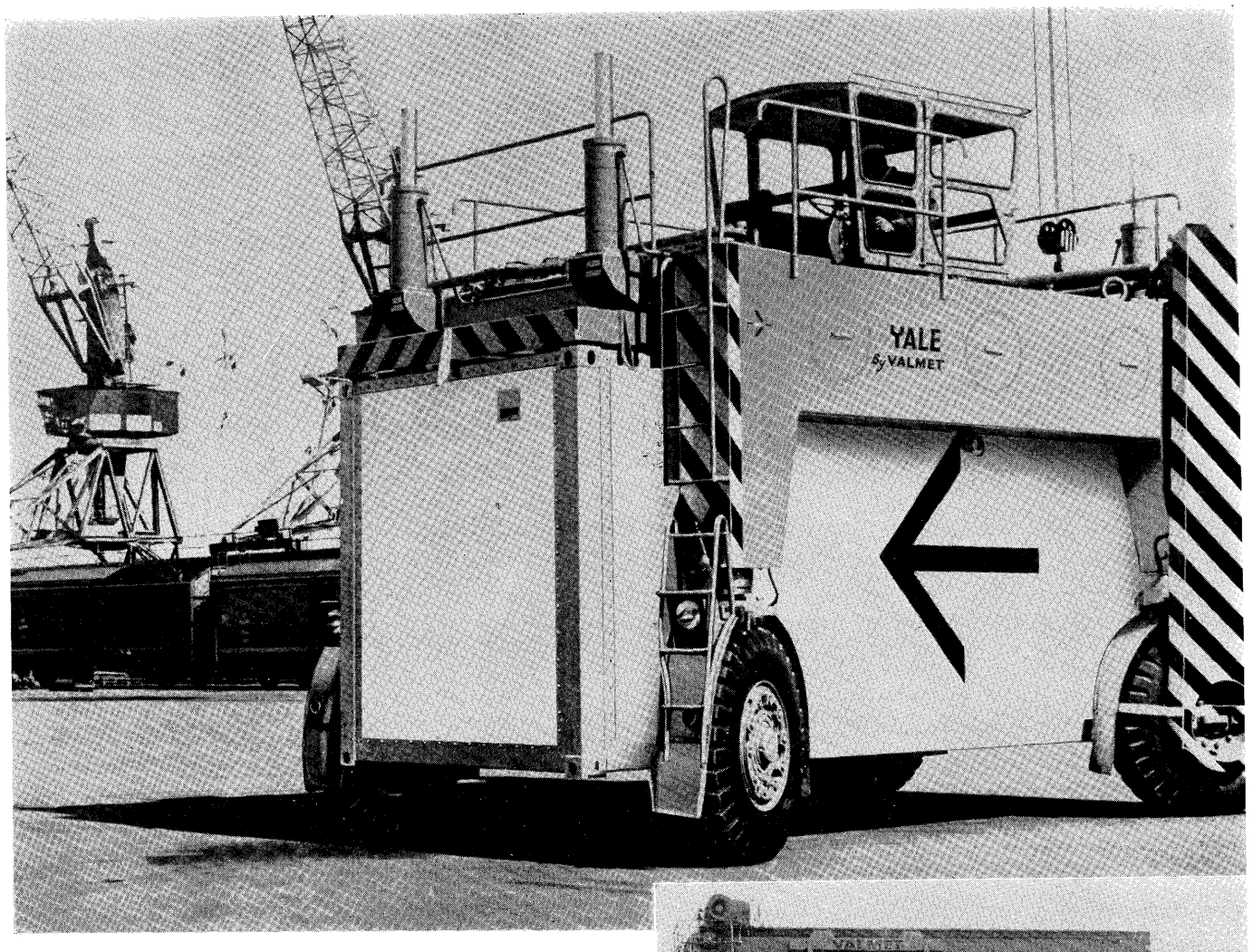
# PORTS and HARBORS

November, 1968 Vol. 13, No.11


Rotterdam-Europoort
Berths for Very Large Tankers

MELBOURNE CONFERENCE IAPH MARCH 1969





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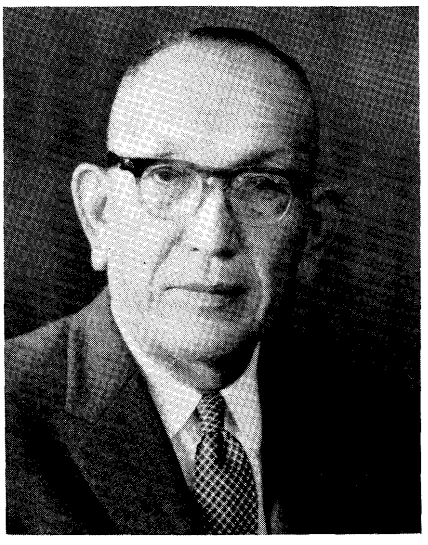
# *Who's Who in IAPH*



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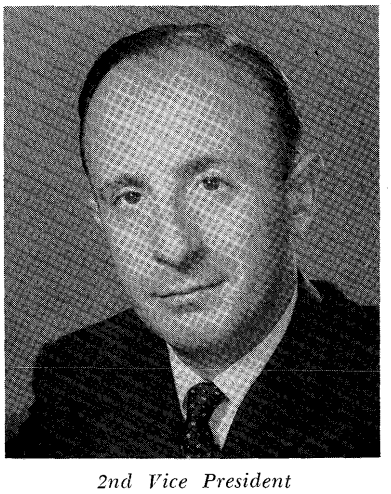

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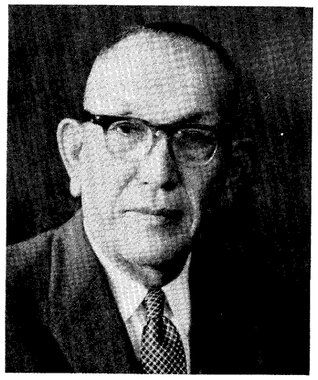

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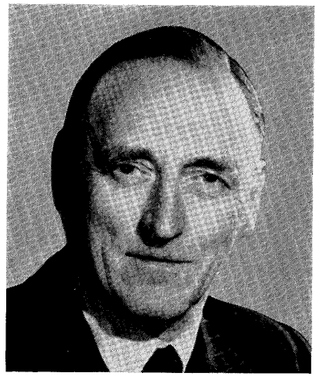

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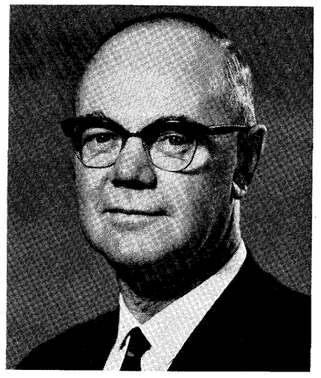

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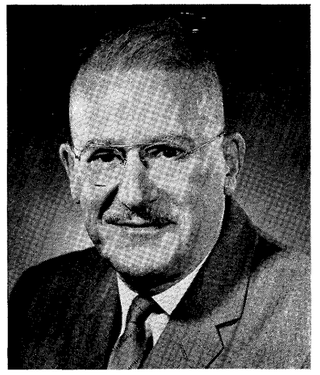

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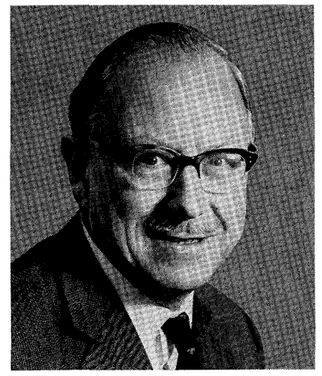

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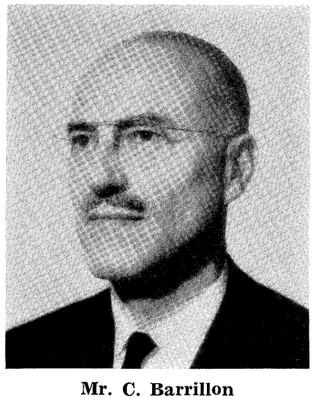

