

# PORTS *and* HARBORS

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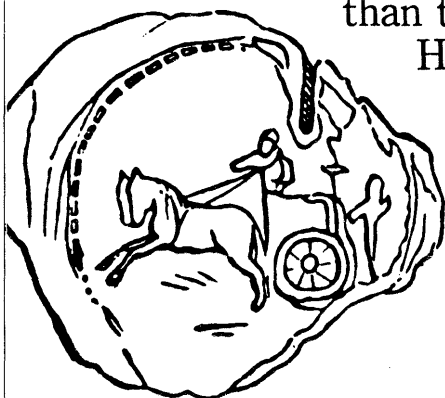
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# IAPH announcements and news

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## Inter-Industry Working Group on Inert Gas Systems for Chemical Tankers is established

To investigate the practical and safety implications of the use of inert gas on chemical carriers carrying flammables and to develop if necessary standards for controlling the flammability hazards, an inter-industry working group on inert gas for chemical tankers has been established, being participated in by the representatives of ICS, OCIMF, CEFIC, ITSA, CIA, Norwegian Shipowners Association, and IAPH, according to Mr. A.J. Smith, IAPH Liaison Officer with IMCO. The results of replies to the IAPH questionnaire on the use of inert gas on chemical tankers will be reported to the August meeting of the working group.

The group was recently joined by Capt. Yoshinaga, the London Representative of the Japanese Shipowners' Association.

## Mr. L. Bergfelt to attend UNIDROIT Meeting

Dr. Riccard Monaco, UNIDROIT Secretary-General, in his letter of July 3, invited the IAPH to attend the 3rd session of UNIDROIT Study Group on Warehousing Contract which will be held from 19 to 21 October this year at UNIDROIT headquarters in Rome. The Meeting is scheduled to consider the preliminary draft Convention of the Liability of International Terminal Operators (ITO), prepared by the Study Group.

Mr. Lennart Bergfelt, Legal Adviser of Gothenburg Port and Member of IAPH Committee on Legal Protection of Port Interests, was appointed IAPH Representative at the meeting.

## ESCAP Meeting of Chief Executives of Shippers' Organizations, Shipowners' Associations, Port and Customs Authorities

Mr. Danko Koludrovic, Chief, Division for Shipping, Ports and Inland Waterways, ESCAP, in his letter of June 1, asked the IAPH Secretary-General for IAPH intervention in disseminating the information so that national representatives of ports and port authorities in the Region could attend the meeting. In response to the ESCAP request, the IAPH Secretary-General circulated a letter, dated June 19, among IAPH Directors in the region and asked their consideration of attending the meetings as follows:—

1. Meeting of Chief Executives of Port Authorities (2nd Session) to be held on December 1 and 2, and
2. Joint Meeting of Chief Executives of National Shippers' Organizations, Shipowners' Associations, Port Authorities and Customs Authorities (1st Session) to be held on December 3 and 4.

The 1980 meeting was observed by Mr. A.S. Mayne as reported in the November 1980 issue of the journal. At the end of August, however, only one notice of attendance from the Port of Singapore was received.

## Revised version of "Outline of IAPH" published

The brochure "Outline of IAPH" which the Association publishes for the purpose of membership campaigns and for a better introduction of IAPH to a wider range of people, was up-dated in accordance with the changes made at the recent conference at Nagoya including the restructuring of technical committees and others, and the revised version was published by the Head Office. While all members will receive a copy of the brochure, from the Tokyo Head Office in due course, additional copies are available on request.

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### New Members

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### Change of Name

Ministry of Transport, Canadian Marine Transportation Administration Transport Canada (Tower "A", Place de Ville, Ottawa, Ontario, Canada KIA ON7) has been changed to:

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## Open forum: Port releases:

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# Stevedore Labour in Singapore

**By Mr. Wong Seng Chee  
Manager (Research and Planning),  
Port of Singapore Authority**

### Introduction

Despite the rapid rate of containerisation, conventional shipping still remains the mainstay of activities in the Singapore Port. In 1979, conventional cargo accounted for 61% of the general cargo handled by Port of Singapore Authority's (PSA) five gateways and Jurong Port. The percentage would have been much higher if the cargo loaded and discharged at the Anchorage had been included. A large proportion of the general cargo handled at Singapore is not easily containerisable and many of our trading partners are not yet ready to handle containers. As a result, conventional shipping will remain important in the foreseeable future.

Conventional cargo handling is characterised by limited mechanisation and high labour usage. Although equipment like cranes and forklift trucks have been extensively used, the whole cargo handling process still relies very much on human efforts, particularly in the transfer of cargo from one mechanical device to another.

However, manpower is becoming a scarce resource in Singapore. With the country having attained full employment in recent years, there is an increasingly tight supply of labour while wages continue to escalate. The port industry, being a labour intensive one, will be among those hardest hit. For the Port to remain competitive in the face of these developments, it has to resort to mechanisation, promote higher productivity and maximise labour utilisation.

### PSA's Stevedore System

The Port of Singapore Authority is by far the biggest employer of stevedores with 1,560 daily-rated stevedores in 1979. PSA-employed stevedores work mainly in the Keppel Wharves. Another 5,000 stevedores employed by 50 private stevedore contractors work in the other gateways.

PSA used to have a much bigger stevedore force in the past. The number of stevedores employed by the Port Authority in 1969 was 5,000. In that year PSA stevedores handled 5.9 million tonnes or 72% of conventional general cargo that passed through the port. By 1979, they only handled 34% of the conventional general cargo.

### Development of PSA's Stevedore System

PSA's stevedore system has witnessed several major changes over the years. With repeated streamlining and reorganisation to cut down surplus manpower, the gang size had been trimmed from 37 men in the 1940s to 27 men in the 1950s. In the 1960s, it was further reduced to 23 men, 13 working on board and 10 on wharf. They were not inter-changeable.

1970 saw a radical change in the port stevedore system

with the introduction of Integrated Gang (IG) system. The old system of 'stevedore' working only on board vessel and 'wharf workers' working only on land was abolished. Under the new system, every worker would be required to work at either place depending on requirement at the time of deployment. At the same time, the gang size was reduced to 15 men.

Further improvements to the IG system were made in 1973 when the concept of multi-skilled IG worker was introduced. All workers in the IG were trained in forklift driving and winch operations. With a more versatile and better trained work force, PSA was able to reduce the gang size to 12 men in 1973 and 10 men in 1980.

The integrated gang system and the multi-skill worker concept introduced in 1970 and 1973 respectively have far-reaching effects to the port. They enabled PSA to make more efficient and effective use of the labour force. From 1969 to 1979 whilst cargo tonnage handled by the Keppel Wharves remained at about 6 million tonnes, the port stevedore labour force had decreased to only one third of the 1969 level. The saving in manpower was tremendous. As a result, the port did not have to compete with the other economic sectors for labour during this period of rapid growth in the national economy.

### Private Stevedore Labour

Private stevedores handled about 66% of the conventional general cargo in 1979. Structure of the private stevedore gang is patterned closely upon the PSA Integrated Gang. However, the gang members are not multi-skilled. Only 2-3 members of each gang are capable of forklift driving and winch operations.

Most of the stevedore contractors do not have a permanent work force. They operate through intermediaries who are normally the chief gang foremen. Each foreman has his regular followers. He maintains contact with the stevedore contractors and muster his workmen when there is work.

A survey done by PSA shows that most of the gang foremen and stevedores work for the same few contractors most of the time. Occasionally, they may work for other contractors when their 'own' contractors have no work. This unwritten agreement is observed by most despite the fact that they are not on the contractors' permanent payroll.

### State of the Stevedore Industry

The greatest problem facing the stevedore industry is manpower shortage. The stevedore labour force is old in age. More than 52% are above 40 and about 30% are above 50. Attrition rate due to retirement and ill health is high. In the past, the industry had been able to attract workers mainly because of its relatively higher wage level than the national average for low-skilled workers. With Singapore having attained full employment and the Government's new

(Continued on next page bottom)

# The Development of Ports in Japan

by Dr. Hajime Sato  
Secretary-General, IAPH  
President, Japan Port and Harbor  
Association

(Contributed to a special session on the "State Role in Port Innovations" of the National Governors' Association (NGA) Center for International Transportation Exchange (CITE), held on August 9, 1981, Atlantic City, New Jersey, U.S.A.)

## I. The Port Environment

### 1. Geographical background

Japan is composed of four major islands and some 2,900 small islands which stretch in a narrow crescent shape, some 3,000 km. north to south. The land is mountainous and hilly and dotted with small plains, and is surrounded by a much indented coastline.

The land area is about 380,000 km<sup>2</sup>, but generally usable space is only 130,000 km<sup>2</sup> or about 30% of the total with most of such space located in the coastal areas.

The land being mostly exploited for agricultural and

forestry purposes, only 13,200 km<sup>2</sup> or 3.5% of the total space is suitable for general uses such as housing, office, shops and industrial uses.

In this limited area, some 116 million people live and work and thus the land must be fully exploited.

### 2. Dependency on basic resources

Japan is blessed with very few natural resources. In order to sustain and develop her economic activities, Japan has to import most of its fundamental commodities from overseas countries. The following figures show the dependency for 1978:—

Barley	84.4%	Wool	100.0%
Wheat	93.8	Cotton	100.0
Soybean	82.0	Timber	56.0 (1976)
Coal	73.3	Rock salt	85.0
Crude oil	99.8	Copper ore	97.5
Iron ore	99.5	Phosphate rock	100.0

### 3. Human settlements

There are 190 cities which have more than 100,000 population, out of which 95 cities are located in coastal areas, with a further 30 located within 15 km. from the coastline. The remaining 65 cities are thus located inland.

When we examine the cities with more than 500,000 population, 15 out of 17 such cities are located in coastal areas. One of the remaining two is located within 15 km. from the coastline. There is only one inland city which has the population of over half-a-million.

(Continued from page 8)

economy policy to promote technology and capital-intensive industries, the national wage level has gone up by about 50% in the past three years. The attraction of the marginally higher wage of stevedorage has disappeared.

Until recently, school dropouts form an important source of supply of stevedores. However, the new Education system allows slow learners to follow an easier curriculum and prepare them for vocational training leading to Trade Certificates. There will be less premature school leavers entering the unskilled labour market.

Furthermore stevedore contractors who have been recruiting workers from the neighbouring countries are finding it increasingly difficult to do so as these countries embark on rapid development and industrialisation programmes.

To tackle this problem of acute labour shortage in the port industry, PSA has introduced several measures to reduce reliance on manual labour in cargo handling, increase productivity and make more effective use of the existing labour force. Millions of dollars have been invested in container handling facilities to encourage speedier containerisation of the general cargo. The seventh container berth will be completed in 1982 and two more will be ready by 1984. For cargo not yet ready to containerise, PSA offers concessionary tariff rates if they are palletised. Systems and procedures are constantly reviewed to promote higher productivity. The integrated gang has recently been reorganised and reduced from 12 men to 10 men per gang. The gang size may be further reduced as more cargo are palletised and more and better machines are acquired.

The Appropriated Berth Scheme first introduced in 1978 is another measure to achieve better utilisation of the stevedore labour force. This scheme encourage shipping lines to divert their ships working in the Anchorage to PSA wharves to take advantage of the better port facilities and to avoid double handling of cargo.

## II. Port in Japan today

Reflecting the natural conditions as stated, Japan's modern industries have been mostly located in the coastal areas which are already highly populated. Therefore, the domestic sea transport networks have been fairly well organized and there are autogenerative factors which work for the higher utilization of ports. In this context, it may be said that Japan is a highly port-oriented country (Portopolis).

### 1. The number of ports in Japan

As of today, under the Law for Ports and Harbours, there are as many as 1,085 designated ports and harbours, which are classified as follows:—

Designation	Number	Notes
Special Major Ports	17	Tokyo, Yokohama, Nagoya, Osaka, Kobe, etc.
Major Ports	110	
Local Ports	958	
Total	1,085	

### 2. Tonnage handled

The increase in cargo traffic corresponds fairly closely to the growth of GNP (Gross National Products). The situation is as follows:— (In Million ton)

Items	1965	1970	1975	1979
Overseas traffic	241.7	552.9	708.3	815.2
Exports	29.9	59.9	95.7	133.2
Imports	211.8	493.0	607.0	681.9
Domestic	515.7	883.4	1,095.7	1,225.4
Ferry (on chassis)	50.8	416.2	758.2	845.0
Total	808.2	1,852.5	2,527.3	2,885.5

### 3. A few observations on the Japan's international trade pattern

As clearly seen in the above, as far as tonnage is concerned, imports far exceed exports. However, in fact, Japan imports raw material and exports manufactured goods and in terms of commodity value, Japan's exports are composed of the following commodities, namely manufactured products which make up 83.2% of the total, light industrial products (13.3%) and miscellaneous good (3%).

The degree of dependency upon foreign trade in Japan's GDP (Gross Domestic Products) and GDE (Gross Domestic Expenditures) is 11.3% and 12.1% respectively, according to a 1979 data. The world situation is as follows:—

Dependency upon foreign trade (%)

Country	Exports	Imports
Belgium	48.5	52.1
Sweden	21.6	22.8
Korea	24.5	33.1
Canada	24.3	22.9
U.K.*	21.8	23.9
Italy	21.6	23.3
Netherlands	21.6	22.8
W. Germany	21.2	19.5
France	16.2	17.7
Australia*	12.1	11.9
Japan	11.3	12.1
U.S.A.	7.6	9.3
U.S.S.R.*	8.2	7.9

\*: 1978 figures

Compiled from UN monthly (Nihon Kokusei-Zue 1981)

### U.S.-Japan trade in Japan's overall trade

U.S. is the biggest trading partner for Japan, both in exports and imports. It should be noted, however, with regret that Japan's exports have far exceeded Japan's imports from the U.S. recently, as shown hereunder. (Unit: 1,000\$)

Year	Exports to USA	% in total	Imports from USA	% in total
1960	1,101,649	27.2	1,553,534	34.6
1965	2,479,232	29.3	2,366,146	29.0
1970	5,939,819	30.7	5,559,479	29.4
1975	11,148,605	20.0	11,608,066	20.1
1978	24,914,690	25.5	14,790,362	18.6
1979	26,402,628	25.6	20,430,777	18.5
1980	31,367,269	24.2	24,407,981	17.4

Source: Customs Bureau, MOF (Nihon Kokusei-Zue 1981)

### 4. The 'Three Bays' where Japan's major ports are concentrated

The 'Three Bays', namely the Bays of Tokyo, Ise and Osaka, have highly concentrated population and economies. The total tonnage handled through ports located within these three bays is as much as one-third of the total national tonnage of cargo handled (domestic and international). As far as international traffic is concerned, as much as 66% of the total exports and 45% of the total imports are handled through ports in these areas.

#### General information on the 'Three Bays'

Items	Tokyo Bay	Ise Bay	Osaka Bay
Length of coastline (km.)	154	290	160
Area (km <sup>2</sup> )	1,160	2,200	1,700
Tonnage handled (Million ton)			
(1979)	486	192	329
Overseas	216	88	92
Domestic	270	84	237
Number of ships entered* (Thousand)	380	160	306
Hinterland population (Million)			
(1979)	38	11	20
Area of hinterland (1,000 km <sup>2</sup> )	50	25	27

Ports (Special Major Ports only)	Yokohama Kawasaki Tokyo Chiba	Nagoya Yokka- ichi	Kobe, Osaka, Sakai- Semboku
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\*: Oceanliners over 3,000 dwt

Among the many reasons and conditions which generated the rapid growth of these three bay areas, the following points should be raised:—

- 1) That there have been established in these areas for a long time sizeable concentrations of population, commerce and culture,
- 2) That two major trading ports, namely the Ports of Yokohama and Kobe, have been developed since the end of the 19th century,
- 3) That the bay areas are well sheltered and the water-depth is shallow enough to enable land reclamation works to create new lands,
- 4) That their sites were well suited for the industrialization, as a matter of fact, Japan's industrialization first took shape in Bay of Tokyo, especially since the 1950s, to accommodate on such newly created lands various industries, as steel, shipbuilding, oil-refineries, petrochemicals and others.

### 5. The 'industrial' aspects of ports

Looking back at the course of port development since the first part of the 20th century, it becomes clear that the industrialization process has enhanced the development of ports to a great extent.

Most not all of those 17 Special Major Ports or 110 Major Ports, as designated in the Law for Ports and Harbours, are industrial in one way or another and this has occurred inviting varied types of industries into the port's area and thus encouraging the activities of the port. This trend is particularly obvious in the 'Three Bay' areas.

The table below shows how much reclamation work has been done during the last twenty years to accommodate the varied industrial requirements to be located within the port areas. (Unit: ha.)

Items	1961-1965	1966-1970	1971-1975	1976-1978
Industrial purposes	11,670	13,287	12,512	3,338
Urban redevelopment	1,532	2,583	4,289	2,062

### 6. Container terminals

The fact that Japan has succeeded in keeping pace with world containerization is attributable to a government decision in 1967 which enabled the construction in a limited time of container terminals by creating two specially empowered public corporations in Tokyo Bay and Osaka Bay for the purpose of constructing container terminals for exclusive use.

Container terminals thus created are as follows:—

#### Tokyo Bay (by Tokyo Bay Port Development Authority)

Port of Tokyo 6 berths (—12m./35,000 dwt ships)

Port of Yokohama 5 berths

#### Osaka Bay (by Osaka Bay Port Development Authority)

Port of Kobe 9 berths (—12 m./35,000 dwt ships)

Port of Osaka 5 berths

In addition to the above, there are container terminal facilities as follows:—

Port	Nos.	Depth (m.)	Port	Nos.	Depth (m.)
Tokyo	2	-10	Yokkaichi	1	-12
Yokohama	2	-10	Kobe	2	-12
Shimizu	2	-12	Kitakyushu	1	-10
Nagoya	2	-12			
Nagoya	2	-10.5			

Container traffic grew year after year and the Port of Kobe, for example, has become one of the biggest container ports in the world. Below are the figures for 1979.

(Unit: 1,000 F/t)

Items	Tokyo	Yokohama	Simizu	Nagoya	Yokkaichi	Osaka	Kobe
Exports	4,563	4,643	478	1,845	9	2,005	10,395
Imports	4,411	3,098	86	1,234	206	1,672	8,535
Total	8,974	4,741	564	3,079	215	2,677	18,930

## 7. Management of port in Japan

The Law for Ports and Harbours (1950) is the fundamental law which provides the system for port development, management and operation. The Law provides that a public entity, to be created by the relevant local government body, shall be responsible for the development, management and operation of ports, but the prevailing method is that a division of the local authority (prefecture or municipal authority) carries such responsibility.

On the other hand, in cognizance that ports play an important role in national economic development, both in the spheres of international trade and domestic transportation systems, the Central Government, under the Law for Ports and Harbours, gives subsidies to certain development projects to be made by local port management bodies, to an average extent of 50% of such works, and it has control over certain aspects of the port development, management and operation.

## 8. Investment into ports

From the standpoint that ports serve the public interest, the investment into ports is categorized as one of the public investments made for the development or improvement of roads, rivers, city planning, water-supply, sewage systems or land improvement for agricultural purposes.

These investment projects are prepared by the respective agencies in the form of 5-year planning, in accordance with the long-term national economic development plan or land development plan.

As to the port investment, the Bureau of Ports and Harbours, Ministry of Transport is in a position to formulate the 5-Year Port Development by assessing those port development plans submitted by port management bodies. This Plan is subject to the decision of the Diet.

Roughly speaking, about 50% of the cost of construction and improvement works of water facilities (waterways, anchorage, etc), protective facilities (breakwaters, seawalls, etc), mooring facilities (wharves, etc) and port-transport facilities (access roads and bridges, etc) is provided by Central Government. For the construction of transit sheds, cargo handling equipment and relevant office space, Central Government can provide special low interest loans. In case a specific industry enjoys excessive benefits because of such investment, especially in industrial ports, such industries bear a certain portion of the cost, or the rate of subsidy will be reduced accordingly.

The amount of total investment into ports, according to the 1981 Budget, is as much as 443,158 million yen (or, \$2.014 bil.) including some 267,533 million yen (or,

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\$1.216 bil, at US\$ = Yen 220) by Central Government.

According to data from the Ministry of Transport, the total investment since 1945 until 1980, though including costs for disaster control as well as individual investments by local port management bodies, when converted to 1980 values, amounts to as much as 10,046,500 million yen (or, \$45.666 bil).



# National Harbours Board

(Extracts from the Annual Report 1980)

## 1. National Harbours Board: lifeline to the world

The National Harbours Board, established as a Crown Corporation by an Act of Parliament in 1936, administers facilities at 15 ports, strategically located from one coast of Canada to the other. Our ports serve Canadians by facilitating the flow of our abundant natural resources emanating from all regions of the country into the world marketplace. We provide a lifeline which benefits the Canadian farmer, miner, forestry worker, fisherman, manufacturer and ultimately the consumer. As the link which connects the marine and surface modes of transportation, National Harbours Board ports handle over half the volume of Canada's waterborne foreign trade.

The Board promotes the economic and efficient distribution of many commodities but in particular the export of those bulk resource commodities with which this country is richly endowed. Canadian resources such as grain, coal, iron ore, potash, sulphur and forest products are in demand worldwide. Our ports are also vital both to the Canadian manufacturer, in providing raw materials and ensuring safe shipment of finished goods, and to the Canadian consumer, by ensuring the safe and efficient movement of goods such as petroleum for local consumption. Many vacationers to Canada enter this country through NHB passenger terminals at a number of our locations. Clearly the National Harbours Board desires to be of benefit to all economic and regional sectors of Canada and is constantly striving to expand its already large base of facilities to meet emerging demands. In 1980 the Board invested over \$37 million toward the construction of new facilities and the refurbishing of existing ones.

As the National Harbours Board looks back on its most successful year ever, it is also able to look forward to providing that vital lifeline to the rest of the world in a more efficient and responsive manner than ever before.

## 2. Chairman's message (extract)

Last year at this time, I reported that the National Harbours Board anticipated that it would, on a consolidated basis, achieve its goal of financial self-sufficiency in 1983. I am pleased to report that the National Harbours Board, by recording a profit in 1980, achieved a significant first step in this regard.

1980 was truly an exceptional year. A combination of outstanding employee effort and dedication, coupled with strong customer demand for our facilities, provided the Board with operating results unparalleled in its history. The Board achieved a net income for the year of \$17.4 million and generated cash flow of \$57.3 million. Nevertheless, despite the positive results in 1980, the National Harbours Board registered a return on fixed assets employed of only 2.5% which falls short of the target required to achieve the long-run financial viability of the Corporation.

Profitability and tonnage records were prevalent throughout the port system but the performances of several ports were particularly noteworthy. The Port of Montreal moved approximately 7.5 million tonnes of grain through its facilities during the year. This was more than three times

the 1979 tonnage, which was depressed by a five-month grain handlers' strike, and approximately 50% above the previous 5-year average. The Port of Quebec experienced similar success in the shipment of grain and surpassed its previous grain throughput record. Demand for terminal facilities at the Port of Vancouver was exceptional in 1980 and operating revenue in this sector increased by 25% over 1979. The Port of Saint John registered a sharp increase in tonnage, a significant portion of which reflected the first full year of operations of the new Forest Products Terminal. Although on a smaller scale, similar success stories were achieved at our locations of Port Colborne, Prince Rupert, Belledune and Baie des Ha! Ha!. Indeed the operating success of our ports was widespread.

Uncontrollable factors caused the Ports of Sept-Îles and Churchill to suffer from reduced levels of business activity in 1980. At Sept-Îles, total operating revenue dropped marginally, when compared to 1979, as a result of the recession in the United States, which reduced the demand for steel and consequently affected iron ore requirements. The Port of Churchill suffered a major shortfall in grain deliveries as a result of the decrease in shipments allocated by the Canadian Wheat Board. This factor reduced operating revenue 21% below the 1979 level and gave rise to a net loss of \$2.0 million.

Considering the general increase in the Board's level of activity in 1980, operating expenses were held very much in check. A 34% increase in operating revenues over 1979 compares favourably to the increase of 19% in operating expenses over the same period. Cost containment measures were instituted through our strategies of constantly evaluating efficiency, discontinuing unprofitable activities, modernizing facilities and involving the private sector where particular operating skills are required. The Corporation's performance was aided by a good record in labour relations during the year. Eleven collective agreements were signed and the two work disruptions which did occur, did not materially affect port operations in 1980.

