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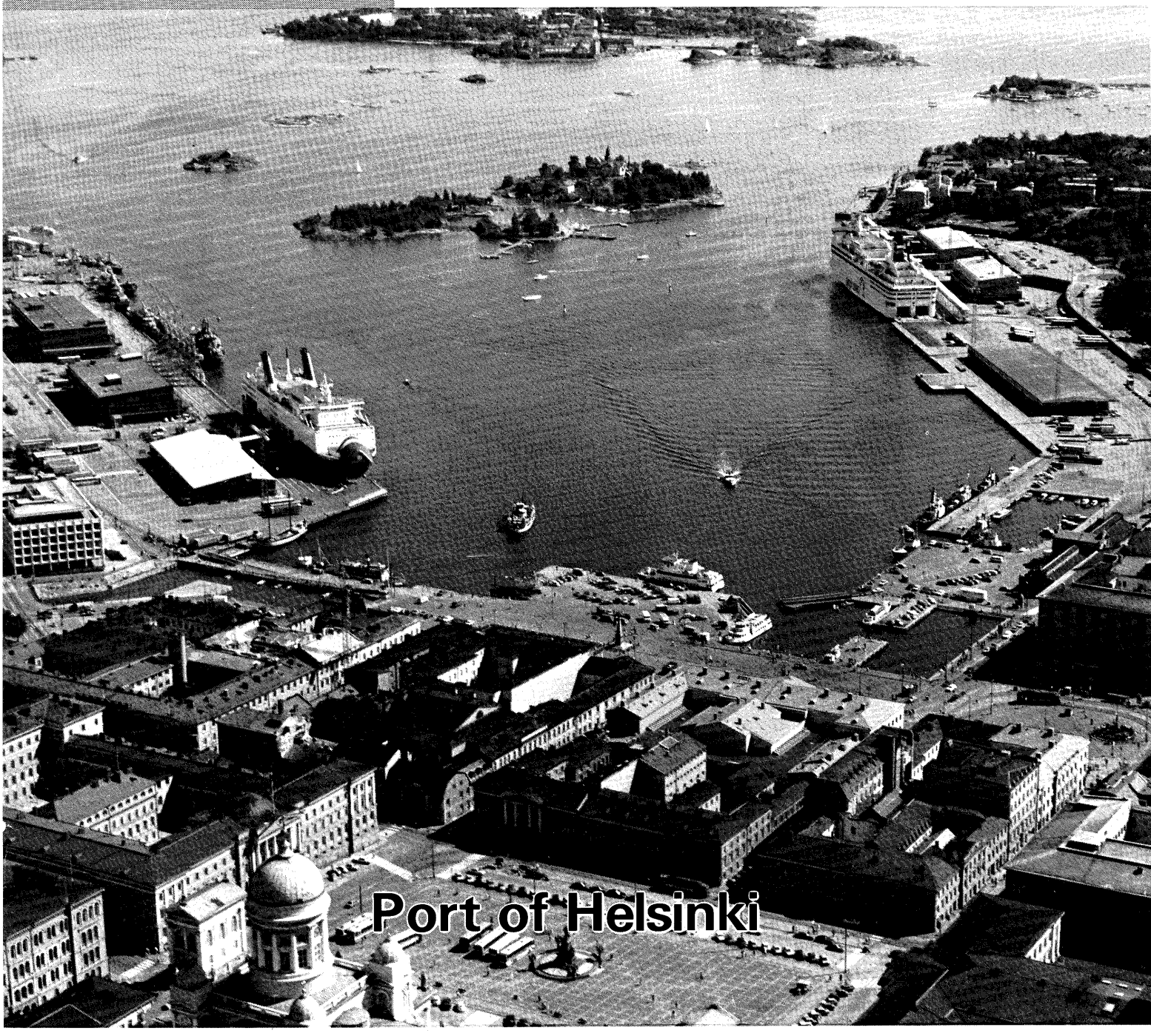
PORTS and HARBORS

June, 1982 Vol. 27, No. 6



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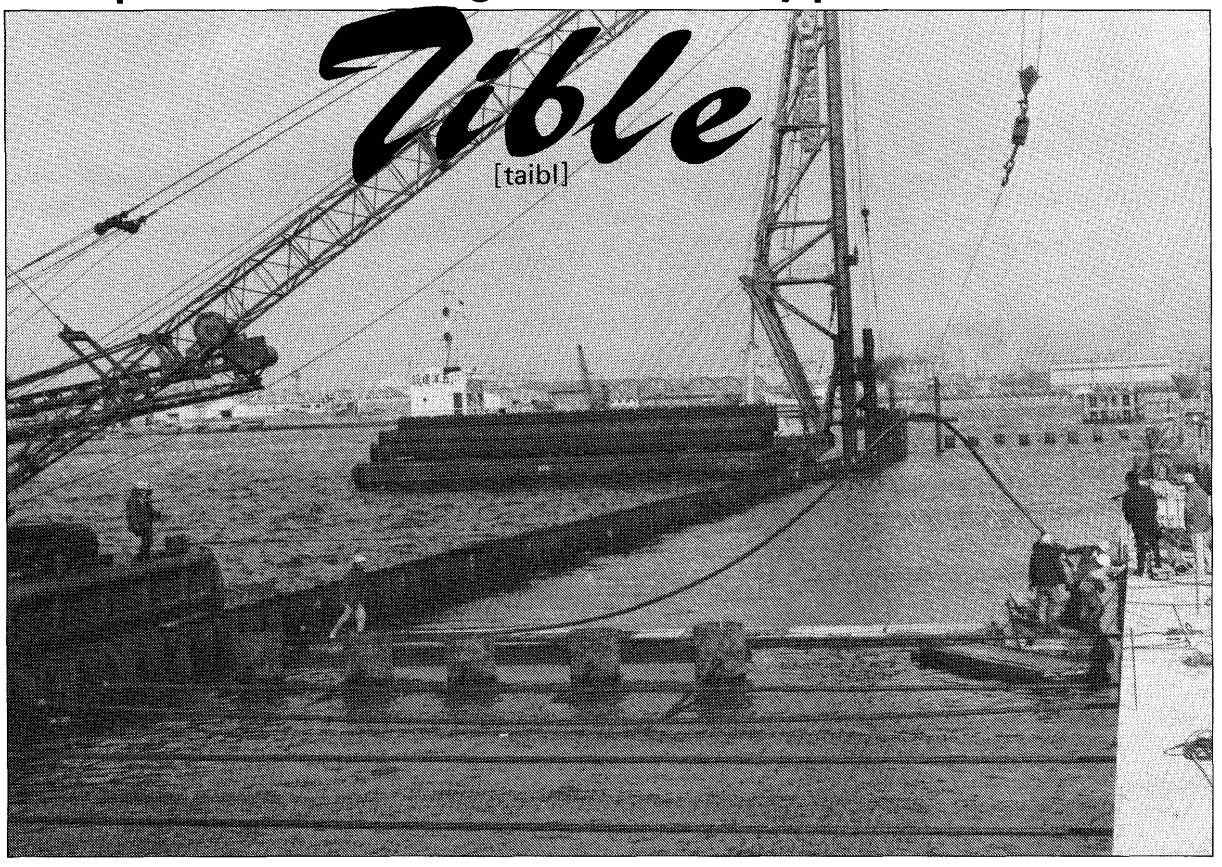

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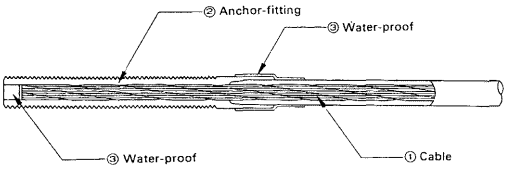

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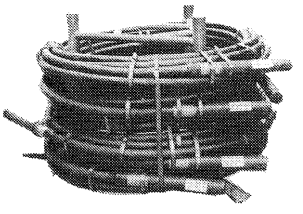

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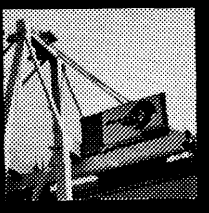

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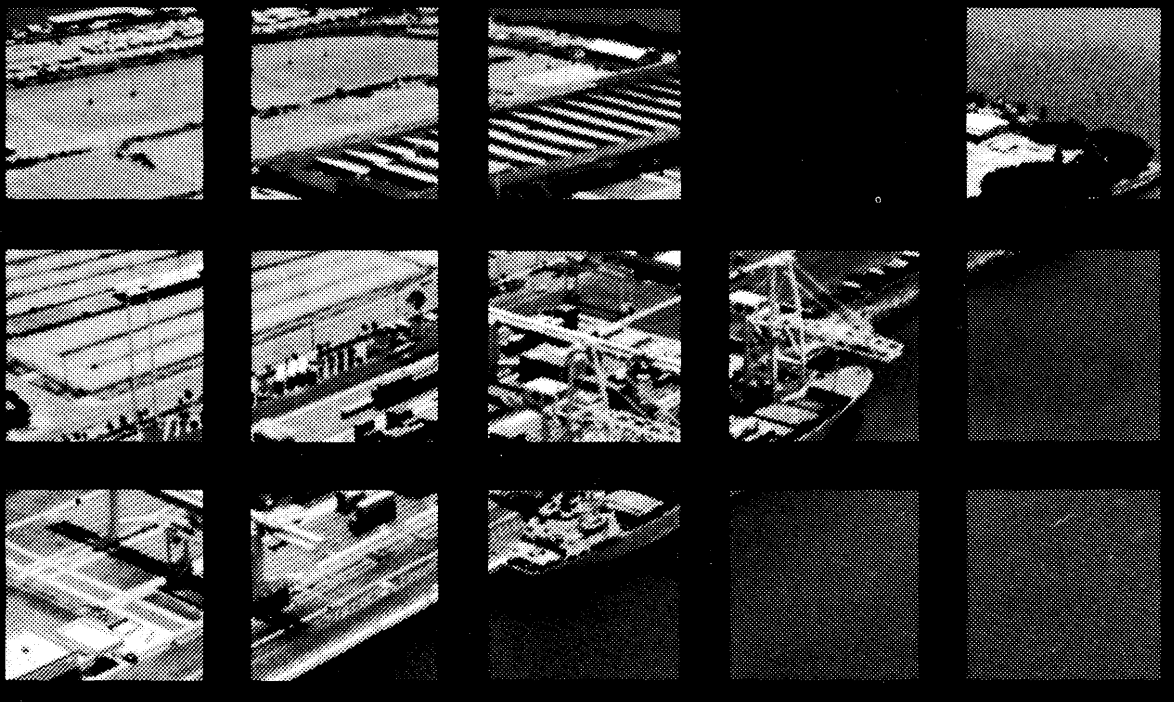

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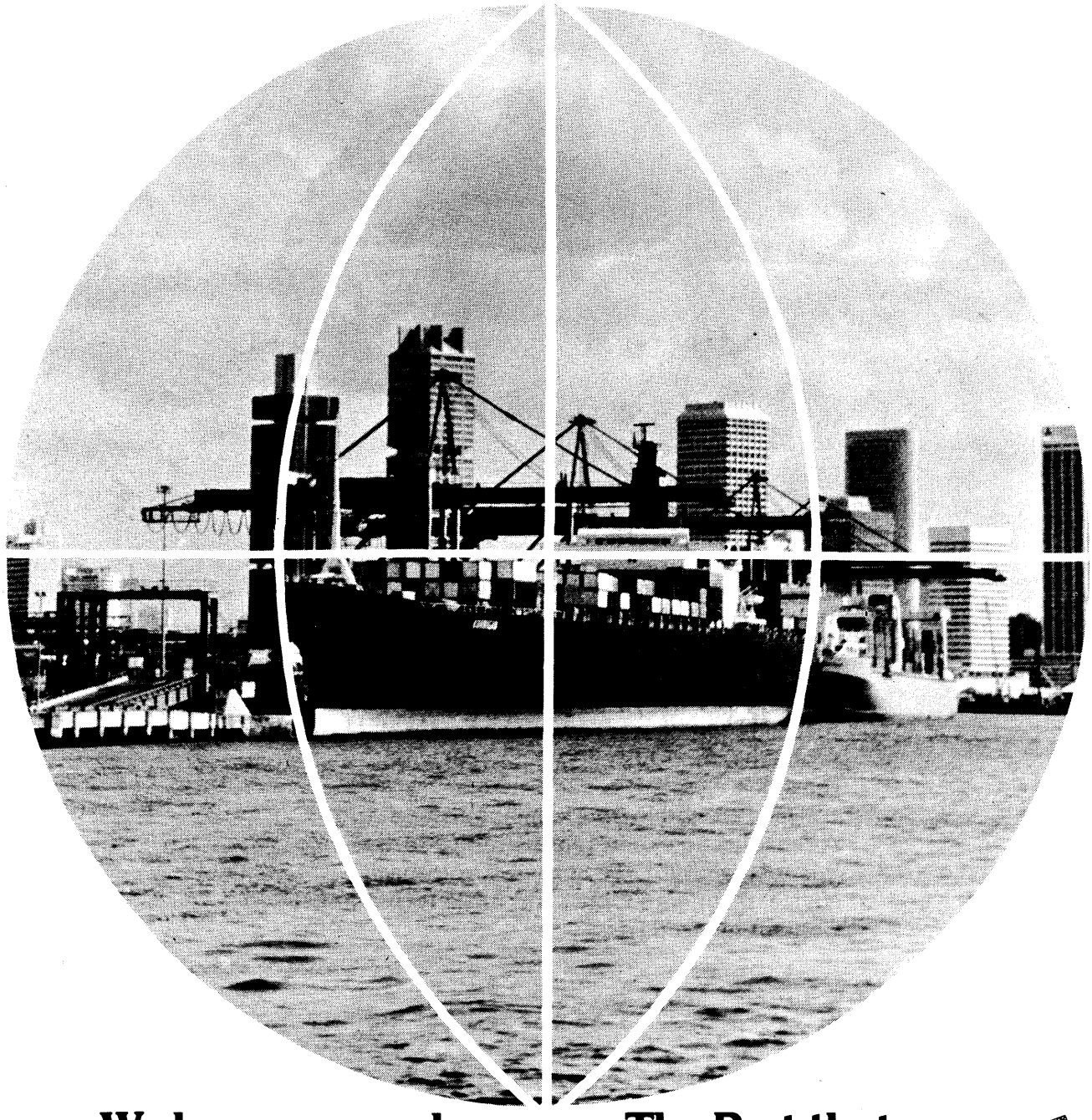

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(Also see the article on page 18)

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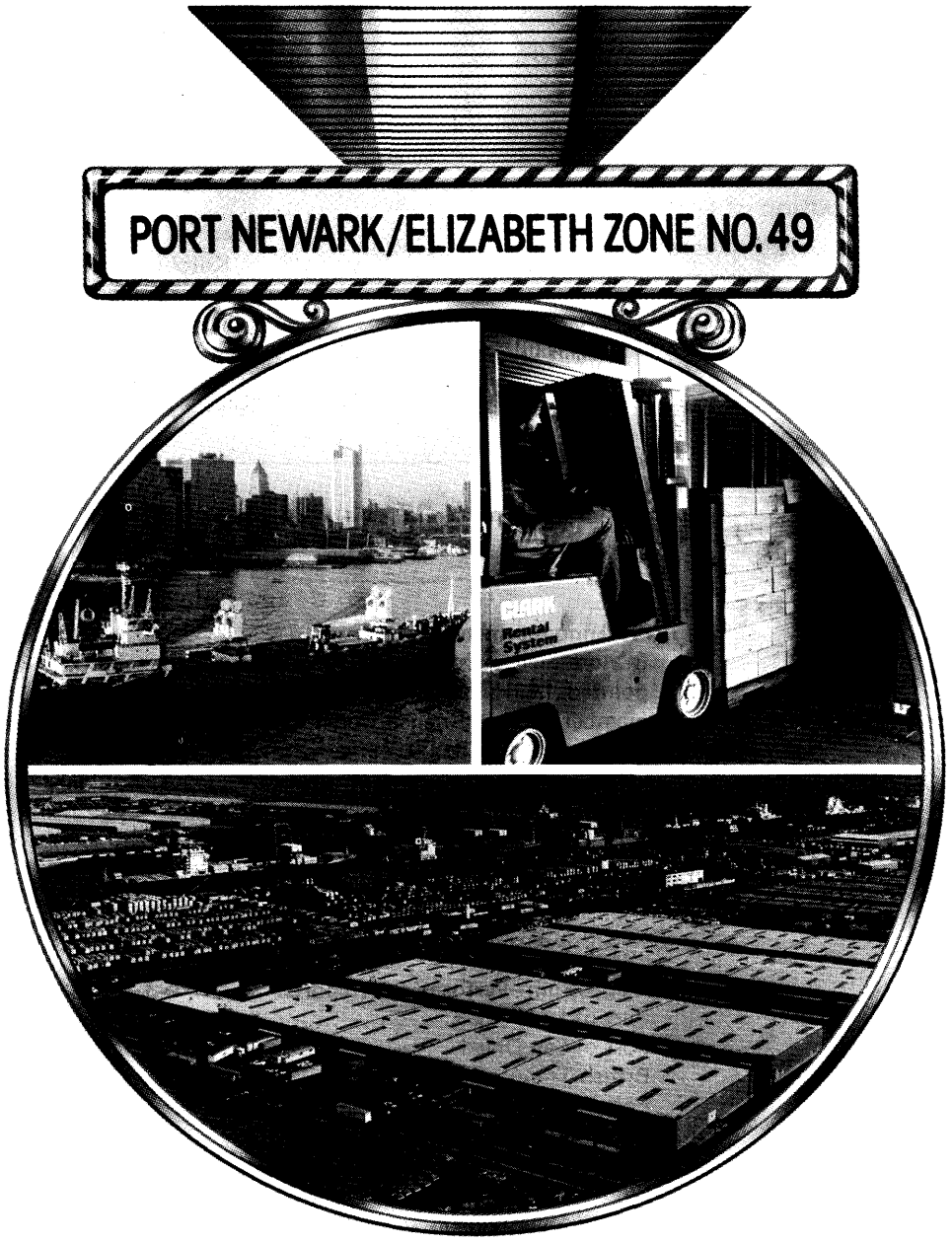

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IAPH announcements and news

3 more recipients of the IAPH Bursary announced

Mr. J.K. Stuart, Chairman of the British Transport Docks Board and Chairman of the IAPH Committee on International Port Development, announced the following 3 recipients of the IAPH Bursary recently approved.

1. Mr. K. Kondo, Principal, Bandari College, Tanzanian Harbours Authority to attend the courses on port management and operations at the Port of Singapore's Training Centre for the period of May 31-June 18, 1982.
2. Mr. Cherfi Bekta, Attache de Direction a la Direction de l'Exploitation
   and
3. Mr. Azzeddine Tridi, Director Adjoint de l'Unite Portuaire d'Annaba, the both from Office National des Ports, Algeria, to attend the course on port terminals for general cargoes at the Port Study Center of Le Havre known as IPER (Institute Portuaire de l'Enseignement et de Recherche) and ENPC (l'Ecole Nationale des Ponts et Chaussees) for the period June 21-July 16, 1982.

The Secretary General has arranged the remittance of their bursary money (US$3,500 each) to the respective sources.

Mr. R.L.M. Vleugels appointed IAPH Liaison Officer with CCC

Mr. Robert L.M. Vleugels, Director General, Port of Antwerp and Chairman of IAPH Committee on Trade Facilitation, is appointed as IAPH Liaison Officer with CCC by President Mayne, according to the presidential communication to the head office.

Mr. J. Black, PLA appointed a member of the Finance Committee

President Mayne recently appointed Mr. John Black, Chief Executive of the Port of London Authority a member of the Finance Committee succeeding Mr. Presland who retired from the PLA recently. Ir. J. den Toom, Chairman of the Committee is most appreciative of the PLA's recommendation of Mr. Black to serve on his committee and Mr. Black is scheduled to participate in the Aruba meeting of the Finance Committee.

The IAPH Dredging Task Force Fund : Reached the $10,000 Target

The members' contribution to the IAPH Dredging Task Force Fund reached the target amount of US$10,000. Dr. Hajime Sato, Secretary-General, expresses his profound thanks to those doner members.

It is expected that the Fund will duly be transferred to the AAPA as a part of the AAPA fund for their undertaking on the subject matter.

Hereunder are the names of the doners to the Fund, as of April 19, 1982. It is hoped that there will be further contributions by members who have not yet sent in their remittances to the head office.

Australia
Gladstone Harbour Board
Maritime Services Board of NSW
Port of Melbourne Authority
Townswille Harbour Board
Voith Australia, Pty. Ltd.

Canada
Fraser River Harbour Commission
North Fraser Harbour Commission
Vancouver Port Authority

China (ROC)
Keelung Harbour Bureau

Cyprus
Cyprus Ports Authority

Denmark
Port of Aalborg Authority
Port of Copenhagen Authority

Ethiopia
Maritime Transport Authority

France
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Japan
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Kuwait
Ports Public Authority

Malaysia
Kelang Port Authority
Kuching Port Authority
Sabah Ports Authority

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Coordinacion de Proyectors de Dessarrollo

Netherlands
City of Rotterdam

New Zealand
Harbours Assoc. of NZ
Hawke's Bay Harbour Board
Marlborough Harbour Board

Nigeria
Nigeria Ports Authority

Singapore
Port of Singapore Authority

Sri Lanka
Sri Lanka Ports Authority

Sweden
Malmo Hamnforvalting
Port of Gothenburg

U.A.E.
Port Zayed, Abu Dhabi

U.K.
Port of London Authority

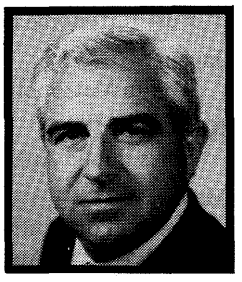
Entries into the 1983 edition of the IAPH Membership Directory

The Secretary General's circular is scheduled to be dispatched to all IAPH members towards the end of May requesting their cooperation in returning the completed entries to the Tokyo Head Office for the 1983 edition of the IAPH Membership Directory.

Upon receipt of the Secretary General's letter, all members are requested to check the information which the Secretariat has attached to the entry form and to make the necessary corrections and changes on the given items including: 1) the name of organization, 2) annual volume of cargo handled in metric tons covering both general and bulk cargo in the case of Regular Members, 3) address, 4) mailing addressee, 5) calbe address, 6) telex number and answer back code, 7) office phone number and 8) the name and positions of principal officers, etc.

In the case that any member fails to up date the relevant information through this channel, the Head Office will most reluctantly have to carry the old information in the new edition of the Directory. The Secretary General, appeals to members not to waste this once a year opportunity to publicise the respective members newest positions to the world ports and port-related businesses.

Members are also invited to run their advertisements in the Directory at reasonable rates, which remain the same as for the previous edition, namely, US$280 for a full page and US$160 for a half-page.



Col. Charles R. Clark, Former IAPH EXCO member dies in US

The Secretary General was recently informed of the passing of Col. Charles R. Clark by Mr. George W. Altvater, a former IAPH President, in Houston.

According to the newspaper article (The Panama Canal Spillway dated February 26, 1982) Mr. Altvater enclosed in his letter that Col. Clark, a well known former official of the Panama Canal organization, died in Phoenix, Arizona on Sunday, February 21, 1982 at the age of 59.

Col. Clark attended the 10th Conference of IAPH in Houston in 1977, and at this conference, he, the then Director, Transportation and Terminals, Canal Company, was elected a member of the Executive Committee of IAPH and at the same time was appointed as Chairman of the Membership Committee in view of his experience in Central and South America. As a member of Mr. Altvater's cabinet, Col. Clark contributed to the Association affairs until his resignation in 1979.

Secretary General Sato sent a message of condolences to Mrs. Clark on behalf of IAPH members and the Tokyo Head Office Secretariat on April 15, 1982

Surviving Col. Clark, according to the above mentioned newspaper, are his wife Elizabeth, a daughter Candice Reid and three grandchildren. Mrs. Clark's address is Box 1202, Litchfield Park, Ariz. 85340.

Membership Notes

New Member

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Change (Ministry of Transport, Japan)

Mr. Teruju Matsumoto has been appointed Director General, Bureau of Ports and Harbors, Ministry of Transport, Japan, succeeding Mr. Makoto Yoshimura, effective from April 1, 1982. Mr. Matsumoto, the then Technical Counsellor, in the same Bureau, participated in the 11th Conference of IAPH held in Deauville, 1979, and delivered a welcoming speech on behalf of Mr. Kinji Moriyama, the then Minister of Transport inviting the delegates to the Nagoya Conference.

Visitors

– On April 9, Mr. Kenneth Seah, former Public Relation's Officer of the Port of Singapore Authority who is now a consultant in Singapore, visited the Head Office and was welcomed by the Deputy Secretary and other staff.

Mr. Seah was Deputy Chairman of the Organizing Committee for the 9th Conference of IAPH held in Singapore in 1975 and contributed to its success along with other members of the Committee.

He was in Japan to attend a launching ceremony for a bulk carrier, held in the IHI's Aioi shipyard on the morning of April 10th.

– On April 21, Mr. Ben E. Nutter visited the Head Office and was welcomed by Secretary General Emeritus Toru Akiyama and Secretary General Hajime Sato.

Mr. Nutter, former Executive Director of the Port of Oakland Authority, USA was in Japan on his consultant business and he was able to spend about an hour with the IAPH Head Office members.

The Southland Harbour Board's New Logo

The logo based on a modern styalized form of the carrick bend or sailors knot over styalized waves maintains a nautical flavour.

The carrick bend is traditionally considered strong and reliable which is easily related to the Board itself.

Open forum:

U.S. East Coast Coal Ports—An Overview

By Paul Soros, President
Soros Associates, Consulting Engineers
(An Associate Member of IAPH)

Ship congestion at US East Coast coal ports was much in the news in 1981. In fact, 15% of the world bulk carrier capacity was on demurrage at one time in Hampton Roads.