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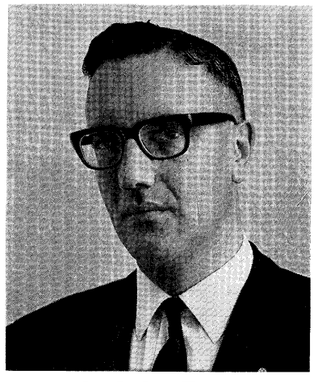

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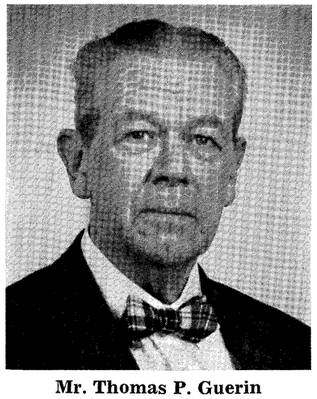

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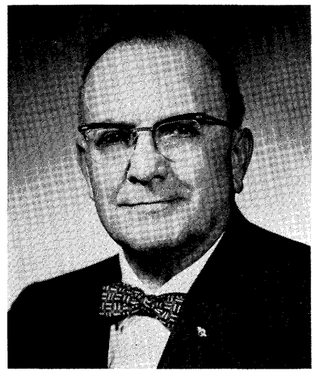

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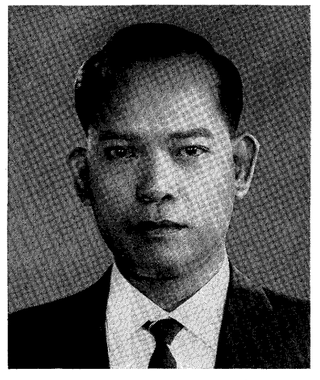

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# PORTS and HARBORS

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**November, 1968 Vol. 13, No. 11**

## CONTENTS

PORTS and HARBORS

**Forum on Port Problems:**

ICHCA U.K. National Committee:

# "Expediting Exports" Conference

## Southampton

*26th & 27th September, 1968*

### Conference Summary

**Executives of more than 100 companies and organisations concerned with the transport and handling of exports (as users or providers) met in Southampton on Thursday and Friday, September 26 and 27, to exchange ideas and criticisms on the subject of "Expediting Exports."**

The two-day conference was organised by the UK National Committee of the International Cargo Handling Co-ordination Association. It was under the chairmanship of Mr. Stanley Turner, chairman of the National Committee, and chief docks manager of the Port of London Authority.

In addition to the presentation of papers by leading figures in the field of exporting, ports and sea, air and land transport, there were off-the-cuff discussions on many important subjects. These ranged over port development, labour, inland transport and sea and air transport.

Opening the conference, Mr. Turner expressed concern at an apparent lack of interest in increasing efficiency in the transport and handling of exports.

He was referring to the fact that attendance was below that of previous conferences organised by ICHCA.

"What I think is a matter of some concern is this apparent lack of interest in a subject of vital importance. Few have given sufficient thought to the benefit that can be obtained from increasing the efficiency of export transport and handling and the savings that can be made."

But he added that while the conference might not have quantity attendance, it certainly had quality.

The future look of British ports was described by Mr. S. A. Finnis, chairman of British Transport Docks Board, and Sir Clifford Dove, director general of Mersey Docks and Harbour Board. Both agreed that the number of ports would decrease very appreciably.

Mr. Finnis pointed out that "ports have always gone up and down in importance."

He said: "I believe King's Lynn was once one of the leading ports in the country, whereas Liverpool is a comparatively modern port. Southampton has had its ups and downs.

"The reasons why our ports are in particular positions are that they have estuaries for ships and, more particularly, they have their trade centres and facilities for the 101 services that go with ships and shipping."

Mr. Finnis said the three main British deep-sea container ports of the future would be London, Liverpool and Southampton.

The pattern of secondary container ports could be Newport, Manchester, Clyde, Grangemouth, Hull and Felixstowe. "Some pattern of that kind would adequately serve our needs.

Sir Clifford had presented the paper written by Mr. P. H. Shirley, deputy chairman of Cunard Steam-Ship Co., Ltd., on "The work of the Economic Development Committee for Movement of Exports"—Mr. Shirley was prevented by illness from attending.

On the future pattern of ports, Sir Clifford said: "I think there is a continuing case for large ports such as Liverpool and London. On the other side of the ledger, I think a very good case can be made for some of the small ports—I am thinking particularly of Felixstowe and Grangemouth.

"These ports do satisfy a demand and they are doing it quite well."

There are at present about 300 ports in this country. But there would certainly not be this number in a few years' time, Sir Clifford said.

Labour problems in the transport industries were discussed. Mr. Finnis said the main problem in the ports' decasualisation scheme was surplus labour.

Several speakers came out strongly against a criticism that labour relations in this country had not markedly improved in the last two years.

The criticism came from Mr. F. G. Kell, assistant cargo superintendent, P. and O. Management, Tilbury. He said: "Labour relations are something which are really worrying us. The situation of late has not improved. In some cases it has become worse."

Mr. Finnis declared in reply: "There is no doubt that we here cannot progress at all without harmonious co-operation in industry.

"But I certainly question that there has been no improvement in labour relations. I am convinced that there has been some improve-

ment, for example, at dock level."

In his opinion, the key note in this question was training — and training on a national rather than an individual ports level.

"We in the Docks Board feel that we are already beginning to reap some of the benefits of recently instigated training schemes. It should be remembered that decasualisation was only introduced a year ago, after having been talked about for more than 40 years. Of course, it will take time before the real results of this can be calculated.

"In the case of the docker, I think the wheel has turned full circle from the days of the 1930's when he was in a weak position and working casually. Now, in fact, this tight little group has benefits which are by no means shared by all members of the community."

Mr. J. R. Jones, cargo manager (UK) BOAC, pointed out that there had been satisfactory and harmonious results from training and retraining programmes at Heathrow Airport, London, in preparation for new handling facilities currently under construction there.

Mr. Turner chairing the meeting said the question had come from someone connected with Tilbury Docks. "In those very docks we have cases of men working during their holidays—to the detriment of their families as well as themselves —so that ships can be unloaded; where on a timber terminal 20 men harmoniously and with complete flexibility are doing a job formerly handled by 90; where in another part of the docks 13 men are now handling ships which formerly needed 200.

"At Tilbury we have an arrangement where men are willing to turn out at any hour to unload a ship."

After he had presented his paper on "Problems of the future from the exporter's viewpoint", Mr. R. J. L. Wills, past president of the Association of British Chambers of Commerce and vice-president of the British Export Houses Association, put forward a plan to eliminate some of the bottlenecks which occur in ports when the majority of exporters send their goods to the docks during the last few days of a ship's loading period.

He suggested that major exporters should be given two dates for deliveries to the docks. If they kept to the earlier date they should be offered cheaper rates than for the later date.

Mr. Turner challenged whether exporters would accept such a system. There were circumstances in which early delivery would incur financial penalties in other directions and so the advantage of cheaper rates for early delivery would be neutralised, he said.

But Mr. Wills said that he, as an exporter, would accept such a system. "I think ports are craven in the face of their customers," he declared. "Ports should stand up and say 'If you want a more efficient service you must pay for it.' "

Towards the end of the conference the ghost of extra costs to shippers apparently implied in the new Transport Bill was finally laid, mainly by Mr. T. G. Gibb, General Manager of the Freightliners Division of British Rail.

He said: "I think there is a lot of misconceived thinking about the effect of the Bill," in reply to a statement from the Cunard Brocklebank shipping line in which the spokesman said: "We are very frightened that the Bill might increase costs to shippers".