The Corporation, in response to the demand for more and better facilities, achieved a number of major accomplishments in 1980. At the Port of Halifax, construction continued on Container Terminal II, which is projected to be operational in 1982. Construction was completed on an extension to Rodney Terminal, at the Port of Saint John, which provides the Port with one more container berth; also at Saint John, construction continued on major extensions to Pugsley Terminal and Long Wharf. At the Port of Montreal, dredging and filling of the site of Racine Terminal, Phase A was completed.

The grain trade will also be served by expanded National Harbours Board facilities. At the Port of Montreal, construction started on a major extension to Grain Elevator No. 4 while a modernization of Grain Elevator No. 3 was completed during the year. At the Port of Prince Rupert construction began on a major grain handling facility at Ridley Island. Settlement of a significant environmental issue led to Government approval of a proposed expansion of the Roberts Bank coal terminal at the Port of Vancouver.

Now that the Corporation is moving towards its goal of financial viability, the National Harbours Board intends, in

the future, to serve its customers by reinvesting surplus funds in financially viable port development projects. Negotiations are continuing regarding the construction of a potash terminal at the Port of Saint John to serve new discoveries of potash near Sussex, New Brunswick. Similarly, plans are in progress concerning construction of a bulk coal facility at Ridley Island, Port of Prince Rupert, to handle exports emanating from newly developed coal mines in northeastern British Columbia.

Pierre A.H. Franche,  
Chairman

### 3. Highlights

000's except for return on fixed assets employed and employee data

	1980	1979
<b>Financial Results</b>		
Operating revenue	\$151,967	\$113,675
Net income (loss)	\$ 17,360	\$ (2,375)
Cash flow	\$ 57,319	\$ 28,178
	2.5%	(0.4%)
<b>Financial Position at Year End</b>		
Working capital	\$161,121	\$116,987
Total assets	\$620,102	\$568,787
Long-term liabilities	\$529,801	\$487,888
Capital Expenditures	\$ 37,860	\$ 58,144
<b>Traffic</b>		
Total metric tonnage through NHB ports	163,000	157,500
<b>Employees</b>		
Average number of employees	1,777	1,865

### 4. Responding to resource-based industry

The history of Canada reflects an economy which, in the past and to this day, continues to depend upon trade based on primary resources and resource-related industries. Throughout its history Canada has taken advantage of upward movements in world commodity prices to develop new export opportunities. Today, existing energy reserves in the west and the prospects of discoveries in the east present Canada with exciting new opportunities related to resource development.

In the past, the development of our natural resources has represented the main stimulus for national economic growth. This resource-based growth has led to important linkages with the industrial sector. The development of Canada's capabilities in related manufacturing and service activities has in turn fostered an increase in population, a trend towards urbanization, and improved standards of living for the average Canadian. These factors have created an emerging dependency on an increasingly important domestic market.

The Canadian economy is presently undergoing a significant expansion in the western part of the country. Western Canada, due to its base of renewable and non-renewable resources, assumed a more substantial role in the national economy in the 1970's. In the 1980's, the west is expected to enter into a further period of resource expansion based primarily upon rising demands for the region's energy, agricultural and mineral products. National Harbours Board is vitally interested in maintaining an active role in the development of new port facilities to enable this region to exploit its potential in an efficient manner.

Canada's export commodities fall mainly into the category of dry bulk commodities which represented over 60% of the total 1980 metric tonnage passing through National Harbours Board ports. Almost 90% of dry bulk shipments fall into the following commodity groups: grain, coal, other minerals or forest products.

Grain is the foundation upon which western Canada's economy emerged in the 1800's and is still a vital contributor to the country's economic well-being.

Coal, as an energy source and a component of steel manufacturing represents a commodity which will be essential to the expansion of the world's industrial horizon in the 1980's and beyond.

Iron ore, while not in a period of dramatic growth due to a slowdown in the steel industry, is nevertheless projected to remain as one of the largest sources of tonnage for the National Harbours Board in the foreseeable future.

Sulphur and potash, which are used extensively in fertilizers, represent a hope for the future in the developing countries. The desire of emerging nations to employ more advanced agricultural techniques promises rapid growth for the demand of these commodities in the 1980's.

Forest products, which are produced all across Canada, represent a source of stability to the Canadian economy. The forest industry provided a basis for early economic development and has traditionally served as a buffer against more volatile worldwide demand for other commodities.

In addition to the export of primary goods, National Harbours Board ports are actively involved in assisting the manufacturing sector in a variety of ways. Through the economic transshipment of crude oil and other petroleum products, industrial concerns are provided with an adequate energy supply to conduct their manufacturing processes. About 25% of the 1980 total tonnage handled at NHB ports is categorized as "liquid bulk".

The emergence of containerization has greatly assisted Canadian manufacturers and processors in providing safe, economical transit for higher value merchandise into the marketplace. Due to the efficiency of containerization, the growth rate of containerized cargo has been over three times that of non-containerized cargo in the last five years.

### 5. Cargo tonnage (1976-1980) (in millions)

	1976	1977	1978	1979	1980
Grain	18.1	21.3	22.5	21.4	29.2
Coal	11.7	12.7	14.5	13.5	15.2
Iron Ore	32.4	32.4	21.9	36.2	28.2
Sulphur	2.3	3.4	4.0	4.1	5.2
Potash	1.6	2.0	2.8	3.2	3.5
Raw Wood					
Products	2.3	1.9	1.9	1.9	2.2
Lumber and					
Finished					
Wood					
Products	2.6	2.8	3.0	3.7	3.8
Pulp and					
Paper	2.6	3.0	3.6	3.4	3.6
Containers	5.1	6.3	6.6	7.1	7.2
Liquid Bulk	29.8	36.5	39.0	42.9	42.1
Other General					
Cargo	10.9	12.6	11.6	12.0	12.9

(Continued on next bottom)

# Port of Helsingborg

(Extracts from the Annual Report 1980)

## 1. Finance

The general economic recession and serious disturbances on the Swedish labour market early in the year affected the industry of the country in 1980. In spite of the circumstances Port of Helsingborg maintained its position with a cargo throughput of almost exactly the same volume as in the year before. Within some sections better results have been observed, while others experienced slight reductions. The ferried railway goods and parts of the unit cargo show improvements, but on the other hand some decline has been seen for the conventional break-bulk cargo, and for the mineral oil import. A firm adaptation towards additional use of modern handling methods is still in progress.

The total sea-borne cargo throughput for the year came to nearly 8.2 million tonnes (8.2). Of this volume dry cargo accounted for 7.4 million tonnes (7.3), and mineral oils 0.8 million tonnes (0.9).

Interest charges, rises of salaries and wages, not to men-

tion other cost increases, have resulted in that the economic return of the port became not fully comparable with that of previous years. It is true that the gross operating revenue rose to 47.6 MSEK (44.5), but on the other hand working expenses including interest charges and depreciation cost increased more, and arrived at 45.4 MSEK, which is to be compared with 37.6 for 1979.

In consequence of a favourable improvement of the ferry traffic, earnings from this section increased to 16.0 MSEK (14.5). In the sum 1.9 MSEK (1.8) refers to transportation of motor vehicles. Returns from break-bulk cargo came to 6.8 MSEK (7.1). Other earnings, such as crannage, towage, rents, etc. rose by 0.4 MSEK in total over 1979's result.

Expenses for administration, such as salaries, wages, old-age pensions and social welfare increased by 1.8 MSEK, or by 15 percent, and is now 14.3 MSEK (12.5).

During the fiscal year depreciation was made by 8.5 MSEK (7.6). Interest charges rose to 4.5 MSEK (2.7).

In 1980 investments accounted for a total of 48.3

(Continued on next page bottom)

(Continued from page 13)

## 6. Balance Sheet as at December 31, 1980 (\$000's)

Assets	1980	1979
Current		
Cash	\$ 3,932	\$ 3,073
Investments (market value: 1980—\$167,150, 1979—\$137,956)	173,513	139,078
Accounts receivable	25,306	23,039
Materials and supplies	2,203	2,077
	204,954	167,267
Long-term accounts receivable	7,155	7,602
Fixed		
Land and harbour facilities	715,264	685,893
Less: Accumulated depreciation	307,271	291,975
	407,993	393,918
	<u>\$620,102</u>	<u>\$568,787</u>
Liabilities		
Current		
Accounts payable and accrued liabilities	\$ 29,478	\$ 30,898
Grants in lieu of municipal taxes	14,355	19,382
	43,833	50,280
Long-term		
Accrued employee benefits	7,863	7,290
Financing provided by province	21,599	23,033
Loans from Canada	500,339	457,565
	529,801	487,888
	573,634	538,168
Equity of Canada		
Contributed capital	349,361	350,872
Deficit	(302,893)	320,253
	46,468	30,619
	<u>\$620,102</u>	<u>\$568,787</u>

## 7. Statement of Operations and Deficit for the year ended December 31, 1980

	1980	1979
Revenue		
Harbour services	\$ 37,675	\$ 31,933
Grain services	25,993	14,131
Cargo handling services	48,956	37,933
Rentals	27,095	21,040
Shipping services and other	12,248	8,638
	151,967	113,675
Expenses		
Salaries and employee benefits	42,645	36,440
Purchased services	50,159	39,226
Energy and utilities	5,259	4,404
Depreciation	18,099	12,332
Grants in lieu of municipal taxes	9,068	11,357
Other	7,916	7,853
	133,146	111,612
Operating income	18,821	2,063
Other income (expense)		
Interest expense	(20,564)	(18,155)
Interest income	18,553	14,697
Gain (loss) on disposal of investments	550	(1,097)
Parliamentary appropriations	—	117
	(1,461)	(4,438)
Net income (loss)	17,360	(2,375)
Deficit at beginning of the year	(320,253)	(317,878)
Deficit at end of the year	<u>\$(302,893)</u>	<u>\$(320,253)</u>

# Auckland Harbour Board

(Extracts from the Annual Report 1980)

## 1. General Manager's review (extract)

### Trends

The two ports of Auckland in 1979-80 handled higher tonnages of cargo than in the previous year and turned round more ships after having berthed, discharged and loaded them at generally faster rates than in the past.

But financially it was not a good year despite the small overall surplus of slightly more than \$2.85 million from port operations and Board properties combined.

This surplus compared with the \$6.5 million of 1978-79.

(Continued from page 14)

MSEK (21.4). After depreciation and including investments added during the year, the total fixed assets of the port have now arrived at 184 MSEK. The long-range program of the Port Authority includes investments requirements for the next five years period 1981-1985 at 240 MSEK. It is the West Harbour project that accounts for the major share of this amount.

## 2. Shipping

The number of vessels, entered and cleared through the port in 1980 came to a total of 138,681 as against 139,013 in the year before. The aggregate size of these vessels was 78,445,270 net register tonnes (81,117,153).

New shipping services and several changes in the traffic pattern have taken place in the year. The most striking transformation has been the rapid replacement of traditional general cargo tonnage by modern unit vessels. For example a substantial part of the coffee trade — of great importance to Helsingborg — has been taken over by shipping companies of the producing countries. Thus these owners have become new customers of the port.

## 3. Cargo

The cargo throughput of the port became nearly as large as in the record year 1979 in spite of the serious breakdown caused by the general labour conflict in the country. In all the throughput for sea-borne cargo came to 8,183,641 tonnes as against 8,229,785 in 1980, a decrease of a fractional 0.6 pct. The figure includes dry cargo of 7,366,893 tonnes, meaning a new record for the port.

The Skane Container Terminal had a throughput of 471,627 tonnes during the period, which is the second best result ever, and was only surpassed by the result in 1979 of 523,667 tonnes. The cargo throughput in the Sundsterminalen — exclusively operating RoRo cargo — came to 736,245 tonnes (754,429). In the Linjebuss Terminal a growth to 1,288,280 tonnes was observed (1,253,845). A sharp increase occurred in the SJ Terminal, where ferried lorry cargo rose from 524,326 to 645,915 tonnes. A strong recovery was also established in ferried rail cargo, which arrived at 2,035,295 tonnes as against 1,902,001 in the previous year.

At the Oil Harbour a decrease was seen in the throughput of petroleum products. The total amount of 816,748

There was a deficit of nearly \$158,000 on port operations as against a surplus of \$3.58 million in the previous year.

As has happened before, it was the nett surplus of \$3 million from Board properties which kept finances out of the red.

The down-turn in port operations resulted from a sharp fall in container trade and a heavy increase in port operating costs. The small growth of 0.15 million tonnes in total cargo tonnages passing over Auckland and Onehunga wharves was not enough to compensate for these factors.

Easily the highest cost jump for the Board was the total required for wages and salaries.

tonnes is to be compared with 918,497 in 1979. At the Copper Works Harbour approximately the same quantities were achieved: the throughput came to 1,623,047 tonnes (1,630,400).

## 4. Revenue Account

	1980 KSEK	1979 KSEK
Operating Revenue		
Port dues	25 908	24 370
Cranage	3 272	3 979
Towage	5 331	5 515
Rents	7 547	6 240
Sundry revenue	2 902	2 119
Collateral revenue	1 969	1 910
	<u>46 929</u>	<u>44 133</u>
Operating and general expenditure	-32 411	-27 247
Net surplus before depreciation	14 518	16 886
Depreciation	- 8 483	- 7 636
Net surplus after depreciation	6 035	9 250
Interest expense	- 3 802	- 2 302
Net surplus for the year	<u>2 233</u>	<u>6 948</u>

## 5. Balance Sheet

	1980 KSEK	1979 KSEK
Assets		
Current assets	10 815	9 206
Fixed assets	184 445	143 793
TOTAL ASSETS	<u>195 260</u>	<u>152 999</u>
Liabilities and capital reserves		
Current liabilities	35 222	17 835
Construction loan	50 713	28 071
	<u>85 935</u>	<u>45 906</u>
Capital reserves		
Reserves in fixed assets	106 113*)	103 354
Working capital	3 212	3 739
	<u>109 325</u>	<u>107 093</u>
TOTAL LIABILITIES AND CAPITAL	<u>195 260</u>	<u>152 999</u>

\*) Of which investment funds

1980-12-31	2 931
Appropriation to the funds 1981	98
Estimated surplus 1981-12-31	<u>3 029</u>

Staff was kept to a minimum but, largely due to wage increases negotiated nationally to compensate for the effects of inflation on the cost of living, this total rose by \$5.26 million to more than \$32.32 million, representing 68 per cent of total expenditure. This is a continuing trend and one of grave concern to the Board and other employees of large work forces. There is growing doubt that the country can carry continuing rounds of percentage wage increases without serious impairment of productivity and the capacity to compete effectively on world markets.

As the largest general cargo port handling New Zealand imports from some 70 countries and exports to 80 countries economic trends of any significance usually are reflected at Auckland earlier than at most of the nation's other ports.

After all, Auckland and Onehunga in an average year deal with approximately 26 per cent of total imports and 13 per cent of all exports. Leave out bulk cargoes and the two ports account of 53 per cent of general cargo imported into this country and 24 per cent of general cargo exported from New Zealand.

Auckland and the region served directly by the two ports employ 40 per cent of the nation's total manufacturing work force and contain factories producing 41 per cent of the total manufacturing output.

The ports are the export-import thresholds for one of the nation's richest farming areas extending from southern districts of Northland to the King Country and through the Waikato to parts of the Bay of Plenty and central areas of the North Island.

In addition, containers of refrigerated and other exports reach Auckland from as far away as Southland and large merchants based at Auckland bring general cargo over Auckland wharves for distribution throughout the whole country.

Such traffic cannot help but provide a realistic barometer of how the nation stands economically.

Reasons for what is a stand-still more than a decline are not hard to isolate.

First, international trade began to slacken before the beginning of the 1979-80 year. Reports from round the world indicated that inflation on the one hand and rising costs on the other were putting brakes on the growth of international trade.

For the Auckland ports, as for other major ones serving far larger populations overseas, the only counter to the effects of inflation are growth of trade and cost restraints. But inflation fuels cost increases, as already mentioned, and at best the result is the virtual mark-time noted at Auckland.

What confronts the Board and port authorities elsewhere is the problem of how to improve services while containing costs as far as this is possible.

To do so a port must make the best use of available facilities, adapting them to the changing requirements of shippers and shipping companies which themselves are reassessing services and schedules.

At Auckland, for instance, it is evident the port is experiencing a hesitation in the anticipated growth of container trades.

The major shifts of liner services in recent years from break-bulk cargo-handling to containerized cargo in cellular and roll-on roll-off ships appear to have reached a levelling-off point.

No doubt an upsurge in the transport of containerized

cargo will follow fast enough when international trade renews its former growth rate. Today Auckland is fortunate in being well placed and equipped to respond quickly to future demands of increased container and roll-on trades.

Significant quantities of unitised and break-bulk cargo are still being handled through the port and both exporters and importers continue to demand that many of the remaining conventional ships carry increasing numbers of standard containers.

But what the Board sees as desirable in the immediate future is further assessment of ways in which present conventional cargo-handling facilities can be adapted and managed in order to offer the best service for the short-time future.

Already a detailed survey has been made of cargo-handling facilities at conventional wharves which in 1980, excluding bulk liquids and sand, handled some 1.67 million tonnes of cargo.

This total shows a 17.6 per cent decrease since 1975 but, indicative of the trend, a slight increase on the 1978 and 1979 totals.

Included in the 1980 total was 1.40 million tonnes of general cargo. Fertiliser, wheat and gypsum handled in bulk at Jellicoe Wharf accounted for the remaining 0.27 million tonnes.

Of standard containers being carried in increasing numbers by conventional ships particularly on routes away from those of the major container services, more than 10,000 passed over Auckland's conventional wharves in 1980. Most of them were handled at Jellicoe and Freyberg which have higher axle-load ratings than the older wharves.

Recent analysis of each important trade through Auckland suggests the need for conventional cargo-handling will never entirely vanish and it is difficult to estimate when conventional shipping requirements will level off.

While there is a dearth of orders for new conventional cargo liners as compared with increased demand for cellular, roll-on roll-off and combination ships, the older-type cargo liners, progressively downgraded as newer types succeed them elsewhere, may continue to appear in New Zealand trades.

Present evidence points to the need for whatever measures are reasonable and financially bearable to provide the best use of Freyberg, Jellicoe, Captain Cook and Queens wharves for the next five years.

Short term proposals under consideration include alterations and new construction to these wharves where, compared with tonnage throughputs in the busy period of 1973-1974, it is estimated some 18 per cent more cargo could be handled than was the case in 1979-80.

Kings Wharf redevelopment is under separate study. It is necessarily a longer-term project. So are the methods and means of increasing the efficiency and capacity of the eastern wharves between Kings and Fergusson.

These are some of the trends and considerations seen as likely to occupy the Board and management in the next year or so.

They will affect port operations and the administration of port affairs.

To meet known requirements efficiently, some changes have already been made to co-ordinate and streamline the functions of certain departments of the Board and concentrate adequate attention on different priorities which themselves are under continuing reassessment.

In the ever-changing world of shipping and cargo-



handling no port authority at any time can take the trading risk of regarding its facilities and practices, however modern and refined, as beyond the need for improvement.

### Maritime planning

The past decade has seen increasing pressure from a wide variety of developers for approval of projects in and around the harbours of the Auckland region and their foreshores. At the same time public interest in what is done to our harbours and foreshores, and by whom, has become keen, along with a greatly increased general awareness of the need for careful planning for the use of this irreplaceable resource.

More than 10 years ago, the Auckland Harbour Board began promoting the view that the planning control of harbours, foreshores and land abutting harbours under a harbour board's control should be given legislative recognition and sanction.

As a culmination of this effort, in July 1979 the Auckland Harbour Board was appointed by the Government as Maritime Planning Authority for both the Waitemata (or Auckland) and Manukau Harbours. And 1980 saw the setting up and early operation of the authority and the two consequent planning Committees.

Good progress is being made on the draft of the Waitemata Harbour Maritime Planning Scheme which establishes a procedure by which the future development and conservation of the harbour can be controlled.

When completed it will be considered by the Waitemata Harbour Maritime Planning Authority and notified for public submissions and objections before becoming an operative scheme.

Work on the Manukau Harbour Maritime Planning Scheme will follow completion of the one for Waitemata Harbour.

In 1970, concerned at increasing pressures for development in and around the Waitemata, the Auckland Harbour Board and the Auckland Regional Authority agreed to prepare jointly a plan to ensure the wise use of the harbour and its shoreline as a resource for the benefit of present and future operations.

The Waitemata Harbour Plan, published in 1975, received wide public acceptance. It was followed by a similar joint planning study of the Manukau Harbour which was completed in 1978.

Both harbour plans clearly stated the need for statutory planning. This view was again advanced in a Board submission supporting Ministry of Transport proposals in 1976 to amend the Harbours Act to provide for the planning of harbours and coastal waters.

For these reasons and as the body already exercising jurisdiction over both the Waitemata and Manukau harbours, the Board therefore welcomed the new Town and Country Planning Act, 1977, which provided for statutory Maritime Planning Authorities.

The Board's historical involvement with harbour planning was recognized in its appointment in July 1979 as the Maritime Planning Authority for both harbours.

A joint inaugural meeting of the Board as the Maritime Planning Authority for the two harbours was held in October 1979.

In February, 1980, the appointment of Government and territorial local authority representatives to the two maritime planning committees was formalized. The separate committees advise their respective authorities on the prepa-

ration and implementation of the maritime planning schemes.

Thus the harbour planning organization in the Auckland area consists of:

1. The Harbour Board sitting separately as
  - (a) The Maritime Planning Authority for the Waitemata (or Auckland) Harbour and
  - (b) The Maritime Planning Authority for the Manukau Harbour.
2. The Waitemata Harbour Maritime Planning Committee which considers preparation of the planning scheme for submission in due course to the Maritime Planning Authority for the Waitemata.
3. The Manukau Harbour Maritime Planning Committee with a different membership which acts similarly in preparation of the planning scheme for submission to the Maritime Planning Authority for the Manukau.

As with district (land) planning schemes, provision exists for appeal to the Planning Tribunal before the planning schemes finally become operative.

Following rearrangement of the Board planning staff to form the basis of a special section of the Engineer's Department, some additional staff were appointed and work began on the two schemes.

Preliminary statements were circulated for public comment in December, 1979.

Submissions from the public were received until the end of March 1980 and are being considered by specialist staff before incorporation, where desirable and in conformity with statutory responsibilities, in the draft scheme being prepared for the relevant planning committee and presentation to the Authority concerned.

## 2. Statistics summary 1979-80 1st October 1979 to 30th September 1980

	1979-80	1978-79
<b>Operational</b>		
Total ships (excluding naval, including Onehunga)	1,951	1,816
Number of container ships	222	220
Total cargo handled at Ports of Auckland and Onehunga	5.92 million tonnes	5.77 million tonnes
Export cargo	1.697 million tonnes	1.59 million tonnes
Import cargo	4.228 million tonnes	4.18 million tonnes
Container exchange (less movements on board ship)	87,688	89,981
Container tonnage	1.219 million tonnes	1.217 million tonnes
Roll-on roll-off tonnage	0.79 million tonnes	0.81 million tonnes
Conventional break-bulk including Onehunga	1.592 million tonnes	1.30 million tonnes
Bulk	2.184 million tonnes	2.29 million tonnes
Passenger ships	46	48
Passengers arriving and departing	10,522	11,744
Passengers in transit	31,854	33,642

(Continued on next page bottom)

# Wellington Harbour Board

(Extracts from the Annual Report 1980)

## 1. General Manager's review (extract)

### Trade of the Port:

The total manifest tonnage of inward and outward cargo through the Port at 5,574,698 metric tons was 84,484 tons less than last year, a decrease of 1.5%.

The net tonnage of shipping arrivals was 8,121,536 tons, 122,037 tons of 1.5% less than last year's record tonnage.

### Summary:

Although increases of 32,180 tons and 24,835 tons were recorded in inward cargo from Coastal and Australian Ports respectively, a decrease of 83,681 tons in inward cargo from Other Overseas Ports gave a total tonnage of inward cargo of all classes (including transshipments) of 3,076,960 tons, 0.9% of 26,666 tons less than last year.

Outward cargo of all classes (including transshipments) totalled 2,497,738 tons, a decrease of 57,818 tons or 2.3%, outward Coastal cargo decreasing by 39,178 tons or 2.6%, outward cargo to Australia by 9,940 tons or 11.2% and outward cargo to Other Overseas Ports by 8,700 tons or 0.9%.

Transshipment cargo totalled 103,410 tons.