The cause of the congestion was an increase in European steam coal demand, combined with loss of production in Poland and interruption of shipments from Australia. Essentially, the US is the only source, with or without congestion, with the capacity to provide large amounts of additional coal on short notice, as illustrated by the increase in U.S. coal exports in the last few years. (Exhibit 1)

There has been and continues to be a barrage of announcements of new U.S. coal terminal projects with impressive capacities. However, it is obvious that these claims ought to be taken with a grain of salt.

This article is limited to a brief overview, going from North to South, of major facilities in operation, under construction or in an advanced state of planning on the East Coast. (Exhibit 2)

Greenwich Pier (124), Philadelphia, Pennsylvania

Owner: Conrail. Direct rail to ship facility. Draft 40 feet MLW.

Cars are moved by barney to a high line rotary dumper combined with a fixed loader, with telescopic chute and spout. Outreach, air draft and length of pier limit ship size to 38,000 DWT.

An expansion program is underway to increase loading capacity to 5,000 TPH and ship sizes to 60,000 DWT. The program includes a new 8 car thaw shed, automation of the rail yard and combining the output of two modernized dumpers onto an 84" dock conveyor serving a traveling shiploader. A lowering and tilting telescopic chute with rotating spoon will act as a bin to enable breakage free loading or anthracite. A new runway for the loader and pier strengthening and rehabilitation are also required.

The program is being carried out without shutting down the existing operations. Completion is scheduled for Fall of 1982.

In 1981 the facility loaded 3.3 million tons.

Curtis Bay, Baltimore, Maryland

Owner: Baltimore and Ohio Railroad (CSX Corp.) Direct rail to ship facility. Draft 42 ft. MLW.

Ships are loaded on the south side of the pier which is equipped with a traveling shiploader rated at 6,000 TPH and fed by a conveyor system from a tandem rotary dumper with indexer. The loader is fitted with a telescopic chute. The north side of the pier is equipped with a 4,000 TPH traveling barge loader fed from a single rotary car dumper.

The terminal does considerable 2, 3 or 4 way blending of met coal using the car dumping system.

In 1981, the facility loaded 14 million tons, 12.7 million for export.

Kentucky Ohio Terminal, Baltimore, Maryland

Owner: Island Creek Coal Co. Service by B & O Railroad. Draft 42 ft. MLW.

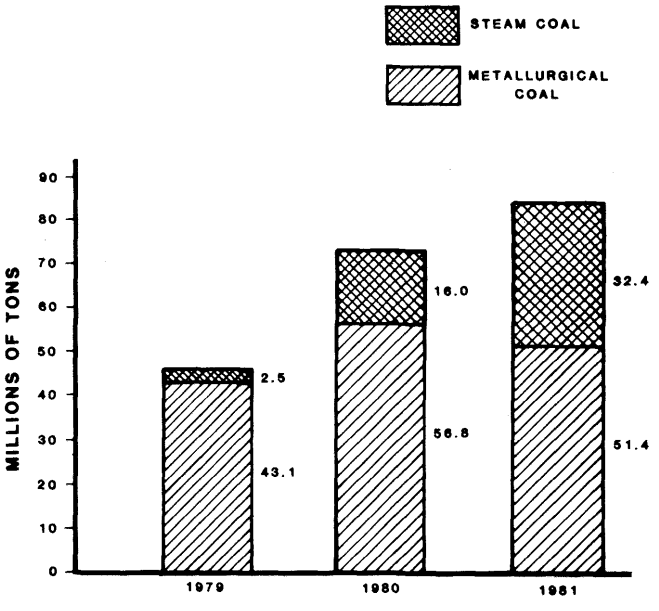
A new single rotary dumper with indexer, feeding a coal yard inside the railroad loop of the Curtis Bay facility is nearly completed. The coal yard consists of 8 x 40,000 ton conical piles built with lowering tubes. Reclaiming by tunnel and bulldozers provides a degree of mixing.

Construction of a new pier with a 6,000 TPH traveling shiploader is scheduled for completion in early 1983. In the meantime the facility will tie into the existing Curtis Bay Pier.

EXHIBIT 1

U.S. COAL EXPORTS

(EXCLUDING SHIPMENTS TO CANADA)



Canton Terminal, Baltimore, Maryland

Owner: Consolidation Coal Co. Service by Conrail and B & O Railroads. Draft 42 ft. MLW.

Currently under construction, the facility includes a tandem dumper with indexer, 2 stacker reclaimers on a single runway, and ground storage capacity of 750,000 tons providing limited 2 way mixing. The rehabilitated pier will have a 7,000 TPH traveling loader.

Completion is scheduled for 1983.

Newport News, (Piers 14 and 15), Virginia

Owner: Chesapeake and Ohio Railroad (CSX Corporation). Direct rail to ship facility. Pier 14 draft 45 ft. MLW, Pier 15 draft 38 ft. MLW.

Pier 14 – Two tandem dumpers fed by barneys are connected by 4 dock conveyors to two traveling loaders on a finger pier. Both ship loaders, rated at 4,500 TPH each, are twin boomed and can load a vessel on either side of the pier. However, each shiploader is restricted to serving only one side of the pier at a time. Both loaders are fitted with telescopic chutes and trimmers. Considerable 2 or 3 way mixing is carried out using the car dumping system.

Pier 15 – The north side of this pier, which has a slow loading system to minimize breakage, is used to augment Pier 14 as required. The fixed loading tower rated at 3,500 TPH is fed by a conveyor from a single rotary dumper. A specially designed lowering device and chute keep a smooth flow going into the vessel.

In 1981, both piers loaded 16.4 million tons, 15.7 million for export. A ship registration system was initiated in 1981 to improve vessel congestion.

Massey Coal Terminal (Pier 9), Newport News, Virginia

Owner: Massey Coal Co. Service by C & O Railroad. Draft 45 ft. MLW.

This facility, which adjoins the C & O Terminal, incorporates a tandem rotary dumper with indexer. A stockpile built with overhead shuttles with telescopic chutes will have a live capacity of 600,000 tons. The total capacity with bulldozing and without complete separation of piles will be 2 million tons.

Reclaiming by tunnel and bulldozers provides a degree of mixing. An 8,000 TPH traveling slewing shiploader is under construction on the rehabilitated finger pier. Completion is scheduled for 1983.

Virginia Port Authority Terminal, Portsmouth, Virginia

The original design included a railroad yard able to hold 220 car trains, 2 tandem dumpers with indexers, 3.0 million ton live ground storage with 70 piles, the ability to produce a precise 2, 3 or 4 way mix in any ratio and a 4 berth finger pier with 10,000 TPH and 4,000 TPH traveling slewing loaders.

Recent plans have scaled the project down to 25 million ton/year capacity with a 3 million ton stockpile in 38 piles and a capability to produce a precise 2 way mix in any ratio. Construction is not yet authorized.

Lamberts Point (Piers 6 and 5), Norfolk, Virginia

Owner: Norfolk & Western Railroad. Direct rail to ship facility. Pier 6 draft 45 ft. MLW, Pier 5 draft 36 ft. MLW.

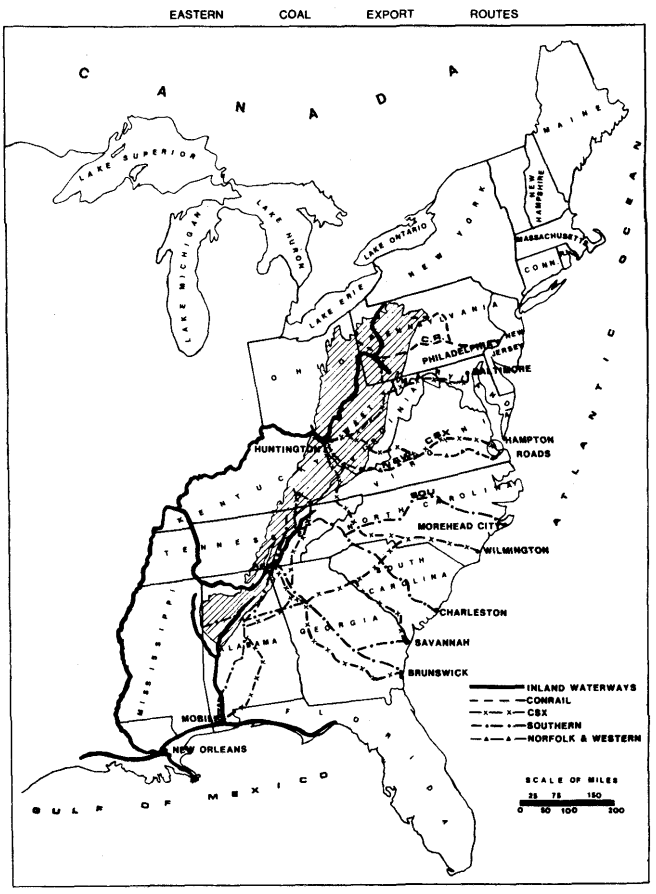
Pier 6 – Coal is dumped by two barney fed tandem dumpers and conveyed to two traveling shiploaders, each rated at 10,000 TPH, which serve the twin berths on the north side of the pier. Each shiploader is fitted with a telescopic chute.

Extensive 3 and 4 way mixing is practised. The output of the two tandem dumpers may be combined on one belt to feed one of the shiploaders or each tandem dumper can feed one of the two loaders via separate conveyor systems.

Pier 5 – This pier is equipped with an old stationary high lift dumper rated at 30 x 70 ton cars per hour. Coal is dumped onto a pan feeding a telescopic chute. Pier 5 is used for minimum degradation loading and to augment Pier 6 as required. (2.3 million tons in 1981)

EXHIBIT 2

EASTERN COAL EXPORT ROUTES



In 1981 this facility loaded 33.5 million tons, 31.9 million for export.

A contract permit system for loading ships was initiated in 1981 to reduce demurrage problems.

Morehead City Coal Terminal, North Carolina

Owner: Alla Ohio Valley Coals. Service by Southern RR. Draft 45 ft. MLW at pier, 40 ft. in channel.

This facility has a 2 car pit for bottom dumping and a 60,000 ton capacity stockpile. Reclaiming is by front-end loaders and portable conveyors. Ships are loaded at 1,500 TPH via the existing bulk loader operated by the North Carolina State Port Authority.

In four months of 1981 this facility loaded 870,000 tons of coal.

Shipyard River Terminal, Charleston, South Carolina

Owner: Massey Coal Co. Service by Seaboard Coast Line (CSX Corporation) and Southern Railroads. Draft 35 ft.

(Continued on next page bottom)

Port of Los Angeles

(Extracts from Port of Los Angeles 1981 Annual Report)

Executive Director's Report (Extract)

The dynamic, upward pattern of growth and achievement of the Port of Los Angeles continued uninterrupted in fiscal 1980-81 as the Los Angeles Harbor Department recorded the most prolific year of progress and prosperity it has ever known.

But for all of its impressive statistics and imposing figures, there were other, far-reaching developments of surpassing significance that placed the Port of Los Angeles squarely on the threshold of the greatest era of expansion in its entire 74-year history.

The blueprint for this unprecedented step forward is the comprehensive Port Master Plan and a five-year Capital Development Program, both of which were approved early in the year by the Los Angeles Board of Harbor Commissioners. The Port Master Plan was certified by the California Coastal Commission, authorizing the Board to issue certain permits.

The Capital Development Program, which conforms to the Port Master Plan, provides for dozens of major harbor projects, including the construction of new facilities and the upgrading of others over a five-year period at a total cost of some $470 million, all derived from Port revenue at no cost to the taxpayer.

Energy needs

True, the investment is immense, but the stakes are even higher, as the Harbor Department prepares for the future demands of international commerce. Already established as the preeminent West Coast point-of-entry and perhaps the nation's most successful port in terms of tonnage of cargo handled and net revenue, the Harbor Department's Five-Year Plan will guarantee its ascendency as one of the world's great ports-of-call.

The benefits of these new Port projects will extend far beyond the limits of the harbor. They will create thousands of new jobs and provide a livelihood for many who might otherwise be unemployed. They will strengthen the Greater Los Angeles Area economy, and they will greatly enhance the Port's capabilities for efficiently shipping many millions of tons of goods to their ultimate destinations.

These are the areas where we at the Harbor Department believe we are making contributions to our city and our country.

The export of coal – as a substitute source of energy for costly oil from sometimes unreliable sources – has become a matter of paramount concern for the Port of Los Angeles, as countries on the Pacific Rim have turned to America for this resurrected commodity to fuel their economies.

The demand is urgent and unrelenting: The Port is shipping an estimated 3 million tons of coal from Utah, Colorado and New Mexico to Japan, Taiwan and Korea this year. Port planners have been acutely aware for some time that we have a priceless opportunity to become one of the leading coal exporters to the Far East in the coming years.

With characteristic foresight, the Harbor Commissioners were quick to recognize the challenge, and with the enthusiastic support of Mayor Tom Bradley and the entire City

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(Continued from page 10)

MLW plus a 5 ft. tide.

The first phase of this facility is designed to handle 3 million tons per year. Coal will be bottom dumped into a 3-car pit and conveyed either directly to the shiploader or stockpiled with a traveling stacker. Reclaiming by tunnel and bulldozer provides a degree of mixing.

An existing crane is being converted to a 2,000 TPH traveling shiploader fitted with a telescopic chute and spout. Sampling will be available.

Completion of Phase I is scheduled for December, 1982.

Savannah Coal Terminal, Savannah, Georgia

Owner: Sun/Elk River Resources and Amoco/Cyprus Coal. Service by SCL Railroad in unit trains with rotary couplings. Draft 38 ft. MLW plus a 6 ft. tide.

This facility will include a single dumper with indexer, stockpile capacity of 810,000 tons and three 5,000 TPH stacker/reclaimers. Precise 2 way blending will be available. The 6,000 TPH traveling shiploader will serve 2 berths.

Completion was scheduled for November, 1983. Construction has been halted.

Dredging

Traditionally, dredging in the U.S. was paid for by federal funds. This situation has now changed with the government stating that dredging should be paid for by those who benefit from the deeper draft.

Even though the cost/benefit ratio is very favorable, assuming an end to the current slump in ocean freight rates and high interest rates, it will remain to be seen how soon agreement will be reached on how and by whom the costs will be paid.

General Comments

The projects now under construction will add about 40 million tons per year of new coal port capacity on the East Coast, almost equally divided among Conrail, B & O, and C & O with a small share to the Southern Railroad. The Portsmouth project, when authorized, will add 15-25 million tons of new capacity to the N & W, the largest shipper, bringing new East Coast port capacity by 1985 to over 50 million tons.

Council, they acted swiftly. As part of the Port Development Program, they approved in concept the development of a new coal loading terminal – one of the largest in the country – on Terminal Island in the Outer Harbor.

The Board directed that an environmental impact report be prepared for the project, including the dredging of a new 65 foot channel leading to the proposed terminal. Shortly afterward, in an effort to speed up the permit process, Congressman Glenn Anderson introduced legislation in Congress which included a provision for the deepening of Los Angeles Harbor, and Port representatives testified to its urgency in Washington, D.C.

The much bigger proposed coal facility will be located on 190 acres of new landfill created from main channel dredging, and the improvement will be striking. (See the picture on next page.) The present facility in the Outer Harbor has an annual handling capacity of 3 million tons of coal, a top loading speed of 1,500 tons per hour, and storage for 200,000 tons. Its berthside depth of 51 feet can handle ships with loads up to 100,000 tons.

The new facility will handle more than 20 million tons annually, load more than 7,000 tons per hour, store another 3 million tons, and its 65 foot depth will accommodate ships carrying up to 200,000 tons.

The Harbor Department is prepared to spend up to $100 million – the estimated cost of dredging and site preparation – on this project, and then look to private industry to develop outloading and transfer facilities.

Container terminals

In November, the Port signed a 20-year revenue-sharing agreement with longtime tenant American President Lines for the joint development of a new multi-million dollar container terminal which, when completed, will be the largest such facility on the West Coast.

Development of the site in the West Basin will take place in several stages to keep pace with the company's expanding cargo business. As with the expansion of Los Angeles Container Terminal, Matson, Overseas Shipping Company and others, the new facility allows APL to grow in size and efficiency at the Port of Los Angeles.

First stage construction will encompass 100 acres, and the completed facility will have the capability of on-site storage and handling of some 6,000 forty-foot containers on chassis. The APL terminal will include two deep-sea berths, a 110,000 square-foot container freight station, complete facilities for United States Customs inspection, maintenance and repair, and other functions.

Over in the East Basin, the innovative Matson Navigation Company, which first introduced containers to the Port of Los Angeles and the world more than 20 years ago, has nearly completed the mechanization and automation of its 85-acre container terminal, making it the most sophisticated container operation on the West Coast, and perhaps in the entire nation.

The main feature of the Matson Terminal is a revolutionary new computer-assisted overhead handling system which streamlines handling to a fraction of its former time. An estimated 400,000 containers per year can be moved by these new methods, which will enable Matson to make better use of storage space, reduce handling damage, and cut ship turn-around time in port to a degree previously unattainable.

A short distance down the waterfront is the Seaside Container Terminal Complex, which was completed last fall. Serviced by six container cranes and 4,500 feet of wharf, Seaside's sprawling 124 acres provides ship docking space, container handling equipment and working areas for a number of international shipping firms. It is now the largest contiguous container facility on the West Coast.

Midway between the Seaside and Matson Terminals, the Port continued work on development of a new container terminal at Berths 216-218. This terminal, which will include about 1,000 feet of additional concrete wharf, will be the Port's eighth container terminal, and when completed in July, 1982, will add still another dimension to Los Angeles Harbor's fast-growing container handling capabilities.

Intermodal system

The Port of Los Angeles continued to attract an increasing volume of new business to and from Pacific Rim nations in fiscal 1980-81 with an innovative ocean-port-truck/rail transportation system, which proved to be faster, more efficient and less expensive than the traditional all-water route through the Panama Canal.

The weakest link in the system has been the necessity to unload cargo at the Port, then truck it 25 miles to downtown Los Angeles rail terminals for reloading and shipment across the country. The obligatory transfer over that short distance is time-consuming and costly. It is also the source of emissions of air pollutants from trucks used to move the containers.

The Port will attempt to eliminate that nettlesome bottleneck with the proposed new Intermodal Container Transfer Facility (ICTF). This is a joint venture between the Ports of Los Angeles and Long Beach with the Southern Pacific Railroad as a third partner. It will involve construction of a new 114-acre intermodal rail yard 2.5 miles north of the harbors so that containers may be offloaded from vessels and placed aboard rail cars faster and at a lower cost than is now possible. It will be ready by late 1982 or early 1983.

The Port Master Plan addressed still another important matter of deep concern to Harbor Department officials – the inherent risks of handling and storing hazardous cargoes such as crude oil, petroleum products and chemicals.

The new risk management plan, a section of the Port Master Plan, would relocate as many of the existing hazardous cargo facilities as is practicable to the new landfill south of Terminal Island. This landfill would be created from dredge material produced by deepening of the proposed 65 foot channel to the new coal facility.

Relocating present facilities to that remote site would virtually eliminate the general public's exposure to potential danger from those hazardous materials. And the 65 foot channel would contribute to overall port safety by permitting large and less maneuverable tankers and dry bulk carriers and their cargoes to be kept completely apart from normal vessel traffic along the main channels.

Progress forecast

Shipbuilding activities at the Port had Todd Shipyards, a major tenant and the largest independent shipbuilder in the nation, announcing plans to install a $40 million ship lift system that would enable the company to do as much work as if it had five drydocks in operation simultaneously. The announcment came a few days after Todd was awarded a total of $275.5 million in contracts to build three guided missile frigates for the Navy, which meant the firm would

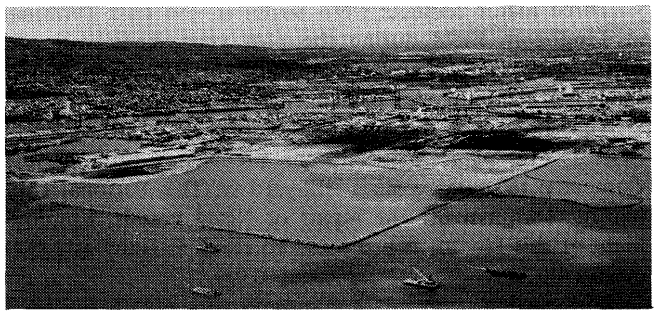
continue to employ 5,000 workers in San Pedro.

By every reasonable standard of performance, the Port of Los Angeles enjoyed its most successful year ever in fiscal 1980-81. But the past is gone and records are for the archives. In the context of today's priorities, all of our energies and interests are focused firmly on the larger, more stimulating challenges that await us.

A new and tangible sense of vitality exists amoung those dedicated members of the Board of Harbor Commissioners and the Harbor Department who have brought this vast operation to maturity, and who now look forward to the years ahead with anticipation and enthusiasm.

For the Port of Los Angeles, the future could hardly seem brighter.

Ernst L. Roy Perry
Executive Director



Over 660,000 tons of predominately granite boulders from Catalina Island quarries have been placed to date for the dike currently creating 190 acres of landfill at the Port of Los Angeles. The diked area will ultimately contain 14 million yards of material dredged from the Port's channels and slips during the harbor deepening project, now underway and scheduled for completion in March, 1983. Cost of the dike placement to date has been estimated at $10.2 million.

Balance sheet

June 30, 1981 and 1980

ASSETS	1981	1980
Current assets:		
Cash and cash equivalents:		
Cash on hand and on deposit with City Treasurer	$ 1,176,980	$ 1,025,114
Cash, time deposits	67,500,000	71,000,000
Total cash and cash equivalents	68,676,980	72,025,114
Accounts receivable, less allowance for doubtful accounts of $500,000 in 1981 and 1980, respectively	9,269,212	10,221,129
Accrued interest	2,345,114	1,753,295
Materials and supplies	1,347,688	1,229,330
Prepaid expenses	291,577	517,444
Total current assets	81,930,571	85,746,312
Cash and cash equivalents, restricted as to use:		
Bond funds	4,226,660	4,984,757
Construction funds in escrow	16,358,000	—
	20,584,660	4,984,757
Properties:		
Land	84,311,381	84,096,087
Harbor facilities and equipment, less accumulated depreciation of $78,581,022 in 1981 and $72,606,010 in 1980	153,900,063	131,506,410
Construction in progress	25,109,367	23,120,035
Total properties	263,320,811	238,722,532
Other assets:		
Notes receivable	390,706	420,760
Preliminary costs – capital projects	2,727,184	1,699,744
Total other assets	3,117,890	2,120,504
Total assets	$368,953,932	$331,574,105

LIABILITIES AND EQUITY	1981	1980
Liabilities		
Current liabilities:		
Accounts payable	$ 4,647,629	$ 6,129,678
Bond indebtedness outstanding:		
To be paid within one year	2,877,000	2,405,000
Bonds and coupons not yet presented for payment	83,740	76,846
Accrued interest on bonds	328,787	343,384
Accrued employee benefits	2,178,064	2,131,228
Total current liabilities	10,115,220	11,086,136
Long-term liabilities:		
Bonded debt – Harbor Revenue Bonds:		
First issue of 1960, maturing to 1985, interest at 3.9%	3,767,000	4,118,000
Second issue of 1960, maturing to 1986, interest at 3.5%	4,041,000	4,251,000
First issue of 1965, maturing to 1990, interest from 3.1% to 3.45%	6,130,000	6,610,000
First issue of 1971, maturing to 1997, interest from 4.3% to 5.9%	11,295,000	11,750,000
	25,233,000	26,729,000
Less amount to be paid within one year	(2,877,000)	(2,405,000)
Total bonded debt	22,356,000	24,324,000
Due to the City of Los Angeles	126,309	876,309
Other liabilities	698,080	581,550
Total long-term liabilities	23,180,389	25,781,859
Total liabilities	33,295,609	36,867,995
Equity		
Contributions/land valuation equity	78,314,003	78,314,003
Retained earnings	257,344,320	216,392,107
Total equity and retained earnings	335,658,323	294,706,110
Commitments and contingencies		
Total liabilities, equity and retained earnings	$368,953,932	$331,574,105

(Continued on next page bottom)

Port of San Diego

(Extracts from San Diego Unified Port District 1980-1981 Annual Report)

Chairman's message (extract)

The past several months were an eventful period in the development of the San Diego bayshore. Several projects were brought to fruition which were initiated by past Port Commissions. And during this fiscal year new plans and programs which will benefit citizens in the Greater San Diego community were set in motion.

As always, your Board of Port Commissioners has addressed its responsibilities with concern for the plans of its constituent cities, mindful of its legislative charge to promote commerce, navigation, fisheries and recreation on the tidelands of San Diego Bay. We have tried – successfully I believe – to encourage job-producing development on the tidelands without compromising the environmental integrity of the Bay. It has been done without resorting to the tax rolls for public support.

A brief summary of recent Port highlights illustrates the diversity of Port activities. State Coastal Commission certification of the Port Master Plan in January was a significant action which transferred permit authority for coastal developments of the tidelands to the Board of Port Commissioners.

A second specially designed wave dampening and berthing pier was completed at the Fish Harbor south of the G Street Mole. Runway 9-27 – The main service runway at Lindbergh Field – was resurfaced with asphaltic concrete. A 12-story, $20 million, 250-room addition was built at the Sheraton Harbor Island Hotel. A 192,000 sq. ft. warehouse was completed at the National City Marine Terminal.

An option was awarded in November, 1980 to Torrey Enterprises of San Diego for the development of a 1,200-room, $150 million landmark hotel on the Navy Field site. A 450-slip marina will be built in conjunction with the hotel. Construction is scheduled to begin in the summer of 1982.

In South Bay, a number of improvements have been underway on the Chula Vista tidelands, including landscaping, shoreline protection, a public park and two new wave attenuation structures at the entrance to the J Street boat launch basin.

Three major projects were begun in the East Terminal at Lindbergh Field during the past year. They will add office and baggage handling capacity and provide increased space and flexibility for passenger movement.

The Board of Port Commissioners granted approval recently to plans by National Steel and Shipbuilding Company to build a new shipyard at the National City Marine Terminal for the repair of Naval vessels. Employment at this facility is projected to reach as many as 2,000 eventually.