"The road haulage industry has been fairly severely licenced for the last 35 years".

Mr. Gibb added, that the new Bill was merely a means of switching from one form of licencing to another without, in his view, any marked dangers.

Tackled on the point of the Bill "making a significant reduction in drivers' hours, especially if their lorries are delayed at the docks," Mr. Gibb said:

"Under the new legislation the driver is allowed to be behind the wheel of his vehicle for ten hours while the motor is running. This definition is one on which we should be very clear".

Present legislation, according to Mr. Gibb, stated that the driver might drive 11 hours in any given 24 hour period, and that during these 11 hours part of his time would be spent in the canteen, and checking guy ropes and carrying out other duties in connection with his vehicle.

The difference between old and new legislation was therefore, in driving time, one hour.

"I don't think, that in any way, this should mean an increase in costs to the shipper".

Referring to proposals in the new Bill which would restrict road haulage movements of more than 100 miles he said: "The only objection that can be put to an application for a licence is that the railways can provide the same or a better service at the same or a lesser cost. Unless an objection to a licence can be sustained on that basis there is no danger whatsoever to a road haulier".

Mr. D. O'Neill, Ministry of Transport, Under Secretary for Ports Shipping and Defence, also stated that he saw no reason for the new Bill increasing costs. And Mr. S. A. Finnis, Chairman of British Transport Docks Board commented: "The object is greater efficiency". Mr. J. R. Jones (B.O.A.C.) was on the platform during both days of the conference, to relate his experiences and offer suggestions and advice concerning air cargo handling.

He was asked what proportion of cargo was carried in passenger aircraft; to what degree passengers fares subsidised cargo freights; and why the two should not be totally segregated—cargo taken away from urban areas—and even flown out of different air terminals.

He said that already 60 per cent of cargo on the North Atlantic run is carried on special freighter aircraft and that freighter services are now being provided to Hong Kong and Australia.

"No-one would be happier than myself to see the division between cargo and passenger being implemented. I want to see cargo flights dictating passenger time schedules rather than the reverse, as is the case at the moment".

Mr. Jones added that it was impossible to give an estimate of subsidies involved between passenger and freight services. Equally, he said, it was impossible to compare or give price quotations for comparable air and sea freightage, "Because the two are not compatible".

He did, however, offer as broad guide lines the facts that air insur-

ance rates are less, packaging cheaper: "And if one is transporting, for example, a highly expensive, sensitive, piece of electronic equipment from, for instance, the UK to Australia, we can cut the transit time from one month to two days.

"In the case of such machinery being transported by sea, it is immobilised and useless in the hold of a ship. By saving almost a month, on the other hand, it becomes operative at its destination almost immediately, and is therefore earning".

Mr. Jones throughout the conference continually appealed to those involved in shipping exports not to leave sending their merchandise to the airport late on Friday afternoons. He roundly criticised the "abominable five day week", extended weekend holidays, the first two days of the week being used for discussion on happenings of the previous week and only the remaining three being used for the business in hand. He reminded delegates that air transportation is a round-the-clock, seven-day a week service.

Principal speaker at a Guildhall banquet on Thursday evening was Mr. Stephen Swingler, MP, Minister of State, Ministry of Transport who said that port investment this year is expected to top the £50-million mark. "The need for new investment is as great here as in any part of the transport field".

This investment, he said, had only been £18-million between 1951 and 1964: "These figures I think accurately reflect the extent of Government interest in port development.

"All in all, we are supporting the programme for port modernisation with all the resources we can afford in a capital-hungry world.

Referring to the fact that, in his opinion, trends point in the direction of concentration of facilities in a relatively small number of ports, he commented: "All this points, in my mind, to the unquestionable need for a strong national ports authority, where future port development should be concentrated. And it may be of interest to you if I say there is unanimous agreement among thoughful people in the industry for just such a strong central planning authority".

The conference was summed up by Mr. J. Morris Gifford, director-general of the National Ports Council.

He said that perhaps the most striking point that had been brought out by the conference was the receptivity of the port and transport industries to new concepts.

The conference events ended with visits by delegates to the British Transport Docks Board container berth and depot and the British Rail Freightliner terminal in Southampton, a general tour of the port by water and a visit to British Hovercraft Corporation's establishment at Cowes, the crossing to the Isle of Wight being made, appropriately, by hovercraft.

# *Ports of Australia*

## By V. G. Swanson

*Chairman*

*Melbourne Harbor Trust Commissioners*

In an Island Continent such as Australia, so far distant from its overseas markets, the economy of the Country is bound up with the efficiency of its ports, and the prosperity of the people, industry and commerce is greatly dependent on the ports through which they are serviced.

In previous issues of the "Ports and Harbors" Magazine, articles covering some of Australia's ports have been featured. These articles have, however, been mainly confined to the Capital City Ports of the various States, and whilst these are the principal overseas general cargo ports with 70% of the trade of the Port of Sydney, 72% of the trade of the Port of Melbourne and 63% in the case of the Port of Fremantle, being with overseas Countries, there are in all 66 ports which serve Australia's coastal and overseas trade.

Included in this number are numerous private ports established around the Australian coastline to provide for the rapidly expanding development of Australia's mineral resources.

Unlike the situation in many other areas of the world, due to the large distances between general cargo ports on the Australian coast, there is relatively little competition for cargo.

Where ports are closely situated, it will be found that these are catering mainly for specialised trades.

Powers, functions, responsibilities and measures of financial autonomy in ports, however, vary from State to State and Port to Port.

With the exception of the Northern Territory of Australia where ports are administered by the Commonwealth Government, port administration is the responsibility of the Government of the respective States.

In the State of Queensland, the Port of Brisbane and some minor ports are administered through the State Government of Harbours and Marine. The remainder of the ports in that State are administered by individual Harbour Boards.

Ports in the State of New South Wales are administered through the Maritime Services Board of New South Wales, a corporate body constituted under an Act of Parliament in that State.

The major ports in the State of Victoria are administered by separate corporate bodies, namely the Melbourne Harbor Trust, the Geelong Harbor Trust and the Portland Harbor Trust, each with a large degree of autonomy, with the minor ports of the State being administered by the Ports and Harbors Branch of the Victorian Department of Public Works.

In the State of South Australia,

ports are administered through the State Government's Department of Marine and Harbors.

The principal ports in the State of Western Australia are administered by individual Harbour Boards with the minor ports being the responsibility of the State Government's Harbour and Light Department.

In the State of Tasmania, each port is administered by a separate Board known as a Marine Board.

Whilst there is no overall coordinating Authority for ports in Australia, liaison between ports is maintained through the Australian Port Authorities' Association. This Association is purely a consultative one and can make recommendations only to its members, but through its endeavours, uniformity of practice has been established in ports in Australia in many aspects of their operations.

With the rapid expansion which is occurring in Australia's Primary and Secondary Industry, together with the development of mineral resources, trade in most ports of Australia is buoyant, and to be fully aware of the Australian port scene, it is necessary to consider the important role which each individual port is playing in the national economy, whether it be as a general cargo port, a feeder port to the Capital City Ports in the new shipping concept of Containerisation; as a port catering for a special commodity such as Wheat, Sugar, Oil, Meat, Mineral Ore, Phosphate, Fruit, etc., or to cater for the general coastal trade around the vast Australian coastline.

Over the past ten years container and unitised cargoes have been appearing in increasing numbers in the Australian Coastal trade until the stage has now been reached where virtually all general cargo in this trade now moves by one of these two concepts.

Cargo in excess of 100 million tons is at present handled at Australian ports in the overseas and interstate trades. This consists of 66 million tons of overseas cargo and some 35 million tons of coastal cargo.

