price structure is a result of reduced rates from CSX and payments from the MPA to offset the cost of drayage of containers between Baltimore marine terminals and the CSX intermodal yard.

The financial support program has been a key element in maintaining the Port of Baltimore's competitive position in major Midwest markets served by rail according to David A. Wagner, Maryland Port Administrator.

"We are particularly pleased to extend our support for CSX," he said. "It is vital that our port remain the most costeffective gateway to the Midwest."

The financial support program, according to Wagner, reduces shipper inland transportation costs so that Baltimore's rates are lower on the CSX line than those offered through other Mid-Atlantic ports.

#### "International Strategies for New England Shippers" to be focus of Port of Boston Second Annual Maritime Conference

With international trade now comprising 16 percent of New England's economy, "International Strategies for New England Shippers" is a topic that could be expected to attract the interest of the region's banking, shipping, academic, and governmental communities. In recognition of the importance of this issue, the Massachusetts Port Authority (Massport) has made international trade the theme of its Second Annual Maritime Conference, scheduled on January 29, 1987, at the World Trade Center Boston.

According to Massport Executive Director David W. Davis, "The Second Annual Maritime Conference attracts a

wide range of attendees and brings their specialized attention to bear on an area of vital importance to all those doing business in New England. Not only does a conference like this help to solve individual problems," he continued, "but it also establishes a dialogue between the various communities involved and improves everyone's opportunities."

Currently, nearly 23 million tons of bulk and general cargo, worth nearly \$8 billion to the local economy, pass through the Port of Boston annually. The privately owned bulk terminals of the Port handle cargo such as petroleum, natural gas, sugar, scrap metal, gypsum, and salt. High value general cargo, such as machinery, photographic equipment, computer parts, and consumer goods are shipped in modern containers through Massport's three public terminals: Moran Terminal in Charleston and Conley Terminal and Harbor Gateway Terminal, both in South Boston.

## General cargo rises 12%: Port of New Orleans

The Port of New Orleans reported cargo volume through the third quarter ahead of 1985's volume in many areas. General cargo exceeded 5.2 million tons, 12% ahead of the first nine months of 1985. Imports were up 15% to 3.2 million tons while exports grew 7% to 1.9 million tons.

The greatest proportion of this growth was accounted for by increases in breakbulk cargo, which was up 25%. Breakbulk imports were up 24% to 2.1 million tons, while exports were up 30% to 420,000 short tons.

Containerized shipments also increased in the first nine months of 1986. Lift-on Lift-off (LO-LO) container exports are 28% ahead of 1985, with imports up by 16%. Roll-on Roll-off containers declined, however, off 30% from 1985's record year. Total container volume for the period was 173,600 containers. About 22% of these were ro-ro containers. Total container tonnage increased 4% in this period. Container TEU's were 309,224, ahead of 1985's first three quarters by 9%. (Port Record)

## General cargo tonnage at record levels: Port of NY & NJ

Tonnage figures for the Port of New York and New Jersey continued to climb for the first nine months of 1986, Port Authority Chairman Philip D. Kaltenbacher reported, in an analysis of foreign trade covering the first three-quarters of 1986 released last December.

Oceanborne general cargo for that period reached a volume of 10.4 million long tons, an increase of 2.9 percent over the same period of 1985, which was a record-breaking year. The value of this cargo was \$33.6 billion, up 9.4 percent from the \$30.7 billion general cargo value for the first nine months of 1985.

"This is the third consecutive year in which general cargo tonnage is at record levels. Both imports and exports recorded gains," Chairman Kaltenbacher stated. "There is little evidence that there were material diversions from our Port in anticipation of the brief maritime strike which occurred in the first week of October. Nevertheless, most industry observers feel there were some diversions to Canadian ports," he added.

#### The Americas

Chairman Kaltenbacher further noted the New York/New Jersey Port handled a total of 42.2 million long tons of oceanborne foreign trade, general cargo and bulk, up 14.1 percent from the previous record of 37.0 million long tons during the same period in 1985. The value of this total cargo reached \$37.7 billion, an increase of 4.1 percent over the \$36.2 billion value of the previous period in 1985.