Port participation in a community-wide effort to attract cruise ship operators to the downtown San Diego waterfront has attracted much favorable public attention in recent months. It is our hope to interest a cruise line operator in basing a ship here permanently. Toward that end, plans are being considered for the redevelopment of a

(Continued on page 16)

(Continued from page 13)

Statement of operations

Years ended June 30, 1981 and 1980

	1981	1980
Operating revenues:		
Shipping services:		
Dockage	$ 6,309,854	$ 5,928,988
Wharfage	32,674,255	29,661,122
Storage	285,856	458,929
Demurrage	778.208	1,139,685
Pilotage	2,502,160	2,124,636
Assignment charges	915,148	843,499
Wharf and shed revenue	592,793	438,855
Cranes	2,091,772	1,475,616
Total shipping services	46,150,046	42,071,330
Rentals:		
Land	12,732,607	10,488,575
Buildings	266,857	254,156
Warehouses	1,690,784	1,517,515
Total rentals	14,690,248	12,260,246
Royalties, fees and other operating revenues:		
Fees, concessions, royalties	1,219,958	921,636
Oil royalties	4,539,845	3,735,596
Other	444,097	366,345
Total royalties, fees and other operating revenues	6,203,900	5,023,577
Total operating revenues	67,044,194	59,355,153
Operating and administrative expenses:		
Revenues-producing facilities	10,199,607	9,326,035
Nonrevenue-producing facilities	1,563,187	1,737,616
General operating	7,602,393	6,322,484
Administrative	8,504,061	6,851,696
Total operating and administrative expenses	27,869,248	24,237,831
Income from operations before depreciation	39,174,946	35,117,322
Provision for depreciation	5,895,654	4,994,198
Income from operations	33,279,292	30,123,124
Nonoperating revenues (expenses):		
Other income and expenses, net	106,756	96,818
Interest income from investments	8,705,470	8,381,344
Interest expense on bonds	(1,139,305)	(1,211,649)
Net nonoperating revenues	7,672,921	7,266,513
Net income	$40,952,213	$37,389,637

San Diego unified port district balance sheets

June 30, 1981 and 1980

Assets

	1981	1980
Land, facilities and equipment, net	$136,156,878	$119,491,369
Current assets:		
Cash and short-term investments	39,294,716	34,855,860
Receivables, less allowance for doubtful accounts of $30,579 in 1981 and $25,523 in 1980	2,162,512	4,044,750
Inventory of materials and supplies at average cost	99,790	53,705
Total current assets	41,557,018	38,954,315
Restricted assets:		
Bond Construction:		
Cash and short-term investments	12,025,941	11,552,815
Deferred charges	552,253	625,000
Debt Redemption:		
Cash and short-term investments	3,224,304	3,302,490
Trust:		
Cash	772,396	925,341
Receivables	145,808	192,533
Total restricted assets	16,720,702	16,598,179
Other assets, at cost less applicable amortization	377,615	376,657
	$194,812,213	$175,420,520

Liabilities and District Equity

	1981	1980
Long-term debts, excluding current portion	$ 28,235,000	$ 30,125,000
Current liabilities, payable from current assets:		
Accounts payable	2,359,102	2,056,157
Accrued liabilities	1,012,405	916,202
Deposits	152,492	292,388
	3,523,999	3,264,747
Current liabilities, payable from restricted assets		
Current portion of long-term debt	1,890,000	1,885,000
Construction contracts payable	502,961	56,938
Accrued interest	220,905	232,188
Total current liabilities	6,137,865	5,438,873
Deferred income	360,736	274,728
Trust liability	918,204	1,117,874
Total liabilities	35,651,805	36,956,475
District equity:		
Restricted balances:		
Equity in land, facilities and equipment	119,997,111	101,487,246
Debt redemption	1,113,399	1,185,302
Reserve for encumbrances	10,591,307	21,677,106
Available balance	27,458,591	14,114,391
Total District equity	159,160,408	138,464,045
Contingent liabilities and commitments	$194,812,213	$175,420,520

Statement of operations and changes in available balance

Years ended June 30, 1981 and 1980

	1981	1980
Operating revenues:		
Marine Operations	$ 3,560,904	3,283,885
Airport Operations	12,280,630	12,317,941
Property Operations	12,054,896	10,183,823
	27,896,430	25,785,649
Operating expenses, including depreciation:		
Direct expenses	14,233,686	12,524,396
General and administrative expenses	4,537,583	4,282,807
	18,771,269	16,807,203
Income from operations	9,125,161	8,978,446
Non-operating income (expenses):		
Interest income	6,932,349	6,261,026
Grant-in-aid, Federal and State	5,696,659	2,761,066
Other non-operating income	386,594	499,296
Interest expense	(1,444,400)	(1,705,849)
	11,571,202	7,815,539
Net Income	20,696,363	16,793,985
Available balance, beginning of year	14,114,391	10,349,182
	34,810,754	27,143,167
Decreases (increases) in restricted balances:		
Debt redemption	71,903	288,360
Equity in land, facilities and equipment	(18,509,865)	(12,583,934)
Reserve for encumbrances	11,085,799	(733,202)
Available balance, end of year	$27,458,591	$14,114,391

British Transport Docks Board

(Extracts from Report and Accounts 1981, British Transport Docks Board)

Chairman's statement (extract)

In my statement in the Annual Report for 1980 I said that the climate had turned bleak for the ports industry. In 1981 the cold winds were intensified and the British Transport Docks Board suffered accordingly. Performance was also adversely affected by a number of special factors: a surplus of labour throughout most of 1981; the high cost of severances mostly obtained towards the end of the year; industrial disruption at Southampton; subsidised competition; and the low level of activity in a number of port-using industries. The financial strength of the Board, resulting from a decade of profitable trading, allowed the enterprise to cope with these problems from its own resources.

The final out-turn for the year was, nevertheless, unsatisfactory. Profit on the basis adopted for monitoring state enterprises (after depreciation, before exceptional items and interest charges) was £3.8m (1980 – £18.7m) and the return on capital was 2.1% (1980 – 9.9%). The cost of severance payments for employees other than dockers fell directly on the Board's 1981 Profit and Loss Account to the extent of £5m, bringing the net result for the year (before tax) to a loss of £10.3m (1980 – profit of £11.5m).

The effects of the recession were particularly severe in the more labour-intensive general cargo trades, and there was a substantial surplus of labour in the early months of the year. Action to reduce this surplus was delayed for several months by the Government's refusal to extend to other ports the severance arrangements for registered dock workers which had been made available at the ports of London and Liverpool. This inconsistency caused a complete drying-up of voluntary redundancies at BTDB ports, both for dockers and for other employees. After six months the Government finally agreed that the enhanced terms could be paid at all ports, but the delay was expensive. Moreover, the benefits of the rationalisation came too late in the year to make any noticeable impact on the figures for 1981; these benefits will accrue in 1982 and thereafter.

The disruption at Southampton continued into eary 1982. Although discord between different groups of employees was the main cause of the difficulties, it was also necessary for the Board to resist inflationary pay claims, and to effect essential changes in working practices against opposition from parts of the workforce. By December, however, the position was moving towards a solution, and the problems were resolved in January 1982. Most of the port's existing major customers resumed operations at Southampton during February 1982.

Subsidised competition has been an increased handicap to the BTDB. The Government are making another £200m available to London and Liverpool, bringing the total to £360m. As I have said in previous statements, these subventions have had a major effect in distorting competition and have thus depressed our results. The Board therefore welcome the Government's expressed intention of bringing such subsidisation to an end. The perennial losses by the port of Bristol continued to mount and reached £10m in 1980/81; even higher losses have been indicated for 1981/82, and over half the local rates have been devoted to subsidising the port.

Despite the disappointing financial outcome, a number of encouraging pointers to the future were evident. Total tonnages increased by 5% to reach 75m tonnes, although the initial recovery has been largely in bulk traffics producing a relatively low revenue per ton. Unit loads at ports other than Southampton continued to increase, the number of units showing a 9% increase over 1980. Sixteen of the Board's nineteen ports operated profitably and of these the majority showed increases in profits compared with 1980, demonstrating once again that the Board's diversified network of ports is one of its main strengths. Immingham had another record year and the Board's small ports performed exceptionally well. Services to Britain's E.E.C. trading partners from the Board's east coast ports showed substantial improvements over 1980. A rationalisation of resources was achieved, with a total reduction in numbers employed over the year of 1,300. This rationalisation caused a large outflow of cash in 1981, but was essential for the future health of the ports.

I agreed to stay on as Chairman after December 1980 in the expectation that I would be able to see the Board through the process of privatisation, including the public flotation of 49% of the shares in the successor company. However, the Government have not found it possible as yet to proceed with privatisation and a firm date has not so far been fixed. I believe it to be necessary for my successor to be established in office in good time for the flotation and, as announced earlier, I shall retire on 30 April. As previously made known, Mr. J.K. Stuart, at present Deputy Chairman and Managing Director, will succeed me on 1 May.

Humphrey Browne
Chairman

(Continued from page 14)

portion of the B Street Pier into a modern cruise ship center.

You will notice that throughout this list of plans and activities by the Port District and its tenants, attention has been given to each of the areas of commerce, navigation, fisheries and recreation. The challenge to those of us who serve on the Port Commission is to carry out that legislative charge while remaining responsive to the needs of the individual communities which we represent.

Phil Creaser
Chairman

Consolidated profit and loss account

For the year ended 31 December 1981

	1981 £000	1980 £000
Revenue		
Dues – Ships	25,015	25,117
– Goods	29,316	29,183
– Passengers	1,263	1,203
	55,594	55,503
Cargo handling	55,089	62,699
Cranes and plant	3,282	4,256
Warehousing and storage	814	1.449
Sundry services and facilities	2,421	2,729
Rents	8,410	7,670
Other income	2,635	2,607
	128,245	136,913
Expenditure		
Operating and maintenance	29,754	28,489
Dredging	7,116	6,726
Cargo handling	57,245	57,085
Administrative and other general expenditure	24,677	22,661
	118,792	114,961
Operating Profit before depreciation	9,453	21,952
Depreciation	7,641	7,468
Less: Proportion of port modernisation and investment grants	(488)	(434)
	7,153	7,034
Operating Profit	2,300	14,918
Investment income	1,533	3,785
Profit before exceptional items, interest and tax	3,833	18,703
Exceptional items	Dr. 7,010	Cr. 729
Profit/(Loss) before interest and tax	(3,177)	19,432
Interest charges	7,095	7,929
Net Profit/(Loss) for the year before tax	(10,272)	11,503
Taxation	Cr. 1,488	Dr. 3,481
Net Profit/(Loss) for the year after tax	(8,784)	8,022
Transfer to/(from) Reserves		
Capital reserve – stock redemption	41	53
General reserve	(8,825)	7,969
	(8,784)	8,022

Port results

	Revenue 1981 £000	Revenue 1980 £000	Operating Profit/(Loss)* 1981 £000	Operating Profit/(Loss)* 1980 £000
Southampton	**24,672**	**41,454**	**(10,410)**	**3,337**
Hull (including Conservancy)	24,219	26,408	(4,709)	(1,759)
Grimsby & Immingham	16,787	15,565	6,404	5,957
Goole	5,542	5,427	584	630
Pilotage	1,618	1,417	166	165
Humber	**48,166**	**48,817**	**2,445**	**4,993**
Newport	10,269	6,890	820	(1,152)
Cardiff	7,221	8,102	(857)	316
Barry	6,078	4,548	1,000	(44)
Port Talbot	6,680	5,840	4,312	3,987
Swansea	8,791	7,101	1,511	526
South Wales	**39,039**	**32,481**	**6,786**	**3,633**
King's Lynn	2,042	1,804	73	35
Lowestoft	1,446	1,130	606	427
Plymouth	1,680	1,812	454	704
Garston	3,741	3,001	569	429
Fleetwood	3,758	3,127	379	313
Barrow	1,269	1,087	387	149
Silloth	132	89	58	8
Ayr (including Troon)	2,300	2,111	953	890
Small Ports	**16,368**	**14,161**	**3,479**	**2,955**
Total – Consolidated	**128,245**	**136,913**	**2,300**	**14,918**

*after depreciation and allocation of central administration and common services

Consolidated balance sheet

As at 31 December 1981

	1981 £000	1980 £000
CAPITAL EMPLOYED		
Fixed Assets	150,154	152,761
Investments		
Associated company	293	325
Quoted investments	47	47
	340	372
	150,494	153,133
Current Assets		
Stores and materials	2,763	2,600
Port modernisation grants receivable	1,136	668
Debtors and payments in advance	31,275	27,160
Certificates of tax deposit	1,750	5,950
Short term deposits	2,475	14,250
Bank balances and cash	1,032	700
	40,431	51,328

(Continued on next page bottom)

Port of Helsinki

1981 IN THE PORT OF HELSINKI

For the past two years, the Finnish economy has been enjoying a rate of growth that could well be described as surprisingly good in view of the slump that has been afflicting the Western market-economy countries in general. Finland, too, was preparing for the effects of the slump as the year began and they did begin to manifest themselves as the months went by.

Where transport is concerned, Finland resembles an island. Some 80-85% of transport to and from foreign countries is handled by sea (trade with the East is the largest item not included in this category). The total carried by sea to and from Finland this year is expected to be about 45 million tonnes, approximately the same as last year.

Helsinki's cargo total a new record

The port of Helsinki had a busy year in 1981 where cargo traffic was concerned, although the early months of the year were livelier than the post-summer period. The volume of cargo handled by the Port reached a new record; foreign cargo traffic totalled 5.4 million tonnes and the total throughput 6.9 million tonnes. The major growth factor in cargo traffic was a strong increase in coal imports. According to preliminary figures, the main categories in cargo traffic were as follows in 1981:

	Tonnes	Percentage change 1980 – 1981
Unit goods[1]		
Imports	1 980 000	– 3
Exports	1 580 000	± 0
Bulk goods[2]		
Imports	1 800 000	+29
Coastal traffic	1 540 000	– 6
Foreign cargo traffic	5 360 000	+ 7
Total cargo handled	6 900 000	+ 4

1) Raw materials and production supplies, consumer and capital goods
2) Fuels and lubricants, grain, fertilizers, sand, cement and lime

Helsinki Finland's leading unit goods port

The port of Helsinki handles 3.5 million tonnes of unit goods each year; import and export shipments are approximately in balance.

Actual imports intended for the Finnish market were the same in volume as in 1980. The slight drop in the overall total imported through Helsinki stemmed from the discontinuation in the winter of 1980 of entrepôt shipments for forwarding to the Soviet Union. The Port of Helsinki is the leading gateway for imports into Finland: it accounts for 15-20% of raw materials and production supplies entering the country by sea, for 70% of consumer goods and for 40% of capital goods.

Exports unchanged

The cyclical pattern of Finnish industry was rather disjointed and susceptible to change during the year: the woodworking and paper industry has declined from its recent peak to an increasingly obvious extent and has had to contend with stiffening competition in export markets. Other sectors have, on the whole, strengthened their positions.

Thus export shipments of timber and paper declined sharply, both nationally and in Helsinki. At the same time, however, other shipments increased so much that the overall export total reached the same level as the previous year: 1.6 million tonnes through Helsinki and about 18 million for the whole country. With a share of about 9% of the national total, Helsinki has consolidated its position as Finland's third-largest export harbor.

Coal imports up; oil imports unchanged

Coal products are the largest category among bulk goods. A total of 1.3 million tonnes of coal were imported in 1981. The municipal power station consumed over 1 million tonnes of this total. Stockpiles depleted due to disturbances in deliveries in 1980 were also replenished. In addition to this, just under 1 million tonnes of coal were imported for distribution to other purchasers. Half the coal imported during the year came from England, with Poland, the United States and the Soviet Union together accounting for the other half.

Petroleum and oil products are imported through Helsinki to meet the needs of industry, transport and heat-

(Continued from page 17)

Current Liabilities		
Trade creditors and accrued liabilities	14,227	10,700
Creditors for capital expenditure	1,547	2,268
Interest due to Secretary of State for Transport	1,565	1,565
Corporation tax payable	2,910	10,822
	20,249	25,355
Excess of current assets over current liabilities	20,182	25,973
	170,676	179,106
Provisions	13,343	12,970
NET ASSETS	157,333	166,136
REPRESENTED BY:		
Capital Liabilities		
Secretary of State for Transport		
Balance of Commencing Capital Debt 1963	34,720	34,720
Borrowed since 1963	46,574	46,574
	81,294	81,294
Southampton Harbour Board Redeemable Stocks	848	867
	82,142	82,161
Reserves	75,191	83,975
	157,333	166,136

ing in the region. The total quantity of oil imported from foreign refineries in 1981 was 0.5 million tonnes, and from Finnish refineries 0.9 million. The overall total was virtually unchanged from the previous year.

About 0.5 million tonnes of building materials per year are brought to Helsinki by coasters to meet the needs of the building industry in the region.

Leading container port

70% of bulk goods are transported in large units. Helsinki is the leading Finnish container port and last year handled 100,000 TEU, which represented over 70% of containers handled by all Finnish ports. Helsinki also handled the largest truck and trailer throughput in 1981: about 70,000 units, representing 40% of the national total.

Shipping links restructured

New shipping services inaugurated in 1981 include a container link with Bremen and a general cargo route to Australia. All services linking Finland and South America were concentrated on Helsinki. New vessels were added and the frequency of services increased on the lines linking Finland with the Federal Republic of Germany, Scandinavia and Sweden. The most important shipping line operating in and out of Helsinki concentrated its lines and activities on the Sompasaari part of the Port during the autumn. This involved a new division of labour between the West Harbor and Sompasaari.

New passenger record

Passenger services achieved a new record in 1981. Some 1.9 million passengers, 27% of the total number of passengers handled by Finnish ports, travelled through Helsinki during the year. Three-quarters of Helsinki's total was accounted for by the ferries to Stockholm. The routes to Travemünde, Tallinn and Gdansk were also busy. Ferry capacities were constantly utilized to a high degree. The passenger ferry capacity was greatly increased towards the end of 1980 and in early 1981, when the shipping lines operating the Stockholm services introduced their new vessels.

Concerted investments

Municipal investments in the Port of Helsinki totalled 26 million Finnmarks (about $6m.) in 1981. The principal investment object in the past couple of years has been a 12-metres-deep concrete caisson ship and ferry jetty at the tip of the West Harbor. An 11-metre channel completed in 1980 leads to the jetty. It was furnished with a 40-tonne multipurpose crane during the autumn and a new export warehouse (L9, 11,000 sq. metres) was completed immediately adjacent to it.

To cope with the new generation of passenger ferries, Ferry Berth 2 at the Olympic Quay was re-built. Ferry Berth 1 at Sompasaari was also re-built to make it suitable for the new vessels.

Finances in balance

The Port Authority's turnover increased by 12% on 1980, reaching a total of 137 million marks (about $30m.). The financial result indicates a surplus of about 1 million. The financing result is expected to turn out about 24 million marks on the positive side. Investments totalled 26 million and the value of fixed assets was slightly more than 550 million at the end of the year.

Israel Ports Authority

(Extracts from Annual Report 1979/80)

Chairman's report (extract)

Cargo traffic in the year under review totalled 11.8 million tons – an increase of 9 percent over the previous year; exports were up by 18 percent while imports rose by 2 percent only. In the last months of the year there were indications of a sharp decline in imports while outbound cargo continued to expand – the result of the Government's economic policy.

Despite the growth of cargo volume, the Authority has persisted in its efforts toward further cuts in manpower – as it had in the years before. On March 31st 1980, permanent staff employed by the Authority stood at 3,719 which is 4.6 percent less than last year's figure.

An analysis, prepared by the Authority, of the last four years – a period of growing cargo traffic yet decreasing manpower – shows that during that time the annual productivity rate per worker had risen by 63 percent – not including automatic plants where the increase was even higher.

During the past four years, port tariffs were re-adjusted to the general rise of prices, albeit at a slower rate than that of the cost-of-living index. As a result, tariffs, in real terms, went down by 28 percent. This year, too, the Authority continued to encourage exports and unitization of cargoes (containers, pallets, pre-slung loads a.o.). The latter policy produces savings in manpower, optimizes the utilization of equipment and reduces both demurrage of vessels and damage to cargoes.

The drop in import traffic impaired the Authority's revenue (which, as known, draws 85 percent from imports), yet thanks to constantly improving savings and efficiency the Authority has succeeded in maintaining a balanced budget of revenues and expenditures inclusive transfers to development funds.

During the year, the Authority drew up a proposal to modify the structure of the tariffs in such a way as to reconcile them to the real costs yet, at the same time, continued to encourage exports and cargo unitization.

In 1979/80, the Nahal Tzin Terminal and the Etzion Transport Co. (in partnership with ZIM Co.) were successfully put into operation; both were established in accordance with the decisions by the Ministerial Committee of Economic Affairs in March 1978. Operation of the terminal both improved utilization of vehicles and reduced the shortage of overland conveyance from which the Port of Eilat had been suffering. This, in turn, has enhanced the service to port users. As a result, the withdrawal of cargo traffic, which had been threatening Eilat Port ever since the opening of the Suez Canal to Israeli shipping, has been checked. Hopefully, these measures shall help this Port to maintain its share and weight of the Country's overall traffic volume.

Throughout the year under review, development activities in the ports continued, the foremost project being the development of Haifa East. This, upon completion, will provide the Port of Haifa with an ultra-modern container terminal which, together with the terminal at Ashdod, will be capable of serving the needs of the Country's economy in this particular field.

Altogether, investment in port development during 1979/80 totalled IL 856.6 millions. Beyond financing its development budget out of its own resources, the Authority repaid this year a sum of IL 445.8m on account of debts incurred for the transfer of Government assets to the Authority upon its establishment in 1961, as well as for loans contracted in the past by the Authority for the development of the ports.

In the realm of manpower, it is worth noting that industrial relations in the ports continued to be clam; except for some minor sanctions, a fair relationship generally prevailed among management, workers and workers' representatives – a fact which greatly contributed to success in the sphere of operations. This year, too, substantial resources were invested in professional training, welfare services, education and general information practice.

I should like to point out that the Authority's Board has accomplished its duties of both laying down policy and following-up on performance. It is our intention to intensify the Board members' involvement in order that they may contribute of their experience to direct the Authority's activities and to ensure orderly and by public standards reliable proceedings both in the process of making decisions and in their implementation.

To sum up, may I emphasize that the Authority is alert to its tasks, which consist in the main of operating, managing and planning the Country's ports system, endeavouring to attain highly modern technological standards in the ports and to assure efficient service to all sectors of the economy and the users of the ports.

Zvi Keinan
Chairman

Balance sheet

As at March 31, 1980

	1980	1979
	(Thousands I.L.)	
Fixed Assets		
Land, infrastructure, buildings and equipment	10,613,278	4,874,180
Advances on account of development and purchase of equipment	728,117	246,297
	11,341,395	5,120,477
Investments		
Securities	2,102,919	1,476,721
Long term debtors for lease of assets	240,605	126,165
Subsidiary companies	11,672	2,211
	2,355,196	1,605,097
Current Assets		
Inventory of materials and spare parts	95,066	40,924
Customers for Services, lessees and income receivable	273,746	116,097
Other debtors and debit balances	132,294	80,888
Cash and short term deposits	98,419	13,664
	599,525	251,573
	14,296,116	6,977,147

	1980	1979
	(Thousands I.L.)	
Reserves		
Reserve for development and expansion of services	928,280	838,802
Revaluation reserve	10,721,427	4,784,008
Tariff equalization reserve	950,703	84,306
	12,600,410	5,707,116
Provisions		
Pension and severance pay	8,781,200	3,107,469
Maintenance	154,442	68,825
Indemnities for cargo damage	166,961	76,059
	9,102,603	3,252,353
less: Amounts deposited	9,102,603	3,252,353
Long Term Liabilities		
Loans	1,045,299	804,817
Others	29,395	13,907
	1,074,694	818,724
less: Current maturities	184,552	118,090
	890,142	700,634
Current Liabilities		
Current maturities of long term liabilities	184,552	118,090
Cargo owners and customers for services	120,078	46,821
Other creditors, expense payable and credit balances	500,934	370,864
Banks overdrafts	–	33,622
	805,564	569,397
Contingent Liabilities		
	14,296,116	6,977,147

(Continued on next page)

Statement of revenue and expenditure

(THOUSANDS I.L.)

	TOTAL		Amounts for the year 79/80				
			PORTS			"Authority"	"Authority"
	1979/80	1978/79	Haifa	Ashdod	Eilat	Head Office	General Items
Revenue							
Wharfage dues	2,298,739	1,185,630					2,298,739
Services to cargo	1,806,649	990,811*	939,241	688,067	176,321		3,020
Services to Ships	195,763	131,816	109,473	66,722	19,568		
Other services	16,257	6,370*	8,180	5,449	2,628		
Sundry	86,900	53,554	31,402	38,920	16,376		202
	4,404,308	2,368,181	1,088,296	799,158	214,893		2,301,961
Transfer of wharfage dues to Ports for:							
Increase in handling costs			396,975	327,310	93,478		(817,763)
Security expenses			35,397	43,947	18,269		(97,613)
Promotion of overland transportation					17,853		(17,853)
Total Revenue	4,404,308	2,368,181	1,520,668	1,170,415	344,493		1,368,732
Expenditure							
Cargo handling	1,490,295	830,849	762,533	564,275	163,487		
Services to ships	200,693	143,024	91,897	75,080	33,716		
Maintenance (including transfer to provision)	323,700	188,052	160,859	119,616	43,225		
Security	108,477	70,134	46,147	43,959	18,371		
Salaries to administrative staff	292,596	170,197	99,895	84,378	29,342	78,981	
General expenses (including surveys and planning)	131,167	72,447	50,125	27,455	10,729	14,062	28,796
Insurance	53,050	29,886	17,357	17,450	5,305	854	12,084
Participation in overland transportation	20,769	13,411			16,196		4,573
Depreciation	685,301	383,915	128,104	137,804	40,124	3,051	376,218
Imputed interest	884,677	410,469	78,228	102,146	23,273	1,399	679,631
Transfer of head office expenses						(98,347)	98,347
Total Expenditure	4,190,725	2,312,384	1,435,145	1,172,163	383,768	–	1,199,649
Surplus (deficit) from operations	213,583	55,797	85,523	(1,748)	(39,275)		169,083
Surplus (deficit) from sale of assets	8,053	(2,191)	650	1,121	288		5,994
Surplus (deficit) for the year	221,636	53,606	86,173	(627)	(38,987)	–	175,077

Marine & Harbors South Australia

(Extracts from Report of the Department of Marine & Harbors for the year ended 30th June 1981)

Director-General's report

The year 1980-1981 has been a noteworthy one for the State's seaports system, in terms of the shipping services utilising our seaports and the exploitation of port industrial lands.