(Continued from page 17)

### Financial

#### PORT OPERATIONS

Revenue:	\$	\$
Cargo charges and Cargo handling		
	12,043,538	10,771,615
Wharf Services and Towage	6,198,686	5,869,055
Container Services	27,242,077	25,981,746
Sundry Revenue	1,895,517	1,707,637
	<u>47,379,818</u>	<u>44,330,053</u>
Expenses:		
Wages and Salaries	32,321,926	27,060,101
Maintenance and Operating	7,372,102	6,498,914
Depreciation	3,023,693	2,660,912
Interest	4,819,946	4,524,603
	<u>47,537,667</u>	<u>40,744,530</u>

Port Working Account Surplus/Deficit

(157,849) 3,585,523

#### PROPERTY

Nett Income 3,016,711 2,563,510

#### FINANCING

Loans Raised 2,713,030 3,264,430

Loans Repaid 3,085,812 2,931,367

Sinking Fund Investments 1,791,725 1,663,304

Exchange loan risk reserve investment

2,644,793 2,351,859

#### HOW WE STAND

Total Assets 171,877,083 169,555,322

Total Liabilities 53,731,914 57,753,050

This leaves the current public equity in the Port of

Auckland at: 118,145,169 111,802,272

Principal commodities passing through the Port during the year included:

### Motor Vehicle Parts and Tyres:

The total tonnage of motor vehicles, parts and tyres at 1,033,274 tons shows a decrease of 58,161 tons or 5.3%.

### Petroleum Products:

The tonnage of bulk petroleum products inward, outward, and transhipped at 980,169 tons, shows a decrease of 8,521 tons or 0.9%.

### Cement:

Cement in bulk inward increased by 26,220 tons to 95,624 tons or by 37.8%.

### Iron and Steel Pipes, etc.:

The tonnage of iron and steel pipes, etc. at 68,001 tons decreased by 27,964 tons or by 29.1%.

### Butter, Cheese and Frozen Meat:

The tonnages of butter, cheese and frozen meat exported through the port maintained increases this year. Butter increased by 13.5% to 38,922 tons; cheese increased by 7.6% to 50,322 tons; and frozen meat increased by 6.2% to 405,862 tons.

### Wool and Skins, and other Milk Products:

Reduced tonnages were recorded in exports of wool and skins and milk products. Wool and skins falling by 16.5% to 206,651 tons, and milk products (other than butter and cheese) falling by 18.2% to 47,463 tons.

### Shipping Arrivals:

The total number of shipping arrivals at the port was 3,590. The total net register tonnage of trading vessels entering the port during the year (excluding naval and research vessels, private yachts and other non-trading vessels) amounted to 8,121,536 tons, 122,037 tons or 1.5% less than last year.

### Thorndon Container Terminal:

A total of 167 cellular container ships worked at the Thorndon Container Wharf during the year.

Loaded containers inward and outward numbered 52,597 TEU (twenty foot equivalent units) a decrease from last year of 3,049 TEU or 5.5%. Inward loaded containers decreased by 1,446 to 18,090 TEU and outward loaded containers decreased by 1,603 to 34,507 TEU. A further 14,115 empty containers were landed at the Terminal and 3,798 shipped outwards, giving a total throughput of 70,510.

Of the 18,090 TEU inward loaded containers 13,526 (74.8%) were FCL and 4,564 (25.2%) were LCL. Of the 34,507 TEU outward loaded containers 34,011 (98.6%) were FCL and 496 (1.4%) were LCL.

(In addition to the above total throughput of containers, a further 6,668 containers were landed and re-shipped or repositioned on board container vessels, the total number of container movements therefore being 77,178 TEU for the year.)

#### Roll-on/Roll-off Cargo Services:

Rail/Road Ferry cargo decreased by 21,280 tons to 2,506,125 tons or by 0.8%. Other roll-on/roll-off cargo services totalled 377,792 tons, a decrease of 41,080 tons or 9.8%. Total roll-on/roll-off cargo for the year thus amounted to 2,883,917 tons, a decrease of 62,360 tons or 2.1%.

#### Maritime Planning:

Steady progress has been maintained during the year in proceeding to develop and implement the new maritime planning provisions of the Town and Country Planning Act 1977.

The Board appointed two additional Members to the maritime planning committee in February 1980 increasing its representation from five to seven.

A representative of the Wellington Regional Planning Authority and of the Wellington Regional Water Board was nominated by each of those two organizations and two persons were appointed by the Minister of Works and Development. In addition, the Eastbourne Borough Council nominated a representative in pursuance of Section 99 (2) (d) of the Act bringing the membership of the maritime planning committee to twelve of whom the Chairman of the Board was appointed by the Board to be Chairman.

The maritime planning committee held its first meeting on 26 March 1980 when it gave consideration to the draft preliminary statement setting out the principal matters to be dealt with in a maritime planning scheme.

The Board as the Maritime Planning Authority met later on the same day and decided to proceed in accordance with the Act: to publicly notify its intention of preparing a maritime planning scheme; to publish the draft preliminary statement after having given regard to the advice and comment of the maritime planning committee; and to call for submissions thereon, from any body or person. In order to assist in the widest possible public interest and involvement, it was also decided to prepare and make publicly available a comprehensive discussion paper on the considerations and source material affecting the preparation of a Wellington Harbour Maritime Planning Scheme.

Both documents were well received and have served their purpose in stimulating a substantial number of submissions from interested persons and organizations.

It will be the Maritime Planning Authority's task in the ensuing year to consider those submissions and the manner upon which it shall proceed to the preparation of a draft maritime planning scheme.

J.F. Stewart  
General Manager

## 2. Balance Sheet as at 30 September, 1980

	1980 \$	1979 \$
Public Debt	42,557,867	42,745,179
Loan Funds – Creditors	—	43,047
Creditors – Capital	4,865	25,750
Capital	5,300,502	6,082,123
	<u>47,863,234</u>	<u>48,896,099</u>
Reserves		
Sinking Funds	3,638,388	2,988,562
Special	9,950,041	7,890,171
	<u>13,588,429</u>	<u>10,878,733</u>
Creditors – General	1,260,994	1,421,093
Accumulated Surpluses		
1 October, 1979	2,384,019	
Less Appropriation		
Account Deficit	270,837	
	<u>2,113,182</u>	<u>2,384,019</u>
	<u>3,374,176</u>	
	<u>\$64,825,839</u>	<u>\$63,579,944</u>
Fixed Assets (at cost)	60,423,234	
Less Depreciation Provision	13,431,087	
	<u>46,992,147</u>	<u>47,705,633</u>
Loan Funds – Debtors	2,763	—
Loan Funds – Term Deposits	722,364	1,024,266
Advance – Waterfront Industry		
Commission	145,960	166,200
	<u>47,863,234</u>	<u>48,896,099</u>
Reserves		
Sinking Funds	3,638,388	2,988,562
Special	9,950,041	7,890,171
	<u>13,588,429</u>	<u>10,878,733</u>
Harbour Fund	193,050Cr.	710,604
Debtors	3,004,368	2,469,352
Stock on Hand	562,858	625,156
	<u>3,374,176</u>	<u>3,805,112</u>
	<u>\$64,825,839</u>	<u>\$63,579,944</u>

## 3. Income and Expenditure Account for the year ended 30 September, 1980

### EXPENDITURE

	Working, Repairs and Maintenance Total	1979
	\$	\$
Port Installation and Services		
Dredging Department	77,751	78,564
Harbour Pilot & Signal Services	2,719,817	2,256,150
Jubilee Dock	184,281	171,906
Patent Slip	17,655	17,274
Water	80,199	59,139
	<u>3,079,703</u>	<u>2,583,033</u>

(Continued on next page bottom)

# Port and Intermodal Development : MARAD

(Extracts from the Annual Report of the Maritime Administration for Fiscal Year 1979)

During fiscal year 1979 the Maritime Administration continued its coordination of national, regional, state, and local efforts to support the American port industry and

Port studies completed or underway during the reporting period dealt with port economic impacts, planning and development, and port and terminal operations.

The Agency also continued its port and intermodal equipment and facilities program, which provides technical assistance in the areas of terminal facilities, inventory, services, and assessments, and facility and cargo protection.

Increased emphasis was placed on cost-sharing in port studies and technical assistance programs.

In addition, MarAd increased participation in port-related intergovernmental activities.

Through its regional offices, MarAd serves as a technical consultant on port projects administered by the Economic Development Administration (EDA), also an Agency in the Department of Commerce. EDA grants and loans for port-related projects have exceeded \$288 million since 1965.

MarAd also provides technical assistance to the Office of Coastal Zone Management (OCZM) in the National Oceanic and Atmospheric Administration, another Agency of the Department of Commerce. During FY 1979 MarAd and OCZM jointly sponsored a National Conference on Ports and Coastal Management to familiarize coastal zone managers with port development issues and port managers with coastal zone management programs and issues.

FY 1979 marked the establishment of the interagency

"Urban Waterfront Action Group," of which MarAd is a member. The group includes most Federal agencies and public interest organizations whose activities are related to urban waterfront development, among them EDA, OCZM, the National Endowment for the Arts, the Department of Housing and Urban Development, Environmental Protection Agency, U.S. Army Corps of Engineers, and the National Trust for Historic Preservation. The basic aim of the group is to coordinate Federal activities related to such projects.

MarAd continued to play a key role in the Commerce/Cities Program which was initiated in FY 1978 as part of President Carter's urban policy to enhance local economic development. The program provides a comprehensive approach to the Department of Commerce's support of local investment strategies.

In each of the selected cities, local officials, leaders in the private sector, and representatives of Agencies in the Department analyze city needs, identify specific assistance available, and develop an appropriate plan of action. MarAd assistance in port planning, export development, maritime research and development, and training has been provided in several cities. International Shipper Forums were sponsored by MarAd, the Industry and Trade Administration, and local hosts under this program in Long Beach, Calif., Denver, Colo.; Fort Worth, Tex.; St. Louis, Mo.; Detroit, Mich.; Hartford, Conn.; Greenville, S.C.; and Miami, Fla.; during FY 1979. A port planning study is scheduled to be conducted in Detroit in FY 1980.

On the international level in this reporting period, MarAd organized and conducted a seminar on Port Safety and Security in Guayaquil, Ecuador, at the request of the

(Continued from page 19)

	Working, Repairs and Maintenance Total	1979
<b>Cargo Services</b>		
Bond	55,546	45,788
City and Suburban Wharves	9,902,221	8,021,007
Weighbridges Department	19,740	23,871
	<u>9,977,507</u>	<u>8,090,666</u>
<b>Administration</b>		
Engineers Department	307,039	291,792
Miscellaneous	150,356	145,664
Office Department	666,217	593,605
	<u>1,123,612</u>	<u>1,031,061</u>
	<u>14,180,822</u>	<u>11,704,760</u>
Interest	2,769,184	2,599,000
Depreciation — Statement B	1,713,819	
Less Adjustment on Assets created from Loan	<u>630,023</u>	
	<u>1,083,796</u>	<u>1,231,663</u>
<b>Surplus to Appropriation</b>		
Account	1,832,428	1,810,650
	<u>\$19,866,230</u>	<u>\$17,346,073</u>

## INCOME

		1979
<b>Port Installation and Services</b>	\$	\$
Berthage Rate	532,931	491,357
Dredging Department	4,383	4,905
Jubilee Dock	77,342	83,224
Patent Slip	7,367	8,012
Port Charges, Pilotage, Mooring or Removal Fees, etc.	2,752,872	2,323,106
Water	<u>59,781</u>	<u>52,369</u>
	<u>3,434,676</u>	<u>2,962,973</u>
<b>Cargo Services</b>		
Bond	38,729	37,015
City and Suburban Wharves	14,637,242	12,240,379
Harbour Improvement Rate	532,043	546,224
Weighbridge Department	<u>28,781</u>	<u>21,530</u>
	<u>15,236,795</u>	<u>12,845,148</u>
<b>Endowments and Properties</b>		
Rents	1,065,059	1,454,862
<b>Miscellaneous Income</b>		
Interest	129,700	83,090
	<u>\$19,866,230</u>	<u>\$17,346,073</u>

## Port Planning

In FY 1979 the Maritime Administration further expanded its program of sharing the costs and actively participating in master planning initiated by regional port associations and State agencies. Two of these studies, which estimate future cargo movements and then match port facility requirements with these needs, were completed during the year. Eight others were underway and six were in the planning stage. Altogether these projects encompass plans for all or parts of 36 states.

The *Mid-America Ports Study*, completed in FY 1979, is the most ambitious regional study to date. The study encompassed all or part of 17 States—Alabama, Arkansas, Illinois, Iowa, Kansas, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, Nebraska, Ohio, Oklahoma, Pennsylvania, Tennessee, West Virginia and Wisconsin. Predicting that cargo tonnage on inland waterways in these 17 States will double by the year 2000, the study calls for some \$9.5 billion in new port facilities to handle the increased tonnage.

The Florida Waterport Study, sponsored by the Maritime Administration in conjunction with the Florida Department of Transportation and the Florida Ports Council, was also completed in FY 1979. The study identified and assessed the problems and needs associated with the development of Florida's waterport system. It embraces some areas not previously covered in these studies, including environmental analysis and port information systems.

In previous fiscal years, cooperative port plans were completed by the Washington (State) Public Ports Association and the Port of Portland, Ore.; Northern California Ports and Terminals (San Francisco Bay); and the East-West Gateway Coordinating Council, which developed a primer on inland waterway ports through a study of the Port of St. Louis, Mo.

The Great Lakes Cooperative Port Planning Study, scheduled for completion in early 1980, will include the development of port marketing strategies and a comprehensive cargo data system.

The third in a series of Great Lakes Port Development and Shipper Conferences was held in Milwaukee, Wis., in June 1979 to evaluate the direction of programs and priorities of a 5-year effort by the Maritime Administration to improve waterborne commerce on the Great Lakes-St. Lawrence Seaway System.

One of the conference's top priorities, a proposed Great Lakes Marketing Corp. (GLMC) to promote the Fourth Seacoast as a commercial entity, was advanced at Milwaukee. The GLMC concept was originated at the first Great Lakes Port and Shipper Conference in Dearborn, Mich., in the spring of 1976 and was reaffirmed at the Cleveland review session of the Port and Shipper Conference in the fall of 1977.

Based on recommendations at the Milwaukee meeting, the Great Lakes Commission assumed the role of coordinator for organizing the GLMC. A grant has been provided by the St. Lawrence Seaway Development Corp. to finance this initial effort. Additional funding may be provided by other Federal agencies.

MarAd's Great Lakes Region has assisted the Great Lakes Commission with the initial planning of the corporation and will continue its efforts until it is operational.

Work continued in FY 1979 on the Alaska Port Planning Study, undertaken in FY 1978 to evaluate marine transportation in Western and Arctic Alaska. In addition, the Agency initiated Phase II of the Hawaii Port Planning Study, begun in 1978. This ongoing study seeks to define existing and potential cargo flows of all types in domestic and foreign commerce to and from Hawaiian ports.

Work also continued on Phase II of the San Francisco Bay Port Planning Study, which was initiated in FY 1978 to provide specific regional and port impact statements of marine terminal development at selected bay shoreline areas. Other studies are underway to identify port needs in Oregon, Texas, Maryland, and Virginia.

In the planning stage are cooperative undertakings involving ports in New England, New York, New Jersey, South Carolina, North Carolina, and the Delaware River area, plus an update of the Washington State port plan.

MarAd contractual and staff port studies completed or underway for FY 1979 included:

- *National Port Assessment*—an evaluation of regional port system capacities, cargo demands, and overall port facility needs.
- *U.S. Port Development Expenditure Survey*—An update of earlier reports containing historical data since 1946; includes information on capital expenditures made by U.S. ports for the years 1973 to 1978 with projections for 1979-83.
- *Public Port Liability Insurance Study*—an investigation of alternative methods of acquiring liability insurance for public ports at reasonable costs.
- *Local Port Economic Impact Methodology*—a standard set of procedures, published as the *Port Economic Impact Kit*, for use by local communities or port authorities in preparing their own economic statements at minimal expense.
- *Regional Input-Output Port Impact Prototype*—the development and application of a computer technique to estimate regional port economic impacts; applicable in any port area of the country.
- *National Trade/Vessel Data Analysis Report*—a comprehensive time-series of U.S. oceanborne trade statistics.
- *Emergency Berth Utilization Reporting System (Phase II)*—a computerized port management system for assigning vessels to berths and reporting their locations during times of national emergency.
- *Conservation of Energy at Port Terminals*—an audit of energy uses and consumption rates at port terminals with a recommended conservation plan.
- *Port Development Programming and Financing Methods and Sources of Implementation*—an in-house study to determine the current methods used by Great Lakes ports in obtaining financing for capital-investment programs.

## Equipment and Facilities Program

MarAd also helps American port authorities and terminal operators develop equipment and facilities which increase their competitiveness. This technical assistance is designed to reduce costs in the port segment of ocean and domestic waterborne transportation. As in port planning, MarAd shares program costs with others, including industry.

Major projects completed or underway in this reporting period included: U.S. Imports via Minibridge—development

(Continued on page 22 bottom)



# International maritime information:

## World port news:

### SOLAS Protocol enters into force

The 1978 Protocol to the International Convention for the Safety of Life at Sea, 1974 (SOLAS) entered into force on 1 May.

The Protocol was adopted at the International Conference on Tanker Safety and Pollution Prevention in February 1978 and contains the first improvements to the SOLAS Convention to become international law since the convention itself entered into force on 25 May 1980. Most of the measures are designed to improve the safety of tankers, although some also apply to other types of ships.

It has to date been ratified by 19 countries whose combined merchant fleets represent 58 per cent of world gross tonnage.

### Inert gas systems (SOLAS Protocol)

An inert gas system enables tankers to replace the flammable gases in ullage spaces above the cargo when loaded and those that remain in empty cargo tanks with gases which are low in oxygen and thus non-combustible. This is usually achieved by cleaning the ship's boiler flue gas (which is inert) and then pumping it into the cargo tanks, thereby greatly reducing the chances of an explosion occurring.

The 1974 SOLAS Convention contains requirements for IG systems for new tankers of over 100,000 dwt and new combination carriers of over 50,000 dwt.

The Protocol extends these requirements to:

1. All new tankers over 20,000 dwt.

2. All existing crude oil carriers over 20,000 dwt and all existing product carriers over 40,000 dwt, although there is provision for exemption for crude oil carriers between 20,000 and 40,000 dwt if retrofitting is not, in the opinion of the Administration, reasonable and practicable.
3. All existing tankers of 20,000 dwt and above where high capacity washing machines (60 cubic metres per hour and above) are fitted.
4. All tankers using crude oil washing. This is a system whereby cargo oil is used for tank cleaning instead of water.

Inert gas systems will be required within two years of the Protocol entering into force (1 May 1983) for existing tankers of 70,000 dwt and above and within a further period of two years (1 May 1985) for crude carriers of 20,000 dwt and above and product carriers of 40,000 dwt and above.

New tankers are defined as those which have:

1. A contract date after 1 June 1979 or, in the absence of such a contract,
2. Their keel laid after 1 January 1980, or
3. Are delivered after 1 June 1982.

### IMCO 'faces greater challenges in the 80s'

'The decade of the eighties and the period beyond will present IMCO with challenges of perhaps greater magnitude and variety than were faced in the sixties and seventies', the Secretary-General, Mr. C.P. Srivastava, said in his summary of recent developments which was submitted for consideration by the 46th session of the IMCO Council in June.

He said: 'The many and sometimes revolutionary changes in shipping and related maritime activities and the increasing interest of many more countries in those activities have already necessitated a radical reappraisal of the ideas and procedures for regulation which were considered as adequate only a few years ago.'

'The arrival of the larger and more complex ships and other craft, of new technologies and new procedures have necessarily required the development of new standards and major adaptations of existing standards. As the role of shipping in world trade and development increases and the interest of the international community in maritime safety and pollution prevention becomes greater, IMCO will need to be in a position to respond to the increasing calls on it as the world's premier specialized agency for promoting these necessary objectives.'

During the last biennium, the Secretary-General said, there has been a serious reappraisal of the methods of work of IMCO and its principal committees. One result has been a reduction in the number of meetings, which has enabled Member Governments to concentrate on the implementation of existing standards and an examination of problems encountered.

(Continued from page 21)

of a quantitative data base for minibridge imports; Marine Terminal Automated Management System—demonstration of a computerized system to expedite movement of containers through a public terminal; Port Emergency Planning—development of emergency standby contracts; and Electronic Data Interchange—public marine terminal requirements for intermodal communications.

Among other MarAd projects in this area were a Vessel In-Port Locator Demonstration Conference—a meeting regarding a computerized information system to coordinate inport operations of vessels; Improved Productivity for Bulk Facilities in the Great Lakes Area—an assessment of costs and benefits for alternative means of upgrading or constructing bulk facilities; Tanker Berthing Evaluation—a comparison of alternative tug types and docking techniques through full-scale tests and simulations; Terminal Facility Guidelines for RO/RO Service—specifications and unit-cost estimates for RO/RO terminal construction; Improved Port Fendering Systems—development and publication of design specifications and cost estimates for improved pier fendering; and Tug Fire-Fighting Module—demonstration of a portable equipment system to enable tugs to be used as auxiliary fireboats in a fire emergency.

But although the number of meetings held during 1980 and 1981 was smaller than in the previous two years 'the pace of work in the Organization has not slackened but has, in fact, increased on many fronts. There is every indication that this trend will continue in the coming biennia and beyond'.

The Organization is now concentrating on measures and programmes to promote the early entry into force and effective implementation of existing standards. The success of this policy could be judged from the fact that during 1980 a record number of ratifications and acceptances were received in respect of conventions and other treaty instruments for which IMCO performs depositary or other functions, and the trend has continued into 1981.

To assist the implementation process, IMCO has organized a number of seminars and workshops around the world. Mr. Srivastava described them as 'a central plank of IMCO's activities'.

Another area which has expanded in recent years has been IMCO's technical co-operation programme, Mr. Srivastava said: 'This is now viewed not merely in terms of the original objective of helping developing countries to develop and improve their maritime capabilities in accordance with global standards and regulations developed in IMCO, but also as part of the international programme of facilitating the transfer of technology and technological expertise between the developed and developing countries and promoting a new international economic order by improving the capacities of the developing countries in order to increase their ability to contribute to world trade and development.'

The Secretary-General went on: 'By assisting developing countries to determine their requirements in the maritime transport sector . . . IMCO in effect helps and supports the endeavours of these countries to develop their maritime programmes for the good of their national economies. But in doing so, these countries are also enabled both to undertake their national programmes in accordance with international standards and regulations and to implement and enforce the requirements of international standards.'

He said: 'In the field of maritime safety and pollution prevention the success of all depends on the success of each and the efforts of the many can be jeopardized by the omissions of the few.'

'It is therefore of fundamental importance that all who engage in shipping and related maritime activity are able to do so on the basis of adequate standards carefully developed and formulated and effectively implemented and enforced.'

## **IMCO's name to change on 22 May 1982**

IMCO is to change its name to the International Maritime Organization on 22 May, 1982.

The name-change is one of a number of amendments to the IMCO Convention which were adopted in 1975 which have now been accepted by two-thirds of IMCO's 121 Member States.

Good progress has also been made towards the entry into force of amendments adopted in 1977 and 1979. The former have so far been accepted by 61 Member States.

The 1979 amendments have been accepted by 29 Member Governments. Both sets of amendments will also

enter force a year after being accepted by two-thirds of Contracting Parties.

## **UNCTAD Shipping Division completes 8th port management training course**

On 17 July 1981 UNCTAD's Shipping Division completed a seven-week port management training course for French-speaking developing countries. This course was the eighth in a series of nine similar courses presently financed by the Swedish International Development Agency and the United Nations Development Programme and was hosted for the second time by the Government of the Ivory Coast within the framework of the Regional Maritime Academy for Sciences and Technology of the Sea. The course brought together thirty-four senior port officials from fifteen developing nations of Africa and the Middle East; (Algeria, Benin, Cameroon, Cape Verde, Congo, Equatorial Guinea, Gabon, Iran, Ivory Coast, Madagascar, Mauritania, Morocco, Senegal, Togo and Tunisia). It was designed to present comprehensive analytical management techniques to improve port performance and therefore covered a broad range of subjects including port administration, financial management, port operations and port planning. Special emphasis was given to the specific needs of developing countries' ports and their own local conditions in relation to experiences elsewhere. Expert lecturers came from the Ivory Coast, Cameroon, Zaire, Nigeria, Morocco, Belgium, France and UNCTAD Shipping Division. During the course a one-week study tour to the Lagos port complex of Apapa and Tin Can Island was hosted by the Nigerian Ports Authority.