General cargo imports climbed 2.4 percent in this period to 8,363,268 long tons, while general cargo exports increased 4.9 percent to 2,115,603 long tons.

Competitively, the Port's total general cargo outperformed the United States ports collectively for the first three-quarters of the year. The 2.9 percent increase recorded by the New York/New-Jersey Port was higher than the 1.2 percent gain registered by all U.S. ports during that period. As a result, this Port's share of total U.S. oceanborne general cargo rose from 10.4 percent to 10.5 percent.

This Port's total general cargo increase was slightly under the performance of the North Atlantic Ports as a group for the first nine months of 1986. The North Atlantic Ports overall gain of 5.4 percent resulted in a decrease in this Port's share of the North Atlantic from 45.5 percent to 44.4 percent for the period.

## Container tonnage continues to soar: Port of Charleston

Volume for the last nine months hit 2,748,226 tons for an increase of 494,912 tons over the comparable Calendar 1985 period figure. Charleston, now running 22% ahead of last year's record pace, leads all other South Atlantic ports as well as Norfolk and other Virginia ports in container tonnage.

The good news on boxed cargo throughput continued into the South Carolina State Ports Authority's 1987 fiscal year as volume for the first quarter ended September 30 totaled 949,720 tons. That is a 23 percent increase over the previous fiscal year's first quarter of 770,440 tons. The Authority fiscal year runs from July 1 to June 30.

Most containership lines calling at Charleston benefited substantially from the first quarter 150,000-ton net increase in container traffic, and at least eight lines reported significant increases over their tonnages posted during the initial quarter of Fiscal 1986.

Moving along with the rapid cargo growth is the Port of Charleston's physical improvement and expansion program, which includes work underway at the 185-acre North Charleston intermodal terminal, presently accounting for about 46 percent of the total container tonnage at the port.

More than \$17 million has already been spent during the past two years to convert North Charleston from a general cargo to a full-container facility.

#### Containers always come sealed, but seals are rarely containerized...: Port of Charleston

So it was a great show indeed when four circus seals were off-loaded at Charleston's Wando Container Terminal.

The seals, shipped from Bremerhaven, Germany, on the



Ingo Stiebner feeds four seals shortly after they were offloaded from the Dart Americana at Charleston's Wando Terminal.

Dart Americana, were destined for Ringling Brothers and Barnum and Bailey Circus' winter headquarters in Venice, Florida. They are Patagonian sea lions and have already been trained for circus performing.

Larry Gewirts, Director, Ocean Operations for Randy International, freight forwarder for the seals and David Titus, Assistant Director of Transportation for Ringling Brothers, were on hand to welcome the seals to the U.S. Both men were pleased with the ease with which the cargo was moved.

Gewirts said, "I didn't appreciate how efficient Charleston is until this movement. I have been part of many animal shipments in other ports, and this was the smoothest move ever." Titus agreed, saying, "It was certainly easy to get in and out. The facilities were great and we had a minimum amount of hassle."

He also said Dart was chosen partly because of its willingness to take the cargo. Many lines don't want the inconvenience of dealing with animals. The seals were shipped in a 1,600-gallon tank and 660 pounds of fish were carried to feed the seals.

This was the first time that imported animals were handled at the Wando Terminal in Charleston.

## Port of Tacoma '87 budget plans for continued container growth

At their December 1, 1986 meeting, Port of Tacoma commissioners officially approved the Port's 1987 budget, which contains a number of projects designed to further strengthen the Port's competitive position as a world class container port. An expansion of one of its on-dock intermodal rail yards, along with the expansion of existing container terminals, and the development of a totally new container terminal, are all part of the Port's 1987 capital improvement program, which earmarks \$19.2 million for marine projects. The Port expects its total operating revenues for 1986 to be \$38.1 million, a 12% increase over 1985. Projected revenues for 1987 are estimated at \$41.1 million, an 8% increase.