Total trade through all South Australian ports, both Government owned and managed ports and the private ports, was 16.8 million tonnes (18.2 million tonnes in 1979-1980). Whilst this represents a decrease of 7.7 per cent this is wholly due to lower grain shipments in 1980-1981, compared to the record shipments to the previous year. The volume of grain shipped from year to year fluctuates for a number of reasons and shipments are expected to increase in 1981-1982.

Receipts from all sources amounted to $22.6 million, a fall of $0.4 million or 2 per cent below our record revenue of the previous year. Revenue was affected by the fall of 1.5 million tonnes in the tonnage of grain shipped, although it is pleasing to report that the serious fall in revenue for this reason was offset by grains in other areas, including a small increase in general cargo shipping. Expenditure incurred in providing all Departmental services increased by $1.2 million or 14 per cent to $15.6 million and the resultant surplus on operations was $7 million (down $2.5 million compared to 1979-1980).

During the year the South Australian Government and the UK/Europe Shipping Conference jointly announced that the Conference had agreed to augment its service to this important trading area. The Department reached agree-

ment with a major Australian company involved in the provision of heavy engineering components for the off-shore oil and gas industry to establish on industrial land in the Port of Adelaide.

DMH has coped with what can be classed as a difficult and challenging period in 1980-1981. From the earliest days of its history, the State's economic advancement has been linked to the development and utilisation of its seaports and this is the situation today. South Australia's trading opportunities in overseas markets, the competitive position of our exporters and importers and, importantly in current times, the successful exploitation of the State's natural resources, are inextricably linked to the ongoing development and management of our seaports.

In this State, unlike the other States of the Commonwealth, DMH, as a State Government Department, is the sole port and marine authority and the only Government Department in Australia charged with the responsibility for the management of a State capital city general cargo port. It is in this context, and whilst acknowledging the difficulty of decisions of choice which face governments in allocating scarce resources, that I express some concern with the level of resources, both finance and specialist manpower, available to meet our essential commitments. The commerical ports are essentially financed by port users through charges levied on shipping and cargo and, over the years, DMH has been a net contributor, rather than a user, of Consolidated Revenue funds. Maritime affairs obligations in this State are increasing in significance and complexity, in parallel with the situation applying in the other States of the Commonwealth and overseas, and this protective role does require a net funding from the State's total Budget. There are other aspects of funding, including the treatment and the allocation of investment charges, which I believe require a fresh approach to meet modern needs.

The Department has continued with its organisation development plans and, during the year, significant progress has been achieved in the evolution of a computer based management information system. This project is regarded as a key tool in assisting management to further progress our business and other initiatives in the competitive 1980's.

In meeting current demands in commercial ports management, maritime affairs, fishing industry facilities, recreational boating and other government programs the Department has a wide-ranging relationship with business, shipping, rural and other sectors as well as the wider community in this State. We also have an important and continuing relationship with the trades unions operating on the waterfront. I believe that these relationships are harmonious and constructive and look forward to their further development in the interesting years ahead.

Our planning for the future encompasses the expansion of seaport and associated land facilities consistent with the economic development of the State, the continuing pursuit of direct shipping services to particular world trading areas, and the enhancement of the services which ports provide. We are now at a stage where new opportunities can be seen, particularly in the attraction of port-related industries, and we must grasp these opportunities. The demands for new levels of maritime safety and the ongoing revision of maritime laws will continue and South Australia must ensure that it meets the ever growing national and international maritime standards.

Charges for port and marine services:

Charges for services provided by DMH in commercial ports and other functions are reviewed annually and variations in rates usually apply from March/April. It is appropriate, although not a pleasant fact, to report that changes were increased by 5 per cent from 1 July 1980 (in lieu of an increase in March 1980) and again by 12 per cent from March 1981. The charges for pilotage services, which were grossly out of line with the cost of the service and rates applying in other Australian ports, were increased by 30 per cent and 25 per cent. Conveyor belt charges applying to ship loaders owned and operated by DMH and used principally for the loading of bulk grain were not varied. These charges have now remained at a constant level for three years.

The Department is very conscious of the effects of shipping and cargo charges on shipping services and product costs. In situations where it can be demonstrated that DMH charges are a significant industry cost factor, or in situations where penetration of new export makets or expansion of existing markets can be assisted by tariff adjustments, then every effort is made to meet industry needs. This has been, and will continue to be, the practice and tariff regulations are sufficiently flexible to ensure that appropriate action can be taken.

It is important to recognise, however, that DMH has the obligation to recover all commercial ports costs through revenues raised on shipping and cargo and, ealier in this report, I have drawn attention to some matters which concern us in this situation. As in previous years, I again report that in Australian it is not possible to compare, on the basis of published tariffs, the level of charges at various ports related to the services actually provided. In an attempt to relate the main capital city port charges applying to designated shipping and cargoes, the Department, in February 1981, commissioned an interstate shipping consultant to undertake an independent comparative analysis. This difficult task was completed in April 1981 and, with one exception, indicates that the total charges levied in South Australia lie in the lower quarter of charges comparing the ports of Brisbane, Sydney, Melbourne and Fremantle.

The Port of Adelaide

The State's capital city and major trading port functioned efficiently during the year and met all demands made on it. The port handled a total of 3.8 million tonnes of cargo (4.1 million tonnes in 1979-80), and 1,275 ships (1,382 in 1979-80). In terms of both cargo and shipping, the reductions are attributed to the reduced level of grain exports.

Container traffic moved through the port facilities increased from 11,537 TEU's in 1979-80 to 13,267 TEU's in 1980-81. Further substantial increases are expected in this traffic as the State's efforts to re-establish direct shipping services are successful.

The necessary improvements and maintenance of shiping channels and berths continued. In March 1981 the Minister announced that approval had been given for the construction of a cargo consolidation and transit shed on DMH land adjacent to No. 6 Container Berth, Outer Harbor. Work is proceeding on schedule and, when completed, this shed, in conjunction with the container crane and other equipment, will enable Ro/Ro shipping to achieve a faster

turnround.

Augmentation of direct shipping services will lead to an expansion of facilities and planning continues for the progressive development of a new No. 7 Berth and an additional container crane.

The development by reclamation and other means of land adjacent to the deep water shipping channel is a continuing task of significance to the economic development of the State. During the year, 25 hectares of this valuable land was provided on a lease basis to Eglo Engineering Pty Ltd to enable them to proceed with their new establishment in South Australia.

Deep sea outports:

The State's DMH managed outports of Port Pirie, Port Lincoln, Thevenard, Wallaroo and Port Giles again played their part efficiently in meeting the shipping needs in a variety of trades of economic significance to South Australia. Generally, cargo tonnages were down compared to the previous year because of the reduced grain shipments, but these seaports are vital to the State's rural industry, and to the operations of such organisations as BHAS at Port Pirie; Boral Industries and CSR at Thevenard and other organisations.

The port facilities themselves require continuing upgrading and maintenance programs to enable them to efficiently meet demands. During the year, the grain loading facilities at Port Pirie were upgraded, consistent with the increase in the grain silo storage capacity provided by South Australian Co-operative Bulk Handling Ltd.

Planning is proceeding for the improvement of harbor facilities at Port Pirie, in terms of channel width and navigation aids, and it is hoped to begin this major project in 1982-1983. Studies are also proceeding on the options available for the improvement of the shipping channels at Thevenard and Wallaroo.

J.G. Griffith
Director-General of Marine and Harbors

Receipts and payments

On account of consolidated revenue for the year ended 30 June 1981

	1980 $000	1981 $000
RECEIPTS –		
From commercial ports operations by way of charges on ships and cargo, bulk handling and other facilities and for other services in port and marine functions amounted to	23,057	22,618
WHARFAGE	10,906	10,821
TONNAGE RATES	2,218	2,571
CONSERVANCY DUES	966	1,053
PILOTAGE FEES AND OTHER SERVICES	2,909	3,513
BULK HANDLING CHARGES	5,934	4,509
FISHING INDUSTRY CHARGES	124	151
PAYMENTS –		
For management, administrative, operating and maintenance costs and other payments incurred in the discharge of the Department's port, marine and other obligations amounted to	13,582	15,630
MANAGEMENT –		
Salaries, wages and related payments	4,277	4,878
Office, travelling and sundry expenses	817	921
OPERATING AND MAINTENANCE –		
Harbor Services	2,908	3,323
Harbor Works	3,297	4,010
Bulk Handling Installations	1,853	2,020
FISHING INDUSTRY –		
Operating and maintenance expenses	430	478
EXCESS OF RECEIPTS OVER PAYMENTS –	9,475	6,988
INTEREST ON LOAN FUNDS, Sinking Fund Contribution and Superanuation Contribution	9,266	10,352
BALANCE BEING COST OF MARINE AND HABORS DEPARTMENT MET FROM CONSOLIDATED REVENUE	(209)	3,364

Cairns Harbour

(Extracts from Cairns Harbor Board Annual Report 1981)

Chairman's report

Looking forward to 1981/82 and considering the achievements by the Board in the financial year just completed it is only possible to view the future with confidence.

Cargo movements for the year ended 30th June, 1981 have exceeded the figure for 1979/80 by some 111,000 tonnes. Improvement in cargo movements is not the result of any abnormal factor but steady improvement in the movement of many cargoes. In particular we look to the shipments of general containerised cargo and it is in this area that the Board is faced with the decision to upgrade the terminal facilities by the construction of a roll-on roll-off ramp.

The general cargo trade is not solely confined to the coast. Trade between this port and the near north continues to improve and the demand on cargo to the Gulf and Peninsula Ports will require the construction of an additional wharf in Smiths Creek and other improvements.

Sewering of the main wharf area which commenced in the year under review is still in progress. This work and plans to realign the road approach to Nos. 5/6 wharves and ramp modifications have delayed the resealing of the main wharf area. This work however is expected to be completed by December, 1981.

An additional twenty-four (24) pile moorings were driven during the year for small craft and the Board is investigating a second Commercial Fishermen's Base for vessels engaged in the fishing industry.

The gap between the oil berth, No. 10 wharf and the sugar berth No. 12 is rapidly closing and by the end of 1981 we should see the Royal Australian Navy berthed at this location.

The Gladstone to Cairns Yacht Race, Townsville to Cairns, Cairns to New Guinea and other races around Cairns were highlights of water sporting activities.

Naturally, the continued success of the Board, is the result of many factors, but high amongst these must be the continued support given by Port users and the fact that funds to finance our capital projects have been forthcoming from the various lenders. Also, as in previous years, I would like to express my appreciation for the continued efforts of the Board's Executive Officers and Staff as well as my confidence in the future growth of Cairns as a Port.

M. Borzi
Chairman

Balance sheet

As at 30th June, 1981

	1981 $	1980 $
CAPITAL:		
Harbor Fund Accumulated Funds	4,961,510	4,681,224
RESERVES:		
Asset Replacement and Improvement Fund	1,199,491	836,961
SUBSIDIES AND NON-REPAYABLE ADVANCES:		
Bulk Sugar Terminal Redemption	6,153,683	5,711,105
Containerised Shipping Facilities Redemption	105,894	41,323
Improvement Dredging	786,750	786,750
Bulk Molasses Terminal	315,028	315,028
Other	545,470	529,420
	$14,067,826	$12,901,811
REPRESENTED BY:		
FIXED ASSETS:		
Wharves, Buildings and Constructed Works	7,051,652	6,579,869
ASSETS PROVIDED BY LESSEES:		
Bulk Sugar Terminal	11,442,785	11,442,785
Bulk Molasses Terminal	315,028	315,028
Conveyor Systems	74,249	74,249
CURRENT ASSETS AND INVESTMENTS:		
Cash Bank and on Hand	159,556	118,152
Investments	2,649,949	1,988,670
Sundry Debtors and Prepayments	480,389	446,354
Stores on Hand	9,152	14,478
	22,182,760	20,979,585
DEDUCT:		
CURRENT LIABILITIES:		
Sundry Creditors	109,330	34,185
LONG TERM LIABILITIES:		
Loan Repayments	7,615,280	7,660,561
Security Deposits	274,300	288,713
Provision for Maintenance	116,024	94,315
	$14,067,826	$12,901,811

Income and expenditure account

For the year ended 30th June, 1981

Income	1981 $	1980 $
Wharves		
Harbor and tonnage dues		
Sugar	479,358	398,080
Molasses	60,593	57,459
Fertilizers	95,070	94,606
Petroleums	564,763	434,206
Maize	18,763	13,348
Containerized	133,404	114,205
General-Southern and Overseas	59,587	64,691
General-Northern	81,941	79,835
Trawlers	183,465	125,221
Copper ore	36,889	10,988
Miscellaneous	25,570	22,042
	1,739,403	1,414,681
Lands and tenanted buildings	334,512	325,912
Small boat harbors and facilities	61,446	53,832
Conveyor systems	3,197	1,662
Quarries – river sand dredging	35,182	51,373
Work other than harbor board	117,038	290,733
Total operating income	2,290,778	2,138,193
Non operating income		
Sale of assets	56,267	6,930
Interest on investments	235,209	160,403
	291,476	167,333
Total income	$2,582,254	$2,305,526
Expenditure		
Wharves	1,511,129	1,304,927
Lands and tenanted buildings	203,956	173,437
Small boat harbors and facilities	61,987	47,052
Conveyor systems	3,189	1,489
Quarries – river sand dredging	4,979	12,138
Work other than harbor board	113,408	286,784
Accounts written off	5,092	18,561
Total operating expenditure	1,903,740	1,844,388
Non operating expenditure	43,570	16,570
Excess of income over expenditure	(247,906)	(150,763)
Total expenditure	1,947,310	1,860,958
Excess of operating and non-operating income over expenditure	634,944	444,568
	$2,582,254	$2,305,526

Port of Melbourne

(Extracts from Port of Melbourne Annual Report 1980-81)

1. Chairman's review (extract)

Despite industrial disturbances and the influence of world trade fluctuations experienced by the Port, trade for the year was only 0.7 per cent below the record tonnages achieved in 1979-80. Total trade was 18,688,000 tonnes of which overseas exports accounted for a record 5,758,000 tonnes. For the second successive year container traffic exceeded 500,000 twenty foot equivalent units.

Revenue reached a record $45 million and expenditure on the servicing of loans, salaries and wages and other costs, excluding abnormal items, amounted to $44 million, Expenditure on capital works was approximately $47 million of which $24 million was spent on the World Trade Centre project.

Changing patterns in world trade and the introduction of new shiptypes necessitated the continuation of an on-going programme of up-grading existing facilities and the provision of new specialised berths and equipment. This has placed a heavy financial commitment on the Authority, particularly in view of the high rates of interest demanded in the public loan sector. Consequently, to enable projected budgets to be met, and to keep pace with inflation, Port charges were increased at the beginning of the year under review.

To ensure that funds are used to their full capacity all items of expenditure are subject to review and budgetary control. In some instances development works have been deferred or slowed down.

As a further measure designed to give the Authority access to funds now locked in capital intensive equipment consideration is being given to the sale by tender of the Port's three existing container cranes and three others scheduled to come into service in 1982. Should this arrangement be satisfactorily concluded the cranes would continue to be operated by the Port Authority on a lease-back arrangement.

Although the Authority is self-supporting financially, under the enabling Act a tax of four per cent of import wharfage and tonnage dues revenue is paid to the State's Consolidated Fund. With the Authority paying a high rate of interest for its loan monies the burden of this levy is further magnified. Since the inception of the Authority 104 years ago in excess of $43 million has been paid to the State. Payment for the year under review was $836,000.

I must emphasise that industrial unrest experienced by all Australian ports during the past twelve months had a detrimental economic effect on every member of the community and damaged Australia's credibility as a trading nation. In respect of the Port of Melbourne serious disruptions to Port operations were experienced on a number of occasions. In nearly every case these stoppages were caused by demarcation disputes between Unions or were the result of industrial action on issues in other areas of the community which had little relevance to the Port.

The most serious of these disruptions occurred when strikes and picket lines closed a large section of the Port for most of the period from 9th June until 30th June and were continuing into July. As trade for the eleven months to the end of May was higher than the corresponding period in 1979-80, it can be presumed that but for the above closures the year under review would have been an all-time record.

World shipping costs are steadily rising and shipowners, wishing to reduced time in Port to a minimum, are increasingly seeking to consolidate cargoes in one or two ports of call. Melbourne, with its extensive cargo handling and storage facilities and its excellent road and rail links throughout Victoria, with South Australia, the Riverina area of New South Wales, and its proximity to Tasmania, is a logical trade centre. The steadily increasing throughput of cargo over the past ten years is confirmaion of shipowners acceptance of Melbourne and forward planning by the Authority for new facilities has been prepared to cater for projected increases in trade.

It is appropriate to review and comment on the main activities of the Authority during the past year under general headings.

Trade

Cargo throughput totalled 18,688,000 tonnes, a reduction of 137,000 tonnes. General cargo, excluding empty containers, remained predominant at 13,364,000 tonnes, an increase of 1.1 per cent. The growth rate for containerised general cargo was 1.2 per cent. The Nations of East and South East Asia, with Japan, are becoming the most important world region for trade through the Port. Of note are the trade growths with China (up 86.5 percent), South Korea (37.8 percent) and Singapore (23.5 percent).

World Trade Centre

Construction of the World Trade Centre progressed significantly and moved into the second half of a four year building programme. Finance for the project continued to come largely from overseas loans at favourable interest rates and totalled $12 million for the year. Expenditure of $24 million represented 50% of capital works undertaken by the Port for the year. In anticipation of office space becoming available by 1982 negotiations were advanced with key government and private sector organisations seen as desirable tenants. Regional Office support for relocation of the Customs Bureau, the Departments of Trade and Resources, and Primary Industry was secured. Office and retail space under consideration by more than 100 organisations indicates that a high level of tenancy can be expected early in the life of the project.

Capital Works

Early in December the reconstructed 16 Victoria Dock berth was commissioned. Built at a cost in exess of $11 million, this facility provides a common user roll-on roll-off and container berth. Construction of 5 Webb Dock proceeded according to schedule as did work on 3 East Swanson Dock and the new four hectare common stacking area. Other major capital works included strengthening pavements at South Wharf, reconstruction and modernisation of facilities at the Williamstown Workshops and Slipways and construction of a new pier for tugs at Williamstown. Total expenditure on construction work, excluding the World Trade Centre, was $23.7 million.

Forward Planning

Late in 1980 a revised Forward Development Plan to the year 2000 was released. This included the provision of five additional container berths to be built at Webb Dock and an additional three container berths at Fishermans Bend on

land currently occupied by the Government Aircraft Factory and Commonwealth Aircraft Corporation. It is anticipated these would not be required before the year 2000. During the year investigations were begun into the feasibility of providing bulk loading facilities at Appleton Dock for a variety of cargoes including char, briquettes and wood chips. The State Government enquiry into an acceptable route for a rail link to Webb Dock continued through the year.

Sister Ports

The Ports of Melbourne and Osaka, Japan, continue to maintain close links. Late in February, 1981, an Osaka Goodwill Mission composed of 21 leading members of the Osaka shipping and transportation community visited Melbourne. During the visit Mission members were briefed on the operation of the Port by senior executives of the PMA and meetings were also arranged with Melbourne civic business leaders. Late in 1980 a Friendship Port agreement was signed with the Chinese Port of Tianjin and I expect a delegation from that Port in the near future.

Shipping

A guaranteed depth of 13.1 metres (43 feet) for the river channel to Swanson Dock was declared during the year. Widening of the entrance to Victoria Dock was completed, permitting night navigation of ships with an overall length of 680 feet. In June widening of the river entrance channel to 244 metres (800 feet) was completed. This will allow two way traffic of container vessels. Widening of the Williamstown channel is scheduled to commence early in August and widening of the river channel to 152 metres (500 feet) up to Swanson Dock will start early in 1982. Completion date of the river widening, which will involve the removal of 30 metres (100 feet) of the West bank for a distance of approximately 2½ nautical miles, is scheduled for 1984. Improved radio communication between Harbor Control, shipping, the Authority's floating plant and the PMA's land units and Emergency Services was considerably improved with the commissioning of a new 4 band radio network operated through two transmitter towers located in the Port area at a cost of $450,000.

Environment

Early in the year under review a Landscape and Public Access Strategy Scheme prepared by consultants was adopted. The Scheme provides for extensive landscaping of the Port area and provision of public access and recreation areas. Work on the first phases has commenced at North Wharf, and along the Authority's Footscray Road boundary with some preliminary work being undertaken at the 1 to 4 South Wharf areas. Total expenditure for the year was $532,000.

Community Activities

In the year under review more than 14,000 visitors were carried on the inspection launch *"Commissioner"* as part of the Port's public awareness programme. As from the beginning of 1981 all Port tours commenced at the World Trade Centre Information Centre. Also during the year the Authority participated in the Williamstown Summer Festival and Fire Prevention Week. In April, two Port Emergency divers, supported by other members of the Service, through sponsorships raised $10,000 for the Royal Children's Hospital by remaining submerged for 25 hours in a tank in the City Square. In October the Port celebrated World Ports Day, wide media coverage being obtained.

A.S. Mayne, Chairman

2. Revenue statement for the Year ended 30th June 1981

	1981 $000's	1980 $000's
Operating Revenue		
Charges on Ships	6,677	5,182
Charges on Goods	27,851	23,984
Charges for Port Services	3,332	3,090
Rents and Licence Fees	5,775	5,503
Interest Received	1,645	1,494
Other Revenue	102	103
	45,382	39,356
Operating Expenses		
(Depreciation)	(8,222)	(8,577)
	43,508	37,583
Contribution to Consolidated Fund	836	769
	44,344	38,352
Surplus before Abnormal and Non-Operating Items	1,038	1,004
Abnormal Items	2,732	–
Operating Surplus (Deficit)	(1,694)	1,004
Non-Operating Revenue		
– Interest on Sinking Fund Investments	341	318
Non-Operating Expenditure		
– Loss on Disposal of Assets	258–	–
	83	318
Surplus (Deficit) for year transferred to Accumulated Net Revenue Account	($1,611)	$1,322

3. Balance sheet

As at 30th June, 1981

	1981 $000's	1980 $000's
Funds Employed		
Long Term Borrowings	120,247	100,833
Reserves	128,234	107,770
Sinking Fund	3,521	4,868
Accumulated Net Revenue Account	37,908	40,672
	$289,910	$254,143
Represented by		
Fixed Assets	311,439	255,237
Advances for Housing	553	502
Investments	6,532	18,012
Current Assets		
Cash on Hand and at Bank	53	355
Debtors	4,291	2,360
Stock	3,394	1,992
Total Assets	326,262	278,458
Less Bank Overdraft	2,791	1,552
Sundry Creditors & Accrued Liabilities	12,980	7,072
Superannuation Fund	4,865	4,031
Provisions:–		
Service Grant Gratuities	678	215
Long Service Leave	4,122	1,318
Insurance	6,979	6,288
Superannuation	3,937	3,839
	36,352	24,315
	$289,910	$254,143

Maritime Services Board of New South Wales

(Extracts from Annual Report 1980-81)

President's review (extract)

It is with pleasure that I present this the 46th Annual Report of the Maritime Services Board of NSW as it reflects the continuing growth of the Ports of this State, both in trade and development.

The result has been achieved despite industrial disputation by virtually the full spectrum of Unions associated with port activities. These disruptions also assisted in contributing to a new phenomenon at our major ports – significant numbers of ships at anchor.

The issues relating to the queueing of ships is, of course, not solely related to industrial unrest. The commercial policies of coal purchases, ship owners' operational arrangements and the considerable lead-time needed to provide additional port facilities have all had an impact.

Highlights of the year included:

- Record trade figures incorporating significant gains in coal and general cargo volumes.
- Increases in container trade and the first full year of operation of container facilities at Port Botany.
- The completion of the redevelopment of northern Darling Harbor.
- The commencement of the development of a third coal loader at Newcastle.
- The establishment of a Port Advisory Committee for the Clarence River.

I propose to deal with the main activities for the year ending 30 June 1981 under separate headings.

Trade:

Trade figures for the year were highly satisfactory. Total trade reached a record level of some 79.2 million tonnes, almost four million tonnes more than in the previous year.

Total throughput in the Sydney Ports (Port Jackson and Botany Bay) increased to 34.8 million tonnes of cargo. Trade at Botany Bay increased by over 28% on last year's figures reflecting the growing significance of the Port complex.

Trade in the State's two other major ports, Newcastle and Port Kembla, also reached record levels.

At Newcastle trade increased strikingly by over 13% to 23.5 million tonnes. Significant increases in coal exports and ironstone imports as well as smaller increases in most other trade categories accounted for this growth.

At Port Kembla a rise of 3.7% was achieved, bringing the annual throughput to 18.4 million tonnes. Again, increases in ironstone imports and coal exports contributed greatly to this record level.

A major increase in the volume of coal passing through the State's ports accounted for over half of the year's increased cargo volumes. In 1980/81 the Ports handled 24 million tonnes of coal, an increase of 10% on the previous year.

General cargo volumes rose by 4.7% over the 1979/80 figures bringing the total volume of general cargo (including empty containers) to 15.5 million tonnes. Container cargo also showed a pleasing growth of 5% during the 1980/81 period: 383,005 containers passed through the Sydney Ports during the year; 271,950 in Sydney and 111,055 through the expanding facilities at Port Botany.

Trade increases were also recorded at Twofold Bay, Trial Bay and Clarence River, bringing overall trade at these ports to over 2.5 million tonnes.