The distribution of Australia's overseas trade to various areas of the world, on a percentage basis in the years 1965~66 and 1966~67 is shown in the following table:—

| Area | Percentage | | | |
|---|---|---|---|---|
| | 1965/66 | | 1966/67 | |
| | Imports | Exports | Imports | Exports |
| UK/Continent | 43.8 | 37.9 | 41.2 | 30.6 |
| Asia | 17.5 | 31.2 | 17.6 | 37.3 |
| America | 28.0 | 15.0 | 29.8 | 14.5 |
| Oceania | 2.8 | 10.4 | 3.0 | 10.0 |
| Middle East | 5.5 | 2.1 | 5.4 | 2.3 |
| Africa | 1.2 | 1.3 | 1.2 | 1.9 |
| Other | 1.2 | 2.1 | 1.8 | 3.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

As will be noted from this table, considerable change is taking place in the trading pattern between Australia and overseas Countries with Asia now replacing the United Kingdom Continent Countries as the major destination of Australian exports.

The Commercial Ports of Australia and the principal commodities handled at these ports is as follows:—

**Major Commodities at Australian Ports**

| Port | Major Commodities |
|---|---|
| **NEW SOUTH WALES** | |
| Sydney | All Cargoes |
| Botany Bay | Oil |
| Newcastle | Iron ore, coal, steel, general |
| Port Kembla | Iron ore, coal, steel, general |
| Coff's Harbour | Timber |
| Eden | Petroleum |
| **VICTORIA** | |
| Melbourne | All Cargoes |
| Geelong | Oil, wheat, alumina, explosives, general |
| Portland | Primary produce, wool |
| Westernport | Crude Oil |
| **QUEENSLAND** | |
| Brisbane | All Cargoes |
| Groote Eylandt | Manganese |
| Mourilyan | Bulk Sugar |
| Lucinda Point | Bulk Sugar |
| Weipa | Bauxite |
| Bundaberg | Bulk Sugar |
| Bowen | Meats, explosives |
| Cairns | Sugar, meat, general |
| Gladstone | Meat, coal wheat, alumina |
| Mackay | Bulk Sugar |
| Rockhampton | Meat, copper, general |
| Townsville | Bulk Sugar, ores, semi-processed minerals, meat, coal, general |
| **SOUTH AUSTRALIA** | |
| Port Adelaide | All Cargoes |
| Ardrossan | Dolomite, barley, wheat, salt |
| Ballast Head | Gypsum |
| Edithburgh | Salt, gypsum, barley |
| Klein's Point | Limestone |
| Port Lincoln (c) | Wheat, barley, phosphate, oils |
| Port Pirie | Zinc conc., oils, lead & lead conc., wheat |
| Port Stanvac | Oil and petroleum products |
| Rapid Bay | Limestone |
| Stenhouse Bay | Gypsum |
| Thevenard | Gypsum, wheat and oats |

## Port of Geelong

The Port of Geelong, situated on the western arm of Port Philip Bay in Victoria, Australia, covers in all an area of about 90 square miles of water and foreshore. From small beginnings the Port has grown to the extent that it now ranks (in respect of tonnage of goods handled) as one of the leading ports of Australia, total trade for the year ending 31st December 1967 being 6,823,254 tons.

Approach to the modern berthing facilities situated on the western foreshore and completely protected from any wave action, is by way of 16 miles of approach channels, 400 feet wide, which provide a depth of 36 feet at low water.

The major portion of the trade of the port is in goods of a crude oil, phosphatic rock, sulphur, potash, sulphate of ammonia, coal, pig iron, alumina, steel and petroleum coke and pitch whilst the principal items of exports are refined oils, wheat, wool, oats, barley, scrap iron, frozen meat, butter, motor vehicles, explosives and aluminium products.

The port administration is carried out by the Geelong Harbor Trust Commissioners whose autonomous powers are bestowed upon them by the Government of the State of Victoria by medium of the Geelong Harbor Trust Act. In addition to the usual services provided by harbor authorities, the Commissioners operate both tug and mooring launch services within the port.

| Port | Major Commodities |
|---|---|
| Tumby Bay | Wool, cement, grains, general |
| Wallaroo | Wheat, phosphate, barley |
| Whyalla | Iron ore, coke, pig iron |
| Port Augusta | Copper conc., salt. |
| **WESTERN AUSTRALIA** | |
| Fremantle | All Cargoes |
| Kwinana | Oil and petroleum products, steel |
| Broome | Pearl-shell, meat |
| Busselton | Timber |
| Carnarvon | Wool, sheep |
| Derby | Fuel, oil, meat, wool |
| Dampier | Iron ore |
| Esperance | Petroleum products, gypsum, copper conc., wheat |
| Geraldton | Phosphate, petroleum, wheat, ores, flour, wool |
| Onslow | Wool |
| Point Sampson | General, asbestos, wool |
| Port Hedland | Iron ore, manganese, general, wool |
| Wyndham | Meat |
| Yampi | Iron ore |
| Albany | Phosphate, petroleum, wheat, barley, wool, fruit, Whale Oil |
| Bunbury | Phosphate, petroleum, timber, wheat, mineral sand, general |
| **TASMANIA** | |
| Bell Bay | Aluminium, General Cargo |
| Hobart | All cargoes |
| Launceston | General, fruit, all purpose |
| Devonport | Oil, fruits, preserved vegetables, confectionary |
| Ulverstone | Timber, potatoes |
| Burnie | Paints, etc., silver-lead, butter, paper manufactures |
| Currie (King Island) | General, sheep |
| Whitemark (Flinders Island) | General, sheep |
| Savage River | Palletised iron ore |
| Smithton | Asphalt, bitumen and pitch, grain |
| Stanley | Timber, vegetables |
| Strahan | Copper, coke |
| **NORTHERN TERRITORY** | |
| Darwin | All cargoes |

## Portland, Victoria

By reason of its particularly favoured position, the Port of Portland was designed to serve economically a vast area of two southern States of the Continent.

The port is located on Victoria's south-west coast, almost mid-way between the capital cities of Melbourne and Adelaide; is only a few miles distant from the main overseas and interstate shipping lanes, and has unimpeded access right to the entrance of a 250 acre harbor basin.

Construction of an all-weather deep sea harbor at Portland was the outcome of an extensive State Government Inquiry at the close of the Second World War.

Since that time some $20 million have been spent on the design and construction of one of the most modern and compact ports on the Australian coast; one which is fast becoming the focal point through which the produce and requirements of a rich hinterland are flowing in ever-increasing volume.

While the port was designed primarily to service the needs of a predominantly rural area, current planning also embraces the needs of secondary industry now establishing in the district.

When the first stage of harbor development was completed at the end of 1960, annual port trade amounted to 183,765 tons. This figure has increased to a peak of 446,678 tons, with a total of 750,000 tons being forecast for the current financial year.

## Ports and Harbors Branch, Public Works Department, Victoria

The Ports and Harbors Branch of the Public Works Department is the Port Authority responsible for the major Ports of Port Philip and Westernport and 11 minor outer Ports.