During his speech at the closing ceremony the Minister of Marine of the Ivory Coast, Lamine Fadika, recalling the basic principles of the New International Economic Order, stressed the need for developing country cohesion in the North-South dialogue aimed at the restructuring of the economic relations between developed and developing countries in order to promote authentic interdependent development, which would ensure both the continued development of the South and industrial growth in the North. Earlier he had emphasized the role played by the Ivory Coast in striving to obtain this objective in the important developmental field of shipping through the implementation of the UN Code of Conduct on Liner Conference. In this context he reminded participants that 90 per cent of the third world's trade is sea-borne and that while developing countries generate 60 per cent of the world's exports they own only 10 per cent of the world fleet.

Finally, in expressing appreciation to UNCTAD as organisers of the eighth port management training course, he stressed the importance of ports in world trade. He underlined the contribution that the participants would now make in stimulating third world development and trade through more rational development of their ports and how this would promote the real economic independence of their countries.

In appreciation of the efforts UNCTAD devotes to training, the Government of the Ivory Coast invited Mr. Adib Al-Jadir, Director of the Shipping Division, to Abidjan to attend the closing ceremony of this course. Mr. Al-Jadir emphasized the usefulness of senior port management

training courses in making possible mutually beneficial professional contacts between participants from different regions of the world and in developing responsibilities and decision-making procedures in order to increase port efficiency and thereby stimulate the orderly development of sea-borne trade. In the light of the success of this well-attended course, portraying the importance governments attach to senior management training, he pledged that UNCTAD would continue its efforts to assist port development.

## Brazilian ports news in brief

- Minister Eliseu Resende, of Transports, assured that early 1982 the roll-on/roll-off terminals of the main Brazilian ports shall be operating.
- The Government of the State of Pernambuco, is asking for a financial participation of the Federal Government, in order to resume the works of the Industrial and Port Complex of Suape, now virtually stopped.
- Companhia Docas do Rio de Janeiro (CDRJ) is the first Brazilian port entity to introduce a standard document system for the handling of cargo in the coastal trade, having in view to simplify the operations.
- Minister Eliseu Resende, of Transportation, announced that the government is firmly decided to solve the bureaucracy problem in the ports. The first experience may occur in the Port of Rio de Janeiro where a study group is investigating the matter.
- This year Portobrás shall have one more subsidiary of mixed capital, the Companhia Docas do Estado de Espírito Santo, who shall administer the ports of Vitória, Capuaba, Barra do Riacho and the future port of Praia Mole.
- Portobrás announced that this year 2.920 million cruzeiros are going to be released for the construction of port works in the Northeast of Brazil, from the State of Maranhão to the State of Bahia.
- A series of studies ordered by Portobrás are under way, having in view the provision of equipment for the Brazilian ports, in the best possible way, considering the large container handling volume expected after the inauguration of the specialized container terminal of Santos.
- During the three first months of this year Portobrás invested 155 million cruzeiros in the purchasing of equipment for Brazilian ports.
- Portobrás' President, Engineer Arno Markus, obtained the guarantee of the Consortium Zanini/Sade that the works of Sepetiba shall be ready for inauguration in December 81.

## VI Inter-American Port and Harbor Conference to be held Oct. 13-17 in Guatemala

The conference will be divided into two general categories, Port Administration and Port Operations. Different countries will present papers examining a wide array of sub-topics. The Port Administration program will include reports on: establishment of a uniform and flexible statistics and information system; inter-American port and harbor training programs; impact of port improvements on freight rates; establishment of regional associations for negotiations with maritime conferences; and a model draft

port rate structure.

The Port Operations segment will explore such issues as: an inter-American manual on port safety and control; water pollution and the establishment of regional centers to control pollution caused by major disasters; port congestion and surcharges—means for preventing, alleviating and remedying port congestion; and the impact of multimodal transport on ports in the region and a plan of action to adapt them to this new mode of traffic. (AAPA ADVISORY)

## 7th International Symposium on the Transportation of Dangerous Goods by Sea and Inland Waterways

The Government of Canada and the Government of the Province of British Columbia, in conjunction with the Canadian Committee of the International Cargo Handling Coordination Association (ICHCA), will host the 7th International Symposium on the Transportation of Dangerous Goods by Sea and Inland Waterways in Vancouver, from September 26th to October 1st, 1982.

### Symposium Themes

(Subject to change at a later date)

1. Dangerous Goods in Ports
2. Containerized Dangerous Goods—Are The Present Standards Adequate?
3. Total Inter-Modality—A Viable Concept?
4. Barging and Ferry Systems—A Separate Approach?
5. Bulk Carriage of Dangerous Goods—Including MHB's
6. Dangerous Goods Carriage in Special Marine Systems and Remote Areas
7. Emergency Response and Associated Training

## St. Lawrence Seaway toll increase deferred til next season

The proposed 30 percent toll increase on the St. Lawrence Seaway has been deferred at least until next season. Nevertheless, the pressures that led to the initial recommendation—inflation, increased maintenance and declining vessel traffic—do not appear to have abated, at least according to David W. Oberlin, administrator of the Seaway Development Corporation. Speaking before the annual meeting of the International Association of Great Lakes Ports in Duluth, he stated that the Seaway Corporation has already cut back on non-essential programs as much as possible and has deferred a million dollars worth of projects—dredging, navigational aids and seaway extension—to help offset the system's growing debt. Forecasts indicate a two-year shortfall of \$3.8 million for the U.S. operation. For the Seaway Authority of Canada, the projected deficit over the next couple of years is \$23.3 million. Present tolls amount to about five percent of shipping costs and would rise to around six percent if the proposed increase goes through. Mr. Oberlin told the group that only a complete federal underwriting of the Seaway cost in both the U.S. and Canada could totally eliminate tolls. That possibility, he said, however, is out of the question in view of the prevailing user-pay philosophies shared by both governments. (AAPA ADVISORY)

## Work on schedule for new berths: Nanaimo Harbour Commission

The September target date is now well within reach for completion of the Nanaimo Harbour Commission's twin-berth facility under construction at Duke Point. The \$20.5 million project, when completed, will be operated by the NHC together with its current facility in the Nanaimo Inner Harbour. The Dillingham Corporation, contractors for the job, have now completed the laying of seven circular steel cells in a line forming the main base for a 200 metre long dock. The cells are now infilled and work is proceeding on pouring concrete bollard bases and the concrete surrounds of the assembly dock. Two dolphins out from either end of the dock will allow the NHC to cater to all sizes and types of ships now in operation.

While work on the main wharf continues, dredging is deepening the basin for a barge berth sharing the site. Early in August giant concrete forms were under construction to be sunk and form the foundation for the loading ramp for the berth.

The Duke Point facility is due to be opened September 14th by Federal Transport Minister Jean-Luc Pepin and Provincial Minister of Industrial Development Don Phillips during the annual convention of the Canadian Ports and Harbours Association which the NHC will host.

## Ridley Island — A natural for success!: Port of Prince Rupert, National Harbours Board

Following the completion of many studies commissioned to identify potential sites for bulk handling terminals on the North Coast of British Columbia, Ridley Island has been chosen as the site for major development in the region.

Ridley Island is unique in that it is a relatively flat area adequate for bulk terminal development and offers deep water berthing.

Road, rail and utility services are in close proximity to this site. In addition to the provision of major grain and coal terminals, land area is available to provide for the terminal requirements of other commodities such as sulphur, potash and petrochemicals. Sites for processing plants and sawmills as well as support industries are available.

## Saint John's versatility grows

The new era in shipping is opening at Canada's "port for all vessels" this year. Saint John, New Brunswick, is playing host to the luxury liner M.S. SAGAFJORD for three separate tourist visits in 1981.

The vessel is the first international cruise ship to call at Canada's oldest harbor in 40 years. Its maiden voyage into Saint John was welcomed recently with marching bands and a parade. The 425 passengers debarked at the newly enlarged Pugsley Terminal and toured points of interest in New Brunswick for three hours.

"While the cargo-laden ships are vital to our economy and establish our position in the world," said Neil McKelvey, Chairman of the Saint John Port Development Commission, "we welcome vessels like the SAGAFJORD because it underlines our versatility as a port and a city.

"It also allows us to show off Saint John and its many attributes to more citizens of the world," he said. "This

largest port in Atlantic Canada will now have a new kind of 'people traffic' in addition to the growing 'vessel traffic'."

In the last 10 years the port of Saint John has been upgraded to meet today's shipping demand at a price of more than \$100 million.

In addition, a Master Plan for the Port of 1990 calls for an additional investment of \$172 million for expansion and major improvements. A 62 percent increase in port-related employment will result and the harbor will be able to nearly double its cargo-handling capacity by 1990.

While cargo ships and freight movements through the city generate tangible revenue per ton, passengers on cruise ships are expected to spend \$70 per person in local shops. Not only are the sleek lines of such as the 24,000-ton Norwegian American Line luxury liner an awesome sight in the city of 100,000 and the international flavor of its passengers pleasing local citizens but it is also good for the economy.

## Major Seaway expansion a must : Great Lakes/Seaway Task Force

Unless the St. Lawrence Seaway undergoes major expansion, the system will not be able to meet minimum traffic growth projected for the coming decade, according to the Great Lakes/Seaway Task Force report presented to the Ontario Government last month.

The Task Force, established in the summer of 1980 to re-examine water transportation potential on the Seaway System, handed down 47 recommendations in its 88-page report. Findings were based on briefs submitted by interested parties and by discussions held at a series of hearings across the province. The Toronto Harbour Commission submitted two briefs to the 15-member Task Force which was chaired by Ralph S. Misener, retired chief executive of Misener Transportation Ltd., St. Catharines.

Summarizing the Task Force's findings, Mr. Misener said, "Traffic forecasts indicate the Welland Canal will be taxed to its limit by the mid-80s, limiting the transport of vital commodities such as grain, iron ore and coal."

To offset resulting delays that could affect both Canadian industry and the country's foreign balance of payments, the report recommended short-range improvements to the Welland, along with the immediate start-up of planning and design for a major enlargement of both the Welland and Montreal/Lake Ontario sections of the system. The report also suggested that plans be conducted in concert with U.S. Seaway interests.

Immediate improvements which could help reduce tie-ups include: widening narrow sections to allow two-way traffic, the use of special tugs (shunters) to help speed the passage of ships through the locks, improved navigational aids allowing faster and safer passage, and the realignment of approach walls to permit waiting ships to tie up closer to the lock gates. Some relief might also be possible by directing traffic by computer instead of manual and mechanical devices. Computerization could be particularly valuable on the Welland Canal which is the inland waterway's principle bottleneck.

The report also dealt with increasing the tonnage of vessels already using the system and stepping up the number of transits during the season. One solution would be to increase certain vessels' allowable draught when lake levels are above chart datum. This would mean a consider-

able increase in cargo-carrying capacity since a 730-foot vessel would be able to carry 1,300 extra tonnes of cargo for each extra foot of draught. By implementing additional safety measures, the study also pointed out that the allowable length of ships passing through the locks could be increased.

One method of boosting the number of transits during the season would be the expansion of the present 8½-month navigation season to 9½ or 10 months. The report has called on the Ontario Government to co-ordinate all agencies affected by a permanent extension of the navigation season and form a working group to resolve issues related to extension, taking into account the environmental impact of the movement of ships through ice.

But, all of these improvements combined are not likely to be sufficient to meet anticipated 1985 demand, the report concluded.

"Major physical improvements become inevitable despite their costs, if the system is to grow," the report said.

Some of the options open are twinning the existing facilities and retaining the maximum vessel length of 730 feet or enlarging the system to allow passage of 1,000-foot vessels.

The Task Force has also urged the Federal Government to encourage longrange commitments for the transport of grain as an incentive to carriers to maintain a modern, efficient fleet. The study also endorsed the construction of new vessels with increased cargo-carrying capacities by making ship subsidies more attractive, and increasing the number of shipbuilding and repair centres on the Lakes. Meanwhile, the Task Force asked the Provincial Government to study the need for more dry docks, identify potential sites and help Ottawa give financial assistance for such projects.

Although the problem of congestion on the Seaway system was the focal point of the Task Force report, two other areas were also discussed; public awareness of the economic importance of the Seaway to Ontario and special issues related to the maintenance and operation of the 3,680-kilometre waterway.

The report called on the Ontario Government to tell the story of the economic significance of the system to the entire continent and recommended the establishment of a marketing agency to promote its commercial use. The operation of such an agency would involve the domestic and foreign offices of both the Provincial Ministry of Industry and Tourism as well as the Federal Department of Industry, Trade and Commerce. Funding could come from all interested and/or beneficiary parties.

A number of issues related to the efficient operation and maintenance of the system were examined. Some of the Task Force's recommendations in this area were: increased funds for the Canadian Coast Guard, the formulation of a provincial ports policy, Canadian Great Lakes fleet be permanently exempted from compulsory pilotage west of Montreal, a study be undertaken to clarify the responsibility for marine safety on the system, the establishment of a long-term dredging program to allow the transportation system to be utilized to its best advantage, and improved training for seamen and officers.

The Task Force also urged the Ontario Government to take the position with Ottawa that any tolls policy on the system be closely monitored to assure that the Canadian economy is not adversely affected. The government has also been asked to undertake a review of the import/export rail

rate structure to determine the existence and extent of discrimination against Great Lakes ports.

In accepting the report, Minister of Transportation and Communications James Snow said: "As part of the Board and Industrial Leadership Development program (BILD), the government will provide funding related to recommendations contained in the Task Force report, including expansion of drydock facilities and accelerated development of deep water ports and small harbours."

Since the report was handed down to the Ontario legislature, the Ministry of Transportation and Communications has already established an office to co-ordinate and implement proposals put forth by the Task Force.

## Sees 1981 as landmark year for Port of Vancouver

This is a landmark year in the history of the Port of Vancouver, General Manager F.J.N. Spoke declared in an address given recently to the Vancouver Board of Trade's Community Affairs Committee.

Describing the recently announced capital projects for the Port of Vancouver, he stressed their importance for the economic future of the region and the nation.

The three-year improvement program at Vanterm; the new Clark Drive overpass; the upgrading of the Lynnterm forest products and general cargo facility; the improvements at Centennial and the Roberts Bank project, cannot be overestimated, he added.

Also under way, a Master Plan for the Port of Vancouver will provide valuable guidelines and should help produce economically, environmentally and socially sound targets.

The Port Manager noted the spinoff effect of these events, saying that while it is impossible to forecast them in dollar value, some idea of their possible result may be found in looking at the economic impact of the Port between 1974 and 1980.

"Port tonnage in those six years rose from an annual 38 million tonnes to 50 million," he said.

"The employment impact increased from 54,100 jobs to 65,400 and the payroll impact . . . almost doubled to \$1.2 billion in 1980. Total sales impact on the Greater Vancouver region soared from \$1.99 billion to \$3.64 billion—all in just six years."

He expressed optimism that new initiatives under way will produce federal port legislation that will resolve the vexing problem of centralized decision-making.

In conclusion he called for more united community support of Port endeavours, and suggested that greater benefits would accrue to all Canadians if local entrepreneurial self-interests could be marshalled in a collective effort to enhance the effectiveness of the Port.

## MARAD transfer

The legislation (H.R. 4074, Jones-NC) authorizing the transfer of the Maritime Administration to the U.S. Department of Transportation was signed into law (PL 97-31) by President Reagan on August 6. The change-over, according to the President, will help "in considering the maritime industry as a part of a comprehensive national transportation system." He also announced that Transportation Secretary Drew Lewis will be the Administration's spokesman on maritime matters, thus resolving, as he put it, "a frequently-expressed desire of both the Congress and industry for a single focal point for maritime matters within



the Executive Branch.” (AAPA ADVISORY)

## World Bank holds training program in Baltimore

In an effort to determine what the funding needs of the world's ports and shipping sectors might be in the future, the World Bank recently participated in a Port Training Program in Baltimore.

Sponsored by the Maryland Port Administration and the World Trade Institute, the arm of The World Trade Center Baltimore involved in education in the field of foreign commerce and the promotion of international understanding, the three-day program was attended by 19 officials from the World Bank's Department of Transportation, Water and Telecommunications.

In order to gain an understanding of what makes a modern efficient port work and work well, the participants spent a majority of their time with Maryland Port Administration department heads who presented workshops on such issues as port planning, including dredging problems and solutions, tariffs and governmental regulations, port finance, port operations and port security, among other. A workshop on the U.S. Customs Service was also part of the program. Field Trips included a harbor tour, bus tours of North Locust Point and Dundalk Marine Terminals and visits to several stevedoring operations.

The World Bank has traditionally financed all kinds of infrastructure such as roads and railways, telecommunications, ports and power facilities as part of its overall function of providing financial and technical assistance for the development of its poorer member countries.

Based in Washington, D.C., the World Bank is a group of three institutions—the International Bank for Reconstruction and Development (IBRD); the International Development Association (IDA); and the International Finance Corporation (IFC) which have the common objective of helping the governments of developing countries raise the standards of living by channeling financial resources and technical advice from developed countries to the developing world.

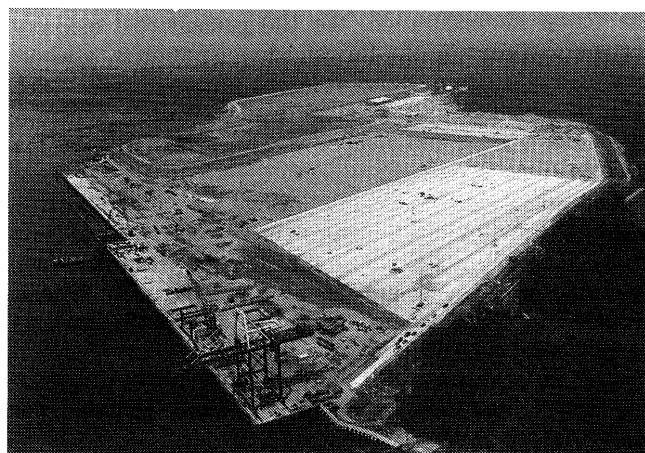
The Bank's activities have expanded so rapidly over the years that it is now providing almost \$11,500 million annually in support of projects designed to raise living standards. The assistance is provided for a variety of projects, large and small, public and private in such sectors as agriculture and rural development, education, electric power, energy, industry, and transportation.

In fact, through the end of June (FY 1981), lending operation for ports and waterways projects totalled 113 with the amounts lent aggregating to over \$2.25 million. For the current year, (FY 1982), over \$468 million is earmarked for nine port and waterways projects. The bank has also lent about \$500 million for shipping, both domestic and international, to date.

The World Bank hopes, through its heavy involvement with ports and the financing of such projects, to contribute to the economic well-being of the member countries.

Because the World Bank recruits its staff from over 11 nations, seminars such as the one held in Baltimore are “the most efficient and effective way to keep our personnel up-to-date in terms of the latest developments in specialized fields” said A.J. Carmichael, Ports Advisor for the World Bank. “Although intense, the seminar in Baltimore was scheduled so that only three valuable days of work were

## Wando River Terminal Opening Planned in October



**OCTOBER OPENING PLANNED**—Construction is ahead of schedule on the South Carolina State Ports Authority's Wando River Terminal at the Port of Charleston. When the terminal opens for business, two of its four container cranes and half its initial 2,400-foot berth will be completed, as will a substantial portion of its 110-acre container storage area. Also ready in October will be a 100,000-square-foot container freight station, 200 reefer plug-in facilities and a 6,000-square-foot building to house receiving & delivery, Ports Authority offices and U.S. Customs operations.

missed,” Carmichael said. “Compared to other seminars we've had, the one in Baltimore was well worthwhile. This was our first seminar in Baltimore and I hope it will not be our last.”

## National port policy: South Carolina State Ports Authority

A uniform national policy has been drafted to influence federal efforts which would alter traditional funding of navigation channel projects. It was prepared by the U.S. coordinating committee of the American Association of Port Authorities (AAPA).

The policy draft is being reviewed by port directors throughout the country, said W. Don Welch, AAPA president and coordinating committee member. He made the report to the South Atlantic and Caribbean Ports Association (SACPA) of which he also is president. That body's spring meeting was held April 23-24 in Jacksonville.

Mr. Welch, executive director of the S.C. State Ports Authority, told the SACPA that a coordinated approach by their industry to proposed waterway legislation is vital to the ports' economic health.

Had the AAPA adopted such coordinated actions in the past, he suggested, such measures as the Clean Water Act

which have adversely affected the port industry may not have cleared Congress in their existing forms.

Although U.S. ports were "neglected and abused" under the Carter administration, the 100 percent cost recovery scheme proposed by the Reagan administration is "a whole new ballgame, even worse than the old one," Mr. Welch said. He added that the proposal would seriously endanger the nation's small and medium-size ports and, in turn, the entire national economy.

The policy draft is flexible in light of a potential split within the AAPA. Such high-volume, "rich" ports as New York, Long Beach and Houston believe they can pay their own way on dredging projects and thereby lessen federal intervention. Small, "poor" ports do not have the revenues to fully cover such projects.

Because of this and the many differing pieces of legislation which have been proposed, Mr. Welch said that the draft offers three alternate funding methods.

The first method, which he said is most popular in the South Atlantic, would simply maintain the existing system under which the federal government completely funds the projects, employing customs receipts and user fees to cover the costs.

Should the federal government decide that it wants a higher cost return, it can increase the user fees to achieve additional revenues.

However, Mr. Welch and several other port officials at the meeting said that the port industry should insist that these revenues be placed in a fund specifically intended for waterway projects. Under the existing system, the revenues go into a general fund that permits about 30 percent of the \$6 billion in customs receipts to go to the Department of Agriculture.

The third alternative would restrict the Reagan administrations' cost recovery proposal to those ports which either have or seek channel depths exceeding 40 feet. Dredging to 40 feet or less would be funded under the existing system. Revenues for the deeper projects would be collected on a port-to-port basis, allowing the individual ports to determine if they want channels that deep and if they want to pay for them.

Mr. Welch said the policy draft also calls for national recognition of the country's dependence on waterborne commerce; the existence of an interlocking transportation system rather than a series of isolated ports, airports, rail lines and truck terminals; the past public investment in port facilities made on the local and state levels in good faith that the federal government would play its part; the 1.46 million persons employed at U.S. ports; the \$6 billion received in customs receipts, and the need for a faster, more streamlined environmental permitting process to eliminate the backlog of pending channel projects.

Despite general support in the port industry for the Reagan administration's economic goals, Mr. Welch said the administration's concern for "economic purity" has resulted in port positions that "are not thought out".

"The regional and national implications of the ports have been totally missed by the administration," which views them as local entities, he said, adding that the Port of Charleston has a 25-state market.

Without the U.S. ports facilitating the movement of exports, the country would have been in a depression rather than a recession, as it has been the foreign operations

generating the profits, not the domestic sales, noted Robert Goethe, assistant director of the Georgia Ports Authority.

Because it is doubtful that the port industry can persuade the administration to soften its stance, Mr. Welch said, "our only remedy is through Congress." But, in order to influence Congress, the port industry must adopt a uniform position, he emphasized.

The lack of coordinated action in the past was a "major default" from which the port industry is still trying to recover and in some cases never will, he said. For instance, "it will be virtually impossible to overhaul the Environmental Protection Agency and all its legal underpinnings."

Also recommending a coordinated lobbying effort was Gen. James N. Ellis, the South Atlantic division engineer for the U.S. Army Corps of Engineers, during his speech to the SACPA.

Claiming that the climate for change is the best since the early 1950s, Gen. Ellis told the South Atlantic port officials that "your opportunity to influence is now," adding that this can best be achieved by the seaports renewing their ties with the inland waterways and by keeping port interests fresh in the minds of their legislators.

"We in government are trying to get out of the way, but the environmental regulations are still on the books," he said, meaning that the Corps must continue its attempts to balance its commitment toward protecting the environment while trying to further commerce.

## **40-foot channel dredging completes; Corps finishing 45-foot study: Port of Corpus Christi Authority**

The Army Corps of Engineers has completed restoration of the 40-foot project depth of the 8.5-mile Inner Harbor channel west of the Harbor Bridge.

Controlling depth to most of the public and private petroleum handling docks and the Producers Grain Elevator dock is 40 feet or more.

The 38-foot Inner Harbor channel draft restriction imposed in 1977 has been lifted by the Port Authority and harbor pilots.

In the coming weeks the Army Corps of Engineers will publish the results of its effort to arrive at a consensus dredge material disposal plan for the Inner Harbor 45-Foot Project.

The 45-Foot Project, already 70 per cent complete, has been finished from the Gulf to just outside the Inner Harbor.

The Corps has been studying several disposal site alternatives that will satisfy the requirements of the deepening project plus all the maintenance dredging of the Inner Harbor for a 50-year period.

## **Port of Houston announces next steps in expansion**

The Port of Houston Authority has announced the next step in its continuing expansion program will be the construction of new facilities for the handling of break-bulk, container and dry bulk cargoes.