While Tacoma remains a highly diversified port, one of its major growth areas over the last three years has been in its container traffic. In 1985, the Port handled 505,000 TEU's (Twenty-Foot Equivalent Units) which was an increase of 236% over its 1984 container volumes. The Port estimates it will handle about 670,000 TEU's during 1986, which marks an increase of 32%. This increase is primarily due to increases in transpacific container trade through Tacoma, despite the loss of one transpacific container shipper, and a severe slump in the Alaska trade.

According to Port of Tacoma Commission President John McCarthy, "The Port's 1987 budget reflects our confidence in our continued growth as a major West Coast container port. Over the past three years, we've had the most dramatic container growth of any port in the United States. We want to continue to build to keep that growth and momentum going."

## Joe Faker named President of Port of Tacoma Commission



Mr. Joe Faker

Joe Faker, a former longshoreman, has been elected president of the Port of Tacoma Commission for 1987.

Faker, who replaces outgoing president John McCarthy, has been a Port of Tacoma commissioner since 1983. Previous experience also includes being owner and manager of Bonded Construction Company.

He said he became a commissioner "to give back to my community the benefit of my 20 years as a longshoreman." The Port's greatest challenge now is "not to become complacent about its achievements and to continue to be a leader in the industry," he added.

Increased container shipping business is a key part of his hopes for the Port in 1987, Faker said.

Other Commission officers for 1987 are: Bob Earley, vice president; Jack Fabulich, secretary; Pat O'Malley, asst. secretary.

## New information project for the Port of Antwerp

The Municipal Council of Antwerp has approved the specifications and purchase of the software for the new APICS data system (Antwerp Port Information and Control System) for the control of maritime traffic. Within 5 years APICS guarantees a brand-new computer-controlled EDP system which will include almost all branches of municipal port management and establish an apparently inexhaustible number of links with all kinds of bodies involved in port activities.

The system must be operational by mid 1988 and intends to offer considerable simplification, flexibility and speeding up of traffic near locks and docks. The "nerve-centre" of APICS will be installed near the Zandvliet Lock. In the meantime possible connections are being investigated with EDP channels of other bodies, e.g. Customs, Belgian Railway Company, Navigation Office, Shipping Signaling Service and SEAGHA (System for Electronically Adapted Data Exchange in the Port of Antwerp).

## Modernization of Florida Point in Outer Harbour: Port of Le Havre

The plans for modernizing the "Pointe de Floride" in the outer harbour were approved by the Port Authority's Board of Directors, when it was also decided that two very powerful cranes should be acquired to provide this part of the port with the latest rapid handling equipment.

The Board had already approved plans for improving the reception facilities for general cargo, with special emphasis on the need to make the port fully competitive and rethink the outer harbour so as to make the most of the many advantages it offers.

The Florida Point section of the port is exceptionally wellplaced at the harbour entrance and needs to be used to greater advantage for handling conventional vessels, combis and single cargoes on the most competitive terms to be found. This can be done by upgrading the equipment, with the purchase of two highly powerful cranes as the first stage, and by extending and improving the back-up areas and replanning the access routes. *(FLASHES)* 

## World's longest radar chain extended and modernized: Port of Hamburg



#### Africa-Europe

The Lower Elbe radar chain - the world's longest estuary radar chain stretching from the North Sea to the Port of Hamburg --- is being extended and modernized. Recently, a new radar station was added at Reiherstieg, the eleventh in the Port area and the 23rd in all. At the same time, two daylight display radar systems were installed in the Radar Headquarters next to the Seemannshöft Pilot Station. "These two daylight displays are taking us into a new era of display technology with considerably improved working conditions. Once the medium-term necessity of re-equipping the Radar Headquarters has been completed, we will be able to provide assistance in thick weather in a lit-up room." This was how the new development was seen by the Port of Hamburg's Technical Port Administration which is responsible for the technical side of Port life and thus for planning, construction and maintenance of the radar chain.

The radar chain, some 160 km long, helps to ensure a safe passage for ships travelling the Elbe right up to the Port of Hamburg. It is particularly important on around seven days in a hundred when there is fog, with resultant reduced visibility and potential delays to shipping.