Shipping:

During the year 4,562 vessels visited the State's ports, an increase of 142 on the previous year and the first such increase since 1975/76.

The gross tonnage of these vessels was 71 million tons, nearly four million tons more than last year.

Port Development:

Port Jackson –

In Port Jackson the opening of No. 3 Berth Darling Harbor in April 1981 witnessed the completion of the redevelopment of the northern end of Darling Harbor. Continuing demand for this type of facility has resulted in the Board deciding to undertake further redevelopment along the same lines in the Pyrmont wharfage areas.

Upgrading of the Balmain coal loader continued throughout the year and will be completed by the end of 1981, increasing the annual throughput of the facility to 4.5 m.t.p.a.

Botany Bay –

This was the first full year of The Australian National Line's container terminal operation at Port Botany and in February 1981 the last of the six container berths was completed. Container Terminals Australia Limited's terminal is expected to be operational early in 1982.

The next stage of development at Port Botany will be the construction of a new Crude Oil Berth replacing the presently exposed facilities with a safe, sheltered berth incorporating the latest techniques for safety and environmental protection.

Newcastle –

The two major determinants of growth in the 1980s will come from increased energy and energy-related cargoes and the worldwide trend towards larger vessels for the transportation of dry bulk commodities.

To meet these needs in the Hunter Region a third coal loader is being developed on Kooragang Island by a private company, Kooragang Coal Loader Ltd, in which the Board holds a 20% equity for the Government. Stage I of the loader, with a capacity of 15 m.t.p.a. and an estimated cost of $230 million, is scheduled for completion in 1984.

Reclamation and site preparation for a new Alumina Berth at Newcastle was completed during the year. The berth is to be completed by the end of 1982. Modifications to No. 2 Dyke Berth are also being negotiated to cater for the loading of zinc and lead concentrates.

The Harbor Deepening Project, commenced in 1977, will achieve a depth of 15.2m by 1982 thus allowing fully-laden vessels up to 12,000 dwt to use the Port.

Port Kembla –

Work on the new coal loader at Port Kembla continues on schedule. During the year a contract was also let for a new multi-purpose berth. Both facilities are due for completion in 1982.

The new loader will have an initial capacity of 15 m.t.p.a.

and will accommodate vessels to 110,000 dwt. The ship-loading capacity is 5,000 tonnes/hr.

The new multi-purpose berth replaces a similar structure demolished to make way for the new loader. This berth will accommodate vessels to 110,000 dwt and will be used for bulk cargo discharge, general cargo transfers, ship repair and at a tie-up berth.

Other Trading Ports –

The Clarence River Port Advisory Committee was established during the year to provide the Board with advice as to the changing port needs of the northern region of the State. The Committee is chaired by the Secretary of the Board and has as members representatives of primary industry, commerce and unions in the region.

Pleasure Boating:

Increased leisure hours, combined with greater public access to the State's waterways, continued to be evidenced by an increase in the number of pleasure craft and licensed drivers. Both registrations and licenses increased by almost 5% bringing the total number of registered pleasure craft to 100,200 and the number of licenses to drive a vessel at speed to 173,598.

Legislative Changes:

In the legislative field significant changes were made to the Maritime Services Act 1935 permitting the Board to hold shares in private or public companies. These changes have allowed the Board, on behalf of the Government, to take a major role in the formation of Kooragang Coal Loader Ltd, the company developing the third coal loader at Newcastle.

Finance:

Operations during the year resulted in a net surplus of $650,603 compared with $1,966,524 for the previous year.

Total expenditure amounted to $163,320,383 from revenue of $163,970,986 earned during the year.

Loans totalling $16 million were arranged through private tenders within Australia to finance the Board's major works.

Overseas loans of $53 million were obtained for the construction of the new Port Kembla coal loader and the upgrading of the Balmain coal loader.

J.M. Wallace
President

Statement of nett income earned

	1980-1981 $	1979-80 $
Harbor Rates:		
Inward Oversea	24,260,950	19,036,089
Inward Interstate	19,830,155	16,183,409
Inward State	3,413,313	3,170,976
	47,504,418	38,390,474
Transhipment Rates:		
Oversea	34,359	20,552
Interstate	17,293	26,813
State	185,224	159,885
	236,876	207,250
Harbor Rates:		
Outward Oversea	29,530,865	24,840,697
Outward Interstate	2,189,704	1,528,130
Outward State	186,296	113,532
	31,906,865	26,482,359
Tonnage Rates & Berthing Charges:		
Tonnage Rates	6,753,803	6,382,506
Dolphin and Tie-up Berths	370,576	319,873
Passenger and Cargo Handling Facilities	74,132	81,692
Berthing Charges – Small Craft	61,138	70,750
	7,259,649	6,854,821
	86,907,808	71,934,904
Navigation & Shipping Charges:		
Pilotage Charges	5,831,902	4,731,439
Harbor and Light Rates	2,676,587	2,214,937
	8,508,489	6,946,376
License Fees:		
Vessel Surveys	13,137	12,500
Examination Certificates	1,463	1,260
Occupations	374,605	289,661
Lighters	5,011	3,878
Hopper Barges	25	72
Port Craft – Business Purposes, Shipping	3,081	1,635
Port Craft – Business Purposes, Other	2,691	2,319
Houseboats	112	54
Mobile Cranes	6,861	4,705
Septic Tank Outfalls	130	81
Speedboats	2,584,704	1,985,530
Porters	123	19
Vessels out of Commission	24	–
	2,991,967	2,301,714
Storage Charges	1,483,899	969,617
Interest on Deposit:		
With Treasurer	1,857,287	1,600,809
With Rural Bank	1,838,329	1,637,061
	3,695,616	3,237,870
Miscellaneous Recoveries:		
Penalties	62,064	56,518
Sales of Material	160,822	101,398
Rates, Insurance, etc.	61,992	178,905
Hire of Plant	95,408	31,209
Survey Fees	27,572	10,213
Other	697,552	700,669
	1,105,410	1,078,912
Sales of Properties to the Commonwealth of Australia	5,030,221	–
Miscellaneous Services to Shipping:		
Water Supply	132,484	137,737
Cranes on Wharves	2,449,282	2,146,709
Telephones on Unleased Wharves	252,446	263,792
Coal Loaders	43,673,181	30,275,534
Other	859,245	1,087,196
	47,366,638	33,952,390
Rents:		
Wharves and Jetties, Commercial	2,067,735	1,977,709
Wharves and Jetties, Ferry Companies	71,702	74,551
Shore Buildings, Sheds & Warehouses	122,886	124,012
Shore Buildings, Hotels	110,786	97,118
Shore Buildings, Other Business Premises	515,979	466,518
Shore Buildings, Residential Properties	339,290	276,626
Land	2,773,732	2,233,158

Advertising Rights	2,500	2,500
Other Leases	699,508	463,809
	6,704,118	5,716,001
	163,794,166	125,812,682
Bond Charges	176,820	159,243
	$163,970,986	$125,971,925

Income and expenditure account

INCOME

	$
Harbor Rates, Inward and Transhipment	47,741,294
Harbor Rates, Outward	31,906,865
Tonnage Rates and Berthing Charges	7,259,649
Navigation and Shipping Charges	
Pilotage	5,831,902
Light Rates	2,676,587
Storage Charges	1,483,899
License Fees	2,991,967
Interest on Deposits	3,695,616
Miscellaneous Recoveries	
Sale of Properties to the Commonwealth of Australia	5,030,221
Other	1,105,410
Miscellaneous Services to Shipping Rents	
Wharves and Jetties	2,139,437
Shore Buildings, including Sheds, Warehouses, Hotels, Shops and Dwellings	1,088,941
Land and Advertising Rights	2,776,232
Other Leases	699,508
Bond Store Operations	176,820
	$163,970,986

EXPENDITURE

	$
Administrative Expenses	9,264,303
General Charges	987,311
Collection of Harbor and Tonnage Rates	907,605
Navigation, Shipping and Boating Services	15,199,955
Survey of Ports	1,499,563
Maintenance of Property	
Supervision and General Charges	6,026,030
Wharves and Jetties	3,119,810
Shore Buildings, including Sheds, Warehouses, Hotels, Shops and Dwellings	1,871,530
Roadways	242,180
Board's Occupancies	1,649,650
Other Properties	313,620
Dredges, Tugs and Launches	4,196,023
Sundry Working Plant and Machinery	2,749,831
Moorings	109,900
Domestic Radio Equipment	60,824
	20,339,398
Sundry Services	9,953,193
Dredging	1,555,571
Demolition of Wharves and Buildings	43,829
Coal Loading Facilities	27,792,136
Payments re Agreement with B.H.P. under Port Kembla (Further Dev.) Act, 1971	840,000
Bond Store Operations	221,591
Transfer to Newcastle Harbor Deepening Account	16,989,660
Renewals Fund Transfer	22,900,000
Surplus transferred to Nett Revenue Account	35,476,871
	$163,970,986

Balance sheet

LIABILITIES

	1980-81 $	1979-80 $
CAPITAL:		
Loan Liability to Treasurer	195,599,753	199,727,865
Loan Advances from Australian Government re Coal Loading Works	1,192,452	1,192,452
Loan Liability – Port Kembla – Further Development Act 1968	6,486,713	6,812,165
Loan Liability from Private Borrowings	143,867,380	75,405,787
	347,146,298	283,138,269
FUNDS OTHER THAN CAPITAL USED FOR ACQUIRING ASSETS:	118,672,667	103,912,590
RESERVES:		
Sinking Fund re Debt Reduction	36,297,892	33,342,150
Loan Repayments re Debt Reduction	6,491,941	4,410,803
	42,789,833	37,752,953
Renewals	32,699,053	14,601,063
Working Advances	2,400,000	1,500,000
General (30.6.80)	3,206,672	1,240,148
Plus Surplus 1980-81	650,603	1,966,524
	3,857,275	3,206,672
Less Additional Working Advances	900,000	3,206,672
	80,846,161	57,060,688
Newcastle Harbor Deepening	13,354,803	9,712,474
	94,200,964	66,773,162
CURRENT LIABILITIES AND PROVISIONS:		
Creditors –		
Overdraft	72,496	72,496
Unclaimed Wages	6,199	3,835
Accrued Wages	683,854	1,553,163
Stores, Materials, etc.	5,167,508	1,050,876
Refunds Awaiting Payment	155,912	196,075
Rents Charged in Advance	2,177,070	1,697,300
Suspense Account	2,064,193	1,836,955
	10,327,232	6,410,700
Provisions –		
Extended Leave	2,495,069	826,244
Retirement Benefits	2,557,252	1,567,038
Dredging	2,063,035	1,063,035
Depreciation and Replacement of Coal Loaders, etc.	4,342,111	3,882,705
Replacement of Plant – Bonds	7,447	11,331
Redemption of Private Loans	2,163,321	677,719
Provision for Repayment of Loan Port Kembla Further Development Act 1968	620,611	416,804
	14,248,846	8,444,876
	24,576,078	14,855,576
TRUST ACCOUNTS:		
Contractors and Wharfage Guarantees	51,773	67,040
	$584,647,780	$468,746,637

(Continued on next page bottom)

Kelang Port

(Extracts from Progress Report '80, Kelang Port Authority)

Foreword

1980 was a difficult year for the port with a high incidence of equipment breakdown at the container terminal and shortage of berth space at the conventional wharves. Despite those, the port handled 6,996,555 tonnes d.w. (9.954 million freight tonnes) achieving a 6% increase over the 1979 throughput.

5,207,141 tonnes were handled over the conventional wharves, 1,220,843 tonnes at the container terminal with the coastal wharves handling 568,571 tonnes.

A handling rate of 14.7 tonnes per labour gang per hour was achieved at the conventional wharves while the container terminal recorded 13.49 moves per crane hour during the year.

The year saw the occupation and commencement of a number of development projects. Among the projects completed are the $11 million roll on-roll off ramp and a 12.1 hectare stack yard expansion to the container terminal facilities costing $5 million. The major projects commenced during the year are the construction of 426m. dolphin berths, 640m. general cargo-cum-container berths, terminal infrastructures for a liquid bulk and a dry bulk facility in the North Port and a reconstruction programme for the godown facilities destroyed by fire on June 5 in the South Port. All these projects represent a total investment of $120 million.

Outlook for 1981

Ten new straddle carriers, ordered under the replacement programme for the machines, were commissioned into service in November, 1980 and brought great relief to the beleaguered terminal.

Another 11 units of straddle carriers under the programme are on order and slated for delivery in 1981. These would certainly enhance the productivity and performance of the terminal in the current year.

At the conventional berths, with occupancy rates of 90%, the situation will continue to be tight until the completion of the additional 640m. general cargo, cum-container berths in 1983. However, expanded lighterage operations during this period which would enable more vessels to be worked in the roads is expected to relieve the situation.

Coastal cargo operations would benefit tremendously with the completion of 4 new godowns with total covered space of 186,000m^2 towards the end of the year and the upgrading of No. 7 lighterage berth to accommodate two coastal vessels at any one time.

Financial performance

The 1980 financial statement is in the process of audit. The following information is based on the preaudit situation.

Gross operating revenue from various port services was $165m. an improvement of 11.5% over the gross operating revenue of $148m. in 1979.

23.3% of the revenue came from container charges. Other revenue earners were stevedoring 21.9%, landing and shipping 21.5%, wharfage 10.1%, storage 7.5%, services to ships 5.3% and tug-hire 3.7%.

The remaining 6.7% were revenue earned from services

(Continued from page 29)

	1980-81 $	1979-80 $
ASSETS		
FIXED ASSETS:		
Wharves and Jetties	182,283,430	173,554,592
Shore Buildings	17,767,630	15,017,425
Deepening of Ports	113,560,250	94,202,220
Reclamations	81,842,192	79,227,164
Port Roadways	5,858,688	5,660,422
Coal Loading Works	92,903,116	34,634,245
Floating Plant, Workshops, Depots, etc.	12,994,868	13,103,518
	507,210,174	415,399,586
CURRENT ASSETS:		
Stores and Materials	1,730,240	1,473,252
Debtors –		
Rents and Miscellaneous	6,043,306	4,395,971
Recoverable Expenditure	2,928,092	1,795,563
Payments in Advance	239,152	71,063
Stores Issued but Unrecouped	49,371	32,446
	9,259,921	6,295.043
Less Reserve for Bad Debts and Claims	9,425	9,503
	9,250,496	6,285,540
Advances	72,496	72,496
	11,053,232	6,358,036
SECURITIES:		
Contractors and Wharfage Guarantees	1,275	275
INVESTMENTS:		
The Maritime Service Board Fund Interest Bearing Deposits	–	5,000,000
CASH IN TRANSIT:	705,264	1,191,314
CASH AT TREASURY:		
The Maritime Services Board Fund –		
General Cash	3,073,481	2,678,502
Cash on Deposit	19,500,000	14,765,370
Contractors and Guarantee Deposits	50,498	66,765
	22,623,979	17,510,637
The Maritime Services Board Renewals Fund –		
General Cash	749,053	301,063
Cash on Deposit	28,950,000	11,800,000
	29,699,053	12,101,063
	52,323,032	29,611,700
NEWCASTLE HARBOR DEEPENING:		
Cash	3,354,803	5,712,474
Investments	10,000,000	4,000,000
	13,354,803	9,712,474
	$584,647,780	$468,746,637

such as pilotage, crane-hire, rent and security services.

Expenditure increased 13.5% to $126m. in 1980. Operating expenditure was $109.7m. of which $62m. was expended for staff salaries and $5m. for pensions and provident fund allocations.

Interest on loan amounted to $18m.

Development

1980 saw the completion and further realization of the port's development projects planned for in previous years.

The modification of berth No. 8 and the construction of a ramp for ro-ro vessels were completed and operational in November. Ro-ro vessels from the ANRO consortium which had only been doing lift-on lift-off operations were able to carry out roll on-roll off operations as well from November.

The second phase of the development of the $16.5 million dry bulk terminal in the North Port lifted off with the contract award for the provision of dry bulk handling facilities given in November.

The first phase which comprised the construction of 426m of wharves for 36,000 dwt. bulk carriers, reclamation of 18.2 hectares marshland for storage infrastructure and construction of a 4,645 m^2 godown were completed in late 1977.

The facilities for handling dry bulk cargo will be 2 high speed cranes, conveyor systems and additional warehouses for storage.

The handling capacity of each crane would be 300 tonnes per hour. The one metre wide conveyor system will connect the wharves to the bulk warehouses. Scheduled date for completion is January 1982.

Of the 55,740m^2 of warehousing space planned for bulk storage, the Authority has awarded the tender for the initial construction of 2 godowns of 9,290 m^2 each in July. The scheduled completion date is October, 1981.

Another multi million dollar project underway is the development of a liquid bulk terminal on a 15 hectare site in the North Port. When completed the terminal will handle refined vegetable oil, chemical and petroleum.

While the development of the tank farm and management of the liquid bulk terminal will be by the Food Industries of Malaysia (FIMA), the construction of the 426m dolphin berth and the gantries for pipelines will be undertaken by the Authority. The petroleum terminal is being developed by Petronas, the national oil corporation and B.P.

Tender for the construction of the 2 dolphins was awarded in February 1980. The expected completion date is January, 1982.

The $2 million timber terminal project developed under the auspices of the Malaysian Timber Industry Board (MTIB) was completed during the year. The terminal, on a 6 hectare site in the North Port, has covered storage sheds of 16,722m^2 with capacity for 12,000 cu. tonnes of timber as well as an open yard of 18,860m^2 with 30,000 cu. tonnes capacity.

Managed by the Pengkalan Export Perkayuan, a subsidiary company of MTIB, the terminal is scheduled to commence operations in March 1981.

To meet the projected 10% increase in traffic growth as well as to strive for a berth occupancy rate of not more than 70%, the Authority had also awarded the tender for the construction of 3 berths totalling 640m. in length at the North Port. The tender for the $55 million project was awarded in November. The scheduled date for completion is June 1983.

In the South Port, the $3.5 million project to construct dolphins to strengthen berths No. 1 and 2 was still in progress during the year. When completed the August 1981, the wharves will be able to accommodate tankers drawing up to 30,000 displacement tonnes.

Full repairs to the 10 godowns in South Port damaged by the fire of June 5 were completed in July. Repairs to 6 of these warehouses which were badly damaged were by contracts and the remainder by the Authority's maintenance section.

Four new warehouses with a total area of 186,000m^2 of space will be built to replace another 6 godowns completely destroyed by the fire. Tender for the $12 million project was awarded in December. The scheduled completion date will be one godown in July 1981, and one each in August, October and November 1981.

Port of Lyttelton

(Extracts from Lyttelton Harbour Board Annual Review 1981)

Chairman's review (extract)

Trade

Lyttelton handled 1,894,615 tonnes of cargo during the year ended 30 September 1981. That was 45,532 tonnes more than in the previous year, the increase being mainly due to the fact that an additional 121,041 tonnes of coal was exported through the Port. Prospects are good for a continuing coal export trade and it is expected that 500,000 tonnes of coal will be exported annually through Lyttelton by 1986. The increase in the amount of coal handled this year more than offset the drop in petroleum products handled through Lyttelton because of lower local demand. Imports of petroleum products decreased by 108,932 tonnes.

Not only did Lyttelton handle more meat and wool, but also greater tonnages were carried by the roll-on vessels plying between Lyttelton and Wellington this year. They carried 144,362 tonnes of cargo, or 2,411 tonnes more than in the previous year. Hopefully the upward trend will continue becuase there is still unused capacity in this service which deserves more support from Canterbury interests.

Finance

Persisting inflation and rising costs, particularly in the sphere of wages, have created difficult conditions. However, a continuation of economy measures, coupled with the increase in cargo tonnage, has enabled the board to show a net revenue of more than $1m before exchange losses.

Difficulty in maintaining liquidity was the major area of concern this year. Virtually all the Board's works have been completed, so work undertaken is being financed from the Board's own resources now. The problem is aggravated because mandatory appropriations for loan repayments and provision for overseas exchange losses are a drain on resources.

General Port charges will rise by 17½% from 1 December 1981 and the increase will enable the Board only to maintain its present liquidity. Careful surveillance of all costs and capital expenditue will have to continue as a matter of course.

Port Promotion

The General Manager and I visited China and called at the head offices of shipping organisations trading to New Zealand. Purpose of the visit, made in May, was to discuss future requirements for the growing quantity of wool and other products that are being exported to the Chinese Peoples' Republic through Lyttelton. The Chinese were satisfied with the excellent turnround of their ships at Lyttelton.

Calls were also made at the head offices of Japanese container shipping lines trading between Japan and New Zealand. The purpose of these calls in Tokyo was to make representations to have their ships call direct at Lyttelton. We were able to tell the Japanese that significant savings are to be made if their ships call at Lyttelton to discharge or load containers destined for or originating from the Canterbury area. These savings would be reflected in the overall New Zealand freight rate.

Locally, regular contacts have been maintained with shipping companies at branch and head office level and also with Canterbury importers and exporters.

Port Development

Redevelopment of the No. 7 Jetty area to handle quarter-ramp and larger conventional vessels was completed during the year. The work included lengthening No. 7 Jetty by 30 metres, strengthening the root of the jetty to accommodate quarter-ramp vessels and sealing an adjacent area for the assembly of containers and cargo. The major portion of No. 6 Jetty was demolished to enable easier berthing of vessels at No. 7 East.

Extension of the coal conveyor system to the base of the stockpile area has resulted in higher loading rates and has reduced the spread of coal dust.

A start has been made on the development of a small craft harbor at Magazine Bay, the work being made possible because of financial support from prospective berth holders.

Container Terminal

During the year the number of containers handled through the terminal was 7% greater than it had been in the previous year. Similarly the number of vessels that called at the terminal, 73, was up by 9%. Containers handled totalled 25,736, 1,639 more than in the previous year.

Against a background of poor economic conditions and intense competition, it was gratifying to achieve an increase in across-the-berth volume, but that gratification was tempered by the fact that the benefits of the increase were nullified by the 17% reduction in LCL volumes at the Container Freight Station. The facility has been caught again in the national inflationary spiral which has made it extremely difficult, if not impossible, to keep operating costs below the general level of inflation.

Because of rising internal transport aggregation costs, some exporters opted for cheaper alternatives and this contributed towards a higher export volume through the terminal. With more liner trades moving from conventional to container operations, a steady increase in volume through the terminal can be expected to continue and the Board's aim to achieve 33,000 containers per annum within the next three years is realistic.

Turnover of vessels at the terminal was very satisfactory and there was no lost time. The terminal is continuing to build up its image as an efficient and reliable service operator.

The Future

Early in the year the Board asked its senior executives to prepare a report on Trade and Development that would outline a 'multi-pronged strategy for the development of the Port of Lyttelton for the 1980s and beyond'. Submitted for the Board's consideration in September, this report does in fact lay down the guidelines for the Board and its staff for at least the remainder of this decade. I am confident that so long as the Board has people with the enthusiasm, width of vision and expertise of the authors of this report, the Port will continue to foster the growth and prosperity of Canterbury and Christchurch.

J.E. Mannering
Chairman

Revenue and appropriations

For the year ended 30 September 1981

	1981 $	1980 $
Port Operations		
Revenue		
Port installations and Services	3,008,236	2,708,662
Wharfage	3,915,845	3,311,375
Harbor Improvement Rates	541,939	451.533
Cargo Services	2,969,056	1,946,797
Container Services	8,365,975	7,062,442
Rents and other income	398,460	363,123
Interest	515,585	506,205
	19,715,096	16,350,137
Less expenses		
Port installations and Services	4,002,374	3,710,768
Cargo Services	2,671,405	2,005,952
Container Services	7,227,860	5,784,362
Depreciation	1,088,696	989,054
Interest	2,108,977	1,993,036
Administration	1,222,126	1,008,040
Other	153,992	97,008
	18,475,430	15,588,220
Revenue Before Appropriations to Reserves	$1,239,666	$761,917
Revenue Appropriated to:		
Loans Repayment Fund	863,884	415,174
Exchange Fluctuation Fund	856,846	775,736
Special Reserves	–	217,683
	1,720,730	1,408,593
Balance to/(Withdrawal from) Accumulated Surpluses	(481,064)	(646,676)
	$1,239,666	$761,917

(Continued on next page)

Financial structure

As at 30 September 1981

	1981 $	1980 $
Funds Employed:		
Public Equity		
Capital	11,495,916	10,816,097
Loans Repayment Fund	2,026,051	1,453,515
Exchange Fluctuation Fund	2,852,632	1,995,786
	16,374,599	14,265,398
Revenue Reserves	926,560	1,760,025
Total Public Equity	17,301,159	16,025,424
Current Liabilities		
Creditors and Accrued Expenses	1,287,779	916,570
Public Debt Repayable within 1 year – Net over available Repayment Funds	6,600,000	464,963
	7,887,779	1,381,533
Term Liabilities		
Public Debt – Net over available Repayment Funds	14,193,531	21,192,452
	$39,382,469	$38,599,409
These Funds are Represented by:		
Current Assets		
Cash and Deposits	3,324,243	1,660,740
Debtors and Prepaid Expenses	2,397,694	1,833,129
Stores and Materials	614,436	564,170
	6,336,373	4,058,039
Investments		
Government & Local Body Stock, Deposits	674,322	2,612,485
Investments in Companies	21,000	21,000
	695,322	2,633,485
Fixed Assets	32,350,774	31,907,885
	$39,382,469	$38,599,409

Special Note: There is also a Contingent Liability for Exchange Fluctuation Loss of $4,257,193 as at Balance Date.

The Arms of the Lyttelton Harbour Board (Extract)

By A.E. Tonson

Arms:

Quarterly Or and Barry wavy Argent and Azure on a Cross quarterly of the last and Gules four Mullets also Argent in the first quarter a Brazier Sable enflamed proper and in the fourth quarter a fouled Anchor also Sable.

Crest:

On a wreath Or and Azure a Merman proper finned Or holding in the dexter hand a Lymphad Gold and resting the sinister hand upon a Millrind Sable.