Construction of the two docks and improvements to the

Bulk Materials Handling Plant will be financed in part with \$25 million received by the Port Authority during June from the sale of general obligation bonds. The bonds were the remaining half of a \$50 million issue authorized by Harris County voters during 1979.

Most of the first \$25 million of the bond issue were invested at Barbours Cut, the modern intermodal terminal near La Porte which has been the site of the majority of the Authority's capital improvements since the first construction was started there in 1970.

The Turning Basin dock will be the first new one to be built in the area since 1969. It will also be the first Port Authority break-bulk cargo outside the Loop 610 bridge. Officials of the Port Authority say this new facility is needed because berth occupancy in the Turning Basin area is running at 80 percent, about twice the rate of the average port.

The new dock will be 800 feet long. Port officials said they are considering equipping it with a ramp to handle rool-on/roll-off cargo.

The new container wharf at Barbours Cut will be 1,000 feet in length and will be backed by more than 36 acres which will be developed later for the marshaling of containerized cargo.

Completion of the wharf projects is expected to take about two years.

## **Vice President Bush presents 'E' Award to Port of Houston Authority**

Vice President George Bush presented the President's "E" Award for excellence in export service to the Port of Houston Authority.

The presentation was the highlight of a World Trade Week conference co-sponsored by the Port Authority, the Houston Chamber of Commerce and the U.S. Department of Commerce.

In the name and by the authority of the President of the United States," he said, "I now have the honor to present the "E" Award for Export Service to Fentress Bracewell. Congratulations."

Mr. Bush handed the certificate to Mr. Bracewell, then unfolded the "E" Pennant and held it up for the audience.

"It is a privilege and an honor to accept this award in behalf of the Port of Houston Authority," Mr. Bracewell said. "This award has added significance because it is presented by Vice President Bush, our good friend and neighbor.

The award was specifically for Export Service. It recognized the Port Authority's "outstanding creative marketing and promotional services made available to and used by exporters in the development and expansion of export markets . . ."

The Port of Houston ranks first among American ports in foreign trade volume, moving more tonnage in international commerce than any other U.S. port. Over the years, the trade balance of goods moved through the port has consistently been favorable to the United States—values of exports have exceeded values of imports.

The balance in 1980 was \$11.7 billion in exports to \$11.3 billion in imports. The export totals from 1979 back through 1976 were \$9.5 billion, \$7.2 billion, \$5.6 billion and \$5.5 billion. Officials estimate more than a third of

these exports passed through Port Authority facilities.

## **President, vice-president re-elected: Port of Los Angeles**

Jun Mori and Mrs. Gene Kaplan have been re-elected president and vice president, respectively, of the Los Angeles Board of Harbor Commissioners during a recent Commission meeting in San Pedro.

## **Port of Long Beach 70 years young**

Long Beach Harbor celebrates its 70th "birthday" on June 24, marking seven decades of remarkable growth and progress since becoming a municipal port on that date in 1911.

Starting with a single wooden dock in the old Inner Harbor area called Pier 1, Long Beach today is a \$300-million superport capable of berthing more than 50 vessels at one time, including large bulkships and tankers in the 165,000 ton class.

With 60 feet of water from Queen's Gate through the main channel to the Turning Basin, Long Beach boasts the deepest man-made harbor in America.

In the last decade, Long Beach has assumed leadership among all U.S. West Coast ports in foreign trade, general cargo and export tonnage. The port has received both the Presidential "E" and "E-Star" awards from the U.S. Department of Commerce for Excellence in Exporting, an honor shared with New York and New Orleans.

During calendar year 1980, the Port of Long Beach handled a record high of 41.2 million metric revenue tons (45.4 million short revenue tons) of cargo valued at more than \$13-billion. This is equal to the total assessed valuation of Orange County.

The number of cargo vessels calling at Long Beach in 1980 also reached new highs, with a total of 4185 ships docking at the Port's 66 berths.

Long Beach Harbor plays an essential role in the existence of more than 137,500 jobs in Southern California, which translates into annual personal expenditures of \$160-million for food, \$152-million for housing and transportation, \$114-million for clothing, personal and medical care, \$49-million for recreation, education and insurance, \$28-million for savings and investments and \$49-million for personal income taxes.

Additional indirect benefits to the Southern California regional area are estimated to be in excess of \$2.3-billion per year, bringing the total value of Port related earnings and expenditures to nearly \$3-billion annually.

Long Beach Harbor presently has seven container terminals, which are now being expanded from 320 to 410 acres. This is one of the largest container complexes in the entire Pacific and handled an estimated 65 percent of the record 12,109,320 metric revenue tons of general cargo which moved across Long Beach berths in 1980.

Planned for future development is a Long Beach World Trade Center in downtown Long Beach to provide a focal point for the shipping and International commerce community in Southern California.

In addition to its extensive cargo handling capacity, the Port of Long Beach provides public recreation facilities, including sportfishing harbor and coastal cruises and Catalina Island passenger service. The RMS Queen Mary with its hotel, restaurants, shops and convention rooms, is a

famous port landmark destined for further fame under the direction of Wrather Port Properties.

With some \$1.4-billion being invested in Long Beach by various governmental agencies and private sources during the next five years, Long Beach Harbor looks forward to a new era of expansion as it enters its eighth decade of service to the Southern California community.

## **Port of Los Angeles provides employment for 32 percent of area's work force**

Businesses operating in the Port of Los Angeles provide jobs for about one-third the work force of four districts comprising the Harbor area.

The employment data was contained in a survey presented to the Los Angeles Harbor Commission on Wednesday (Aug. 19) showing a total of 20,344 currently working in the Port.

The report noted that the Harbor geographic area of San Pedro, Wilmington, Harbor City and the Gardena-Torrance corridor has a population of 152,616 and a civilian work force of 64,409.

The Port "provides employment for nearly 32 percent of the area's work force," the report stated.

The survey covered a wide diversity of employers within the Port such as cargo terminals, ship builders, bulk and scrap metal facilities, oil terminals, small craft facilities, tug and water taxi services, and the Harbor Department staff.

Commercial fishing is the largest category of harbor employment with 6,512 persons employed by fish markets, canneries, fishing fleets and related suppliers.

Although the report indicated that total employment remained stable in most categories, the 4,529 workers at shipyards and boatworks is about 800 less than last year. The decline was partly due to the closing of the Bethlehem shipyard, but three new tenants are taking over the facility and they are expected to create several hundred new jobs.

Employment at lumber yards is also significantly less than last year—28 now vs. 509 a year ago—due to the slump in homebuilding.

The report noted that longshoremen account for 3,163 jobs in the Port.

## **Commissioner Clark describes New Orleans Port's future plans**

An outline of new construction for the Port of New Orleans during the next ten years was presented by Capt. J.W. Clark, vice president of the Board of Commissioners of the Port of New Orleans, when he addressed the annual Dock Board Day luncheon of the Greater New Orleans Traffic and Transportation Club.

Clark revealed that the present Desire Street, Congress Street, and Pauline Street wharves on the Mississippi River will be replaced by a completely new Desire Street Wharf. In addition, farther upriver the present Washington Avenue and Third Street wharves will be removed and a new Washington Avenue Wharf will be built.

In the tidewater area, he stated, the first two multipurpose berths of the new Jourdan Road Terminal now under construction will be finished by 1983, if funds are made available. By the end of the ten-year period, he said, four more berths will be completed, including ro/ro and

container berths. "We hope to acquire additional land from the city and other interests, of more than 60 acres for backup," he added.

Clark also noted that in the same area berths two and three of the France Road Container Terminal are also scheduled for construction. Even more important, he said, there will be an intermodal exchange facility to allow the Public Belt Railroad to load and unload containers as well as trailers on flat cars at France Road and eventually at Jourdan Road.

The commissioner reported that between 1970 and 1990 the Port will have invested \$552 million in Port improvements, and that figure should rise to a billion dollars by the end of the century. He cited various studies that indicate that the Port of New Orleans has "tremendous potential."

"The impact of the Port is felt by everyone in greater New Orleans and the entire state of Louisiana and even far beyond the borders of this state," he said. "The retail stores, banks, insurance companies, repair firms—you can go on and on—there would not be a great city as we know it today if there were not a Port of New Orleans."

Clark noted that the Port received a fortunate break when, after Louisiana was purchased from France under Napoleon, the attorneys who were assigned to prepare the civil code of Louisiana chose to follow the Code Napoleon. This code bestowed a perpetual servitude of all the shores and banks of the navigable rivers to the Port authorities in existence and their successors. This servitude continues today, even though it has been challenged in the courts of Louisiana and in various cases before the U.S. Supreme Court.

Although the Board of Commissioners was established in 1896, he added, it was an act of the state legislature in 1920 that incorporated the responsibilities of the Board of Commissioners within the state constitution. In summary, he stated that the mission of the Board "is to promote the foreign and domestic commerce of New Orleans, the state of Louisiana, and the nation; and to develop and maintain an adequate and modern Port with facilities to handle the increasing commerce both domestic and foreign of our state and nation."

## **Port official reviews expansion of Mississippi River coal facilities: New Orleans**

At a public hearing held by the U.S. Army Corps of Engineers on environmental impact of the proposed dredging of the Mississippi River to 55 feet from the Gulf to Baton Rouge, Col. Herbert R. Haar, Jr., associate port director for the Port of New Orleans, provided details of the planned expansion of coal handling facilities on the lower Mississippi River, including a terminal under consideration by the French government. The deeper channel is needed to handle the 100,000 to 150,000-ton coal ships that will be used to transport sharply increased exports of U.S. steam coal barged down the river to New Orleans and also shipped to the Port by rail.

Haar reported that the "Port's projections for coal movements involve extremely rapid growth." The 12 million tons estimated to move through the area in 1981 is expected to rise to 60 million tons before 1985, then

(Continued on page 32)

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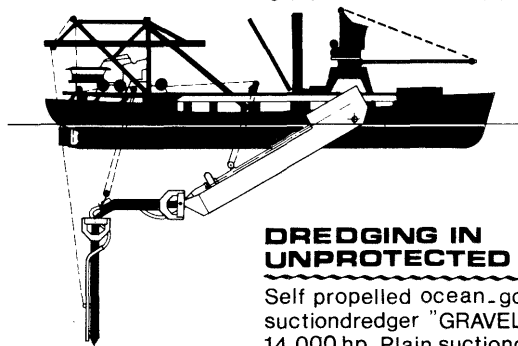
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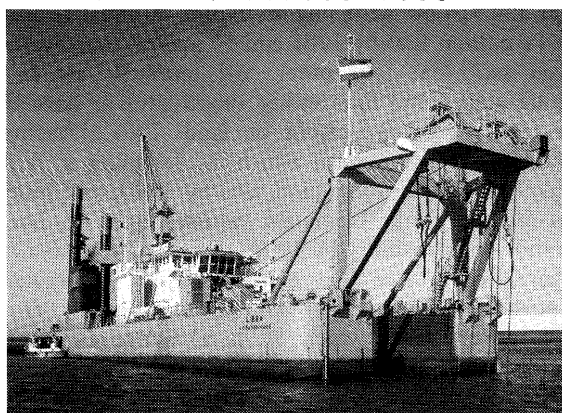
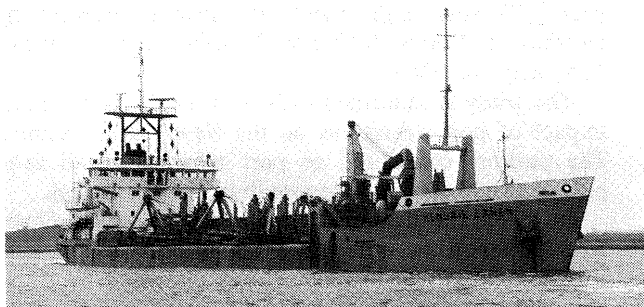
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leap to 120 million tons by 1990. He based this prediction on the fundamentals of the energy crisis, noting the surging cost of petroleum, the fact that other sources of energy will not be available in significant amounts until after the year 2000, and the strong environmental opposition to nuclear power. As a result, "only coal has the immediate potential to alleviate this nation's and allied nations' dependence on petroleum."

Haar described the expansion plans of two coal terminals located about 40 miles downriver from New Orleans. This is an area where ample ground storage is available so that, as Haar put it, "barges do not wait for ships and ships do not wait for barges." International Marine Terminals (IMT) at Myrtle Grove is expanding its 3.5-million-ton facility to 12 million tons. According to company president Louis H. Meece, the addition is targeted for completion by 1982.

The enlarged terminal will be able to load ships at a rate of 7,000 tons per hour simultaneously from barges and storage. A new stacker reclaimer will discharge barges at a rate of 4,000 tons per hour. Meece told delegates to the Coal Export Conference in Washington, D.C. "The only port area that can serve all U.S. coal origins is the Port of New Orleans." He also classified both the potential for increased barge capacity along the Ohio and Mississippi Rivers and the land available for coal terminals in the New Orleans-Baton Rouge port complex as "unlimited."

Electro-Coal Transfer Terminal on the east bank of the river at Davant has announced it will use funds provided by an \$83 million bond authorization to expand facilities to handle 12 million tons of coal by 1985 and 25 million tons by 1990.

The River and Gulf Transportation Company, a U.S. Steel subsidiary, has purchased some 600 acres near Baton Rouge and is now designing an export terminal to handle some 11 million tons by 1985 and 15 million tons by 1990.

Haar said that four other coal terminals are in the planning stages and have either found sites or have been authorized to obtain options on land. Two of them are United Energy Resources, which is designing a facility intended to handle 15 million tons by 1990, and International Matex Tank Terminals, which hopes to have a 20-million-ton capability by 1990.

Haar also revealed that the Association Technique de L'Importation Charbonnier (ATIC), an agency of the French government, which holds a monopoly on coal production and purchasing, has been in active discussion with the Port of New Orleans since 1979 on the possibilities of constructing an export coal facility on the lower Mississippi River. ATIC's current plans envision a joint venture of such a terminal with American principals, he said. France, now importing over 35 million tons of coal per year, is seeking to purchase 10 to 15 million tons per year from the United States by 1985.

Barge lines particularly recognize the ability of the Mississippi River to transport large volumes of coal. Haar reported that the American Commercial Barge Line and the Federal Barge Line have invested over \$55 million in modern, efficient rail-to-water transfer facilities capable of handling 30 million tons of coal per year. The barge lines can transport this coal coming from the states bordering the upper Mississippi and its tributaries to the planned coal export terminals in tows of 600,000 tons each. Point-

ing out that these coal terminals are capable of being served by both barge and rail, Haar noted that Illinois Central Gulf Railroad is investing heavily in improvements of their trackage to New Orleans, in anticipation of unit train movements of coal to and from fields in the Illinois Basin.

Haar said that the 55-foot river channel is also needed to get efficient bulk carriers of 150,000 tons to the ten modern export grain elevators located between Baton Rouge and the Gulf. These grain elevators, which include two in the Port of New Orleans, handled 41% of all the nation's grain export in 1980. Presently large ships carrying grain frequently cannot load to their full capacity because of the 40-foot channel limitation. Steadily growing demand for U.S. grain is reflected in Department of Agriculture figures that recorded total U.S. grain exports of 4.8 billion bushels in 1980, nearly 6% higher than 1979.

Prior to the public meeting, the Corps of Engineers announced the results of its study for deepening the present 40-foot channel through Southwest Pass and upstream to Baton Rouge, including the construction of a turning basin at Baton Rouge. Spur dikes would be built in South Pass and at Pass a Loutre to divert more flows to Southwest Pass and reduce the need for future dredging. The study also shows that extensive dredging will be required in the river below Venice and in Southwest Pass, where dredged material will be used to create new marshland habitat. In addition, about 15 crossings, where the channel crosses from one bank to the other, will have to be dredged.

It is anticipated that a proposed accelerated dredging program will be approved by Congress this year. Such action would mean that a 50-foot depth could be achieved by 1983 and a 55-foot channel possibly two years later. The cost is estimated at \$410 million.

### **University of New Orleans study shows \$5 billion impact of Port on area**

A two-year study by the University of New Orleans has confirmed that the Port of New Orleans continues to dominate the six-parish metropolitan area economy. Findings of the study include an estimate that "more than half of the \$10 billion of goods and services produced annually in the area are in some way dependent on ocean-going commerce."

Authors of the study are Dr. John Reinecke, director of UNO's International Marketing Institute, and Dr. Caroline M. Fisher, graduate assistant. The report, which covers the year 1977, surveys the economic impact of the Port on the parishes of Orleans, Jefferson, St. Bernard, St. Charles, St. Tammany, and Plaquemines.

The study is concerned with both the direct and indirect impact of port operations on the New Orleans economy. The authors considered as port area nearly all activity between Gramercy and the mouth of the Mississippi.

In 1977, the six-parish area received direct revenues of \$1.3 billion from waterborne commerce. Almost half of this amount, or \$544 million, was disbursed by shipping companies or agencies in connection with vessels calling at the Port. The funds were principally spent for ship repairs, crew wages, stevedoring, and bunker fuel costs. Although the study found that these expenditures are much higher per ton for liners than for bulk vessels, the volume of cargoes on bulk vessels is so great—notably with grain



exports and crude petroleum imports—that the latter vessels accounted for 43% of the total.

Direct payments for banking, insurance, and legal services came to \$58.7 million. Banking revenues are estimated at \$15.5 million, and insurance commissions at \$8 million. Income from legal services directly related to Port activity is estimated at \$36 million a year.

Revenues from inland transportation systems accounted for a total of \$222 million, with railroads receiving the largest amount. Railroad income generated from goods entering or leaving the Port by oceangoing vessel is estimated to have been \$131 million in 1977. Trucking income (excluding local drayage) is estimated to have been \$56 million. Barge line revenue was about \$33 million, and there was \$2 million to Port service firms, including freight forwarders, brokers, and agents; drayage, warehousing, grain elevators, and shipping companies; and miscellaneous firms. The largest portion or \$240 million represented the revenue of locally based shipping firms. Over \$100 million accrued to storage and handling companies—two-thirds to grain elevators and most of the remainder to bulk tank storage firms.

The measurement of indirect impacts was based mainly on processing and manufacturing whose raw materials or products are shipped on oceangoing vessels.

The largest part (\$1.6 billion) of indirect revenues was from the sale of refined petroleum goods whose production is dependent on waterborne commerce. Shipbuilding and repair, an industry which owes its presence in the area to the large volume of Port activity, represented another \$440 million in indirect revenue. This is in addition to the direct impact of repairs previously accounted for.

The combined direct and indirect revenues attributable to oceangoing commerce in the New Orleans area in 1977 equaled a total of \$4.4 billion. In arriving at the total economic impact, Reinecke and Fisher applied various computation techniques and formulas used in similar studies. This resulted in total impact figures that ranged from \$4.9 billion to \$7.7 billion. The authors feel that it is reasonable to assume a total impact of more than \$5 billion.

The study also derived estimates of employment and wages in all economic sectors affected by the Port. The authors used a formula that suggests a total employment impact in the neighborhood of 100,000 jobs and wages of perhaps \$1.3 billion which are dependent in a direct, indirect, or induced sense upon oceangoing commerce in the six-parish area. This would mean that over a fifth of the half-million jobs in the area can be traced in one way or another to Port activity and that almost a fourth of the wages paid in the area can be linked to the Port.

### **\$170 million crude oil handling facility in Stapleton under study: Port Authority of NY&NJ**

The proposed oilport would improve the environment of the harbor in both states, and greatly reduce the hazards of collision and groundings by eliminating most of the movement of crude oil tankers and lighters along both the Arthur Kill and Kill van Kull. The oilport would also create a large number of construction jobs, and insure the continuing viability of the region's important petroleum industry.

Port Authority Chairman Alan Sagner announced

recently that the bi-state agency would spend approximately \$300,000 to carry out environmental and engineering studies of the proposal for the new crude oil facility, which could be in operation as early as 1986.

"The Stapleton facility," Mr. Sagner said, "would be built to accommodate the largest tankers carrying oil for the two North Jersey refineries: Exxon in Linden and Chevron in Perth Amboy. The new facility would provide an environmentally superior method of delivering some 240,000 barrels per day, or 60 per cent of all crude oil required by these refineries."

The economic and environmental benefits to the City, State and Region of the proposed oil handling facility are considerable.

The construction of the new facility would involve construction jobs totaling an estimated 1,700 man-years of employment. The City and the State would also benefit from increased revenues from additional property taxes and pipeline franchise taxes. Staten Island businesses would be helped by expenditures from tanker crews who would gain convenient access to shore from the new installation.

Environmental benefits will accrue in three areas:

- (1) tanker to barge couplings and uncouplings would be virtually eliminated and with it chronic, low level leakages
- (2) tanker traffic in the bi-state channels separating Staten Island and New Jersey will be sharply reduced thereby improving marine safety and enhancing the environment
- (3) because vessel movements and time in port would be reduced by more than half, there would be less air pollution from ships' stacks.

Anthony J. Tozzoli, Director of Ports for the Port Authority, explained that the present system of delivering crude oil imports to the two New Jersey refineries involves a costly and environmentally undesirable procedure involving lightering oil from tankers entering the harbor to permit them to traverse the 35-foot controlling channel depths of the Kill van Kull, Arthur Kill and Sandy Hook Channels. The new oil terminal and pipeline system for bringing in crude oil will cut by 50 percent both the time spent and the distance traveled by tankers visiting New York Harbor. This, in turn, will help reduce air pollution in the area surrounding Staten Island.

### **Value of Port's ocean cargo set record high in 1980: Port of NY & NJ**

The value of foreign oceanborne trade, both general cargo and bulk, reached a new high through the Port of New York-New Jersey in 1980 rising to \$45.1 billion from \$40.6 billion. The new figure represented an 11.0 percent increase over 1979, the previous record year. Figures were announced recently by Port Authority Chairman Alan Sagner who said general cargo represented over \$38 billion of that total.

Despite growing recessionary pressure of national and foreign economies, export volume was high. This activity spurred a rise in general cargo exports from the Port of New York-New Jersey of 7.2 percent to 6,435,440 tons in 1980. The rise in export cargo helped to offset the 16 percent, recession-induced reduction in inbound general cargo.

Imports were 8,633,355 tons during 1980. The total combined import/export general cargo tonnage was 15,068,795.

Mr. Sagner declared that the New York-New Jersey Port increased its share of export/import cargo handled at North Atlantic ports. The port's share of foreign oceanborne general cargo trade rose from 42.6 to 43.0 percent.

### **Waterfront employers, ILA settle job controversy with new pact**

Atlantic and Gulf Coast waterfront labor and a broad-based coalition of maritime management recently resolved a simmering dispute over union jobs with a seven-point agreement that includes a commitment by ocean carriers to a \$10 million work incentive plan to stimulate container work for longshoremen at marine terminals.

The development represents a fresh labor-management approach in the ongoing contract effort by the parties to preserve historic waterfront work for union dockers imports from Maine to Texas in the face of industry automation.

More immediately, the pact eased controversy between workers and employers that threatened to upset industry peace in the ports. The job question arose following a recent federal court injunction issued on behalf of the National Labor Relations Board that suspended use of contract rules protecting union work in consolidating container cargoes and intensified erosion of union jobs on the piers.

The action here climaxed five days of intensive discussions between the International Longshoremen's Association, AFL-CIO and all major port employer organizations on the East and Gulf Coasts, and a group representing more than 200 ship companies in seaborne trade in the 2,000 mile arc of ocean harbors.

The accord, reported jointly by ILA President Thomas W. Gleason and employer coalition representative James J. Dickman, the President of New York Shipping Association, Inc., is a supplement to the three year master contract that is scheduled to continue through September 30, 1983. Highlights include the following:

- Establishment of a Work Incentive Program that requires all employer elements to take steps to continue and increase the number of containers that are stuffed and stripped by the industry at waterfront facilities manned by ILA workers.

- Establishment of a carrier-financed fund of \$10 million from contributions on containerized automated cargoes during the life of the present master contract to implement the Work Incentive Program.

- Details for implementing the program to be worked out jointly by labor and management officials starting Monday, June 22, 1981. However, the incentive plan shall remain in effect only so long as implementation of the contract Rules on Containers is enjoined by court order.

Additionally, the new agreement sets forth implementation, enforcement and productivity provisions for that part of the master contract known formally as the Containerization Agreement. This spells out legal work jurisdiction of ILA members in container cargo handling including stuffing and stripping of freight controlled by the employers.

A key element of these provisions involves establishment of a detailed method of dealing with disputes including use

of a management-ILA emergency hearing panel to resolve possible violations of the containerization agreement. Included in these provisions is the right of ILA workers to refuse service to employers, who have been found, after hearing and appeal, to have violated ILA work jurisdiction.