# Cargo transhipments up nearly 14% in first 9 months: Port of Amsterdam

Cargo tonnage in the Port of Amsterdam reached 22.6 mln. metric tons in the first nine months of this year. This is an

increase of 13.8% compared to the year earlier period, according to figures published by the Amsterdam Port Management.

Almost half of the transhipments comprised liquid bulk cargoes. This cargo category has increased by 40% to 11.3 mln. tons in the last three quarters, the highest sector growth in the port.

Dry bulk cargo declined by 5.5% to 8.6 mln. tons.

General cargo edged up 1% to 1.9 mln. tons.

A total of 3239 ocean-going ships with a total of 23 mln. grt were handled in the port from January through September 1986. Compared to the same period last year, the average ship size increased by 12.9%, while the total number of ships dropped off by 5%.

#### Port of Rotterdam introduces new signposting system

On Thursday 13 November 1986 Mrs. N. Smit-Kroes, Minister of Transport and Public Works, officially brought into use the new signposting system in the Port of Rotterdam area and also signaled the start of the work on the Welplaatweg-Boltekweg relief road. The City of Rotterdam authorities were represented by Mr. R. den Dunnen, the alderman for Port and Economic Affairs. The port signposting system enables drivers to find their destination anywhere in the port area without problems by means of a single number. The Welplaatweg-Boltekweg relief road will eliminate a major bottleneck in the road links between Rotterdam and



the western port area.

#### The signposting system

The port signposting system consists of three parts: the waterfront numbering, the numbering of the companies and industrial estate and the signposting of the supply routes. The system is based on the numbering of the waterfront: the quays, embankment slopes and jetties. Every one hundred metres along the waterfront has been given a number: on the right bank on the Meuse the numbers are between 100 and 1000 and on the left bank between 1000 and 9000. On the right of the Meuse there are numbers from the boundary of the Capelle aan de IJssel municipality to the Hook of Holland.

On the left bank of the Meuse, the numbers begin in IJsselmonde and end on the Maasvlakte. Every port basin has its own series of numbers. The buoys are numbered from 0 to 100.

Every firm in the port area has been allocated one or more numbers. These numbers correspond to the numbering of the waterfront.

As well as the firms lying on the waterfront, the streets in the industrial estates near the port area have also been given a number. About 550 companies are participating and are putting up signboards on the road side of their sites: on entrances, fences or warehouses. These signboards are white with a blue border and state the port number in black figures.

The company signboards are the last link in the actual signposting system: the numbering on the roads leading to the port. The signposting system begins on the motorways near the Port of Rotterdam. You will see signs with the words "Havens" (= docks) followed by a series of numbers. The letters and figures are black on a white background. The port signposting system has been incorporated as far as possible into the existing signposting system. By following the instructions on the signs, drivers can find their way, without any knowledge of the area, by the quickest road to the port or industrial area they want, where the company signs will direct them further. The port number boards within the boundaries of the Rotterdam municipality are paid for by the municipality itself; those on the motorways are paid for by the Department of Water Control and Public Works.

Drivers can obtain information about the port numbering system at 8 information points at petrol stations and laybys along the motorways leading to Rotterdam. A map of the port area with an alphabetic list of the participating companies with their port number can be found there. The same information can be found in a brochure, published in Dutch, German, English, French and Spanish, which is currently being distributed on a large scale among lorry drivers via port companies and transport organizations and at the borders.

The port sites are also numbered on the water side. The Rotterdam Port Authority has had yellow signs with black numbers put up on quays, embankment slopes and jetties. These enable barges, tugs, pilot vessels and harbour and other services to find the right berth.

## Port of Rotterdam sponsors Martijn van den Hoek



For some time now the City of Rotterdam Port Authority has included various forms of art in its public relations and promotional activities.

The many "Kunst en Vaarwerk" (Art and Water Transport) projects, the work of Hans Werleman and the new harbour scarf designed by Simone Dettmeyer are examples of this. But working with a professional musician is a new venture for the Port Authority.