**Port Phillip** A continuous radio watch is maintained at Point Lons-

**Photo 1. Aerial view of part of Geelong looking South, showing International Harvester Company's Foundry and factory in the foreground, together with Corio Quay shipping berths. In the centre of picture may be seen the Corio Freezing Works and Abattoirs, the superphosphate works of Cresco Fertilizers, the huge storage silos and sheds of the Grain Elevators Board of Victoria, the Federal Woollen Mills, Pilkingtons safety glass works. The Commercial section of the city may be seen in the middle background with residential areas surrounding.**

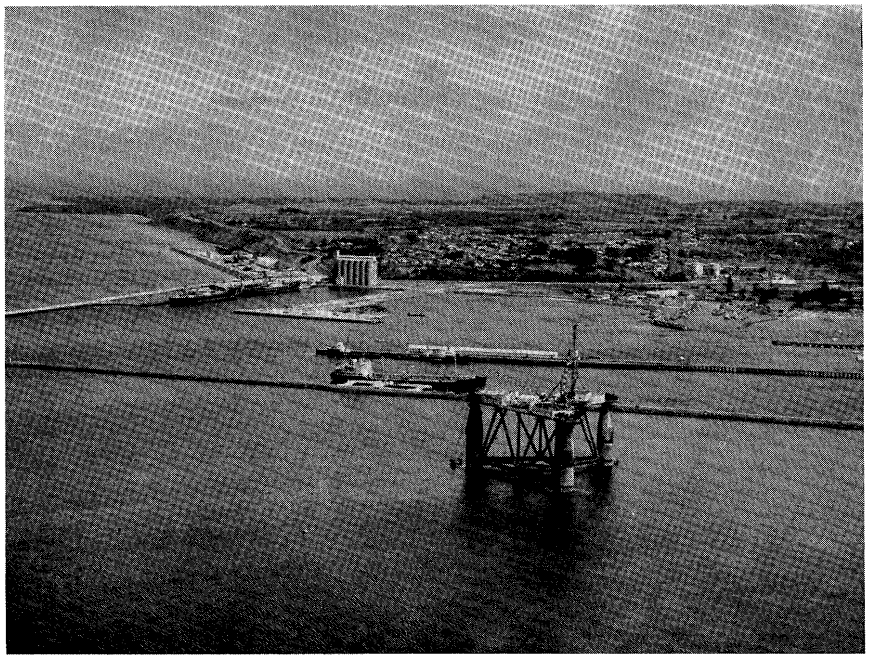

**Photo 2. Aerial View of the Harbor Basin at Portland, Victoria**

dale signal station at the western Head of the 1¾ mile-wide entrance to Port Phillip Bay, known as the "Rip". Channels up to 48 feet deep, blasted through the rocky "Rip Bank", permit vessels of 38 feet draught to navigate the strong currents and heavy seas from the Southern Ocean.

Of the two channels maintained by dredging through extensive sand banks in the southern part of the 725-square mile Bay, the South or main channel, leading to Melbourne and Geelong, is the larger. Its declared depth will shortly be increased from 38 to 41 feet.

Pilotage is compulsory for the Port.

**Westernport** is located eastward of and adjacent to Port Phillip.

A two-berth oil terminal handling tankers up to 48 feet draught, together with modern port services, has recently been completed. A further large terminal, associated with off-shore oil discoveries, is under construction and planning for rapid expansion of this new port is in progress.

Pilotage is compulsory.

**Outer Ports** provide basic services for the fishing industry and some primary produce from Bass Strait islands. However Corner Inlet, east of Wilsons Promontory, is also utilized as the service port for off-shore oil development.

## Albany—Western Australia

Albany, the most southerly of Western Australia's ports and situated on a fine natural harbour, is the outlet for a very large and rich hinterland which produces grains, wool, cattle, fruit and dairy products. The port has a minimum depth of 33 feet at the wharf berths and approaches.

Port trade has increased in the past ten years from 299,000 tons to 693,000 tons in 1967/68 and will continue to grow at a fast rate. To cope with anticipated increases, a further 734 feet of berthage costing $1½ million is being constructed, the grain terminal is being extended at a cost of $4 million and additions to the woolstores will cost $1½ million.

Main imports during 1967/68 were 195,000 tons of fertiliser crudes and 93,000 tons of petroleum products. Exports included grains 341,500 tons, wool 76,908 bales, apples 130,000 bushels and whale oil 5,500 tons.

During this period 207 vessels of 1,732,550 tons gross register entered the port.

## Port of Bunbury—Western Australia

Increased bulk cargo activity has developed Bunbury into an important outlet for the beach sands industry in Western Australia.

Exports of this product comprising mainly ilmenite which is shipped in bulk in quantities of up to 20,000 tons is loaded at the rate of 1,000 tons per hour. Zircon, monazite, rutile and leucoxene is shipped in bags with small parcels of zircon in bulk.

Other export items comprise timber, grain, fruit and titanium dioxide.

Main import items are Phosphate rock, sulphur and petroleum products.

To match the industrial prospects which are under intensive investigation in the South-West of Western Australia a new $20,000,000 plan for the long-range development of a new 8 berth harbour at Bunbury has been adopted.

The new harbour will have a minimum depth of 36 feet and will be capable of accommodating ships up to 35,000 d.w.t. The location would provide easy road and rail access, mainly through open farm land and would avoid adding to traffic congestion now building up around the existing harbour.

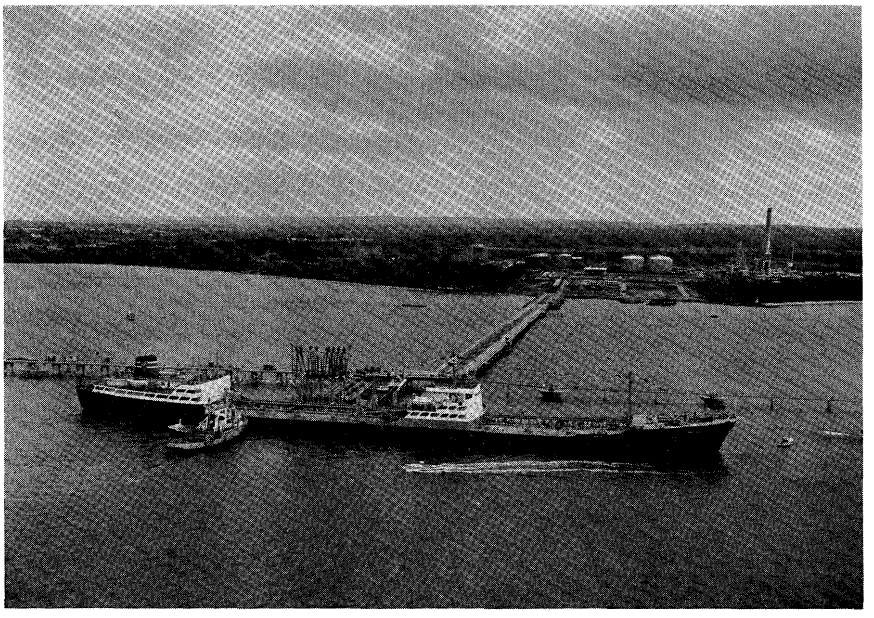

**Photo 3. The "British Power"—First crude oil vessel in western bay berthed on 29th July, 1966 at No. 1 Berth—Refinery Jetty Crib Point.**

**Photo 4. The Port of Albany, Western Australia**

## The Port of Hobart, Tasmania

Hobart, capital city port of the island State of Tasmania, is noted for its spaciousness and its great natural depths.

The present port area comprises 12 berths, two of which are equipped for roll on, roll off vessels which trade to Sydney and Melbourne. The port easily accommodates vessels like "Oriana" and "Canberra".

In the Huon area, in the apple-growing district, the Board has a concrete pier capable of accommodating two overseas vessels. Here there is also wharfage for the export of wood pulp.

Total trade of the Port is in excess of 1,750,000 tons per annum, the pricipal exports being fresh fruit (5 million bushels per annum) zinc, newsprint (from the only plant of its kind in Australia) timber, wool, wood pulp and general.

Future planning provides for the creation of a new port area where up to 400 acres of flat land are under acquisition.

## Port of Launceston Authority

To provide for industrial expansion, the Port of Launceston Authority is undertaking major improvements to the Lower Reaches of the River Tamar, where rock removal in isolated areas is underway and a large section of Garden Island, near George Town, is being removed. This is designed to provide for 38′ draft shipping, with tonnages of 55,000 gross tons, by 1970/71. The industrial expansion is opening up more of the Bell Bay area.