### **New president elected: Port of Oakland Board**

Norvel Smith, a distinguished Bay Area educator, was elected President of the Oakland Board of Port Commissioners today (July 21, 1981). Smith has been a member of the Board since August 18, 1977, and was recently reappointed to a second four-year term.

### **Georgia Ports Authority Chairman named**

L.P. Greer, Jr. of Toccoa, Georgia has been named Chairman of the Georgia Ports Authority for the current term. He succeeds P.E. Clifton, Sr. of Savannah who will assume the post of Assistant Secretary-Treasurer. Greer has been a member of the Authority since 1975 and has served one previous term as Chairman.

### **Port of Savannah—Ocean terminal improvements**

With the transfer of crane number 103 from Garden City to Ocean Terminal, Georgia Ports Authority has completed the latest phase of its master gantry crane redeployment program. The crane became available with the start up of conversion of berths 56 and 57 at Garden City to a fourth container berth.

As recently as early last year, the crane picture at Ocean Terminal consisted of two units, each possessing a maximum capacity of 35 tons. With last year's acquisition of two new cranes, and the redeployment and upgrading of two others, the facility now boasts five cranes with maximum capacities of 35, 50(2), 100, and 175 tons. Rail configuration permits four of the cranes to serve any of seven berths as well as a large paved staging area located immediately adjacent to the berthing area. The fifth crane was relocated to berths 1 and 2, bringing gantry service to that area for the first time.

Georgia Ports Authority's master plan calls for the phased transfer of breakbulk handling operations to Ocean Terminal. Breakbulk areas at Garden City are to be gradually converted to container facilities, with concurrent expansion of breakbulk capability at Ocean Terminal. A major portion of this overall strategy will involve the impending conversion of the outmoded slip 1 area at Ocean Terminal into a two berth complex with 200 foot margins, and an 800,000 square foot transit shed.

Georgia Ports Authority's heavy lift cranes provide a unique combination of capability and mobility. They can handle lifts both dockside and in marshalling areas, precluding any requirement to obtain mobile equipment to move cargo between inland carriers and storage locations. Vessels are not required to shift in berth to handle multiple heavy lifts as is the case with fixed cranes. This combination of high capacity and mobility provides the finest fleet at the busiest breakbulk port on the South Atlantic—Savannah.

## **Twelve U.S. ports oppose user fees**

Speaking recently on behalf of the Ports of Everett, Seattle, and Tacoma and nine other U.S. ports, Richard D. Ford, Executive Director of the Port of Seattle, responded to the Reagan Administration's proposal for user charges to pay for the dredging of deep-water ports.

In a statement before a Vancouver, Washington hearing on user charges held by the Water Resources Subcommittee of the United States Senate committee on Environment and Public Works, Ford addressed the three major areas of concern with the Administration proposal—how to pay for the maintenance of existing facilities, how to fund any new projects, and whether or not a user fee-financed, nationwide trust fund should be established. In addition to the three Puget Sound ports, Ford spoke on behalf of the Ports of Brownsville, Corpus Christi, Galveston, Long Beach, Los Angeles, New Orleans, New York/New Jersey, Oakland and San Francisco.

"We believe the United States government should continue to provide funds for maintenance and operation of existing authorized projects as it has in the past," Ford said. "Millions of dollars have been invested by public and private organizations in the belief that the existing waterways would be maintained by the United States government." Ford also cited the lack of any accurate forecasts of the economic consequences of any changes in the current system. "We believe the Office of Management and Budget has not done its homework" Ford said.

Regarding the financing of future dredging projects Ford said, "We believe it is appropriate for the United States to require local cost-sharing for the capital and maintenance cost of any new project." Ford mentioned the Port of Seattle's proposed dredging project on the Duwamish waterway as an example of work that should receive such joint funding. "Cost-sharing at the local level would offer a vital test of the economic viability of each proposed expansion, addition, or improvement," he said.

According to Ford, the Port of Seattle and the eleven other ports for whom he testified, oppose the establishment of a trust fund and the levying of nationwide user fees to support harbor and waterway costs. A national trust fund would hamper efforts to insure the economic viability of each waterway or harbor improvement, Ford said.

## **Port of Tacoma builds on-terminal intermodal rail yard**

Port of Tacoma is presently constructing a new intermodal rail yard which will provide extensive on-terminal railcar loading of containers. This \$672,000 facility will be completed in September 1981. There are two new ladder rail tracks aggregating 3,740 lineal feet with paved sections on both sides for operational equipment. This new facility is an integral part of Tacoma's present container terminals 7 and 4, and has an adjacent 10-acre container storage area. On an interim basis, the Port of Tacoma has been using existing on-terminal trackage but without the capacity and efficiencies this new facility will provide.

When completed Tacoma will have the capability of loading 25 rail cars at a time and make up to 50-car unit trains. Container vessels will be able to discharge adjacent to the unit train yard where on the same day they will be

loaded onto TOFC/COFC flat cars for fast, efficient connections with trains bound for inland destinations. Port of Tacoma is served by two transcontinental railroads, Burlington Northern and Union Pacific, which have access to any part of the United States as well as Canadian points.

## **Belgium to host UNCTAD seminar on container terminal management**

The Government of Belgium will be host from 7-25 September 1981 to a seminar on container terminal management conducted by the United Nations Conference on Trade and Development (UNCTAD) and Antwerp Port Engineering and Consulting (APEC).

This seminar is designed to assist senior officials of Government agencies, port authorities and private companies with present or future responsibilities for planning, managing or operating container and Roll-on/Roll-off terminals in efficiently running these specialized facilities.

An outstanding feature of the seminar will be the 2 weeks practical training which will follow the classroom segment of the seminar and that will allow participants to be actually involved in the operations of 4 major container/Ro-Ro/Multipurpose terminals in the Port of Antwerp.

## **Record arrival of New Zealand apples in Port of Antwerp**

With regard to the export of New Zealand apples Antwerp has a growing importance as port of supply for Europe. This year some 2 million cartons of New Zealand apples, representing nearly 40,000 tons, will be discharged at the installations of the Belgian New Fruit Wharf (B.N.F.W.) Because of the increasing imports of New Zealand apples—7 years ago some 0.5 million cartons were handled in Antwerp—B.N.F.W. developed a new transshipment technique by which tailor-made pallets are lowered into the holds of the vessel. By means of hydraulic devices 4 pallets at a time, each loaded with 42 cartons are put into a sort of cage. This load of 168 cartons is lifted onto quay and put on trucks or waggons by forklifts or stored in warehouse.

This system not only allows to save time and money but also restricts the handling of the cartons itself to a minimum.

## **Link fifth Harbour Dock-Amerika Dock officially inaugurated: Port of Antwerp**

Recently the connection between the Fifth Harbour Dock and the Amerika Dock in the port of Antwerp has been officially opened to shipping traffic.

The realisation of said link is an important step towards an improved port infrastructure. For sea and inland navigation it constitutes a link between the old and new harbour docks. Moreover it contributes to an improved rail- and road traffic in the port area.

Indeed, as a result of a growing traffic, circulation in the docks' complex of overland and water transport had become increasingly difficult at the connection channel between the Leopold Dock and the Albert Dock. Each time the drawbridges had to be opened in order to have ship's traffic passed, overland traffic was interrupted or slowed down or vice versa.

The new broad connection offers an easy passage to river vessels, pushed convoys and sea-vessels. It also enables

larger sea-going vessels to make fast in the southern docks' complex, for instance at the grain silos of the Lefebvre Dock. Ship's movement via the link between Leopold Dock and Amerika Dock will become less dense, thus contributing to a more flexible overland traffic.

The bridging of the new connection consists of three spans, with a clearance of 7 m above the water level. The spans include two fixed constructions, each being 45 m in length (available width: 32 m) and a central one of 50 m, consisting of two drawbridges (the so-called Noordkasteel Bridges). Said bridge have only to be opened to permit the passage of sea-ships and of vessels with a high superstructure. The width of the roadway on each of the bridges is 7.50 m (two traffic lanes) and the clearance 7 m; in addition each bridge has a cycle/foot path of 2.30 m.

The water depth of the extended Fifth Harbour Dock is 12 m; in the turning basin the sheetpile walls have a water depth of 6.25 m and in the Amerika Dock the depth is 7.75 m close to the quay walls and 10.50 m in the middle of the fairway.

### Deeper access fairway at Antwerp

The present dredging programme in the river Scheldt in order to receive in Antwerp fully loaded vessels drawing 48' is showing favourable results.

Since 1st December 1980, the maximum draught for vessels navigating on the Scheldt has been raised by 6". On the 1st January, 1981, another 6" was added. In this way the possibilities for receiving heavy draught vessels have been improved by 1 foot for 1981. It enables vessels of 850' in length to sail upriver with a draught varying between  $\pm 41'$  (neap-tide) and 45'6" (spring-tide).

The new situation will undoubtedly favour the traffic of bulk cargo in Antwerp. Depending upon the tidal circumstances it means that since early 1981 large bulk carriers can enter the port with cargoes up to 95,000 tons.

### 1980 container traffic in Port of Antwerp

From statistics of the Antwerp Port Authorities it appears that in all 724,247 TEU have been handled in the port in the course of 1980; the overall containerized general cargo amounted to 6,126,000 tons. From data concerning discharging and loading operations it results that in all 16,584 laden TEU and 41,016 empty TEU more have been handled than in 1979.

In coming container traffic totalled 285,319 TEU as against 263,589 TEU in 1979, without taking into account the 83,356 empty TEU. Although 21,730 laden TEU more have been discharged in 1980, the weight of the cargo remained 100,000 tons below the 1979 result (2.9 million tons as against 2.8 million tons in 1980). On the other hand 290,870 TEU have been loaded last year (296,016 TEU in 1979), without taking into account the 64,702 empty TEU. Outgoing containerized cargo amounted to 3.32 million tons.

With regard to origin or destination of the containers North America remains by far the important region with more than 50% of the total traffic. A strong increase was noted for the container traffic with West Africa.

### BTDB earn £19M profit despite recession

The British Transport Docks Board, Britain's largest port authority, announced recently that despite the severe effects of the recession a pre-interest profit of £19 million was earned during the year to end-December 1980 (1979-£29 million).

On a turnover of £141 million the net pre-tax profit was £11.5 million. Comparable figures for 1979 were £134 million and £22.4 million. Return on capital was 10% (1979-16%).

Cash flow continued to be favourable during 1980, enabling the Board to repay to the Government another tranche of the original debt two years ahead of schedule, reducing the amount outstanding by a further £8.2 million.

Speaking at a press conference in London, the Board's Chairman, Sir Humphrey Browne, said that profits earned in 1980, although reduced, remained substantial. "To be profitable in the ports industry at present is unusual", pointed out Sir Humphrey. "Given the severity of the recession, the present level of profits demonstrates the BTDB's resilience and underlying strengths. As trade recovers we have the potential for profitable growth".

The Board's Annual Report published today records further growth in container and unit load traffic with a 9.1% increase in the number of units handled to total 836,000. At 3,248,000, the number of passengers passing through BTDB ports was a record, while at 504,000, passenger-accompanied vehicles showed a 5% increase.

The 72 million tonnes of cargo handled in total showed a decline over the previous year but the decrease was more than accounted for by the decline in UK imports of iron ore and petroleum, factors over which the Board had little control.

Sir Humphrey said he was encouraged by the Board's performance in terms of market share. Overall tonnage did not give a realistic indication of port activity because of the low revenue/high throughput ratio of bulk cargoes. Revenue was a better yardstick, and on this basis the Board's share of UK port activity has shown an upward trend.

Sixteen of the Board's ports operated profitably after allowing for depreciation, the three exceptions being Hull, Newport and Barry, which met the full blast of recession. The nine small ports again performed well with particularly good results at Plymouth and Ayr.

### The 1980, Transport Bill

Commenting on the proposals in the 1980 Transport Bill for the introduction of private capital into the Board's undertaking, Sir Humphrey said, "The Board welcome the new freedom, under the Bill's proposals, from cumbersome administrative procedures and from the constraints involved in being within the Government machine".

### Prospects

Turning to the future, Sir Humphrey said that the Board's financial results would depend upon the performance of the economy, but he forecast that the increase in containerisation would continue. "The 9.1% growth in the Board's container and roll-on/roll-off business, achieved during recession, was satisfactory and a significant feature

of 1980", said Sir Humphrey. "We have put ourselves into a position to ensure that our share of this growth sector continues to increase".

Sir Humphrey believed that privatisation would also improve the prospects of the business, because "there will be a relaxation of the unfair constraints within which we now operate. We will at last have the same kind of freedom enjoyed by other commercial enterprises".

## Paul Valls appointed Director: Port of Bordeaux Authority



Mr. Paul VALLS



Mr. Pierre DEBAYLES

An official announcement was made on the 23rd. July, 1981 naming Paul VALLS Director General of the Port of Bordeaux Authority. He is to take up his new office on the 15th September, 1981.

Born in Le Havre in 1936, former student of the Ecole polytechnique and the Ecole nationale des Ponts et chaussées, Paul VALLS is married and has one child. Promoted to "Ingénieur en chef des Ponts et chaussées" in 1975, he was appointed Deputy Director of Maritime Ports and Navigable Waterways in 1976. Previous appointments had led him successively to Africa, notably the Central Africa Republic and on his return to France as Director of Works to the Port of Rouen.

At the head of the Port of Bordeaux Authority, Paul VALLS is to replace Pierre DEBAYLES, who has held this office since 1973. Promoted to Ingénieur Général des Ponts et chaussées this year, and because of this called to a new office, Pierre DEBAYLES will have headed the Gironde Port for nearly 9 years. It was during his office that the terminal at Le Verdon was designed and built and that all the port facilities have been remodernized. Thanks to the commissioning of the throughport at Le Verdon and to the new specialized facilities at Bassens, the Port of Bordeaux has now acquired a truly international status.

## Dunkerque all out to retain lion's share in coal traffic

Dunkerque intends to remain France's main port for coal. The shift in energy supplies has spelled a downturn in oil imports as well as a switch to coal. The sea ports are bound to play a major role in this field.

de-Calais' fields was mainly exported via Dunkerque. Twenty chronicles record that in 1894 coal from the Nord/Pas-de-Calais' fields was mainly exported via Dunkerque. Twenty years ago, Dunkerque turned to imports and by 1963 traffic had risen to 700 000 T. In 1970, figures stood at 1 630 000 T; in 1974 at 3 330 000 T; in 1978 at 5 140 000 T; in 1980 they stood at 8 250 000 T thus

clearly showing the upward trend in coal imports.

The growing traffic and future prospects for exports will spell some congestion of the existing facilities and call for expansion.

Furthermore the growing size of the carriers has led the ports to accommodate larger ships to enable customers located in the heartland to reap the benefit of concessionary freight rates afforded by such means of transport.

This is why it is absolutely vital for Dunkerque to adapt in order to receive ships of 220 000 dwt and bulk carriers of 300 000 dwt at a later stage. At present the port can handle ships of to 115 000 dwt. The Government and the Port Authority have therefore decided to build the West bulk cargo terminal.

Work has already begun at the 290 acres terminal.

The pier is equipped with two 50 T gantries with a handling rate of 1 700 T. hour per unit. The first phase will allow the handling of 3.5 MT per year. The 70 000 m<sup>2</sup> stock yards will be served by a conveyor belt on the quay-side with an hourly handling rate of 4 000 T of coal. The handling will be performed by stacking and reclaiming equipment. A loading tower for trains will complete the equipment. The site seemed to be an obvious choice: outstanding access by road and rail, or from the sea—the Western Harbour, no locks, no long approach channels with dredging possibilities down to -20 m and further in time to -23 m. This makes it suitable for very large ships—space availability is yet another asset as it provides scope for further installations of coal processing plants.

Wait and see is no longer in season. Dunkerque has now swung into action with work starting at the Western Harbour Terminal due to be operational by January 1983.

The glove has been picked up. The government chose Dunkerque when it gave the go ahead to the initial phase in the construction of a first rate terminal. Dunkerque is a regional as well as a national asset and the port will remain France's largest port for coal.

## Two new handling equipment for bulk cargo: Port of Dunkerque

Two new pieces of handling equipment have recently arrived at Dunkerque by boat. The first one is a suction crane for the handling of imported oil-seed which will now transit through the new agricultural food terminal due to become operational at Dunkerque Eastern Harbour.

In addition to that, a floating crane with a lifting capacity of 15 T was bought second hand by SOMABAMI and is intended for direct transshipment of bulk cargo onto lighters or barges.

The two items came from Brest and Rotterdam respectively. They will further strengthen the handling capacity for specialized bulk cargo and provide port users with a more efficient service.

## Diversification our watchword for the decade to come: J. Dubois, General Manager, Port of Le Havre Authority

At the start of a new decade, the Port of Le Havre is firmly resolved to keep in step with the new economic situation, which is quite different from what we have known hitherto.

For a major oil port like Le Havre, one of the main

factors to be taken into account is the reduction in imports of crude oil, which are expected to stand at about 40 MT in the early 1990s instead of 60 MT today.

It is nevertheless true that, despite the drop in traffic, the Antifer terminal has proved a worthwhile investment, since it accounts for the greater part of our oil traffic and has freed Le Havre itself from the restraints imposed by the movement of very large tankers, thereby enabling us to improve facilities for the reception of other vessels, particularly containerships.

A good part of the predominant technology of the next ten years, such as nuclear power, the bio-industry and computers, will generate no extra work for ports, and so it is to other sectors of growth that Le Havre must turn for ways to expand.

- I — The port's primary objective will be to continue developing the traffic in general cargo, the main emphasis being on:
  - a) container traffic, which last year amounted to 500,000 TEU, or more than the entire throughput of all the other independent ports in France combined,
  - b) ro-ro traffic, which has increased considerably and now accounts for 24% of all general cargo,
  - c) the port's new function as an International Transit Centre, initiated last year with 400,000 tonnes of general cargo transhipped here or passing overland to other countries,
  - d) consolidation of whatever conventional traffic remains.

II — The second objective will be to maintain Le Havre's position as a fuel importing port, compensating for the fall in oil by an increase in the coal traffic, which already accounts for 30% of sea-borne imports passing through French ports.

It is planned to follow up the growth in this traffic by the provision of facilities for the treatment of coal imported for industrial use.

III — The third objective will be to achieve a good position in the trade in agricultural produce (grain exports, for instance, are due to double by 1985) and to take full advantage of any opportunities which may occur in chemicals.

We are at present considering the possibility of building an LPG dépôt.

But if all this is to provide a setting for the active development of the surrounding area, the Port of Le Havre must provide maximum impetus.

This supposes that its position as a major centre of international trade be reinforced still further. It also supposes the development of a wide variety of services connected not only with port and trading activities but with marine and land transport too.

The World Trade Centre now being built by the Chamber of Commerce and due to be opened at the end of the year will be one of the cornerstones of this internationally based strategy.

Diversification, allied to a policy of constant adaptation to new types of marine traffic, will ensure that the Port of Le Havre maintains and develops its position as one of the great ports of Europe.

## Floating dock arrives: Port of Le Havre

On July 12th 1978, our Board of Directors approved plans for the acquisition and installation of a floating dry dock with a lifting capacity of 50,000 tonnes, large enough to accommodate the biggest containerships and ore carriers likely to call at Le Havre. The provisional go-ahead was given by the Ministry of Transport on March 7th 1979, and on September 14th 1979 the Board of Directors gave its final approval and awarded the contract to the Chantiers de l'Atlantique at Saint-Nazaire.

After preliminary work in the Saint-Nazaire workshops, actual construction began on September 10th 1980 and continued until March this year. Then on April 3rd the floating dock left the yard and was taken in charge by two ocean-going tugs, which towed it from Saint-Nazaire to Le Havre, where it is now being completed and fitted out.

The floating dock is in fact 310m/1,017ft long and 69.8m/229ft wide, and is designed to accommodate vessels of up to 170,000 dwt.

When it comes into service this autumn it will provide the necessary boost to our ship repairing capacity, which has been handicapped recently by the fact that the largest graving dock could take the latest generation of container vessels and ore carriers. While ships have been growing bigger, repair facilities at Le Havre have been ageing, or becoming obsolescent, and it was essential to bring them up to date. Le Havre is France's leading container port and second largest coal port, and from October companies specialising here in ship repairs will be able to use a brand-new facility capable of taking vessels as big as third generation containerships and 150,000 dwt ore carriers, increasing soon to 170,000 dwt.

## Data network for European ports: Bremen International

A European association for port information (E.V.H.A.) has been established by the ports of Antwerp, Bremen, Bremerhaven, Cork, Genoa, Le Havre, Hamburg and Rotterdam, with the English ports being represented by the British Ports Association. The purpose of EVHA is the development and operation of a data combination network for the exchange of information between the European sea-ports. It is to submit three papers to the EEC Commission: 1. On a pilot-data information system. 2. On the exchange of information redangerous goods on board and 3. On the establishment of a permanent data-combination network for an all-embracing information-exchange between the greatest possible number of seaports within the European Economic Community. The pilot-project is to demonstrate how the specific requirements of the individual ports can be coordinated into one system and show what possibilities exist for uniformity in storage-procedures—even should each port continue to operate according to its own regulations and peculiarities.

## General cargo proportion 61.4%, containerization degree 46.9%: Bremen/Bremerhaven

With total-handling of the Bremen/Bremerhaven port-group in 1980 being 27 million tons, the previous year's result of 28.1 million tons could not be repeated; whereas



the general-cargo handling of 16.6 million tons (61.4% of total-handling) did exceed the previous year's 16.5 million tons (58.8%). For the largest port-handling company, Bremer Lagerhaus-Gesellschaft BLG AG, the degree of containerisation, due to the negative development on the North Atlantic, only increased from 46.2 to 46.9 percent.

### Increased Cargo-Handling Once Again in Bremen and Bremerhaven

The significance internationally of the universal ports of Bremen and Bremerhaven as an industrial-barometer of world trade was marked by Port Senator Oswald Brinkmann at the 1981 Captain's Day. This is substantiated with the cargo handling structure and development in recent months and years.

Brinkmann: "Thus, after a record result of 28.1 million tons in 1979, we have had to stomach a drop of 1.1 million—to some 27 million tons last year" even though this related, "solely to bulk commodities which, at times fail, commercially speaking, in constancy and continuity."

On the other hand a slight increase was recorded—to 16.6 million tons—in the labour, and growth, —intensive general-cargo traffic through the Bremen ports. Thus, after the cargo-handling barometer had, by and large, been standing at 'fair' during 1980 it fell, during the first two months of this year, at an alarming and never-before-experienced rate, to 'poor'."