At the beginning of 1986 the Rotterdam pianist Martijn van den Hoek won the international Liszt competition — an exceptional achievement for a Dutch musician, giving him an international breakthrough, and reason for the world port of Rotterdam to offer him a sponsorship contract.

In 1987 Martijn van den Hoek will give a number of recitals which are being sponsored by the City of Rotterdam Port Authority. The recitals will coincide with other promotional activities, for example scholarships abroad, visits by delegations, and official inaugurations.

Besides this, the Port Authority is inviting national and international customers to come to concerts given by Martijn as part of his normal concert programme. Although Martijn will also be appearing in the Netherlands, the Port Authority expects that its work with this pianist will have its main successes abroad. The aim is to combine the "port" appearances with additional recitals organized through concert production companies.

In this way a young artist will be enabled to gain still more platform experience in a short time.

So as of today, besides having a number of business representatives in countries such as Japan and the United States, the Port of Rotterdam has a cultural attache as well.

## Europoort expands automated navigation safety system



(A Marine Exchange of the San Francisco Bay Region photograph)

Station location at the entrance to the world's busiest harbor complex is indicated by Captain Leo van Zelm, traffic manager of the Regional Operations Center at the Hook of Holland, to Robert H. Langner (right), executive director of the Marine Exchange of the San Francisco Bay Region, on a recent inspection survey of Northern European port safety programs. Initiated in 1956, the Dutch operation is a joint undertaking of the Ministry of Transport and Public Works and the Rotterdam Port Authority. Undergoing regular improvements to keep current radio communications and radar surveillance state-of-the-art - and more recently with the addition of closed circuit television monitoring - the system services the annual arrival of approximately 32,000 vessels, plus heavy barge and inland traffic. The movements require the services of more than 260 pilots, although approximately 30% of traffic moves without pilots. Thirty-six pilots currently public employees but scheduled for "privatization" - are required at any one time through rotation for six weeks' duty as system dispatchers and radar watch officers. Under development for several years is major modernization of the system involving complete EDP application, improved radar coverage and highly sophisticated software. Recently "debugged" and thoroughly tested, the new program has been operating in Rotterdam on a test basis and goes fully operational in January, 1987 throughout the Europoort navigation system. U.S. interest in this and related developments in Europe was voiced by Langner, since the San Francisco Marine Exchange developed the prototype of a vessel movement and location system serving the Golden Gate, which evolved into the first Federal Vessel Traffic System, now operating on San Francisco Bay and approaches by the U.S. Coast Guard.

(Marine Exchange of the San Francisco Bay Region)

#### PLA completes divisionalisation of senior management

The Board of the Port of London Authority has appointed Mr. John McNab as Chief Executive, Tilbury. He will be responsible for all aspects of the management of Tilbury Docks. Mr. Jeffery Jenkinson is appointed Chief Executive, Property. He relinquishes certain administrative duties to concentrate full-time on all PLA property matters.

These appointments, with the appointment of Mr. David Jeffery as Chief Executive, River on 1st June 1986, complete the senior management changes at the centre of the PLA's divisionalisation policy under which the PLA's three main areas of activity — River, Tilbury Docks and Property — are managed as separately accountable divisions.

## New company to run Southampton container terminal: ABP

Southampton Container Terminals Ltd. (SCT), the new company set up by ABP to run the container terminal at the Port of Southampton, started operating this week (commencing Saturday, 3rd January 1987).

SCT, a wholly owned subsidiary of Associated British Ports (ABP), employ a permanent workforce for the operation of Berths 204, 205 and 206. About 570 staff including Checkers, Cranedrivers, Dockers, Foremen, Maintenance Technicians and Supervisors have transferred from ABP to the new company to ensure greater flexibility in providing 'multi-skills' in fixed shift-working teams.

The Company's General Manager is Mr. Peter Doble, formerly Assistant Port Director (Resources) at Southampton. Solent Container Services, formed in 1971, will continue to provide operational management services and systems control.