Some 18 years ago, Bell Bay was

**Photo 5. The Port of Hobart, Tasmania**

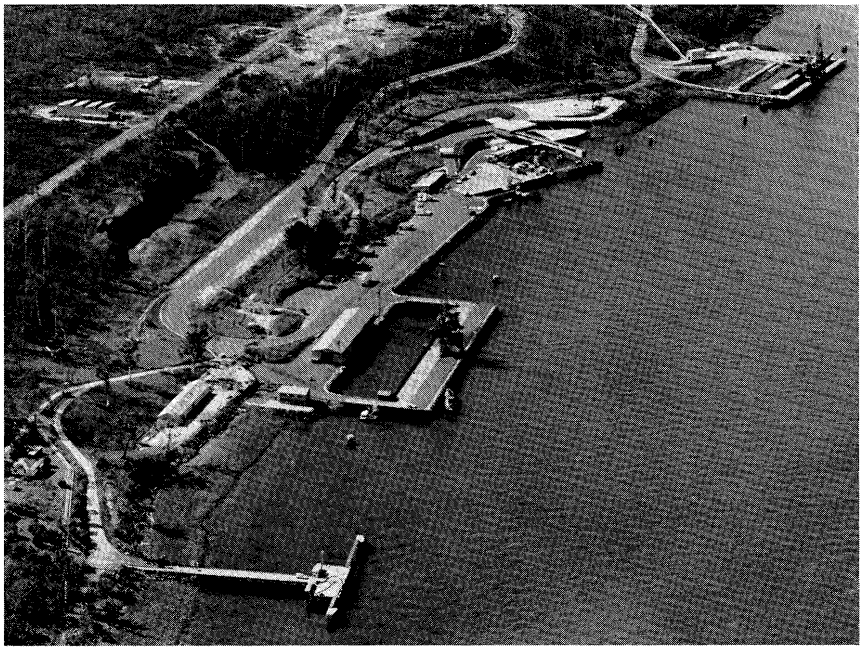

**Photo 6. Bell Bay Wharves, the Port of Launceston Authority, Tasmania**

unknown as a Port, most of the trade passing over the Launceston wharves. Whilst cargo tonnages have greatly increased over the past few years, the Lower Reaches berths at Bell Bay, now cater for over 80% of the total imports to the Port of Launceston. With the aid of such industries as Comalco, Temco and Oil installations in addition to the ferry container terminal, the future of Bell Bay is assured as a deepwater Port.

## The Port of Devonport

The Port of Devonport is operated by the Marine Board of Devonport, which like other Tasmanian Ports is an autonomous body under the control of the State Marine Act.

The Port serves a rapidly expanding production of primary and secondary industries including fruit growing, frozen and canned vegetables, dairy and agricultural products, cement production, textiles, carpet manufacturing and other industries.

Devonport has been a strategic loading and discharge port for container and roll-on roll-off unit load cargoes since 1959, when it was chosen as the Tasmanian Terminal for the "Princess of Tasmania", the first passenger/vehicular ferry to operate in Australia.

The experience gained in that operation was complemented when, in 1961, Devonport was also scheduled as a regular port of call for the roll-on, roll-off cargo ship "Bass Trader".

Construction of a second vehicular-container wharf, which will also be a general purpose berth, planned by the Board for common usage, has already started and is to be completed in 1969. It will be completed before a further Melbourne-Tasmania ferry "Australian Trader" us due to enter the Searoad service early 1970.

The Port handled in 1968—982,-037 tons of cargo, an all time record for the Port. Devonport's passenger traffic by sea increased to 88,102 people in 1968, and this figure is approximately 43 per cent of the total number of passengers who disembarked at the Port of Melbourne.

In the same year Devonport handled 22,822 tourist cars and 6,339 commercial vehicles. The roll-on, roll-off service between Melbourne and Devonport has carried some two million tons of cargo to June 30th this year, while more than 450,000 passengers have travelled the Searoad as visitors to and from the Island State.

Devonport's bulk Cement Silos and loading terminal are the first to be completed in Australia. Sea transport of cement in bulk has been carried out successfully in the United States and Europe.

Devonport currently claims the fastest growth rate of any centre in Tasmania, outside Hobart, and increasing industrial expansions, coupled with ever-growing agricultural production, give some support to its claim that the town is the future capital of the North.

## The Port of Burnie

Tasmania's major North-West gateway, the Port of Burnie, shows

a continuing upward trend in figures recently released for the 1967~68 financial year.

A record number of 550 vessels (gross tonnage 2,552,797 tons) discharged 471,848 tons of inward cargo and loaded 405,192 tons for interstate and overseas ports.

A progressive multi-million-dollar programme of expansion and improvement of port facilities since 1959 has been more than justified by the spectacular increase in port traffic during the past decade, and "all systems go" appears to be the watchword for the next ten years.

Perhaps the most significant factor in the rapid advancement of the port was the foresight of the Marine Board of the fifties, who by purchase and reclamation created a large industrial estate within two miles of the port.

Bulk petroleum terminals, transport operators, steel fabricators and wood products manufacturers are already established on the estate and the Electrolytic Zinc Coy. of Australasia Ltd., has recently announced plans to establish a $14,000,000 sulphuric acid plant on part of the remaining estate area.

This operation, together with the plan to double output from the company's mine at Rosebery, is expected to increase port trade by about 50%.

The added revenue will enable the Burnie Marine Board to speed up the provision of additional facilities—the first stage of which (now under construction) will provide another roll-on roll-off terminal with ultra modern amenities for passengers.

The new terminal is expected to be in operation by the end of March, 1969.