Brinkmann: "Reductions in handling occurred of up to

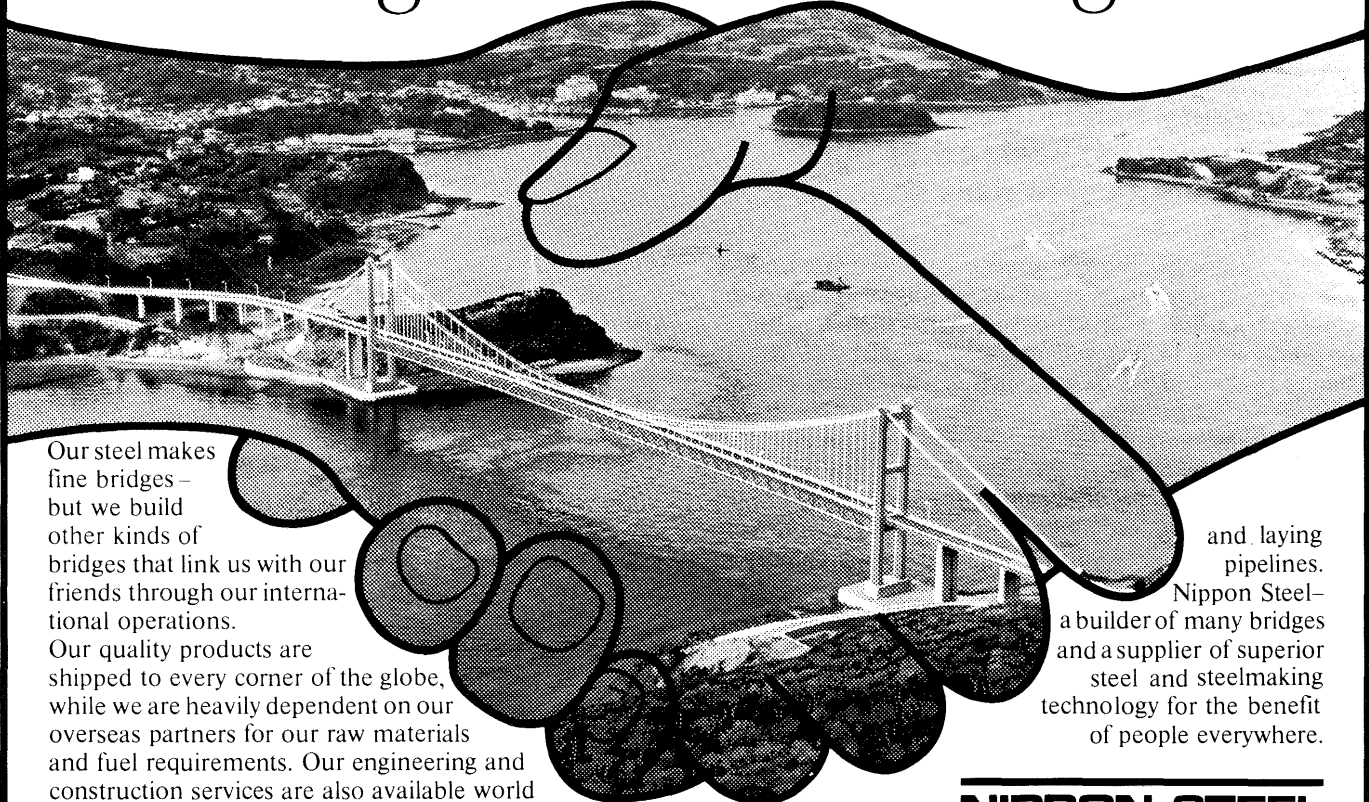
25 percent, compared to figures of the previous year. The fact that other ports were facing similar problems was but of cold comfort. Meantime the Bremen ports have weathered that depression and the biannual result is one which can be paraded. Although it cannot be denied that the total handling figure of 12.4 mill. tons is 1.1 millions lower than for the same period last year, nevertheless the general-cargo traffic is about on a par with the previous year.

A drop of some 900,000 tons in bulk commodities could not be prevented. Forceful strides forward have again been taken particularly by the so-called modern modes of traffic, such as containers, roll-on/roll-off and lash. These traffic forms now accommodate nearly 50 percent of all general-cargo handling."

The Bremen Port-Senator's summation at the close of the 1981 first-half: "All in all, cargo-handling in the Bremen ports is proceeding at full speed. The employment position is good and—considering the orders received by German industry from abroad—is likely to remain so. Whilst, therefore, it is still actually somewhat premature for risking a forecast for the whole of 1981. I am confident the general-cargo handling, with 17 million tons, will lie slightly above the 1980 result—because the German and European exports are again blooming blithely."

Brinkmann is counting on: "an, in view of the international economic growth-stagnation, annual result, for 1981, of around 26 million tons for the Bremen ports".

## Bridges of understanding



Our steel makes fine bridges – but we build other kinds of bridges that link us with our friends through our international operations. Our quality products are shipped to every corner of the globe, while we are heavily dependent on our overseas partners for our raw materials and fuel requirements. Our engineering and construction services are also available world wide. We are actively engaged in steel plant construction in many countries and we are assisting in oil and gas exploration by building offshore structures

and laying pipelines. Nippon Steel – a builder of many bridges and a supplier of superior steel and steelmaking technology for the benefit of people everywhere.

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# The Port of Dublin

(See front cover also.)

The inspection platform on the roof of Port Centre, the new seven storey headquarters of Dublin Port and Docks Board, commands a panoramic, bird's eye view of the entire 400 hectare port estate. The River Liffey and the deep-water basins, where in 1980 some 5,000 ships berthed, and discharged and loaded almost 8 million tonnes of cargo, add to the bustling activity of the view.

Staff from the Board's former and temporary headquarters at Gandon House have moved into Port Centre since August 10th. They will be joined by their colleagues from the Engineer's and Harbour Master's Department in the next few weeks. This will mean that all the Board's staff, with the exception of the Warehousing Department, will be housed under one roof and the move will obviously lead to a rationalisation of many functions and to improved internal communications.

The Board has decided to re-locate its Warehousing Department at East Wall, adjacent to Port Centre, and to dispose of the Custom House Docks premises, the 11 hectare site of the warehousing operation today. This move will have consequences of major importance, not simply for the Board and the Port, but also for the city and the community as a whole. The Board has applied for outline planning permission for the development of this city centre site in order that a controlled and planned development will take place on the area. The planning application and permission is presently the subject of an appeal to the Planning Board and a full hearing on the matter is expected shortly. The decision to re-locate the Warehousing Department at East Wall is part of the Board's overall policy to



Mr. Chris Kirwan  
Chairman



Mr. Robert N. Hayes  
General Manager

move all its investment east of the site of the next likely major river crossing at Macken Street.

There have been many physical and policy developments at the Port in the past five years. Probably the most significant decision taken by the Board in that period was its decision to become directly involved in stevedoring and that there should be a single stevedoring company controlled by the Board for the deep sea section of the Port. While the negotiations and developments between the various parties have been long and difficult it is fair to say that generally acceptable solutions to the many problems involved would now appear to be in view.

A new stevedoring company, Dublin Cargo Handling Ltd. has been formed and the Port Board have appointed four directors. It is anticipated that the other directors to

## Commodity handling drops in the first six months; coal, other bulk cargoes, containers rises sharply: Port of Rotterdam

Like most other European seaports, Rotterdam handled less cargo in the first six months of this year than in the comparable period of 1980. Altogether, 125 million tonnes of goods were loaded and unloaded, against 146 million tonnes in the first six months of last year—a drop of some 14%.

The main cause of the decline was a fall in crude oil handling, down by about 27% on the first half of 1980. Crude oil demand has dropped sharply as a result of high prices, big stocks, economic stagnation and energy conservation. The volume of mineral oil products handled in Rotterdam dropped likewise, by 14%.

Demand for coal, however, rose steeply so that coal transshipment in the port of Rotterdam was better than 17% up on the first six months of last year. Over 6.9 million tonnes of coal were loaded and unloaded, including 3.9 million tonnes in the second quarter.

Ore transshipment in the first six months of this year blunged by more than 14%, due to a decline in iron and steel production, notably in West Germany. Investment in this industry continues to be at a low level. The drop in ore volume was partly offset by an increase of nearly 8% for

'other bulk cargoes'.

Overall general cargo handling rose slightly in the first half year, by 0.6% over 1980. This positive result was due to a growing number of containers. Conventional general cargo, roll-on/roll-off and lash transport, however, dropped in volume.

Gross container handling rose by 7.5% to 10.3 million tonnes in the first six months of this year. The rise occurred chiefly in the second quarter and was due mainly to a major increase in the number of loaded containers.

## Rotterdam container transshipment sharply up again in 1980

Container transshipment at Rotterdam in 1980 amounted to 1.9 million TEUs (20-ft units).

Seaborne shipments of containerised cargo from Rotterdam in 1980 went mainly to the following countries: the United Kingdom 20%, the USA nearly 18%, Spain nearly 9% and West Germany over 7%. Landings of containerised cargo at Rotterdam came mainly from the USA with 38%, the United Kingdom with 17%, Spain with 16% and Japan with 6%. Altogether, 1.3 million containers were transhipped at Rotterdam in 1980, half of which were loaded and half unloaded. This number was 10% better than in the previous year. Aggregate freight was 15.3 million tonnes—over 7% up on 1979—, 8.3 million tonnes of which were loaded and 7 million unloaded.



**North eastern section of Dublin Port**

the Board of Dublin Cargo Handling will be appointed by the existing stevedores when final agreement has been reached.

The Port of Dublin handles almost 40% of Ireland's general cargo seaborne trade and is, therefore, a vital link in the chain of ports serving the needs of our international trade. As the level of trade increases and as the technologies of transportation and mechanical handling become more sophisticated so the need for port development increases.

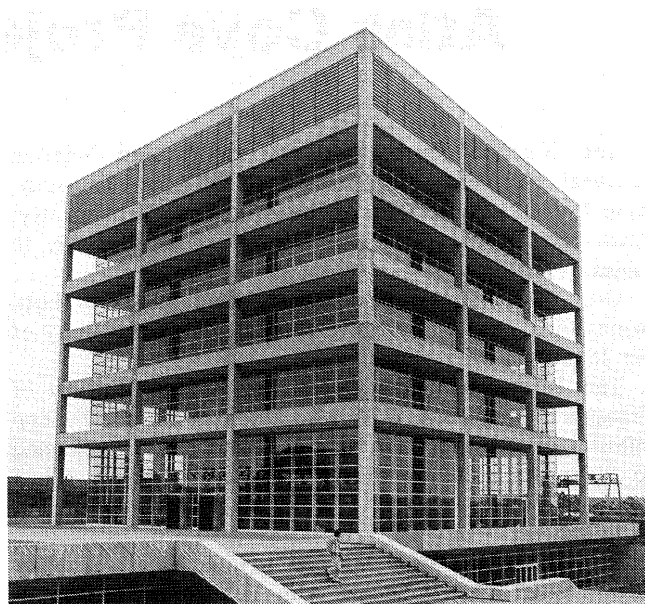
In 1977 the Dublin Port and Docks Board announced details of its first Five Year Development Plan. The decision at the time was to produce, on a continuing basis, a five year rolling plan and that such rolling plans would form the basis of the Board's capital expenditure policy, with projects becoming more definite and detailed as they progressed from the initial fifth year position, emerging as part of the work programme for the capital budget of the following year. It was also intended that the Development Plan and its annual reviews would act as a communication document for the information of the Board, its staff, port users and other interested groups.

The 1978 Development Plan Review gave details of the £20 million which it was anticipated would be spent on development of the Port and its facilities. Subsequent reviews have monitored the progress of these developments, taken cognisance of changes and trends in trade and modes of transportation and continued to plan five years ahead. The latest review, published this month, forecasts port traffic and requirements up to 1985 and is the basis on which development project decisions will be based for the next twelve months.

The common user container terminal at South Bank Quay has been extended and a new Liebherr transporter container crane was commissioned in October last. This gives the berth and terminal area the capacity to handle its present volume of traffic with much more efficiency.

A contract has been signed with Collen Bros. for the design and construction of a new deepwater quay to the south of the car ferry terminal. This quay will be 200 metres in length and will have a depth at low water of 11 metres. The development, which will cost more than £5 million will be based on caisson construction, the now traditional method of quay construction at Dublin Port.

Major improvements to the roads in the enclosed port



**Port Centre**

area have been a feature of development in recent years. Roads are being resurfaced and widened and the main access and exit roads are being upgraded to dual carriage-way standard. A continuous programme of landscaping has been underway for the past few years. While some of the benefits of this programme are immediately visible, particularly along roadways and centre islands, many benefits will not be apparent for a number of years. This applies particularly to trees and shrubs which have been planted along the northern perimeter of the enclosed port, opposite Clontarf.

As part of an ongoing programme for the improvement of the watermain system in the oil zone a new 12" main has been laid from Alexandra Road along No. 4 Branch Road and along Jetty Road to link up with the existing 12" watermain system. This completes the work of installing a 12" ring main around the main part of the oil zone. In addition, a new saltwater fireman has been laid around the perimeter of the port area. A second harbour tug has been fitted with fire fighting equipment. These measures have been taken to improve fire fighting capabilities in the area.

The transfer of land to Dublin Corporation for a public park at Ringsend and for a new roadway between Clontarf and East Wall and the recent decision to allocate 20 acres to the I.D.A. (Industrial Development Authority) for industrial development reflect the major contribution which the Board is making to the benefit of the general community over and above its primary obligations in regard to shipping and cargoes. The I.D.A. will now apply for planning permission for development of these two 10 acre sites (one at East Wall, the other at Ringsend/Sandymount) as industrial estates. Both sites will be developed as part of the I.D.A. programme of industrial development in the inner city of Dublin.

It is our intention to continue our annual reviews of the Development Plan so that the Port of Dublin may continue to meet the needs of shippers and port users with the minimum of delay. In doing this we propose to rehabilitate older areas of the enclosed port, where possible, and thereby provide new facilities with a minimum of disruption to the environment.

# Atlas Cove Project commissioned

The Nigerian Ports Authority (NPA) and Nigerian National Petroleum Corporation (NNPC) on Thursday, June 25, 1981 commissioned the Atlas Cove Tanker Jetty, Petroleum Depot and Pump Station at Tarkwa Bay in Lagos.

Over 500 eminent personalities were guests of both managements at an impressive commissioning ceremony of the 25 million Oil Terminal.

The Permanent Secretary in the Federal Ministry of Transport, Alhaji S.A. Wali who stood in for the Federal Minister of Transport, Dr. Umaru Dikko was accompanied to the project site by the NPA General Manager, Alhaji Bamanga Tukur and NNPC Acting Managing Director, Mr. O. Lolomari.

The traditional Prime Minister to the "Oba" (King) of Lagos, Chief I.O. Bajulaiye who had earlier arrived in company of other chiefs was presented with the kola-nuts for traditional rites.

In his welcome address, NNPC Managing Director, Mr. Lolomari traced the history of the Atlas Cove Project from August 1979, when it started.

He said that the complex consists of, apart from the jetty, a storage depot with a total capacity of about 112,700 cubic metres and a pump station.

The jetty was developed purposely to reduce congestion at the Lagos Harbour and increase operational safety of the port by changing the point of importation of petroleum product from Apapa Wharf to a jetty outside the port area.

The jetty provides facilities and services necessary to support a fully-integrated and self-contained oil terminal for importation and exportation of petroleum products.

The tanker berth which is berth one is 70 metres long and 12 metres wide. There is also the Coaster Berth (berth two) with a length of 35 metres and a width of 14 metres. Both berths have ancillary facilities for mooring and fendering of vessels.

The jetty will provide berthing facilities for oceangoing tankers up to 35,000 dead-weight tonnes and for harbour and coastal tankers up to 5,000 dead-weight. The expected storage capacity of the depot is 100,000 tonnes of products at a time and about 1,100,000 tonnes per annum.

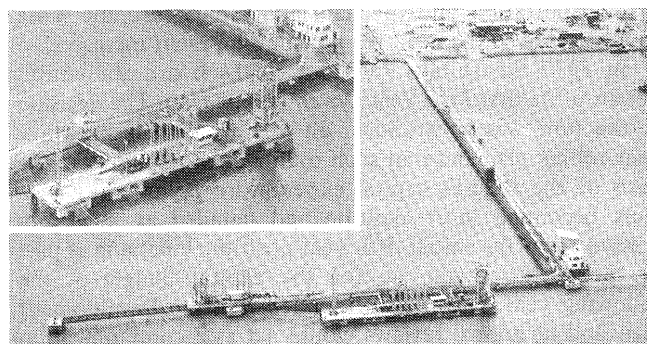
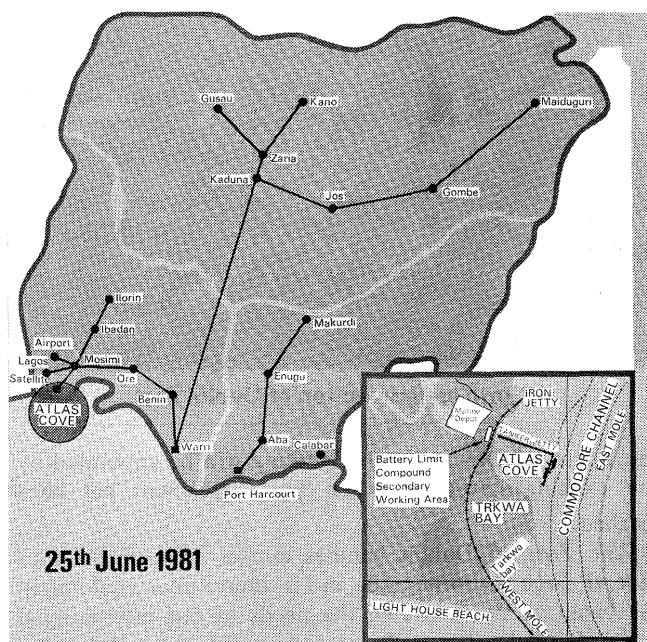
The depot is well equipped for fire fighting to ensure safety of lives and property on the jetty.

Unlike other depots, the Atlas Cove Depot is not a loading base. Products received here would be pumped directly to Mosimi—a major depot in Ogun State—from where they can be distributed to marketing points.

Another unique aspect of the Atlas Cove Depot is its strategic location. Situated on the western side of the approach channel into the Lagos harbour, petroleum products from Port-Harcourt and Warri refineries can readily be delivered to serve the country in the event of a breakdown in the products' pipeline complex.

Furthermore, ships conveying petroleum products can berth freely without travelling the whole length of the Lagos Port channel as has hitherto been the case. This will also help in decongesting the often crowded Lagos Harbour.

Contract work of the jetty was awarded to Dragages et



Atlas Cove tanker jetty



Picture shows Alhaji S.A. Wali, Permanent Secretary Ministry of Transport unveiling the commemorative plaque. Second and third from left are Mr. O. Lolomari and Alhaji B.M. Tukur.

Travaux Publics (France), the depot contract went to U.I.E. Union Industrielle et Entreprises (France) and the pump station contract to a Russian pipeline company, Tsvetmet Promexport and supervision was carried out by a team of NPA and NNPC Engineers in conjunction with

external consultants. The final contract cost is put at N25,100,000.

The Permanent Secretary in the Federal Ministry of Transport, Alhaji Wali, in a speech read on behalf of the Minister of Transport, commended both NPA and NNPC managements for the successful execution of the project.

He said that the Atlas Cove Tanker Jetty, Petroleum Depot and Pump Station was a key project under the Third National Development Plan, with the objective of providing the necessary facilities for storage, import and export of petroleum products.

Moving the vote of thanks on behalf of NPA and NNPC Managements, the General Manager of the Nigerian Ports Authority, Alhaji Bamanga Tukur expressed his gratitude to the Federal Government for its encouragement during the period of planning and execution of the project.

Alhaji Tukur also commended the project contractors, consulting engineers and engineers from NPA and NNPC, who supervised construction works and motivated the success of the project.

Plaques for the Atlas Cove Tanker Jetty, Petroleum Depot and Pump Station were later unveiled by Alhaji Wali.

With the successful completion of the Atlas Cove Oil Terminal Project in May 1981 and its subsequent commissioning on Thursday, June 25, 1981, Nigerian Ports Authority and Nigerian National Petroleum Corporation have, indeed, taken another giant step towards Nigeria's economic progress.

## Containerisation in Port of Lisbon in 1980

In 1980, 83,315 containers carrying 867,677 tons of cargo were handled in the port of Lisbon, as follows:

Embarked cargo . . . . . 460,051 tons  
Disembarked cargo . . . . . 407,626 tons

In relation to 1979, the increase was nearly 16.5%, both in the number of containers and in the cargo carried.

The following table shows the main data:

Designation	1980	1979	Variation
No. of containers	83,315	71,304	+18,8%
No. of TEU containers	100,823	87,890	+14,7%
Cargo (tons)	867,677	745,668	+16,4%

The cargo handled in containers corresponded to 29% of the global general cargo in the port of Lisbon in 1980, which reached 3,0 mn. tons.

Thus, the containerised cargo has grown in percentage, since it was 26% of the general cargo in 1979.

The outstanding predominance of the twenty feet units is maintained (77% in relation to the total amount of containers, slightly superior to that of 1979, with 74%).

From the 83,315 containers handled, 22% were empty. The percentage was practically the same as in 1979 and it is also noticed that the number of empty containers embarked was much smaller than that of the units disembarked, and this corresponds to the major tonnage of cargo loaded.

As in 1979, in 1980 also the embarked cargo has exceeded the disembarked one (460,051 tons against 407,626 tons, as referred before). The excess was 11% (against 5% in 1979). Anyway, the steady balance of the two-way traffic of cargo in containers is still evident.

It is concluded that each loaded container has carried, in average, 13.3 tons of cargo, either in import or in export movements, this figure being of the same order of that registered in 1979 (13.5 t).

The tares amounted to 200,066 tons, what corresponds to an average of 2.4 tons per unit.

75% of the containers disembarked in Lisbon were door-to-door, i.e., they were transported directly to their final destinations, while only 20% were quay-to-quay, i.e., containers opened at the port and their contents brought in the port warehouses. The remaining 5% correspond to «in transit» units.

Thus, nearly  $6,091 \times 13,4 = 81,600$  tons of containerised commodities came in the warehouses of the Port of Lisbon Authority (AGPL).

The number of full containers disembarked under the «in transit» system (1477) was still very low, though a little higher than in 1979 (887), what is natural since, although the lack of parking space at the Santa Apolónia container terminal area, better conditions for the kind of traffic are being offered just now.

The greatest share of containerised cargo (40%) continues to fall to Northern Europe. The United Kingdom comes after with 17.7% and then the Mediterranean zone with 11.7%.

Only a very small part of containers used the railway for entering or leaving the container terminal at Santa Apolónia.

750 containers, all coming from Leixões, entered the terminal by railway, an appreciable diminution being noticed in relation to 1979.

Most of the containers (83% in number and 87,2% in cargo) were handled in the Santa Apolónia container terminal.

Anyway, the need to operate containers outside the terminal owing to breakdowns of the equipment was more frequent than in 1979.

The construction of the facilities for workshop aid went on in 1980 and building up to terminal office services and terminal new accesses have then started.

As to the terminal equipment, the third gantry crane (MAGUE 111) came into operation in 1980.

The LIEBHERR crane leased by the AGPL, in operations in the terminal since October 1970, was disassembled in the end of 1980, and so the terminal operates now with three MAGUE gantry cranes.

Frequent breakdowns in the five rubber-tyred straddle carriers (transtainers) that equip the terminal have caused much trouble and a lot of preoccupation towards normal operation of the Santo Apolónia container terminal.

In 1980, twelve more trailers came into operations, six of them being provided with guide-ramps for a faster placement of the containers.

In view of the growth rate registered in the two last years, it is felt as indispensable that, in 1985, the new container terminal to be built in Trafaria, in the south bank of the estuary, is a reality.

In fact, even if we do not count with a remarkable increase in the «in transit» traffic, the domestic traffic points out to 170,000 TEU in 1984, and this amount will only very hardly be reached under reasonable conditions in the Santa Apolónia container terminal, where physical limitations are well known.



## New computer-based TIC system taken in use by Gothenburg Stevedoring Company

Some years ago the stevedoring companies of Gothenburg were merged into one single unit, the Gothenburg Stevedoring Company, which now handles all the dry goods at the Port of Gothenburg. The company has a terminal area of 1 600 000 m<sup>2</sup> at its disposal, the total quay length being 7 km, of which 3 km at the modern Skandia container harbour.

In order to keep all the information about the goods flow under effective control the company has taken the first phases of a new computer-based control system "TIC" (Terminal Information and Control) in use. Unit handling within the Skandia harbour is already being controlled by the TIC system with good results, giving improved information and control of the goods flow. The next stage covers mixed cargo handling for all activities as well as resources planning.

The basis of the TIC system consists of all the data that is continuously registered through terminals in the computer's memory unit. At a later stage it is planned that TIC shall communicate with computer-based systems operated by the shipping companies, the shipping agents, the port authority, the Customs etc. and thus facilitate the communications within the wide-spread network of companies and people which are working together in the goods handling through the port.

A traffic control centre already decided upon for the entire Port of Gothenburg will be integrated with the TIC system to a certain extent. In this way there will be both advance notification and follow-up of the arrival and passage of all vessels in the port. Special instructions concerning ships, dangerous goods etc. will be registered and can be forwarded to various interested parties through the system.

## Port of Gothenburg News

### The Port of Gothenburg plans to invest 277 m. Kronor in the period 1982–1985

Port of Gothenburg investment plans for the years 1982–1985 total 277 m. Kronor (£ 29 m.). Of this sum 182 m. Kronor is for investments at the port's already existing harbours, while 95 m. Kronor are ear-marked for a new large harbour which the port wants to use for the expected growing coal import to Sweden.

46 m. Kronor will be invested in the Skandia harbour. Much of this sum goes to changes of parts of the harbour in order to keep abreast with the changing traffic. It is thus estimated that it will cost 13.7 m. Kronor to alter the inner part of the basin between the Skandia and Älvsborg cargo terminals to provide more space for goods and a broader ramp for the growing ro-ro traffic.

The Skandia harbour will also get a fifth large container crane next spring at a cost of 16 m. Kronor, most of which, however, was included in an earlier investment plan. The broadening of fairway to the south quay of the same harbour by blasting and dredging will cost about 9 m. Kronor. Additional millions will be spent on preparing more space for the cargo handling at Älvsborg, a new lorry parking area at Skandia etc.