Supporters:

On either side a Sea Lion Argent maned and finned Or each gorged with a Collar of the first charged with three Escallops Sable and supporting between the fore legs a Boathook proper.

Motto:

More Illustrious by Service.

Port Lyttelton, first port in the South Island of New Zealand, was formally named in 1876, following the abolition of the provincial system of Government. By an Act of Parliament passed on 31 October that year the Lyttelton Harbour Board was constituted and on 10 January 1877 its first ten members were elected. Today a board of thirteen elected members represents an area of 10,186 square miles, embracing the city of Christchurch, twenty-one counties, six boroughs and one town district. Not only has the port played a vital part in the colonisation of the Canterbury Plains but it has contributed extensively to the development of the agricultural, pastoral and manufacturing industries of Canterbury Province.

The Maoris called the harbour Whanga-raupo or Whaka-raupo but to the flax traders, who began to call from Australia about 1825, and to the whalers who came later, it was known by the name of Port Cooper. Though some settlement on Banks Peninsula and the Plains resulted from as early as 1840 it was only after the formation of the Canterbury Association in 1848 that Lyttelton had its origin. Its representative, Captain Joseph Thomas, arrived in July 1849 with surveyors and road-builders, forming a settlement for the first settlers of the Association who arrived the following year. These were the Canterbury Pilgrims who came on the vessels CHARLOTTE JANE, RANDOLPH, SIR GEORGE SEYMOUR, AND CRESSY. With the opening in 1867 of the railway tunnel through the hills surrounding Lyttelton the embryonic city of Christchurch was connected with its harbour gateway and from then on the development of both city and port proceeded apace.

Lyttelton has also been the port of departure for a number of Antarctic expeditions, that of Captain Scott in 1901, of Shackelton in 1908, and in recent times American and New Zealand expeditions, one led by Sir Edmund Hillary.

With the Board desiring a suitable coat of arms a formal application was made to the Earl Marshal, his warrant being granted on 14 November 1960. This was sealed and signed by the three Kings of Arms on 20 February 1961, by the Honourable Sir George Rothe Bellew, Garter Principal, Sir John Dunamace Heaton-Armstrong, Clarenceux, and Aubrey John Toppin, Esquire, Norray and Ulster.

The shield of the coat of arms was chosen for traditional reasons to preserve the shape found in the seal of the Board. In the upper quarter sinister is depicted a blazing brazier, a symbol of the port's beacon services. In the lower quarter sinister and upper quarter dexter the wavy blue and white bars represent the sea. In the lower quarter dexter is shown an anchor, appropriate in arms connected with mercantile marine activities.

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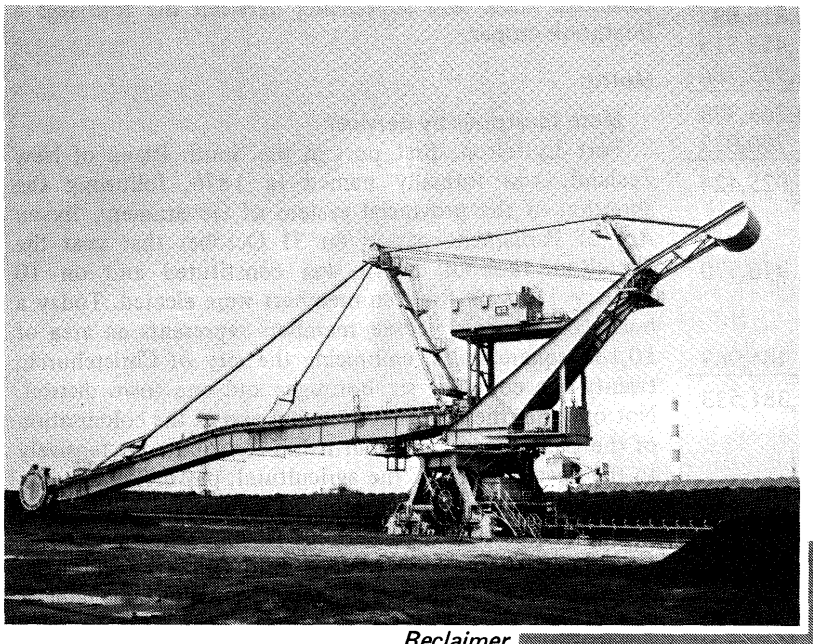
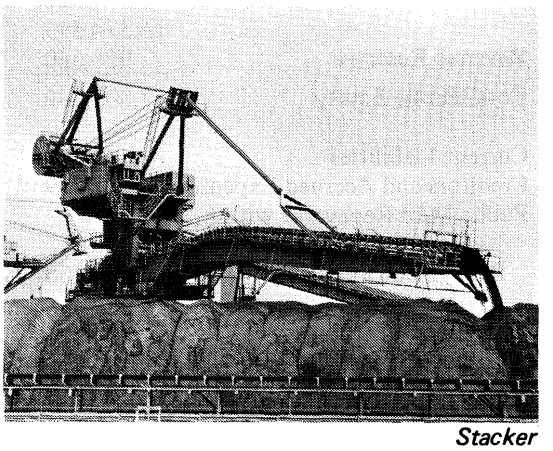
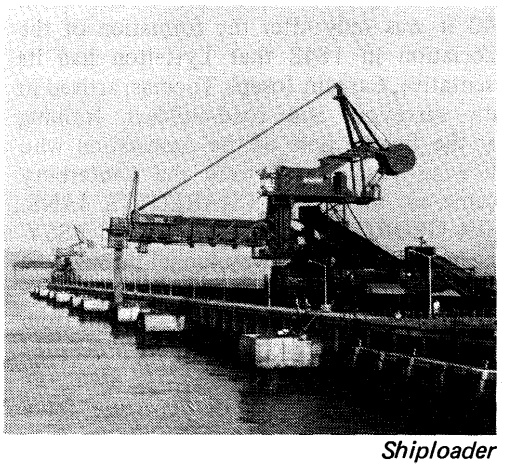


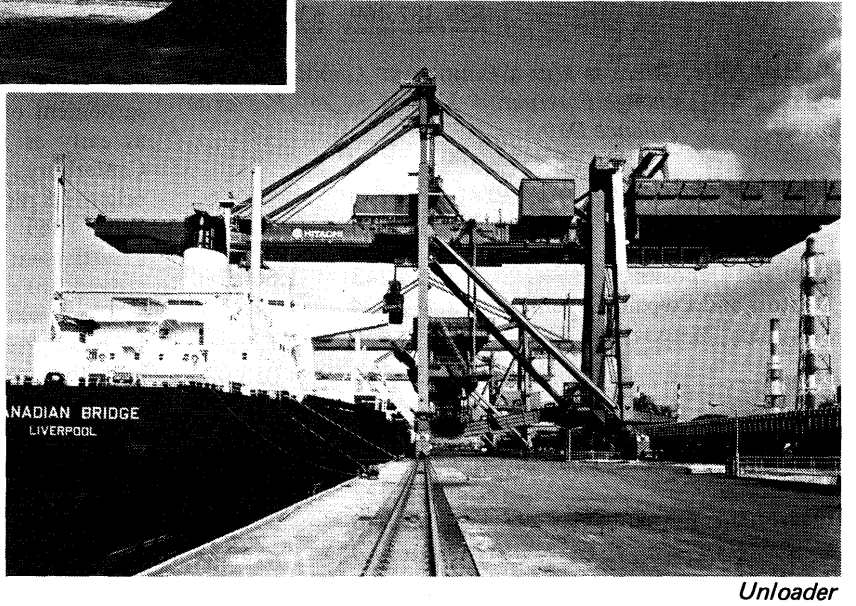
Reclaimer



Stacker



Shiploader



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International maritime information: World port news:

United Nations Layout Key for Trade Documents

Note by the ECE and UNCTAD/FALPRO secretariats (TRADE/WP.4/INF.74, TD/B/FAL/INF.74)

A basic standard was agreed in 1963 for the layout of information (seller, buyer, description of goods, etc.) that is repeated on most of the forms needed to initiate and complete an international trade transaction. This agreement was reached under the auspices of the Committee on the Development of Trade, a Principal Subsidiary Body of the United Nations Economic Commission for Europe.

In 1973 the standard was formally recommended by the UN/ECE Working Party on Facilitation of International Trade Procedures, UN/ECE/FAL/Recommendation No. 1: "ECE Layout Key for Trade Documents".

In 1978 the Committee on the Development of Trade noted that the standard had reached a level of world-wide acceptance that made it feasible and desirable to refer to it as the United Nations Layout Key for Trade Documents.

In 1981 the Working Party reviewed Recommendation No. 1 and agreed to change its name and to bring the technical terminology used in the Recommendation in conformity with current work on international standards for trade data elements and automatic information exchange. It was also agreed to request the secretariat to issue the Recommendations as a United Nations Sales publication.

The Layout Key is now issued in document ECE/TRADE/137, Sales No. E.81.II.E.19, with the name "United Nations Layout Key for Trade Documents".

Status of multilateral conventions and instruments in respect of which the Inter-Gevernmental Maritime Consultative Organization or its secretary-general performs depositary of other functions as at 31 December 1981

Instrument	Done at London: Date of Entry into Force
International Convention for the Safety of Life at Sea, 1974 (SOLAS 1974)	1 Nov. 1974: 25 May 1980
1981 Amendments	shall enter into force on 1 Sept. 1984
Protocol of 1978 relating to the International Convention for the Safety of Life at Sea, 1974 (SOLAS PROT 1978)	17 Feb. 1978: 1 May 1981
1981 Amendments	on 1 Sept. 1984
Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREG 1972)	20 October 1972: 15 July 1977
1981 Amendments	on 1 Jan. 1983
International Convention for the Prevention of Pollution of the Sea by Oil, 1954, as amended (OILPOL 1954)	12 May 1954: 26 July 1958
1962 Amendments	18 May and 28 June 1976
1969 Amendments	20 Jan. 1978
1971 (Great Barrier Reef) Amendments	Not yet
1971 (Tanks) Amendments	not yet
International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL 1973)	2 Nov. 1973: not yet in force
Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL PROT 1978)	17 Feb. 1978: Not yet in Force
Convention on Facilitation of International Maritime Traffic, 1965, as amended (FAL 1965)	9 April 1965: 5 March 1967
1973 Amendment	Not yet
Amendments to the Annex: (1) 1969 Amendments	1969 amendments 12 Aug. 1971
(2) 1977 Amendments	1977 amendments 31 Jul. 1978
International Convention on Load Lines, 1966 (LL 1966)	5 Apr. 1966: 21 July 1968
1971 Amendments	Not yet
1975 Amendments	Not yet
1979 Amendments	Not yet
International Convention on Tonnage Measurement of Ships, 1969 (TONNAGE 1969)	23 June 1969: 18 July 1982
International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969 (INTERVENTION 1969)	At Brussels, 29 Nov. 1969: 6 May 1975
Protocol Relating to Intervention on the High Seas in Cases of Pollution by Substances other than Oil, 1973 (INTERVENTION PROT 1973)	2 Nov. 1973: Not yet
International Convention on Civil Liability for Oil Pollution Damage, 1969 (CLC 1969)	at Brussls, 29 Nov. 1969: 19 June 1975
Protocol to the International Convention on Civil Liability for Oil Pollution Damage, 1969 (CLC PROT 1976)	19 Nov. 1976: 8 April 1981
Special Trade Passenger Ships Agreement, 1971 (STP 1971)	6 Oct. 1971: 2 Jan 1974
Protocol on Space Requirements for Special Trade Passenger Ships, 1973 (SPACE STP 1973)	31 July 1973: 2 June 1977
Convention Relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material, 1971 (NUCLEAR 1971)	at Brussels, 17 Dec. 1971: 15 July 1975
International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971 (FUND 1971)	at Brussels, 18 Dec. 1971: 16 Oct. 1978
Protocol to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971 (FUND PROT 1976)	19 Nov. 1976: Not yet

International Convention for Safe Containers, 1972 as amended (CSC 1972)	at Geneva, 2 Dec. 1972: 6 Sept. 1977
1981 Amendments to Annex I	1 Dec. 1981
Athens Convention relating to the Carriage of Passengers and Their Luggage by Sea, 1974 (PAL 1974)	at Athens, 13 Dec. 1974: Not yet
Protocol to the Athens Convention relating to the Carriage of Passengers and Their Luggage by Sea, 1974 (PAL PROT 1976)	19 Nov. 1976: Not yet
Convention on the Int'l Maritime Satellite Organization (INMARSAT) (INMARSAT C)	3 Sept. 1976: 16 July 1979
Operating Agreement on the International Maritime Satellite Organization (INMARSAT) (INMARSAT OA)	3 Sept. 1976: 16 July 1979
Convention on Limitation of Liability for Maritime Claims, 1976 (LLMC 1976)	19 Nov. 1976: Not yet
Torremolinos International Convention for the Safety of Fishing Vessels, 1977 (SFV 1977)	at Torremolinos, 2 April 1977: Not yet
International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW 1978)	7 July 1978: Not yet
International Convention on Maritime Search and Rescue, 1979 (SAR 1979)	at Hamburg, 27 April 1979: Not yet
Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972, as amended (LDC 1972)	13 Nov. 1972: 30 Aug 1975
1978 (Disputes) Amendments	Not yet
Amendments to the Annexes: 1978 (Incineration) Amendments	11 March 1979
1980 Amendments	11 March 1981
International Convention for the Safety of Life at Sea, 1948 (SOLAS 1948)	10 June 1948: 19 Nov. 1952
International Convention for the Safety of Life at Sea, 1960 (SOLAS 1960)	17 June 1960: 26 May 1965
1966 Amendments	Not yet
1967 Amendments	Not yet
1968 Amendment	Not yet
1969 Amendments	Not yet
1971 Amendments	Not yet
1973 (General) Amendments	Not yet
1973 (Grain) Amendment	Not yet
International Regulations for Preventing Collisions at Sea, 1960 (COLREG 1960)	These Regulations were superseded, with effect from July 1977, By the Regulations annexed to the Convention on the International Regulations for Preventing Collisions at Sea, 1972, as between the States Parties to the later Convention.

Proposal to increase Panama Canal tolls

The Board of Directors of the Panama Canal Commission has authorized the Administrator to announce a proposed 9.8% increase in Panama Canal toll rates, effective October 1, 1982. The proposed increase, the first to occur since October 1, 1979, would change the present rate per Panama Canal net ton (equivalent to 100 cubic feet of space for carrying cargoes and passengers) from $1.67 to $1.83 per ton for laden vessels and from $1.33 to $1.46 per ton for ships transiting in ballast. The tolls for vessels such as warships and hospital ships, which pay on a displacement tonnage basis, would be increased from $.93 $1.02.

Tolls for use of the Panama Canal are required to be set to cover all costs of operation and maintenance of the waterway, including capital for plant replacement and improvements. The reason cited for the proposed rate increase is the anticipated loss in fiscal year 1983 of some $50 million of tolls revenue resulting from the diversion of Alaskan North Slope oil traffic from the Canal route to a trans-Panama oil pipeline scheduled to become operational later this year.

In anticipation of the impending loss of this important segment of Canal traffic, the Commission authorities report that action has been taken over the last two years to minimize costs and increase productivity. Despite these efforts and notwithstanding that other segments of Canal traffic are growing, the loss of the North Slope Oil trade revenues is so significant that, for the Canal to remain self-sufficient, a toll rate increase will be required.

The steps leading to such final approval include publishing notice of the proposed rate change in the FEDERAL REGISTER (Washington) and a public hearing to be held in early June in New York by selected members of the Board. Upon consideration of the material presented at the public hearing, the Board will propose final rates to the President of the United States for approval.

UK marine pilots available for employment overseas : UK Pilotage Commission

With the reorganisation of pilotage in the United Kingdom under the provisions of the Merchant Shipping Act, 1979 and changes in trading conditions in recent years, the pilotage service has become overmanned and the extent of overmanning is growing. Various means of tackling the problem are being explored and one possibility is employment overseas. Already a number of pilots have found employment in other countries.

UK Marine Pilots have gained their first class licences either as a result of training in particular ports following direct entry from the merchant service as holders of foreign-going masters' certificates or through a system of apprenticeship training. The latter entry method involves a lengthy period of training in a port but has also included a period at sea and examination for sea-going certificates at a lower level than masters' foreign-going. There is general agreement in the UK that first class pilots trained in either way are acceptable for transfer to other Pilotage Districts in the country.

The Pilotage Commission, which is primarily an advisory body on marine pilotage matters, set up under the Merchant Shipping Act, 1979, is willing to bring to the attention of Pilotage Authorities in the UK who may have surplus pilots details of any overseas vacancies for Marine Pilots which may occur from time to time. The Pilotage

Commission can be contacted by any port or harbour authority with such vacancies at the following address:—

The Pilotage Commission,
8, Great. James Street,
London. WC1N 3DA

Publications

1. **"Emergency Procedures for Ships carrying Dangerous Goods"** Sales No. 254.81.18.E Price £3.00 (English)
   IMCO Secretariat, Publications Section
   101-104 Piccadilly, London W1V OAE, UK

2. **"Cargo Handlers—Liabilities and Insurance"** by ICHCA Price £15.00 (ICHCA member £7.50), air mail postage £1.50 extra

   The 76 page guide is divided into sections which look at cargo insurance as it affects the cargo owner, carrier, port authority, groupage depot, container terminal operator and container repairer. It considers risk, liabilities, accidents, claims and documentation with regard to road, sea, air and combined transport operations. The insurance world of today and the role of the broker are outlined in the introduction.

   ICHCA, Abford House, 15 Wilton Road
   London SW1V 1LX, UK

3. **"Seaborne Trade Forecasts 1981—A Synoptical Review"** by B. Volk
   Institute of Shipping Economics,
   22 pages, Price DM15.00 plus postage

   The author compares in a synoptical way forecasts on world seaborne trade. The investigation concentrates on such prognoses which were published between end 1980 and end 1981 as well as prognoses which were not published but made available to the Institute of Shipping Economics. The forecast period covers the current decade up to 1990. In detail the mid-term to long-term outlook for the following seaborne trade commodities were discussed: crude oil, LNG, iron ore, coal, grain, bauxite/alumina, phosphate, general cargo, and container. In all forecasts it is revealed that in spite of the current worldwide economical problems world seaborne trade will continue to expand.

   Institute of Shipping Economics, Werderstrasse 73
   D-2800 Bremen 1

4. **"Containerisation International Yearbook"**

   Follwing on from the editor's introduction, the staff of Containerisation International magazine contribute reviews on the present state, and future prospects, for container manufacture, container handling equipment and aircargo containerisation.

   The 14th edition of the CONTAINERISATION INTERNATIONAL YEARBOOK has been enlarged to a new A4 format (197 mm x 210 mm) and has an increase in pages of more than 5% over the previous edition, giving a total of 640 pages.

   The 'World Container Port Traffic League' is extended, to cover the world's top 250 container ports, as is the 'Container Road Hauliers' section which was introduced last year. The 'Rail Services' section has also been re-styled.

   Included in the Yearbook's 'Register of Container Carrying Vessels' is a guide to jumboised vessels and ships recently sold or chartered for non-container use. A new sub-section indicates amendments to vessel names recorded in the 1981 edition.

   The 'Equipment Guide' has been extended further to include a list of manufacturers of air/surface intermodal containers and associated handling equipment. Brief descriptions of the products provide an indication of the variety of airport equipment currently available.

   CONTAINERISATION INTERNATIONAL YEARBOOK 1982 is published by the National Magazine Company Limited, National Magazine House, 72 Broadwick Street, London W1V 2BP, England.
   Prices (including postage): Uk £36, surface mail worldwide £40, airmail Europe £47, airmail outside Europe £59.

A 48 million dollar expansion now underway at the Roberts Bank coal exporting facility

The first season of dredging was concluded in early March. It had been programmed through fall and winter months to minimize negative impacts to marine life. Six million cubic metres of dredge spoil from the enlarged turning basin area of the Bank has been moved to a new 20-hectare site where the first of three new terminal pads is rising. The first new pad will come on stream for additional coal export in 1983, permitting an annual export for that 12 months of 15 million tonnes, compared to the current peak of 11 million tonnes possible at the existing pad which became operational in 1969.

Two additional areas, to come into use by 1984, will increase Port capability to more than 50 million tonnes.

The dredging, under a $35 million contract by the Dillingham-Sceptre joint-venture company, will enter its second season later this year.

In addition to the new port areas, spoil will be used to widen the present five-kilometre causeway to the mainland, permitting major expansion of rail and storage facilities.

Westshore Terminals, which has operated the Roberts Bank Outer Port since startup, will also operate the second pad under a new lease contract concluded recently.

Despite current economic conditions the Port of Vancouver is planning confidently for a much expanded role in this decade. Recently tenders were called for two additional container cranes, one for the Vanterm facility and the other for the Centennial Pier, on the Port's inner harbour.

The additions will increase the Vanterm container port capacity to three cranes, and to two cranes at Centennial.

The Port recently announced that despite the economic climate of 1981, it was able to achieve a new record in tonnage handled through the Port, a total of 49,495,000 metric tonnes, a modest 0.5% higher than in 1980 when all previous marks had been erased. F.J.N. Spoke, General Manager, has expressed confidence that the Port will exceed the 50-million tonnes mark in 1982 despite the continuing downturn in world trade.

Seaway tolls increased

Substantially higher tolls for use of the St. Lawrence Seaway went into effect March 18, 1982, following formal agreement by the United States and Canadian governments. As a result, the average charge for moving a metric ton of cargo increased by about 15 percent on the Seaway's Montreal/Lake Ontario Section and by about 21 percent on the Welland Canal Section, or an average of about 18 percent for traffic transiting both sections. In 1918, there

will be a further increase averaging about 10 percent for combined transit (eight percent on the Montreal/Lake Ontario Section and 14 percent on the Welland Canal). The increases have been under review since last Fall. Under the terms of the agreement between the two governments, the U.S. St. Lawrence Seaway Development Corporation will receive 29 percent of the revenues generated on the Montreal to Lake Ontario section. The Seaway is jointly-administered by the St. Lawrence Seaway Development Corporation and the St. Lawrence Seaway Authority of Canada. *(AAPA ADVISORY)*

Paper work cut eases exports : COSTPRO

A federal government-industry venture has developed a system that will reduce documentation costs for Canadian exporters.

Devised by COSTPRO, which receives funding from the federal government, the new method is expected to significantly reduce the paper burden of Canadian exporters.

The system resulted from private and public sector consultations to reduce the costs and complications of paper work and procedures in international trade. It is based on the international standard for trade documents, the United Nations Layout Key, on which at least 40 other national organizations have developed or are developing similar techniques.

The new method, called the COSTPRO Standard Overlays, makes trade document preparation simple and inexpensive. Exporters type shipment information once onto a master document. Then, with the use of overlays and a photocopy machine, all documentation required for a shipment can be made. Pre-printed forms and additional typing are no longer required. The Canadian business community is expected to save up to $54 million by using the new method. *(Canada Weekly)*

Labor leader named to head Duluth Port Authority

Albert P. Colalillo of Duluth recently was named president of the Seaway Port Authority of Duluth. Colalillo, a long-time advocate for maritime labor interests in the Port of Duluth-Superior and a founder and first president of I.L.A. Local 1366 of Duluth, will succeed Commissioner Donald W. Ireland of Duluth.

Colalillo was first appointed to the Duluth Port Authority in 1976 by the St. Louis County Board. He was reappointed as one of the two representatives of that body on the seven member Port Authority in January of this year.

Port of Baltimore releases economic impact survey

More than $1 billion in wages were paid annually to employees working for Maryland firms doing business in the port of Baltimore, according to an economic study prepared by Booz-Allen & Hamilton, Inc., an internationally reknown consultant firm.

In addition, the survey reported, another $52 million in state and local taxes was generated by port activity, as was $9 million in Maryland state sales taxes, $2.4 million in vehicle registration fees, $1 million in fuel tax revenues, $5.7 million in state corporate taxes, and about $3.2 million in property taxes.

Booz-Allen & Hamilton said: "It can be argued, based on the data . . . , that the Port of Baltimore represents Maryland's largest industry and its most valuable asset." The report says that this value should be taken into account "when considering the allocation" of future state financial resources.

The report, entitled "The Economic Impact of the Port of Baltimore," was commissioned by the Greater Baltimore Committee, Inc., in conjunction with the Maryland Port Administration, the Steamship Trade Association of Baltimore, the Maryland Chamber of Commerce, and the Maryland Pilots Association. The statistics are based on 1980 financial figures. Booz-Allen's earlier report on "The Economic Impact of Export Coal Through Baltimore," was released in December 1981.

"This report again confirms the long standing conviction that the port of Baltimore is Maryland's single most important economic asset. The community of interest among port people here plus the great diversity of cargo and facilities, and the ongoing support of state and city governments have created the healthy climate necessary for the port to flourish and expand," W. Gregory Halpin, Maryland Port Administrator, said.

The impact report says that nearly 79,000 Maryland residents were employed by organizations related to the port of Baltimore. An additional 30,000 secondary jobs, the report says, were created as a result of port trade and commerce.

Containerized cargo generated 37 per cent of the total revenue at the port of Baltimore in 1980, the report states. Containerized cargo, automobiles and other general cargo were responsible for generating about 56 per cent of the Maryland jobs resulting directly from port activity, while these same commodities represented less than 15 per cent of the total tonnage handled by the port of Baltimore. In contrast, coal and grain were responsible for about 24 per cent of the jobs and more than 40 per cent of total port tonnage in 1980, according to the report.

Total revenue for organizations involved with commercial port activity—including federal, state and local agencies as well as the private sector—amounted to nearly $1.2 billion in 1981, the report states. Rail and trucking firms received $475 million or 40 per cent of the total revenue due to port activity. Maritime service firms received $429 million or 36 per cent of the total revenue. The banking and insurance sector received $19 million or 2 per cent of the total. The federal government received $260 million or 22 per cent of the total revenue due to port activity in 1980 through customs collections, the report states.

The Maryland Port Administration received $24 million in revenues from terminal leases, wharfage, and dockage charges in 1980, according to the report. The Maryland Port Administration also received $2 million from rentals at The World Trade Center Baltimore and another $1 million from other assorted services.