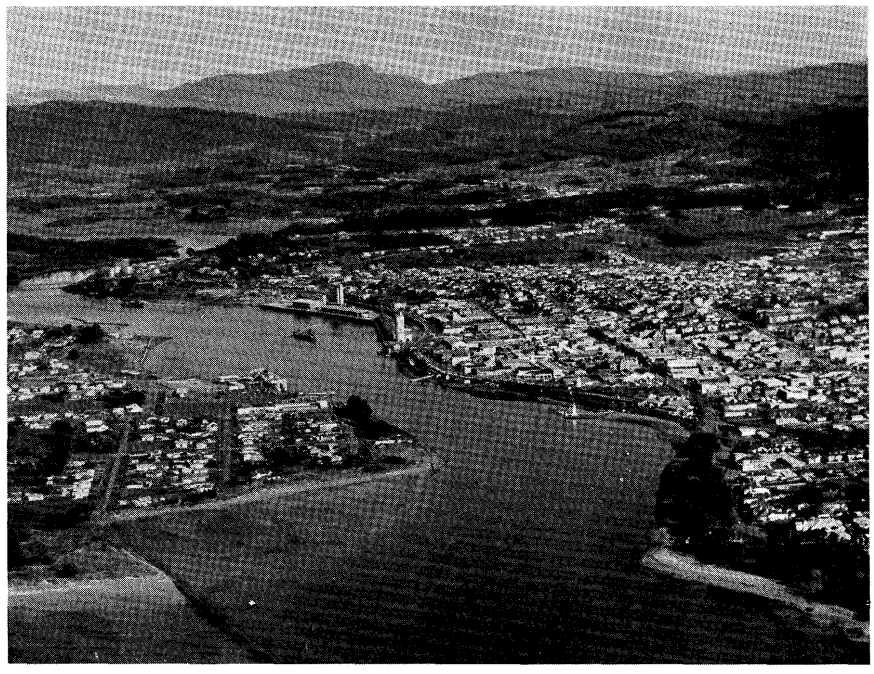

**Photo 7. The Port of Devonport, Tasmania**

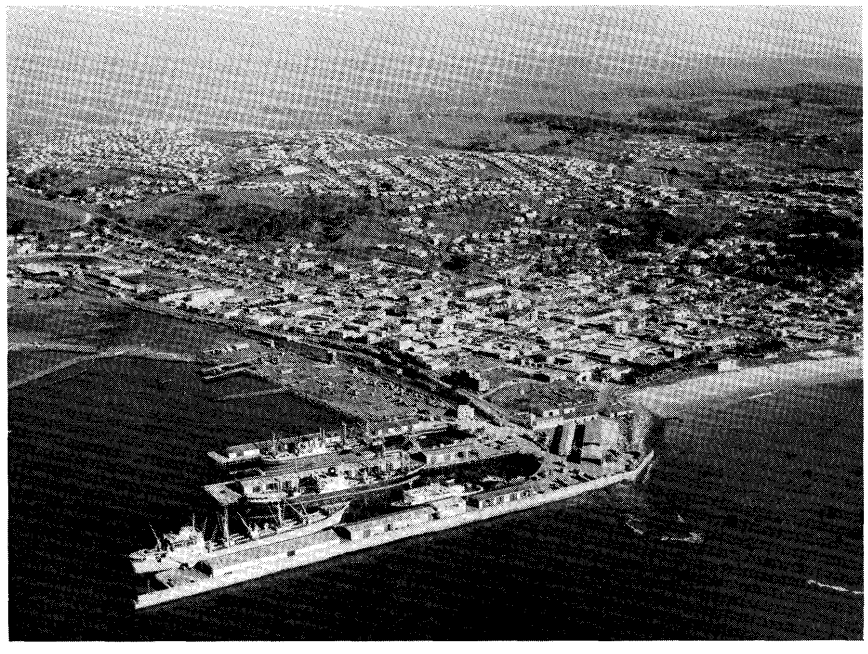

**Photo 8. Port of Burnie, Tasmania showing portion of rapidly expanding wharf area with City of Burnie in background.**

## The Major Ports of Papua and New Guinea

The major ports of Papua and New Guinea are, firstly, Port Moresby, Lae, Madang and Rabaul, and to a lesser extent, Kavieng and Samarai. These ports have been under the control of the Papua and New Guinea Harbours Board since the 1st May, 1967. Previously, they, in common with a number of minor ports, were operated by the Government of the Territory.

The Papua and New Guinea Harbours Board is a corporate body, set up under the Papua and New Guinea Harbours Board Ordinance 1963~68. It did not become an effective organisation until May, 1966 when the Ordinance was partially brought in to force and after a period of preparation, it took over control of the six ports to which reference has been made, from the 1st May, 1967, placing in each its own staff. On the 1st January, 1968, the Board achieved financial independence from the Government and at the same time the membership was enlarged.

The Board consists at present of Captain G. A. Hawley as Chairman, and Messrs. Goodsall, Underwood, Wilson and Ovia as the other members. With effect from 1st January, 1968, the Board assumed full financial responsibility for the operation (**Continued on Next Page Bottom**)

# *Industrial Land Reclamation Project for Construction of The Kimitsu Steel Works*


## By Dr. Mineo Nakamichi

*Executive Vice President*

*Japan Industrial Land Development Co., Ltd.*


Dr. Mineo Nakamichi

**Foreword:**

Based upon its original plan to build a gigantic steel mill equipped with 2 furnaces, capable of producing 4.5 million tons of crude steel per year through process system, Yawata Iron and Steel Company, Ltd. has launched on the construction of a land of nearly 5 million square meters by reclaiming from the sea in front of Kimitsu-Machi, Chiba Prefecture, in Tokyo Bay, consigned by the prefectural government. (See Fig.—1)

Japan Industrial Land Development Co., Ltd., was successful in the award of contract for the whole reclamation work, and completed it within the contract term.

The total contract price for the project was approximately 23 million U.S. Dollars.

The following table shows the main features of the work done by the said company. (See Table—1, Fig.—2, Photo—1)

Of the above 3 phases of work, the 3rd stage work was the largest and the most urgently required project, which involved 36,170,000 cubic meters of material for reclamation.

This enormous amount of work was completed by the said contractor company in as short a period as 6 months between March and August 1967. At the peak of operation, it recorded a per day production of 350,000 cubic meters (36,400 $m^2$ of area), the largest ever known in the history of dredging in the world.

Details of the 3rd stage work are given below:

### 1. Main Features of the 3rd Stage Work:

**(1) Short Contract Term:**

A project for dredging 36,170,000 cubic meters of material within 6 months will not be found in the record of the dredging, and the mobilization of a sufficient number of large type dredgers was a matter of absolute necessity. Thus, 22 dredgers with total capacity of 105,000 HP, were employed on this project, which accounted for almost half of the total number of large type dredgers of Japan—48 in number and 232,000 HP in capacity (each over 4,000 HP).

**(2) Division of work in accordance with owner's requirements:**

The land to be reclaimed was divided into 18 blocks based on the plant construction schedule of the owner, who set the order of the work and the completion date of each block.

This particular requirement made it impossible for the contractor to follow conventional filling method of first back-filling the circumferential revetment and then continue filling operation from one point toward a spillway.

This fact posed many undesirable problems such as repeated movements of discharge line, low settling rate of dredged soil, instability of revetments, etc., which had to be and were

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of the ports under its control and for the implementation of capital works in progress and future planning and development.

Briefly, the facilities at the ports are as follows:—

| Port | Wharf Length | Draught | Transit Shed Area | Open Storage Area |
|---|---|---|---|---|
| Port Moresby | 700 ft. | 28 ft. | 25,600 sq. ft. | 61,400 sq. ft. |
| Lae | 800 ft. | 30 ft. | 31,400 sq. ft. | 130,000 sq. ft. |
| Madang | 300 ft.<br>450 ft. | 25 ft.<br>31 ft. | 40,000 sq. ft. | 120,000 sq. ft. |
| Rabaul | 300 ft.<br>400 ft. | 30 ft.<br>28 ft. | 57,000 sq. ft. | 50,000 sq. ft. |

The total tonage handled over the Board's wharves in the financial year 1967~68 was 859,000 tons excluding bulk oil which amounted to 100,000 tons.

Developments in progress include the extension of transit shed area at Port Moresby and Lae and the construction of a new 500ft. wharf at Rabaul.

Future plans envisage the extension of the Port Moresby and Lae Wharves.

overcome.

(3) **Plant Construction and Filling Operation:**

Immediately upon completion of the reclamation of a block, construction of workshop was taken up. For these two phases of work to go together, it was necessary to secure right of way for transportation and to establish preventive measures against overflow and leakage.

## 2. Circumferential Revetment:

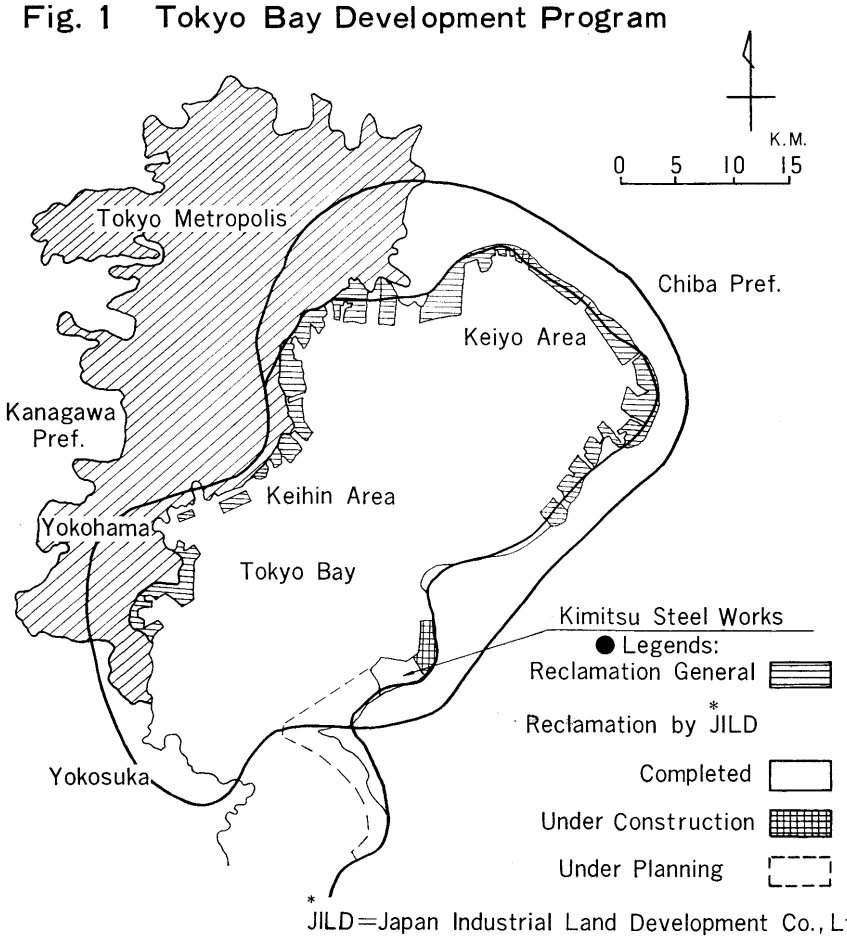
Careful studies were made before deciding the type and size of the revetment with a view to expedite completion, minimum cost, and with utmost safety.