At the harbours located further upstreams the River Göta, near the centre of Gothenburg, 13 m. Kronor will be invested at the Free harbour—in a modernization of its south pier, the enlarging of a warehouse, the construction of a new building for those employed at the harbour and in some maintenance work.

Investments at the port's three oil harbours Skarvik, Rya and Tor will cost some 15 m. Kronor, much of which goes to reclamation work east of the Hjärtholmen island. The railway network at the port's harbours will take no less than 36 m. Kronor in the period 1982–1985, including a new signal control system estimated to cost 27 m. Kronor.

### Reduced Swedish shipping fees for deep-sea cargo

The Swedish Government has launched new rules for two shipping dues, the so-called fairway dues and the light dues.

The new terms are founded on an outer or "distant" zone and an inner zone. The border between the two zones runs from Trondheim in Norway via the north of Shetland straight westward to a point at 11° longitude west from where it follows this longitude south to 48° latitude north and then eastward to Brest in France.

Ships arriving from (or bound for) the outer zone have earlier had to pay half of the light fee, which is Swedish Kronor 3.50 per net register ton for all ships coming to (or leaving) Sweden from harbours abroad. This fee has now been abolished for ships coming from the outer or "distant" zone, provided that they fulfil certain requirements. One of these is that the National Swedish Administration of Shipping and Navigation shall have approved the traffic as liner traffic. Another is that the load to be unloaded in Sweden must not be larger than 1.5 × ship's net tonnage. A third requirement is that if the ship arriving to Sweden has made a call at a port in the inner zone, a maximum of one fourth of the cargo to be unloaded in Sweden may derive from the call within the inner zone.

On the other hand, ships coming from foreign ports within the inner zone after ten trips to Sweden (or vice versa) were earlier freed from the light due of Kronor 3.50 per net register ton, while now twelve trips are required before the light due is taken away.

The terms for the other fee, the fairway due which the Swedish authorities stipulated in 1977 for shipped goods leaving Sweden for foreign destinations or vice versa, have also been changed. Earlier the only goods freed from this fee was transit goods carried in liner traffic to or from the distant zone. This has now been changed so that all goods transported in "approved" liner traffic from or to the distant zone is freed from this fee, provided that it is a direct connection between Sweden and the distant zone. Cargo sent by feeder ships to the Continent for further sea transport later on is thus not freed from this fee.

## Free Trade Zone cargo hits a record high: Mina Jebel Ali

Of the total general cargo landed at Mina Jebel Ali during the first quarter 1981 (150,702 DWT), 76.97 per cent of the goods were cleared into the Free Trade Zone.

Since the Zone's establishment in 1980, Mina Jebel Ali has rapidly become a popular transshipment centre for Gulf cargoes. Dubai has been a commercial entrepot for



centuries and the Free Trade Zone, in conjunction with a contemporary port and huge Industrial Zone, has further broadened Dubai's trading scope.

By calculating an average monthly tonnage of the 1980 and 1981 Free Trade Zone cargo levels, it appears there has been an increase of more than 150 per cent during 1981. The Port Authority of Jebel Ali expects this upward trend to continue and is already planning expansions to the Port's existing facilities.

## Coal export installations to be built in Brisbane

Proposals to establish Brisbane as an important international coal export outlet have entered a new phase.

In a two-part decision on May 11, state cabinet (Queensland government) approved:

- a) planning for an interim coal loading facility with a capacity of five million tonnes a year to be established on the Fisherman Islands (at the mouth of the Brisbane River), and
- b) that a limit of one million tonnes per annum be placed on the amount of coal to be exported through existing facilities at Pinkenba (Brisbane River).

Cabinet also directed that an inter-departmental committee be formed to plan for the interim facility and associated infrastructure, and instructed that a preliminary report be prepared by June 1.

The committee comprises representatives of four government departments (Co-ordinator-General, Treasury, Railways and Transport) and the Port of Brisbane Authority.

Its first meeting was held on May 14. Among the subjects discussed were total cost of the facilities and infrastructure; methods of financing the work, options for operation, control and management of the facility; and the trade's growth potential.

The Port of Brisbane Authority has the general support of many political, mining and port interests in its contention that a substantial coal trade through Brisbane is more than possible and should be developed.

The Authority has examined possible interim locations on Fisherman Islands and at this stage of planning, favours a site adjacent to and upstream from the Ampol Crude Oil Berth. It believes that the installation should be developed to handle three million tonnes a year initially—a million tonnes from the West Moreton fields and the remainder coming from Darling Downs and other sources.

It sees the interim facility satisfying short-term coal export needs during the period in which mines, transport and port facilities can be planned and constructed for more major export from the huge coal deposits in the port's hinterland.

## The Fisherman Islands container terminal offers only the best!: Port of Brisbane

### It's in world class

The No. 1 container-ro/ro terminal at the Fisherman Islands deserves its classification as a "world class" installation and is certainly the best equipped in Australia.

The terminal (together with its adjoining and "sister" complex, soon to be completed) was designed and planned

by the Port of Brisbane Authority but only after a world-wide search by the Authority to ensure the creation of a facility that would give maximum operational efficiency.

Detailed designs were prepared by the Authority to meet the needs of the No. 1 terminal lessee, Brisbane Amalgamated Terminals Ltd.

The Fisherman Islands "port" provides:

- deep water berth (12.1 metres at low tide) which will easily handle the biggest container or ro/ro ships in service;
- integrated systems for all types of containerised cargo (import and export);
- on-site facilities for clearing, storing, bonding and distributing cargo through modern freight stations;
- railway links (to all parts of Australia);
- a computerised control system.

Some of the equipment and services include CO<sub>2</sub>, LN<sub>2</sub>, and electrical refrigeration; a four-high lift transtainer, heavy and light fork lifts; terminal, goose and skeletal trailers; and a side loader.

The terminal occupies an area of 12 h., has storage space for 3600 containers (including 960 reefers).

As with all container terminals, the dominating structures at Fisherman Islands are the container cranes themselves.

The cranes will handle 20' and 40' containers (36 tonnes). They also will take heavy lifts to 64 tonnes and can operate in wind strengths to 113 km/h. They are single-lift units with telescopic expandable spreaders.

B.A.T.L.'s lease provides a permit to use a 302 m long concrete wharf—about half of the total wharf face fronting the islands' two container terminals, and includes a ro/ro ramp.

The facility consists of a freely suspended ramp to accommodate all present and known future overseas stern access ro/ro vessels.

It is located at the upstream end of the wharf face and is built into a concrete apron area which is about 52 m long by 24 m wide. The riverside of the apron area provides mooring facilities for small craft.

### Easy adjustment

The ramp is of a strong steel construction and is suspended on each side by a wire rope which runs through a four sheave pulley system back to the winch drum. This provides the ready re-adjustment of the ramp level, with or without vehicles on it, and there is no overhead height restriction. It has been built to cater for fully laden fork lift trucks, multi-ISO container carriers with prime movers, and low loader road transport vehicles.

The link span consists of nine individually hinged fingers each with a separate hinged toe plate on the end. This arrangement allows the ramp to be self-aligning to cater for the list and trim of vessels during operation. The ramp details are:

- roadway length — 20 m;
- width between kerbs — 9 m;
- width between centre line of side rails and between buffer staunchions — 9.8 m;
- length of link span — 5.4 m;
- centre line of ramp from wharf-face (fender line) — 11.6 m;
- distance from tip of deflection barriers to end of ramp

- apron — 26.5 m;
- maximum distance from the crane buffer to riverside deflection barrier — 34.25 m;
- distance from crane buffer to landside deflection barrier — 26.6 m.

Estimates are that 20 per cent of the terminal's total flow of containers will pass over the ramp.

#### Other details

The entire terminal area is "covered" by a closed circuit television system. Five cameras are used for security surveillance, all traffic control, and monitoring the movement of containers into and out of the terminal. The cameras are positioned 18 m above ground level.

The rail siding bisects the two terminals and incorporates lines for arrivals, shunting, wagons that are temporarily unserviceable, plus a turning triangle and two loop sidings. The siding will accommodate a rake of 11 Q.F.C. class wagons.

A station master and assistant station master will be employed on-site, plus back-up staff as required.

Hours of railway staff operation will be day and evening shifts, plus a midnight shift should the traffic warrant the extension.

In addition to normal import-export containers and cargo, the rail facility can handle over-dimensional and break-bulk cargoes.

Terminal No. 1's rail mounted transtainer gantry crane spans 14 rows of containers and can travel the full width of the terminal.

### Webb Dock study report released: Port of Melbourne Authority

Construction of 6 Webb Dock will not be detrimental to the physical and biological environments of Hobsons Bay. This was the finding of the final report of the Port of Melbourne Environmental and Marine Study for 6 Webb Dock.

The Report, which was commissioned in March 1977, was prepared by the Centre for Environmental Studies, University of Melbourne.

The Study was planned to investigate the physical and biological systems of Hobsons Bay with the two aims of predicting the possible effects of 6 Webb Dock and of providing baseline data for use in assessing the effects of future construction.

For the purposes of the Study Hobsons Bay was defined as the area bounded by the shoreline from Point Ormond in the east, through Port Melbourne to Williamstown and Point Gellibrand in the southwest and a line between Point Gellibrand and Point Ormond.

Detailed investigations were made into water movements and water quality; beaches and sediments; and marine ecology.

In the Report, which consists of 643 pages, the objectives, methods, results and conclusions for each of the components of the Study are detailed.

The Study found that construction of 6 Webb Dock will result in the following effects:

- under some wind conditions surface currents near the dock will be deflected, resulting in minor changes of water quality near the dock.

- direct effects on sediment supply and movement will be negligible but the obstruction of wave energy flux from the west will increase the rate of westward sand movement on Sandridge Beach.
- there will be a small loss of 1.45 per cent of the soft bottom of Hobsons Bay, but this will not have a detrimental effect.

#### Conclusion

In conclusion the Study found that a programme of management of Sandridge Beach should be established by the responsible authorities in co-operation independently of the construction of 6 Webb Dock; and that subject to turbidity during construction being kept within the naturally occurring ranges, the changes likely to be caused by 6 Webb Dock will not be detrimental to the physical and biological environment of Hobsons Bay.

### Landscape scheme projects start: Port of Melbourne

Work on the Port of Melbourne's 10-year multi-million dollar Landscape and Public Access Strategy Scheme is progressing well with the first stage of the North Wharf development nearing completion.

Re-decking of the former 16 North Wharf area is complete and stripping of the gears and main drive shaft from the former steam crane is now in progress. The base of the crane will then be prepared in readiness for the erection of the public lookout tower.

#### Shed Demolition

Contracts for the demolition of the sheds at 13, 14 and 15 North Wharf have been let and this work is scheduled to start soon. Work on widening the gate is nearing completion.

Landscaping of the North Wharf development, which includes the erection of security fencing, tree planting, and the sowing of grass will then commence.

#### Second Project

The second project to be undertaken under the Landscape Development Scheme is the upgrading of the Footscray Road area.

Special boundary chains, easily visible at a distance, and concrete posts are now being manufactured. Grading of the boundary edges will be done before planting is undertaken.

Design work on the Station Pier area, the third project designated in the Study, is nearing completion.

Another area of the Port where extensive upgrading has been undertaken is in the Maribyrnong River. Between Hopeton and Shepherds Bridges mud flats have been removed and the banks have been lined with rock.

Other areas of the Maribyrnong River where public access is possible are being sown with grass and planting of trees is being undertaken.

# Current statistics of Indian Ports 1979-80

Asia-Oceania

## Port-wise Analysis

(in Metric Tonnes)

Ports	Cargo Carried by Indian Lines			Total Cargo Carried by Indian & Foreign Lines		
	Exports	Imports	Total	Exports	Imports	Total
<b>A. MAJOR PORTS</b>						
Bombay	613,908	3,798,908	4,412,816	2,926,040	8,681,071	11,607,111
Kandla	99,812	2,883,515	2,983,327	452,726	5,717,149	6,169,875
Calcutta	643,016	3,507,601	4,150,617	1,418,797	5,304,990	6,723,787
Visakhapatnam	1,556,567	1,380,487	2,937,054	6,112,188	3,844,102	9,956,290
Cochin	104,420	517,625	622,045	418,124	3,881,215	4,299,339
Morumugao	1,595,349	258,564	1,853,913	13,448,106	654,850	14,102,956
Paradip	239,956	105,345	345,301	1,915,136	386,402	2,301,538
Madras	726,205	3,272,439	3,998,644	3,920,160	5,446,950	9,367,110
Tuticorin	62,667	170,301	232,968	415,380	779,571	1,194,951
New Manglore	20,133	146,953	167,086	220,297	467,828	688,125
Total (A)	5,662,033	16,041,738	21,703,771	31,246,954	35,164,128	66,411,082
<b>B. MINOR &amp; INTER-MEDIATE PORTS</b>						
	483,896	386,628	870,524	3,471,610	1,327,026	4,798,636
Total (A + B)	6,145,929	16,428,366	22,574,295	34,718,564	36,491,154	71,209,718

## Commodity-wise Analysis

(in Lakhs Tonnes)

Commodities	Cargo Carried by Indian Lines			Total Cargo Carried			Percentage Share of Indian Lines		
	Export	Import	Total	Export	Import	Total	Export	Import	Total
General Cargo	16.51	16.75	33.26	59.78	56.00	115.78	27.6	29.9	28.8
Coal	0.07	3.13	3.20	0.24	10.46	10.70	28.6	29.9	29.9
Salt	—	—	—	0.20	—	0.20	—	—	—
Foodgrains	3.77	0.20	3.97	11.60	2.51	14.11	32.5	7.8	28.1
Fertilizers	0.07	16.67	16.74	0.37	61.30	61.67	18.0	27.2	27.1
Iron Ore	39.60	—	39.60	246.00	—	246.00	16.1	—	16.1
Other Ores	0.52	0.07	0.59	14.20	0.17	14.37	3.6	44.1	4.1
P.O.L. & Products	0.14	122.19	122.33	1.89	207.75	209.64	7.3	58.8	58.4
Other bulk Commodities	0.78	5.27	6.05	12.90	26.72	39.62	6.1	19.7	15.3
Total	61.46	164.28	225.74	347.18	364.91	712.09	17.7	45.0	31.7

## Container Port Authority recommended: Hong Kong

A Consultant's report on the need to expand facilities at the Kwai Chung Container Terminal, has recommended the establishment of a Container Port Authority to handle the increasing congestion at Kwai Chung.

It said the Port Authority would also be responsible for making the best use of land that is made available, and it would then ensure each of the operators gained maximum benefit from this. The report pointed out that even with the provision of more land, the present terminals were likely to reach the capacity of their efficient operation by 1985-86, and that additional terminal facilities would be

required by then.

The Government has as well, commissioned consultants to look into the engineering feasibility of further extension in the Kwai Chung area, which seems the most promising area for early expansion.

## Five major development projects under Fourth Malaysia Plan: Penang Port Commission

The Penang Port Commission will undertake 5 new major development projects under the Fourth Malaysia Plan (F.M.P.) (1981-1985) at an estimated cost of \$391.7 million. The objectives of the Commission under the F.M.P. will continue to be port expansion, facility modernization and renewal and the expansion of the Ferry Service in line

with traffic growth and new developments. The aims of the New Economic Policy will also form the main basis of the development programmes.

The five new major projects are:—

1. North Butterworth Container Terminal
2. North Channel Dredging
3. Acquisition of a 2nd Gantry Crane
4. Expansion of the Bulk Cargo Terminal with the addition of two berths.
5. Expansion of the Ferry Service.

#### 1. North Butterworth Container Terminal

The Container Terminal will be located at North Butterworth as recommended by the Consultants, M/S. E.G. Frankel Incorporated, U.S.A. in the Feasibility Study of Phase III of the Development of the Port of Penang.

The objective of this project is to provide the Port of Penang with the additional capacity to handle the increasing container traffic expected to go through the port in the next decade. The existing container handling facilities at Butterworth Wharves will only be adequate to meet the container traffic growth until 1985.

Initially the new Container Terminal will have two container berths with container handling facilities comprising two gantry cranes, transtainers, container forklift trucks, prime-movers and trailers. In addition, a tug boat of 3,000 H.P. will also be acquired for the berthing and unberthing of the large 3rd generation container ships at the new wharves.

Construction of the North Butterworth Container Terminal is expected to begin in 1983 and scheduled to complete in 1986.

The estimated cost of this project is \$267.5 million.

#### 2. North Channel Dredging

This project involves the dredging of the North Channel to a depth of 39 feet A.C.D., as the present depth of 24 feet 4 inches is too shallow for container ships and bulk cargo ships to call at the Port of Penang.

Prequalification of contractors for the North Channel Dredging had been called and tenders will be issued soon. The dredging is expected to be completed by the end of 1982.

The estimated cost of the project is \$46 million.

#### 3. Second Container Gantry Crane

An additional container gantry crane will be acquired to supplement the existing gantry crane at Berth No. 6 Butterworth Wharves. This gantry crane will expedite the turn-round of container ships at berth, and help to generate further growth in container traffic for the Port of Penang. The crane will be transferred to the proposed North Butterworth Container Terminal when it is completed in 1986.

The crane will be installed in early 1982 at a cost of \$7.6 million.

#### 4. Expansion of the Bulk Cargo Terminal

Under the Third Malaysia Plan a Bulk Cargo Terminal was constructed to provide a deep water berth with mechanical handling facilities and stockpile areas for handling and storage of dry bulk cargo and facilities for the handling of bulk liquid cargo through pipelines to private installation.

Construction work is expected to begin in late 1982 and

the whole project is expected to be completed by mid-1984. The estimated cost of the project is \$44.8 million.

#### 5. Expansion of the Ferry Service

The Commission has presently a fleet of 13 ferry vessels, (8 passenger cum vehicular ferry vessels and 5 vehicular ferry vessels). The present fleet is being served by two ferry terminals at each end of the crossings.

Under the Fourth Malaysia Plan, two new vehicular ferry vessels (the 6th and 7th) will be acquired to provide the Ferry Service with additional carrying capacity, particularly for motor vehicles corresponding with the growth in demand.

Extension work will also be carried out at the vehicular ferry terminals to install a new pair of ramps and an additional lay-by pier.

The new ramps will be installed by the end of 1981 while the lay-by pier will be constructed early 1982. The 6th and 7th ferry vessels are expected to be delivered in late 1981 and 1983 respectively. The estimated cost of the ferry vessels and lay-by pier is \$25.8 million.

### Karachi Port praised for the historical improvement in port working

Economic Co-ordination Committee of the Cabinet during its meeting held under the Chairmanship of Mr. Ghulam Ishaq Khan, Federal Minister for Finance & Economic Affairs recently at Islamabad lauded the historical improvements of Karachi Port.

In this connection Chairman K.P.T. has issued a message to Workers of Karachi Port which is produced below:—

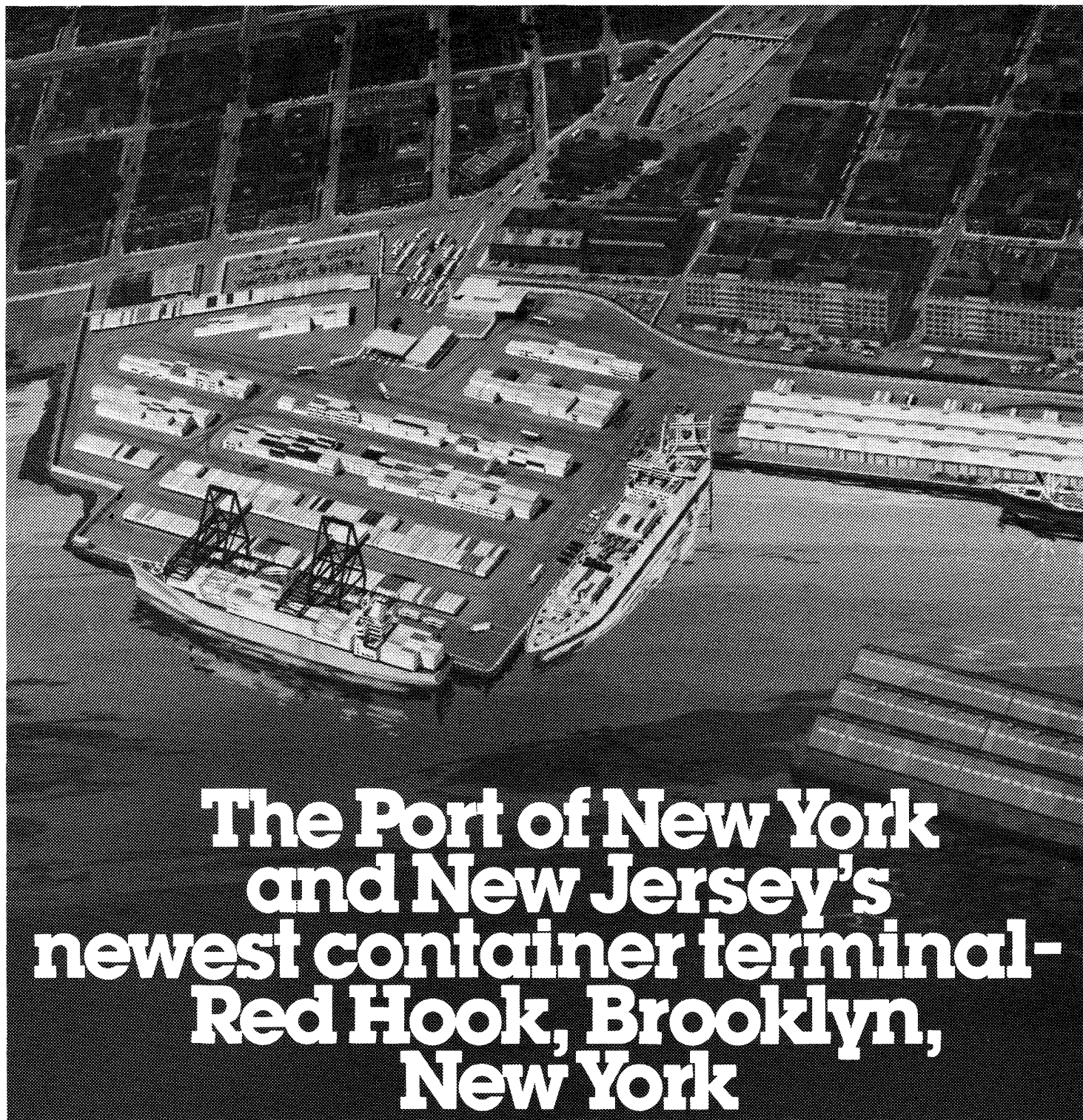
“Extract from the proceedings of the recently held meeting of the Economic Co-ordination Committee are reproduced below:—

“The Committee expressed its appreciation of all-round improvement in the working of Karachi Port and noted that the level of efficiency attained in berthing ships and cargo clearance are unparalleled in the port history resulting in the saving to the national economy to the tune of Rs. 100 crore on account of abolition of surcharge alone. The working of the port is marked by improvement in cargo handling, fast clearance of cargo and quick build up of export commodities on the berths.”

The above-mentioned state of the Port of Karachi reflecting its improvement over the last three years is not a mean achievement. This state of affairs has become possible because of the hard work and devotion of the majority of the Officers, staff and workers of the Port of Karachi. In this endeavour, they have also been assisted by the Dock Labour and the National Logistics Cell.

I have said this on many occasions and would like to reiterate that the progress of the Port of Karachi depends upon the discipline and hard work. Efficient Operation of the port brings about tremendous savings to the economy of the country and, therefore, all those who are working in the Port of Karachi have got to remain dedicated to discipline and hard work so that the Port moves to achieve higher status and standing in terms of productivity, both nationally and internationally.

I would like to congratulate all those who are working in the K.P.T. for bringing improvement in the Port operations, and Port conditions/facilities.”



# The Port of New York and New Jersey's newest container terminal— Red Hook, Brooklyn, New York

Through the combined efforts of the State of New York, the City of New York and The Port Authority of New York and New Jersey, construction is now nearing completion on the new 1,000,000-ton capacity Red Hook Container Terminal in Brooklyn, New York, which has been leased to Universal Maritime Service Corp. This new container terminal, capable of handling Ro/Ro, as well as container and breakbulk vessels, is being completed at a cost of \$20,000,000. It will have a 1,000-foot-long container berth supported by two cranes and

40 acres of upland area. Approximately 30,000 containers are expected to move via Red Hook each year and the facility will have the capability of handling trucks on a 100 percent appointment system. The site enjoys exceptional navigational advantages since it is located along Buttermilk Channel where the Corps of Engineers maintains a depth of 40 feet.

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