The container terminal at Berths 204, 205 and 206 covers 38 hectares and has nearly 1,000 metres of deep water quay. It is one of the UK's major container terminals and is capable of handling the largest container ships in the world.

## ABP invests £1 million in Goole Container Terminal

Associated British Ports is investing £1 million in new container handling equipment for its successful Boothferry Container Terminal at Goole.

The new equipment includes a Coles Colussus 4200 Mobile Port Tower, capable of handling 40 ft boxes at 30 m radius, a Ruston-Bucyrus 61 RBSC 70-tonne capacity crawler crane and a Lansing Henley Forklift Truck together with a Bromma Telescopic Spreader Frame capable of stacking 40 ft and 20 ft boxes three high.

The equipment, due to be installed early in 1987, completes the third phase of the terminal's development.

Colin Silvester, ABP's Port Manager at Goole, commented: "This investment is further evidence of the Port of Goole's commitment to provide a service which keeps pace with customers' requirements."

## N.S.W. ports' charges to be frozen for another 6 months

The Minister for Public Works and Ports, Mr. Laurie Brereton, said December last that with this latest freeze, port charges in N.S.W. will have increased by only 7% in  $3\frac{1}{2}$  years

to the end of the 1986/87 financial year, despite increases of over 20% in the C.P.I.

"This restraint has been achieved by a total restructuring of the M.S.B. and a package of measures to improve the efficiency of the ports," Mr. Brereton said.

"This means a saving to the industry over the  $3\frac{1}{2}$  year period of over \$40M if M.S.B. charges had risen with the C.P.I."

Mr. Brereton said that in addition to the holding down of port charges, there has also been a substantial improvement in the services offered.

"More than \$500M has been spent in the last ten years on improving the infrastructure of the ports," Mr. Brereton said.

"Improved security and faster handling of goods, and the reduction of industrial disputes and inefficient work practices have combined to make N.S.W. ports far more efficient and cost competitive.

"As a result, we had record trade figures through N.S.W. ports last financial year."

Mr. Brereton said the Government was preparing development strategy plans for all the major ports to improve trade prospects and meet future needs.

"Work already underway in the Port of Sydney will boost the productivity of common-user berths by 30% over the next decade," Mr. Brereton said.

"In addition, trade through the Port of Newcastle is expected to nearly double to more than 60 million tonnes in the same period," he said.

Mr. Brereton said the Government would be pursuing every avenue to further improve efficiency on the waterfront.

# 5-Year Plan earmarks 797 bil. won for Korean ports: *Korean Maritime News*

During the 6th 5-year economic and social development plan period, the Korea Maritime and Port Administration plans to make an investment of 797 billion won in the field of port construction and operations, aiming at strengthening their competitiveness, upgrading their productivity and improving coastal shipping services.

According to the materials submitted by the KMPA to the National Assembly, the 5-year plan, which spans 1987 - 1991, envisions a boost of the annual cargo handling capacity of the ports by 63 per cent from 118 million tons to 193 million tons, growth in the ocean-going fleet by 41 per cent from 7.08 million gts to 10 million gts, which is expected to raise the combined freight earning of the fleet by 87 percent from \$1,990 million in 1985 to \$3,723 million in 1991.

The KMPA revealed in the materials that the investment in ports breaks down to 255.2 billion won for Pusan port, 67.3 billion won for Inchon port, 25.1 billion won for Kwangyang port and 19 billion won for Kunsan port.

In addition, the KMPA said that computerization will be introduced to port operations starting 1989 with the target year for completion of 1992 and the port traffic control function will be strengthened at Pusan, Inchon, Ulsan, Pohang, Masan and Yosu.

The mechanization rate of port stevedoring work will be hiked from 48 percent in 1984 to 60 percent in the final year of the plan.

## Green light for Ferry Building project: Port of Auckland

Challenge Property Development have announced an immediate start to project work on the redevelopment and restoration of the Ferry Building on Auckland's downtown waterfront.