SCSP planning a hundred-acre depot for containerized cargo

The South Carolina State Ports Authority expects to develop a hundred-acre site in Spartanburg County near Greer as a transportation center for containerized cargo in the Piedmont area.

The tract has been offered to the SPA for $4,500 per acre. An option to purchase the property from the Dobson Estate was negotiated for the SPA by board member and

treasurer Alex Kiriakides, Jr., of Greenville. The Authority plans to exercise its option upon satisfactory conclusion of normal legal considerations, such as a title search. The next step will be preparation of a conceptual design for the long-contemplated depot.

The land is located along Highway 290, near the Greenville-Spartanburg International Airport and Interstate Highway 85. Customs officials have indicated interest in moving their offices from the airport to the transportation center when it is completed. Southern Railroad already has service to the property.

Authority Executive Director W. Don Welch said that 25 to 30 acres will be developed initially for truck and rail containers and chassis. The installation apparently will be the first of its type to be constructed well inland by a port operating agency, he observed. Office space for SPA employees, Customs Service and Department of Agriculture personnel, as well as fenced, paved container parking areas, are being included in the design.

Once the design phase is complete, construction bids will be sought. It will be approximately a year to eighteen months before the facility is completed and open for use.

"We are convinced that cargo movements will be expedited and their costs reduced substantially with the new system," said Mr. Welch. Both loaded and empty containers can be stored at the site until pick-up orders are received. Much of the costly transport of empty boxes between the Piedmont and Port of Charleston would be eliminated.

The intermodal facility will be self-sustaining and serve all transportation companies impartially, Mr. Welch expained. SPA personnel will have complete control and supervision of the operation and provide full security for cargoes and equipment.

Customs chief endorses trade zone for Houston

The Port of Houston Authority's goal of establishing a multi-site foreign trade zone in Harris County was given a boost recently when U.S. Customs Commissioner William von Raab announced he would support the plan.

Commissioner von Raab said he would recommend that the port's zone application be approved by the U.S. Foreign Trade Zone Board in Washington, D.C. The required federal permit, however, cannot be issued until public hearings are held sometime in the latter part of April. Port Authority officials anticipate receiving the permit by fall, 1982.

The zone, which will include approximately 40 Harris County duty-free sites (five located on Port Authority property), will benefit business and industry involved in the import of goods and materials through the Port of Houston. Studies indicate that a zone could generate millions in economic benefit for the Houston metropolitan area, create thousands of new jobs, and boost federal, state and local tax revenues.

The Port Authority's director of trade development, C.A. Rousser, said approximately 50 businesses and industries with a wide variety of interests are currently seeking zone status. "We're going to have one of the most active and productive foreign trade zones in the country," said Rousser.

"Primarily, we'd like to generate more cargo across Port Authority docks and increase Houston's share of international business," he said. *(Port of Houston)*

Mobile is logical deep channel port

The Port of Mobile merits top priority as the port most likey to gain world recognition and increase U.S. dividends from shipping if its channel is deepened to 55 feet. That's the conclusion of an extensive feasibility study recently released by the University of South Alabama.

A deep water port in the Gulf of Mexico is essential if the U.S. is to keep pace with world shipping, according to the study. The Gulf now carries about 40 percent of the country's international waterborne trade and is predicted to be the fastest growing trade area on the nation's shores during the next decade, the study says. It then goes on to document its further conclusion that Mobile is the most promising location for the 55-foot channel.

In summary the 54 page report leaves little doubt that the Port of Mobile is the best site for a deeper port. Some of the major findings are these:

"The increasing size of carriers world wide will soon strain the capabilities of U.S. ports to accommodate them . . .

"U.S. shipping is shifting south. The Gulf Coast is forecast to lead the nation in increase of export cargo.

"Mobile is strategically located, with direct inland waterway and rail links to major coal and grain producing regions of Mid-America–plus a short, direct route to international shipping lanes . . .

"McDuffie Terminals at Mobile (perhaps now the most efficient coal export handling plant in the country) is undergoing construction that will expand handling capacity to exceed 20 million tons a year, making it the third largest such facility in the United States . . .

The Corps of Engineers, following numerous surveys and studies, has recommended the 55-foot channel project for Mobile and the plan has been endorsed through channels to the Office of the Secretary of the Army.

New Orleans tops U.S. ports in steam coal export tonnage

During the first eight months of 1981, the New Orleans port region covering an area from below Baton Rouge to the Gulf of Mexico, exported more steam coal than any other port in the United States, according to figures compiled by the U.S. Department of Commerce. The total of more than 7 million tons was one-third of all the steam coal sent overseas from the U.S. during that period. The ports of Hampton Roads and Baltimore were second and third respectively in steam coal exports.

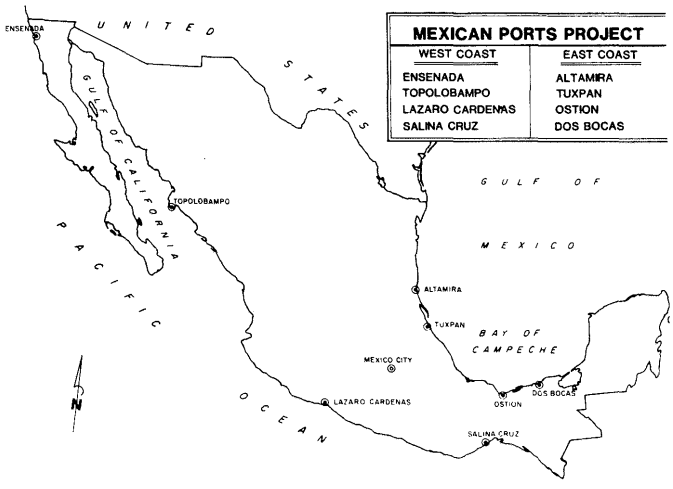
The Department of Commerce figures reveal that the U.S. steam coal market reached nearly 21 million tons from January through August of 1981 compared with 16 million tons for 1980. During that same eight-month period steam coal exports from New Orleans were three and a half times as much as was exported during all of 1980, and the New Orleans share of the market climbed from 12.4% to 33.6%, as of August 31, 1981.

New Orleans has also increased its share of the metallurgical coal export market, rising from fouth to third in the country. Its 1981 share of 6.6% compared with 3.2% in 1980 was the only major increase in market share of metallurgical coal among the major coal exporting ports.

Combining steam and metallurgical coal, New Orleans has now moved from third to second place in the ranking of

coal export ports. This has resulted from New Orleans' share of the coal export market climbing from 5% to 17%.

Oakland begins Mexican port training program



Hands-on training at Mexican ports will speed container ship cargo handling and provide manpower to crank up that country's $20 billion industrial ports program, according to Gordon S. White, of the Port of Oakland.

White, fresh from helping organize Kuwait and Saudi Arabian ports, will hand diplomas to his first team of Mexicans at the Pacific Coast Port of Lazaro Cardenas, 230 miles north of Acapulco, on April 1.

Some 20 students are expected to graduate.

Port of Oakland's international port management specialist came on board last June when a $1.5 million contract with Mexico was inked. The pilot training program was ordered, along with a projected master training program.

A Mexico City office was opened and a training specialist team sent to Lazaro Cardenas.

Lazaro Cardenas, bustling with construction, is Mexico's first industrialized port, the first of eight being developed to implement its policy of distributing population and industry outside Mexico City, Guadalajara and Monterrey, where they are concentrated now. The developing industrial port, site of the Sicartsa steel mill and the six-plant Fertimex fertilizer complex, is the first industrialized port equipped to handle 20 and 40-foot shipping containers. Container ships now dominate world trade.

Training started in February. A master plan to provide administration and operations instruction for Mexico's seven other developing industrial ports will be completed by the end of April.

Since 1978, the Port of Oakland has welcomed officials from five nations who came to study its operations and then returned home to apply the knowledge they acquired to their local ports, according to Norvel Smith, president of the Oakland port commission.

"Our port has intensified this effort. We can now provide the Mexicans with a job mastery training program in their own language at their home port," White said.

White said there is a container crane now in Lazaro Cardenas set to handle 20 and 40-foot containers, with dockside container-handling equipment in operation.

As soon as the students graduate, they will go to work, operating Lazaro Cardenas' container and general cargo port.

"Their experience will be used, under the proposed master plan," said Guillermo MacDonel, head of Coordinacion de Puertos Industriales, "to provide skilled manpower for Mexico's seven other industrial ports when the $20 billion program is completed."

The other industrial ports under development are Altamira, Tamaulipas; Laguna del Ostion, Veracruz; Salina Cruz, Oaxaca; Dos Bocas, Tabasco; Tuxpan, Veracruz; Ensenada, Baja California, and Topolobampo, Sinaloa.

Pacific coal breaks ground : Port of Portland

Ground was broken for the first new export coal terminal on the U.S. West Coast at the Port of Portland's Rivergate Industrial District on March 1, 1982. Oregon Governor Vic Atiyeh hailed the event as key to expanding Oregon's international trade and expanding U.S. exports. James R. Anderson, chairman of Pacific Coal Corporation, said three competitive advantages compelled his company to locate its $60 million coal terminal at Portland: service from the Rocky Mountain coal producing states to Portland by Union Pacific and Burlington Northern railroads; the 40-foot Columbia River channel, and a prime 100-acre site at Rivergate ready for immediate development. Pacific Coal President Thomas E. Brownhill said the new plant will be operational by July 1983. It will have a capacity of 12 million tons a year and the latest environmental protection equipment. Riedel International is general contractor for the facility with Dravo Corporation in charge of engineering and construction management. Pacific Coal's prime market will be industry buyers in Taiwan, Japan and Korea as those countries convert from oil to steam coal.

National coalition to combat customs delays: Port of Seattle

Thirty-five leaders in the international transportation industry took the first step recently toward forming a national organization to work to solve growing problems resulting from delays in clearing passengers and cargo at U.S. ports of entry. At a March 30 meeting, representatives of U.S. maritime ports, airports, airlines and the travel industry agreed on the need to seek long-range solutions to the nationwide delays in clearance through border agencies, including Agriculture, Customs, and Immigration and Naturalization inspection services.

"These delays are impeding the flow of international commerce throughout the U.S.," said Richard D. Ford, executive director of the Port of Seattle, who requested the meeting. "With budget cuts currently proposed by the Administration, we are sure to see a bad situation get worse."

While many of those attending the meeting acknowledged and applauded Customs' efforts to mitigate clearance delays through experimental programs underway at a few ports of entry, there was a consensus that these experiments are a band-aid approach to a problems requiring a long-term comprehensive solution.

A steering committee has been formed to consider the structure for a broad-based national organization to address the border delay problem and to work with established industry groups such as the American Association of Port Authorities and the Airport Operators Council Internation-

al. The steering committee will meet April 26 in Washington, D.C.

Port of Seattle sees continued trade expansion

The Port of Seattle expects continued growth in its trade with Pacific Rim countries through the year 2000, according to Executive Director Richard D. Ford. In a speech before members of the International Cargo Handling Coordination Association on March 26, 1982, Ford said forecasts indicate that Seattle's container traffic will grow at a seven-percent annual rate through the 1980s, maintaining an annual growth rate of four to five percent through the end of the century.

Currently the largest container port on the West Coast and the second largest container port in the U.S., the Port of Seattle is poised to handle increasing amounts of waterborne transpacific trade. "Seattle is no longer an outpost on the fringes of a great nation," Ford said. "We are growing rapidly as an important international center. Seattle's strategic location, outstanding facilities, expertise in container transportation systems and our aggressive marketing efforts, all of these strengths position us for increasing participation in Pacific Rim trade."

Ford noted that the economies of the Pacific Rim countries, when considered as a group, are expected to expand at an annual rate of four to five percent in the 1980s, a faster rate of expansion than the two- to three-percent rate that economists are predicting for the U.S. and Western Europe during the same period. Countries comprising the Pacific Rim include: Thailand, Malaysia, Singapore, Indonesia, Philippines, People's Republic of China, South Korea, Hong Kong, Taiwan, Japan, Australia and New Zealand.

"Just as the economic progress of the transpacific group will be speeded up or retarded by the course that China decides on regarding trade, the business climate between the Pacific Rim and the U.S. will depend on Japan's willingness to open its domestic markets to foreign competitors," Ford said. "An opening of Japanese markets for citrus fruit, apples, beef, plywood and prefabricated houses would be a boon to all Pacific ports."

Ford added that if Toyota decides to produce its automobiles in the U.S., Seattle would be the logical Port for handling incoming parts and subassemblies from Japan. He indicated that the Port of Seattle is working to play a key role in the movement of parts for Honda and Nissan assemblies in the U.S.

In 1981 Japan commanded the largest share of the container cargo segment of waterborne transpacific trade through Seattle with 44 percent of the total. Taiwan was the second largest with a 19-percent share, and South Korea's 15-percent share was the third largest. Taiwan, South Korea, Indonesia and Singapore are the fastest growing Pacific Rim countries with growth rates of more than seven percent projected for 1982.

The reasons for the Port of Seattle's forecast of expanding transpacific trade are twofold. In the next few years there is the prospect of rapid growth in commerce with the "fast track" economies in the Pacific Rim. For the long haul the outlook is even brighter with the migration of the center of the world economy from the Atlantic to the Pacific.

Redevelopment plan to be completed : Port of Seattle

The Port of Seattle plans redevelopment of Terminal 91 in two phases: the first to be completed by 1985, and the second phase of construction by 1990. Layout alternative are based both on cargo forecasts and available acreage in the harbor through 1990. The alternatives may be updated as planning progresses.

Alternatives and phasings for the redevelopment will be analyzed in a Draft Environmental Impact Statement (EIS), which will be completed in the second quarter of 1982. The Neighbors Advisory Committee, made up of Queen Anne and Magnolia residents and Port staff members, has discussed the Terminal 91 layout alternatives.

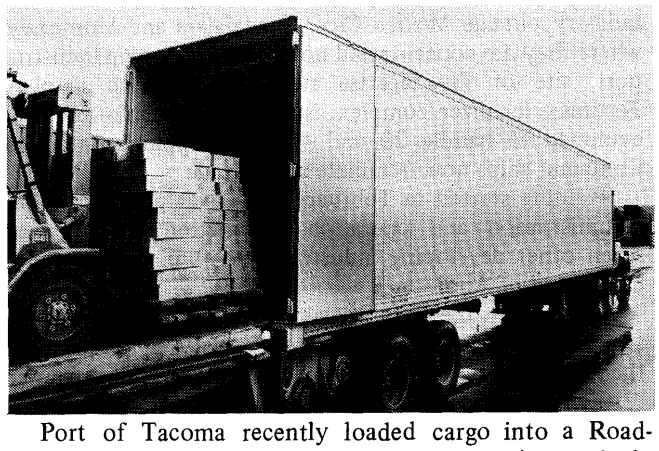
The most significant rates of Port growth are anticipated in containerized cargo. In addition, the Port Commission has directed that expansion of container facilities be concentrated in the Southeast Harbor, Harbor Island and on the Duwamish. As a result, freeze/chill, automobile import and steel-handling facilities need to be expanded and consolidated at Terminal 91. Freeze/chill and automobile imports are the current major functions at the facility.

In the preferred redevelopment plan for 1990, freeze/chill operations would occupy two new refrigerated warehouses and three berths. This proposed plan would require full fill of the Smith Cove Waterway, the area between piers 90 and 91. Two additional plans for 1990 will be studied as part of the EIS. One involves filling the north half of Smith Cove Waterway. The second would involve no widening of Pier 90 and thus require no fill.

Areas to be studied in depth as part of the EIS include traffic access, noise, lighting, energy consumption, public access and socio-economic and visual impacts of the alternatives for redevelopment.

Many of these issues have been disexpected at the end of the year. *(TRADELINES-Port of Seattle)*

Unique RoadRailer visits Port of Tacoma



Port of Tacoma recently loaded cargo into a RoadRailer, the first of its kind to visit Tacoma's terminals. Burlington Northern Railroad ran a special train of RoadRailers from the West Coast to Chicago, and Port of Tacoma working closely with the BN was able to offer this innovative means of shipping which resulted in expeditious movement of customer goods. After departing Tacoma's ultra-modern, 102,400 sq.ft. Container Freight Station,

the RoadRailer was driven over the highway to the BN rail terminal where it was connected with 75 additional RoadRailers for the mainline inland haul. The BN ran this special train to cold weather test the RoadRailers.

There are three types of RoadRailer units: the standard RoadRailer is a 45 ft. trailer similar to standard highway vehicles; the proto-type container unit is a chassis capable of handling either 40-45 ft. containers; and the AutoVan is specially equipped with auto racks which are stored in the ceiling of the van when not in use so the trailer can be used for general cargoes, The RoadRailers are manufactured by Bi-Modal Corp., a subsidiary of North American Car Co., Chicago, and are equipped with both tires for highway use and metal wheels for rail movement. The main feature is a single set of metal wheels which are raised when the vehicle is in highway service and lowered for movement on railroad tracks. Because the RoadRailer can be driven onto the track, handling equipment is eliminated, as is the weight of the flatcar normally used for intermodal movements.

Port of Antwerp news

Hessenatie invests in cranes for new container terminal

Two 70 ton container cranes worth approximately fb 260 million (6.5 million dollars) have been ordered by Hessenatie, for the new 76 acre container terminal being built at the Delwaide dock, Antwerp. The terminal, which will be the main discharging point of Cast's North Atlantic container service to and from Montreal, will be handling around 180,000 Cast containers per year by 1983, many of which will be 40' units.

The portalcranes are being built by Boomse Metaalwerken n.v. of Antwerp and are due for delivery in Autumn 1982.

The new Antwerp cranes have been designed to handle either one 40' container or alternatively two 20' units at the same time. Maximum lifting capacity of the cranes will be 70 tons. Mobility will be an important factor and the trolley speed will be up to 120 meters per minute with crane speed about 40 meters per min. The crane has a maximum reach waterside of 40 meters and landside of 25 meters.

Noord Natie diversifies services

Noord Natie has introduced a new service for their customers. It concerns the storage of goods under guaranteed temperatures ranging from 0°C up to +20°C with permanent hygrometrical control.

The incentive to create this new service was given by the numerous requests of customers for temperature controlled storage of non-dangerous basic chemicals as for instance latex and other paints. All cargo is palletized before storage. For this service Noord Natie installed a large polythermic shed at the Leopold Docks (quay 225) which has 6 chambers of 180 m^2 each with a height of 4.5 m. This installation is served by rail and is well equipped to receive trucks.

New record cargo for Antwerp

Recently a new record cargo of 109,000 tons of South African coal was brought to the port of Antwerp.

The 138,000 tdw bulk carrier "Mineral Antwerpen", flying the Belgian flag, discharged this cargo at the specialized installation of Société Générale de Minerais (S.G.M.).

The Mineral Antwerpen drew 46'04" when entering the port.

SGM handled 450,000 tons of coal within a period of two days last month.

The rate by which record cargoes are coming in the port has greatly increased due to the favourable results of the dredging works carried out at present in the Scheldt river.

Thanks to this deepening programme the advised maximum draughts for vessels sailing upstream to the Zandvliet lock will be increased again by 1' as from 1st March next.

New work for the Royal Docks : Port of London

The concentration of general cargo operations at Tilbury Docks has given the Port of London Authority's Estate Department the opportunity to make good use of the newly available land and water space resources in the Royal Group of Docks.

Demand for short term accommodation within the Royal Docks is now providing the PLA with a welcome source of revenue. It also demonstrates that alternative uses can be found for the surplus cargo handling areas in the PLA's old up-river docks.

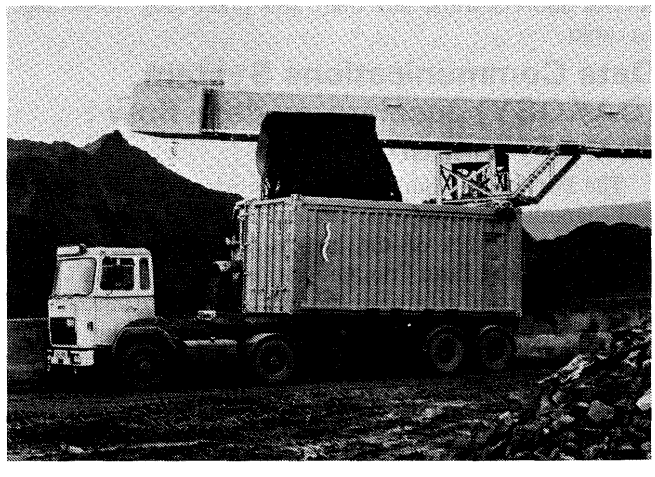
The value of these lettings was highlighted recently when ITM (Offshore) Ltd. completed conversion work on their £10 m crane and accommodation barge, "ITM Mariner", at No. 5 Berth, Royal Albert Dock. The vessel is the company's first venture into the crane-barge market. ITM (Offshore) Ltd's. Managing Director, Alf Duffield, estimates that the conversion work brought about £1 m of work to the London area.

"ITM Mariner", supported by Alexander Towing's tug "Redoubtable", is scheduled to work alongside the gas producing West Sole A and BB platforms in the Southern North Sea. It is here that the company feel there is a demand for major repair and maintenance work to be carried out by this type of craft.

ITM (Offshore) Ltd. is now considering another multi-million pound barge conversion. It also hopes to adapt barges for other companies where the spin-offs could be even greater. This could mean further valuable work for the Royal Docks.

The PLA Estate Department's flexible marketing approach is now showing results and is aiding the creation of much needed new jobs in London's Dockland.

New-type open-top containers



Kent coking coal is a high-quality fuel of low volatility which is carbonised to provide coke for the steel industry. Containers were chosen for this new style of coal trade in order to avoid potential problems of vessel stability caused by cargo shifting, which could arise if this particular type of coal were shipped in the bulk carriers normally used for coal.

A new type of container was developed by Sea Containers in conjunction with Yorkshire Marine Containers Ltd. (a wholly-owned subsidiary of the Sea Containers Group). It has an open top and is fitted with a full-width, 5-ft-high (1,5-m) discharge flap in its front wall, while standard doors are retained at the other end. Side-wall sheathing is fitted on the interior surfaces of the container to speed coal discharge. *(EIBIS INTERNATIONAL)*

Investments and provision of land support competitiveness : Port of Hamburg

The port economy will continue its rationalization efforts through investment, and the city-state of Hamburg will not slacken in its endeavours further to strengthen the infrastructure of the Free and Hanseatic City of Hamburg. The state activities are underpinned by the new Port Development Law of 25th January, 1982, which incorporates terrain hitherto referred to as the "port extension region." The provision of land is backed by legal legislation. The port economy and the city-state guarantee that the Port of Hamburg will continue to spearhead technical and organizational progress, and that, by rationalizing investments, the relationship between price and service will become even more competitive.

The numerous port expansion projects currently under way include not only the extension, expansion and modernization of terminals and quayside handling facilities – thus taking account of progressive structural change – but also the creation of new subsidiary services. The most important among the projects in improving the port infrastructure is the dredging of the Northern Elbe to make the eastern and oldest part of the Port Hamburg accessible to large-scale shipping. After deepening the Lower Elbe to 13.5 metres at medium low tide, and 16.5 metres at medium high tide, it is now possible for ships with a capacity up to 110,000 tons (fully loaded) to dock in Hamburg. Some 1,500 million DM has been spent on safeguards against flooding in the Port of Hamburg. During a major flood on November 24, 1981, the water level rose 5.81 metres above normal but there was practically no damage to cargo.

Data Communications System (DAKOSY) accelerates data flow : Port of Hamburg

The Port of Hamburg took an important decision which will guarantee its reputation as a fast port also in the future. The various bodies of the biggest German port decided to introduce the Data Communications System (DAKOSY) which is intended to ensure the fast and widely automated flow of information within the Hamburg port and traffic economy. The advantages will benefit all the firms involved in transshipment, and thus also the clients of the Port of Hamburg, without any intervention in the inner operating organisation of the participants.

The chairman of the Port of Hamburg Enterprises Association ex-Senator Helmuth Kern remarked in this connection: "Outsiders might gain the impression that Hamburg has only now discovered data processing. Naturally, this is not the case. A major potential in EDP systems has existed in the Hamburg port economy for a long time. What has so far been lacking was a combined data system taking in all firms." According to Helmut F.H. Hansen, General Representative of the Port of Hamburg, DAKOSY is a typically Hamburg solution. "On the one hand it takes into account the private business enterprise structure, and on the other contributes towards flexible adjustment to the technical and organisational trends becoming increasingly apparent on the EDP market."

Building up on the foundations of past development work, the Gesamthafenbetriebs-Gesellschaft GHBG instructed an independent project group to take DAKOSY a step further. Following conclusion of the overall development phase, DAKOSY will be operated by a company currently in the process of formation.

Step towards the information chain

The General Representative of the Port of Hamburg and GHBG representatives recently explained details of the project to specialist journalists. "In the past few years transport techniques and transport rationalisation have undergone extremely rapid development", Helmut F.H. Hansen explained. This was particularly evident from the worldwide acceptance of container traffic, which in turn had advanced the formation of transport chains. The situation was different with regard to the projected information chain. Although in this sector there had already been significant changes, due to the emergence of new data processing techniques, the exchange of information among firms involved in transport was still in most cases being done with the classical methods of the written letter, the teleprinter and the telephone.

With DAKOSY the Port of Hamburg will offer a service which, with its integrated information form, simultaneously helps to get an important step closer to the goal of establishing information chains. DAKOSY thus brings with it a significant contribution towards further improving efficient service in the organisational sector.

Inter-company data

Volkhard Erdelbrock, head of the DAKOSY project group with GHBG, emphasised the decisive innovation aspect of the data communication system: "At present the same data are in many cases being processed manually by the firms involved in transshipment, or are being fed into inner-company EDP systems, which is not only non-rational and expensive, but logically also increases the frequency of errors. In future, information details will be recorded only once, and distributed further by way of DAKOSY." The data will be kept available in the DAKOSY storage system for all parties "entitled to call them up". Erdelbrock added: "DAKOSY is thus an information junction, an inter-company integrated data system which secures the ability to compete in the organisation sector."