The \$10 million project will be undertaken in two stages the first being the redevelopment of the ground floor retail area and ferry and launch ticketing office, and the first floor restaurant and balcony. This is expected to be completed in December 1987.

The second part of the project will include the restoration of two floors of office space and the raising of the roof to provide an additional rentable office floor. This is expected to be completed in February, 1988.

Challenge Properties Limited, a subsidiary of the Fletcher Challenge Group, won the ground lease by competitive tender. It has bought the ground lease of the Ferry Building from the Auckland Harbour Board.

Mr. Stewart Rix, general manager of Challenge Property Development, said the company recognised the valuable contribution that the Ferry Building made to Auckland's Downtown and waterfront environment.

"The development will allow this historic building to become a living structure," said Mr. Rix. "Public involvement and access within the building will be greatly enhanced, particularly with the restaurant balcony, cantilevered promenade and restored lift and lobby stairwell.

"We see the Ferry Buildings as complementing the present downtown facilities and an integral part of any future development in that area of the city."

The Ferry Building over the years had suffered major deterioration of the Sydney sandstone from salts being trapped within the stone surface.

Due to the extent of the deterioration and the extensive plaster restoration work undertaken some 22 years ago, it was not practical to restore the stone to its natural state. Therefore, lime mortar as a stone replacement would be used with breather type paint over the stone facing, of a similar colour to the original sandstone.

Major structural upgrading was required so that the entire building complied with appropriate earthquake code requirements, plus the strengthening of the sea wall.

To conform to the revised handicapped persons code, ramps are to be constructed to the second and third floors. New stairs to the east and west ends of the buildings will also be installed.

Mr. Rix said a number of features within the building would be restored to their original character.

(Port of Auckland)

## PSA to spend \$1.5 billion on container facilities

The Port of Singapore Authority will spend approximately \$1.5 billion over the next five years on a number of development projects to cope with future increases in container throughput. For the first seven months in 1986, the number of

#### Asia-Oceania

containers handled at the Tanjong Pagar Terminal grew to 1.2 million TEUs, an impressive increase of 33% compared with the same period of 1985.

The major construction projects are the conversion of Berths K11 and K12 into one container berth; the development of a container freight station complex at Nelson Road; the construction of a link between Pulau Brani and Keppel Wharves, and a new container terminal and multi-purpose berths at Pulau Brani.

This was announced by Dr. Yeo Ning Hong, Minister for Communications and Information, and Second Minister for Defence, at the commissioning ceremony for the \$2.8 million Keppel Harbour Ship Height Detection System.

(PSA NEWS)

#### Go-ahead for Laem Chabang deepsea port project: Port Authority of Thailand

The Eastern Seaboard Development Committee, chaired by Prime Minister Gen. Prem Tinsulanonda, recently made a resolution to streamline the Laem Chabang port project, including an industrial estate and a new community in the area.

The Laem Chabang port, located in Cholburi province about 120 kms from Bangkok, will comprise a breakwater 1,300 m long, 2 container berths 600 m long, 1 conventional

berth 250 m long, a 300 m-long-wharf for lighters and service boats, roads, railways, transit sheds and office buildings.

The detailed design, undertaken by PAAS Consortium, was over last year and the pre-qualification for contractor is now underway. The first stage of the project will cost around 5,000 million baht, about ¥24,000 million from the OECF and the remainder of about 1.400 million baht from the Port Authority of Thailand's revenue.

The construction work is expected to commence this October in line with other projects in the region. The Laem Chabang port is scheduled to start its partly operation in late 1990.

#### Port of Jebel Ali to build 10 factory units

The Port Authority of Jebel Ali on 5 January 1987 announced the awarding of a contract to build 10 factory units. The contract, awarded to A1 Nakhrah Construction Co., will provide the Jebel Ali free zone with 10 pre-built factory units. The 5000 sq. metre area located in the light industrial area on the east side of the port will be divided into 10 units of 500 metres each. The factories will be conveniently located close to the tenants' labour camp. Services to be provided separately to serve the project are industrial capacity, electrical power, fire mains, water and drainage. The completion date for this development is July 1987.

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