In Erdelbrock's opinion, developments in modern communications techniques compel the adoption of a system such as DAKOSY. In the "initial realisation phase" it was envisaged that the shipping and loading documents

important for handling outgoing traffic would be communicated by way of teleprocessing between all companies concerned with the cargo handling, such as seaport forwarders, quayside operators, tallyment, stevedoring firms or liner agents.

Free company decision

The fact that many firms concerned with goods traffic and transshipment (especially also the shipping economy) have their own data processing facilities of the most varied manufacture and programmes is the starting position of DAKOSY. Accordingly, every firm is free to make maximum use of the data provided by DAKOSY in accordance with the company's operational concepts. It goes without saying that the competitors' data are protected.

Similarly there is no provision for a connection with a central calculating account with the latters' programmes. As a data communications system, DAKOSY retains the EDP technical independence of the connected firms, which in turn, not only from an individual company point of view, but also in the form of user groups, can communicate in the dialogue as a partner with DAKOSY. This is where the decisive difference lies compared with systems already practised in other seaports, and with the development of a Data Bank Port of Hamburg known as "COMPASS", operated up to 1975 in Hamburg and then halted. "The system itself is open to every form of co-operation for innovations and supplementations", Erdelbrock stressed. The important thing was that always the multiple data recording necessary today was avoided.

Chairman ex-Senator Helmuth Kern emphasised that one of the most important factors of DAKOSY was, in fact, that nobody could compel the users to go farther in their programme concepts than they have to vis-a-vis their customers or farther than they consider reasonable. With full retention of individual company concepts and wishes it would be possible, thanks to DAKOSY, to effect superimposed communication in the dispatch of ship and cargo. To this extent, compared to a large-scale accounting centre, which of course accords with the development of modern data techniques, it is a step forward into a flexibly arranged future.

Port's advantages retained

The advantages and the importance of DAKOSY for companies, employees and the port's customers are thus apparent. This step, as taken, was absolutely necessary: after all, it is a matter of retaining for the future the worldwide acknowledged advantages of the biggest German seaport, such as speed and reliability, not least of all in the interest of the people working in and with it. *(Port of Hamburg Topics)*

Port tonnage expected to top 20.5 million tons in 1981 : Port of Amsterdam

When final figure are in, international seagoing goods traffic in the Port of Amsterdam is expected to exceed 20.5 million tons in 1981, down about 9 percent from the previous year when 22.4 million tons were handled, the second highest ever in the Dutch Capital Port.

Most significant declines were seen in ore traffic (down about 50 percent to 1.6 million tons) and timber which registered 434,000 tons, down from 639,000 million tons in 1980. Shipment of both timber and ore were adversely affected by the general slump in the European steel and construction industries.

There was a drop in coal traffic, too, which registered about 3.2 million tons, a drop of a million tons or 25 percent. The general economic decline worldwide and congestion in U.S. export ports were partial factors here. Nevertheless, coal traffic is expected to rise dramatically in future years when Dutch electricity stations convert from gas to coal and coal gradually replaces oil as the major European energy source.

There was a sharp increase in grain shipments which registered just over three million tons, up from 2.2 million tons in 1980. However there was a drop in shipments of fodder and oilseeds (1.5 million tons in 1981; 1.9 million tons the previous years). However grain and oilseed shipments are expected to be on the increase in the future as new facilities for handling and working come on stream.

There was an increase of about 12 percent in the shipment of mineral oils to 6.7 million tons in 1981. This excludes several million tons of mineral oils which arrive in Amsterdam from Rotterdam by pipeline. Molasses shipments totalled nearly 510,000 tons in 1981 over 495,000 tons the previous year. There was an increase in container traffic, up to 661,143 tons as well as in roll-on/roll-off traffic which totalled over 150,000 tons which bolstered the general cargo sector figures. However when conventional general cargo, timber and automobiles are taken into account, there was an overall drop in this sector to just over three million tons, down from 3.3 million tons in 1980.

It should be noted that these figures are preliminary ones and a slight increase in tonnages in most categories can be expected. Given the overall position of ports in Northern Europe, 1981 was not unfavourable in terms of tonnage in the Port of Amsterdam. When total tonnages of Amsterdam, Ymuiden and Zaanstad are consolidated, the North Sea Canal Ports will have handled 35 million tons in 1981. *(HAVEN AMSTERDAM)*

Port of Rotterdam expects more dry bulk and containers and less oil and oil products

Rotterdam, March 23-Prognostications made by the Port of Rotterdam for the coming twenty years predict a rise in landings of dry bulk, especially grains, ores and coal, and of general cargo, notably containers, but a drop in oil and oil products. Overall transhipment from and into seagoing vessels will be between 260 and 440 million tonnes in the year 2000.

The Port of Rotterdam made these prognostications with the aid of a so-called freight flows model. It was the fourth time that the future of the port of Rotterdam and other Rijnmond ports was scanned in this way. But unlike on the previous occasions, six possible developments instead of one were forecast, ranging between two extremes—a future with accelerated growth, especially after 1990, and a future with little or no growth.

The Port of Rotterdam believes that the most likely development is one of moderate growth, somewhere in between the two extremes. The other prognosticated developments indicate the financial limits and requirements as to the port's future infrastructure. A number of in-

frastructural plans have to be carried out for the growing commodity groups if the port is to remain competitive. They include a deepening of the approach channel, construction of a new vessel traffic management system and removal of the Hartel Canal locks. Moreover, providing facilities for a coal and container terminal at Maasvlakte, extension of the quays of the ore terminals on the Caland Canal and Mississippi Harbour, and expansion of grain transhipment facilities.

Finally, a restructuring of the old ports seeks to anticipate coming freight flow developments.

The scenario which the Port of Rotterdam considers to be the most likely to come true, predicts that an aggregate of 302 million tonnes of cargo will be transhipped from and into seagoing vessels in the year 2000 (versus 297 million tonnes in 1979). This volume will comprise 99 million tonnes of crude oil (against 139 million tonnes in 1979), 47 million tonnes of ores (42 million tonnes in 1979), 45 million tonnes of grains, animal feeds, oilseeds, oils and fats (26 million tonnes in 1979), 34 million tonnes of general freight (24 million tonnes in 1979), 27 million tonnes of solid fuels (9 million tonnes in 1979), 19 million tonnes of oil products (33 million tonnes in 1979), 17 million tonnes of chemical products (13 million tonnes in 1979), 13 million tonnes of other bulk (11 million tonnes in 1979), and 2 million tonnes of liquefied gases.

Under this scenario transhipment from and into inland vessels will reach an aggregate 108 million tonnes in the year 2000 (against 92 million tonnes in 1979). Increases are anticipated chiefly in the river transport of grains, animal feeds, oilseeds, oils and fats (from 11 million tonnes in 1979 to 19 million tonnes in 2000) and of solid fuels (from 6 million tonnes in 1979 to 14 million tonnes in 2000). Feeder and onward transport by rail and road will be up on 1979 in the year 2000, rising from 9 to 18 million tonnes.

The prognosed prepared with the aid of Freight Flows Model IV have been laid down in a report, a summary of which has just been published under the title "Between Full Speed and Stop".

Economy expected to perk up by end 1982 : Rotterdam research team

The year 1982 is likely to bring a mild recovery of world trade, but the economic situation is not expected to improve until the end of the year, which is too late to have any appreciable effect on the annual results of the port of Rotterdam.

Freight flows loaded and unloaded will in many cases be as large as in 1981, or a little larger. Anyway, five million tonnes less crude oil will be landed, and four million tonnes less loaded. Moreover, arrivals of iron ore will probably remain 2.5 million tonnes below those of last year.

As a result the overall volume of goods to be handled in the port this year will be slightly down on 1981. It is estimated at close to 239 million tonnes.

This is a prognosis by the Freight Flows Project Group of the Rotterdam Municipal Port Administration, which has been making short-term estimates too, for some time.

The group expects a slight drop in oil prices. If moreover the dollar rate were to drop from last year's very high levels, imports may be affected. A drop in Opec countries' incomes may also have bad consequences for the world's industry, which sells many of its products to the oil producers.

The group expects that freight categories which are highly sensitive to the business cycle, will in general perform as they did in 1981.

Estimates for 1982 are as follows (in millions of tonnes):

Commodity category.	unloaded	loaded
Grains, animal feed	21.6	5.2
Solid fuels	7.1	5.4
Crude oil	80.0	6.1
Oil products	18.0	10.0
Liquefied gases	0.4	0.2
Ores	32.0	1.2
Chemicals	5.5	6.1
Other bulk	6.6	2.5
General freight	12.9	12.2
Containers, Lash and ro-ro (empties)	2.8	2.8
	186.9	51.7

(Rotterdam Europoort Delta)

Containers double : Port Zayed

THE NUMBER of containers offloaded at Abu Dhabi's Mina Zayed has increased sharply from 1,200 to 2,500 per month since the recent opening of a new container storage area.

Mr. Saif Al Muhairbi, under-secretary in the Seaport Authority, has said that offloading was likely to have reached between 4,000 and 5,000 in January.

Approximately four million tons of goods will have been unloaded at the port last year, compared to 3.5 million in 1980 and 2.6 million in 1979. Meanwhile, the first phase of the harbour has been opened with accommodation for 300 vessels. *(Gulf News)*

Kuwait port boom

KUWAIT ports were working at maximum capacity last year, handling an unprecedented tonnage to cope with the congestion of cargo ships queueing to offload Kuwaiti imports and transit goods, much of them destined for Iraq.

Dr. Ibrahim Makki, director of the Ports Authority, said in a press statement that statistics covering the period January-November, 1981, indicated that the performance of Kuwaiti ports would reach 6.5 million tons over the full year.

This figure is 31 per cent over the tonnage unloaded at Kuwait ports in 1977, when the construction boom led to the peak of congestion in Gulf ports.

Only 4.5 million tons were handled by Kuwaiti ports in 1977. The tonnage for 1980 was 5.9 million tons. Kuwait has three ports, but the port of Shuwaikh about five kilometres to the north of the capital is the country's key facility. *(Gulf News)*

New direct Port Adelaide-Middle East service

ScanCarriers will introduce a regular direct monthly ro-ro service between the Port of Adelaide and the Middle East, commencing March 31.

First vessel in the service to Dubai, with feeders services to Abu Dhabi, Sharjah, Damman, Bahrain and Kuwait, is the Barranduna.

The new service is quoting a transit time of 16 days

between departure from the Port of Adelaide and arrival at the Port of Dubai.

The Middle East area has been served almost exclusively by fully cellular container ships with centralised cargo in Melbourne. The Yugoslavia Line, Jadroplov, offers direct shipment from Port Adelaide to Aqaba, with a through bill of lading operating to other Middle East destinations.

The ScanCarriers direct ro-ro service will accept containerised, dry and refrigerated cargoes in addition to large, long or heavy lift packages and mobile equipment.

What does the future hold? : Port of Brisbane

There is a new publication on the Brisbane waterfront, entitled "PORT NEWSLETTER". It is described as "an occasional publication of Brisbane Wharves and Wool Dumping Pty Ltd. designed to simulate informed discussion on commercial activity in the Port of Brisbane".

The front page article in Issue No. 2 is unjustifiably critical of the planning of the Port of Brisbane Authority over the last ten years.

The thrust of the article in question is to highlight the discrepancies between the Port Authority's trade projections (made in 1973) and actual throughput for the year 1980/81.

To balance that "discussion", and to offer a review of the situation to our many valued customers and friends, the following FACTS are presented by the General Manager of the Port of Brisbane Authority (Mr. Frank M. Wilson):–

In hindsight, it is easy to be wise–but a hindsight view commands us to see where and why we have been wrong and to adapt to changing circumstances. We must analyse the reasons for the discrepancies, and whether they mean much in statistical terms. As "PORT NEWSLETTER" has not done this, I will endeavour to do so.

Between 1962/63 and 1972/73 trade through Brisbane increased from 2,576,000 tonnes to 6,995,000 tonnes–equivalent to an annual (compound) increase of 10.5%.

In 1973, we predicted that the total cargo throughput in Brisbane by 1980/81 would reach 13,620,000 tonnes–an annual (compound) increase of 8.6%. In historical and economic terms, this lesser increase in rate of growth above the 1972/73 figure was not an unreasonable expectation.

The actual increase between 1972/73 and 1980/81 was from 6,995,000 tonnes to 9,520,000 tonnes, a growth rate of 4% (compound) per annum. (Figure 1 shows these statistics in graphical form).

Why did the rate of increase change unexpectedly in 1973 from 10.5% per annum to 4% per annum? Some of the reasons why our predictions were not fulfilled:

- the world oil crisis led to significant changes in energy sources and consequent reduction in imports of crude oil;
- the Federal Government's refusal of export licences for mineral sands from Fraser Island;
- seasonal fluctuations in the production of grains and beef.

How could the Port Authority in 1973 be expected to forecast those conditions? It could not–but, it has programmed its development expenditure to meet the needs of the growth industries.

On the subject of growth industries, there are some significant developments viz containerisation and coal.

The "PORT NEWSLETTER" is critical of the decision to construct two container terminals at the Fisherman Islands. This decision was basically made on the growth of containerisation in the Port of Brisbane. Between 1971/72 and 1979/80, the container (TEU) throughput increased from 39,000 to 96,857–an annual increase of 12% (compound)–quite remarkable. (See Figure 2.)

Why the sudden drop?

One might ask why the sudden drop in 1980/81 (85,531 TEU's) below the 1979/80 throughput–the only annual fall off since containerisation began?

Drought conditions in the beef industry and the beginning of an economic recession throughout the world would account for this. However, the number of loaded containers only fell from 70,759 to 68,003, whereas empties fell from 26,098 to 19,528, indicating only a very slight fall off in cargo.

For the first eight months of 1981/82, there already has

THE STORY IN GRAPHICS

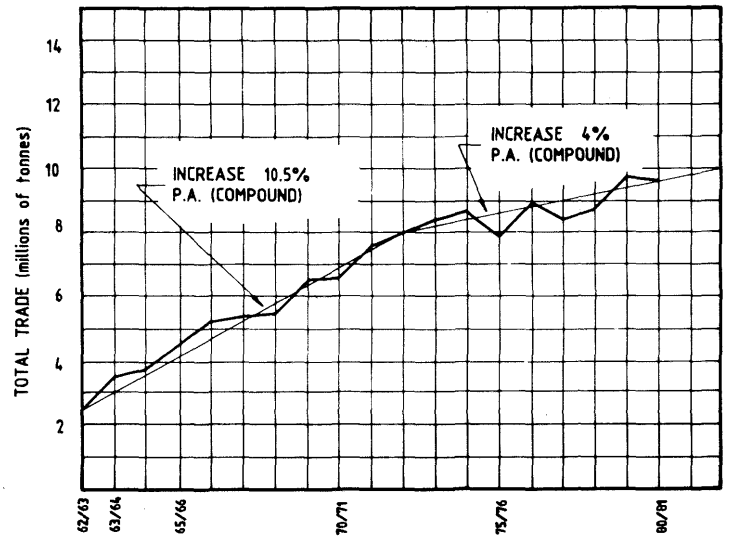


Figure 1: Trade growth

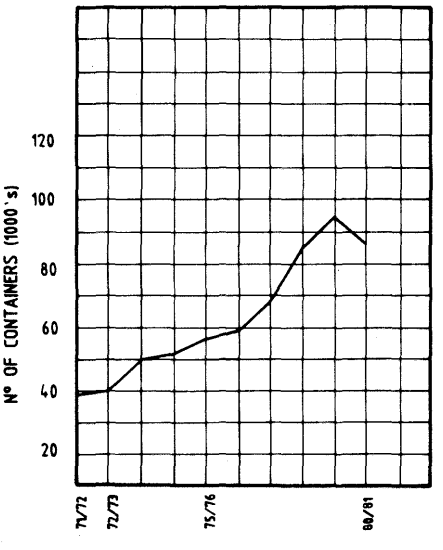


Figure 2: Container growth

been an increase of 8% and the meat export season has not yet begun!

The Authority's flexibility in planning has taken note of changing trading patterns.

The organisation which produced the port's master plan, Rendell and Partners, predicted 79,280 TEU's in 1980/81, yet a throughput of 96,857 TEU's (an increase of 22%) was achieved in 1979/80. This growth in containerisation justified the decision to construct a second terminal.

Back in 1979, B.W.W.D. projected a greater throughput of containers in the years ahead than did the Port Authority!

The decision by Seatainer Terminals Limited to invest in and operate the second terminal is confident support for the Authority's decision. Everyone, particularly the importers, exporters and shipping companies, will benefit from open competition between two modern terminals for the increasing container trade. Also, the prospects of the European trade loading direct out of Brisbane becomes much brighter.

The Port Authority and Queensland Bulk Handling Pty Ltd. are jointly investing $22 million in a coal export terminal at Fisherman Islands and expect operations to commence later this year. Initially, coal exports of about I million tonnes can be expected, rising to 5 million tonnes within a few years.

The Authority, since its inception in 1976, has applied itself to meeting the needs of importers, exporters and waterfront industries, and is proud of its achievements. Its decisions have been made after thorough analysis of growth patterns, and an objective appraisal of statistics, not a superficial look as has been presented to us by B.W.W.D.

The Middle East area has been served almost exclusively by fully cellular container ships with centralised cargo in Melbourne. The Yugoslavia Line, Jadroplov, offers direct shipment from Port Adelaide to Aqaba, with a through bill of lading operating to other Middle East destinations.

The ScanCarriers direct ro-ro service will accept containerised, dry and refrigerated cargoes in addition to large, long or heavy lift packages and mobile equipment.

It would be nice to have one of those all-revealing crystal balls. We don't. What we do have, though, is a top organisation with the expertise and talent to analyse and interpret the evidence placed before it. Unknown factors can, and do, upset predictions—anyone's predictions—and necessitate temporary adjustments to plans and policies.

That does not mean that the basic concept is wrong and, I venture to submit, the vast majority of clear-thinking executives would agree with that philosophy.

Security patrols keep channels clear : Port of Melbourne

Ships Masters and shipping companies have commented favourably on the effective policing of the main entrance channel to the Port by the Port Emergency Services' "Sharkcat" patrol boat.

As part of the Authority's campaign during the summer months to keep shipping channels clear of pleasure craft all ships leaving or entering the Port are escorted by the "Sharkcat" along the main channel from the river mouth to Fawkner Beacon.

These escort duties, in addition to increase patrolling of Port waters, have been introduced because of the hazards to shipping being created by small craft anchoring in channels.

In April last year the Australian Venture ran aground off Elwood. An inquiry found that small craft obstructing the approaches to the Port of Melbourne channel were the prime cause of the vessel having to take evasive action which led to the grounding.

In addition to the patrol watching for recreational craft in shipping channels or moored to navigation beacons, it was policing Port regulations and was also available to go to the assistance of craft in distress. This latter part of the patrol's duties was in response to a safe boating campaign promoted extensively by the Public Works Department, boating industry associations and other organisations interested in boating and recreation.

The necessity for this watch for vessels in distress is instanced by the fact that between 27 December and 22 January the Port Security Patrol assisted fifteen small craft in distress. Of these eleven signalled that they needed assistance and four were found during the patrol.

Engine Failure

In most cases the craft were without power due to engine failure or they had run out of fuel. The majority of the craft in distress were towed to the St. Kilda Marina by the "Sharkcat."

During the same period (27 December to 22 January) the Port Security Patrol moved 27 boats from shipping channels; escorted 117 ships; intercepted three craft speeding in the river; assisted the PES First Aid section in attending one call and rescued two people, a father and his son, who were drifting into Hobsons Bay on a rubber raft.

Regular Patrols

Regular patrols will be continued by Port Security to ensure Port Waters and Shipping Channels are kept clear of small craft.

Meatloader to wheatloader : Southland Harbour

With the advent of modern vessels only requiring four meatloaders, it did not take long for the Harbour Board to find a use for the redundant No. 5 Meatloader. It is being modified into a mobile ship grain loader which will traverse along No. 2 berth loading grain into the required hold of the vessel.

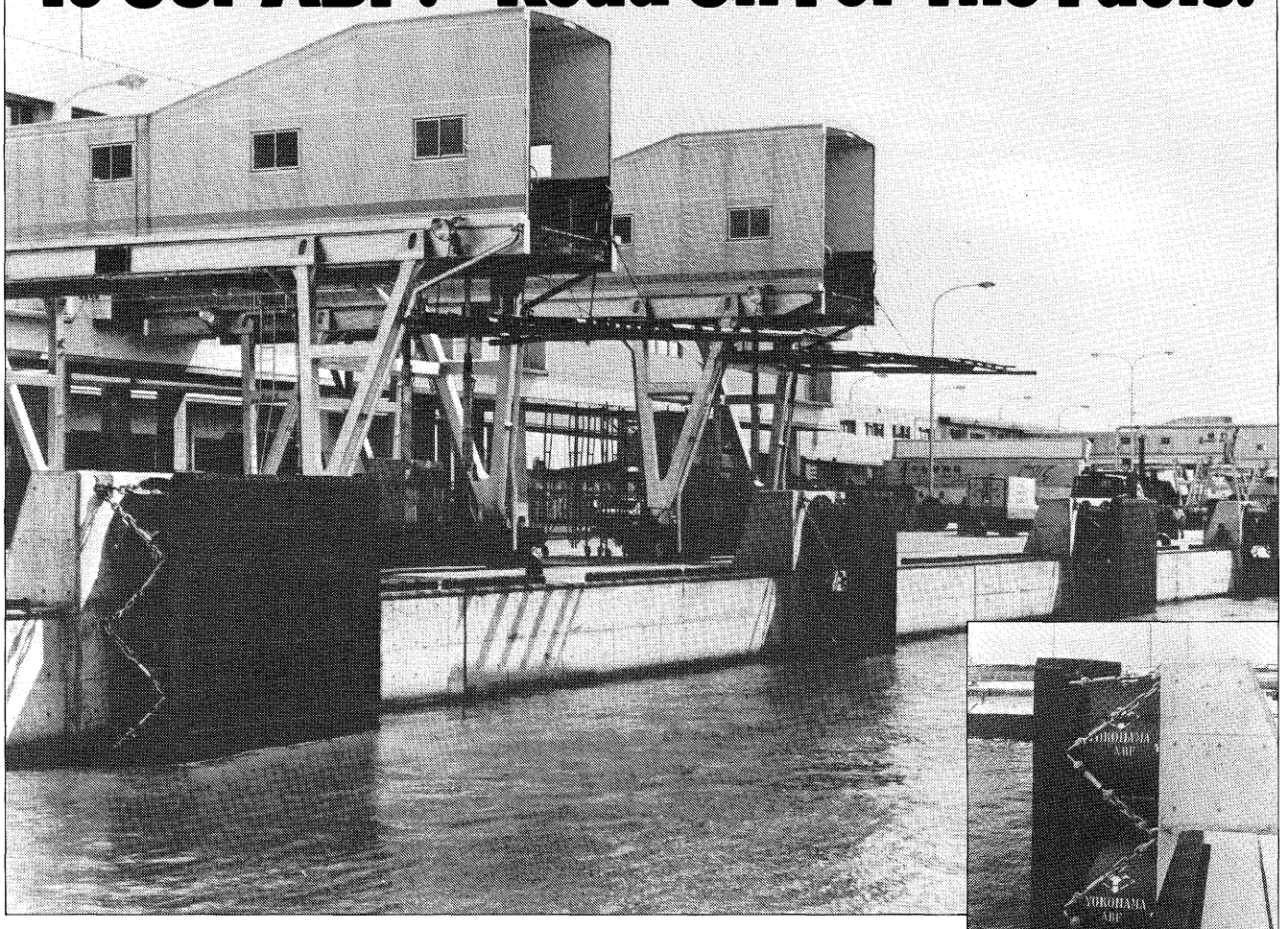
A new 3,000 tonne capacity grain storage silo has been constructed and together with the present 3—1,200 tonne capacity silos will bring the total grain holding capacity to 6,000 tonnes. With normal coastal grain shipments being around 5,000 tonnes the increased storage will easily enable a full shipment to be stored before the arrival of the vessel.

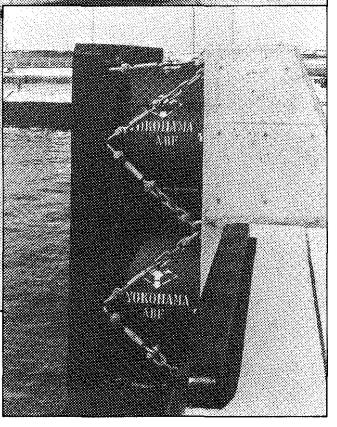
With an increased tonnage of grain being shipped from Bluff modifications are taking place to upgrade the existing complex for this season's grain shipments.

The modifications involve the installation of a new gravity feed type road hopper and bucket elevator assembly which will increase the road unloading to 250 tonnes per hour and two new bucket elevators which combined with the existing elevator will give a total ship loading rate in excess of 600 tonnes per hour.

These modifications will enable the complex to load a normal coastal grain shipment between high tides thereby substantially reducing ship turn around times. *(The Bludd Port Sider)*

Why Are Protector Panels Attached To Our ABF? Read On For The Facts:





News from YOKOHAMA RUBBER— AIR BLOCK FENDER with PROTECTOR PANEL.

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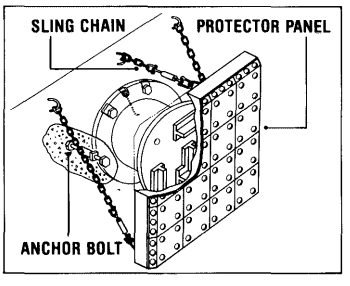
- They display constant performance characteristics even when compressed at an angle.
- Because of the high compressive elasticity of air, they react smoothly to the forces generated when a vessel shifts positions to prevent shearing damage.
- They are applicable to a wide range of surface pressure and demonstrate excellent performance relative to tidal range.
- Lastly, ABF-P have a great reserve capacity for absorbing energy, so a hard jetty structure for installation is unnecessary.



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