In view of the urgency of the contract terms, rubble stone and corrugate cell were chosen as meeting with the abovesaid requirements, and the revetment was build in 2,007 meters of rubble mound and 2,573 meters of corrugate cells. The sand stone of Chiba Prefecture used in construction of the rubble work was 420,000 cubic meters in bulk which was the maximum quantity available at that time.

A portion of the area which was to be used as landing place was reinforced with steel sheet piles to the length of 380 meters.

Locations of these revetment structures are shown in Fig.—2, cross section of corrugate cell in Fig.—3.

Fig. 1 Tokyo Bay Development Program




**Table—1**

| Description | Size | Work Period | Remarks |
|---|---|---|---|
| 1st Stage Reclamation | 473,000m² | | |
| Wooden Reventment | 1,830m | Mar. 31–May 10, 1965 | |
| Production | 1,730,000m³ | May 11–July 31, 1965 | by Kokuei - Maru No. 2 |
| 2nd Stage Reclamation | 982,000m² | | |
| Wooden Revetment | 2,389m | Apr. 10–May 30, 1966 | |
| Production | 2,980,000m³ | May 31–Apr. 3, 1967 | by Kokuei - Maru No. 2 and other dredgers |
| 3rd Stage Reclamation | 3,270,000m² | | |
| Steel Sheet Pile Revetment | 380m | July 31–Nov. 11, 1966 | |
| Rubble Mound Revetment | 2,007m | July 31, 1966–Apr. 30, 1967 | |
| Corrugate Cell Revetment | 2,573m | July 16, 1966–May 18, 1967 | |
| Production | 36,170,000m³ | Mar. 5–Aug. 31, 1967 | by Kokuei - Maru No. 2, Kokuei-Maru and 20 other dredgers |
| Total | 4,725,000m² | | |
| Revetment | 9,179m | | |
| Production | 40,880,000m³ | | |

## 3. Dredging and Reclamation:

Reclamation work schedule was decided in accordance with the priorities of plant construction schedules. The required quantity for reclamation was determined basing on reclamation height of 3.5 meters and 83% yield rate.

Water depth at the borrow area was between −7 meters and −10 meters. Materials to be dredged consited of middle class silty sand, which included some soft silt and consolidated hard clay. Discharge line was about 2,000 or 3,000 meters. From April to August, the weather is usually favorable.

Based on these pieces of information and construction requirements, it was finally judged that mobilization of approximately 100,000 HP in total of the large type dredgers would be required for completion of the whole work within the specified term. Thus, the final plan was decided on the use of 22 large type dredgers, including the Kokuei-Maru No. 2 and the Kokuei-Maru owned by the contractor. (8,000

**(Continued on Page 20)**

**Photo: 1 Aerial View of Reclamation Work under Progress for Kimitsu Steel Works.**

**Table—2**

**Main Particulars of Kokuei-Maru**

| | |
|---|---|
| Built by | Mitsubishi Heavy Industries Ltd. Hiroshima Shipyard At April 15, 1964 |
| Length | |
| Over all | About 114.00 m |
| Between perpendiculars | 72.59 m |
| Breadth (moulded) | 17.50 m |
| Draft | 3.10 m |
| Displacement tonnage | About 3,600 t |
| Normal dredging capacity | |
| Hard ground | 1,500 $m^3/h$ |
| Soft mud | 2,000 $m^3/h$ |
| Discharge length | |
| Normal | 6,000 m |
| Maximum | 8,000 m |
| Dredging depth (Ladder angle 45) | About 30 m |
| Dredging pump | |
| Maker | Mitsubishi Heavy Industries, Ltd. Hiroshima Shipyard & Engine Works |
| Dredging pump motor | About 6,000 kW (8,000 PS) |
| Diameter of suction pipe | 915 mm |
| Diameter of discharge pipe | 760 mm |
| Jet pump | |
| Pump motor | 750 kW (1,000 PS) |
| Cutter | Five blades, Cutter motor 1,500 kW |
| Winch for ladder and swing | 60 t × 25 m/min., Winch motor 260 kW |
| Winch for spud and Christmas tree | 38 t × 25 m/min., Winch motor 140 kW |
| Main generator | Mitsubishi-Escher Wyss impulse steam turbine 6,600 V<br>Three phase A.C. 1 set<br>Maximum continuous 12,650 kW<br>Normal 11,500 kW |
| Main boiler | Mitsubishi Hiroshima-CE sectional water tube boiler 1 set<br>Normal pressure 44 $kg/cm^2g$<br>Steam temperature 440°C<br>Maximum continuous rating 55.3 t/h |

(Continued from Page 17)

HP each)

In actual execution of the dredging plan, the arrangement of these dredgers was based on the principle of the right dredger in right place in accordance with the nature of materials, the lengths of pipe line, and the digging depths, etc., so that each dredger will give its full play to its capacity.

The total work resulted in the following:

(1) Yield rate dropped 3% to 80% due to the fact that the work schedule had to be followed in accordance with plant construction schedule and that this was not a reclamation of ordinary nature.

Consequently, dredged quantity went up 10% over the original schedule.

(2) Unit dredging capacity and per day dredging hours went up 10% over the original schedule due to favorable weather and other conditions.

**In Closing:**

Thus far explained is the outline of the land reclamation work for construction of the Kimitsu Steel Works.

It is regrettable that more details can not be furnished in this report as the contractor was still in the process of collecting data at the time of writing this report.

For information to the reader of this report, an outline of the suction dredger the Kokuei maru No. 2 owned by the contractor has been attached hereto in the hope that it will facilitate the reader to comprehend the outcome of the work done for the subject project. (See Table—2, Photo—2, attached)

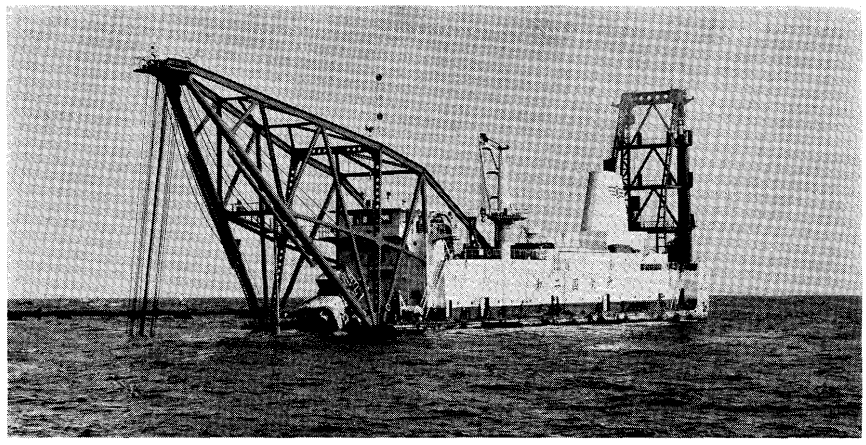


**Photo: 2 The Kokuei-Maru No. 2 in Operation**

## Fig. 2 General Plan of Land Reclamation Project for the Kimitsu Steel Works

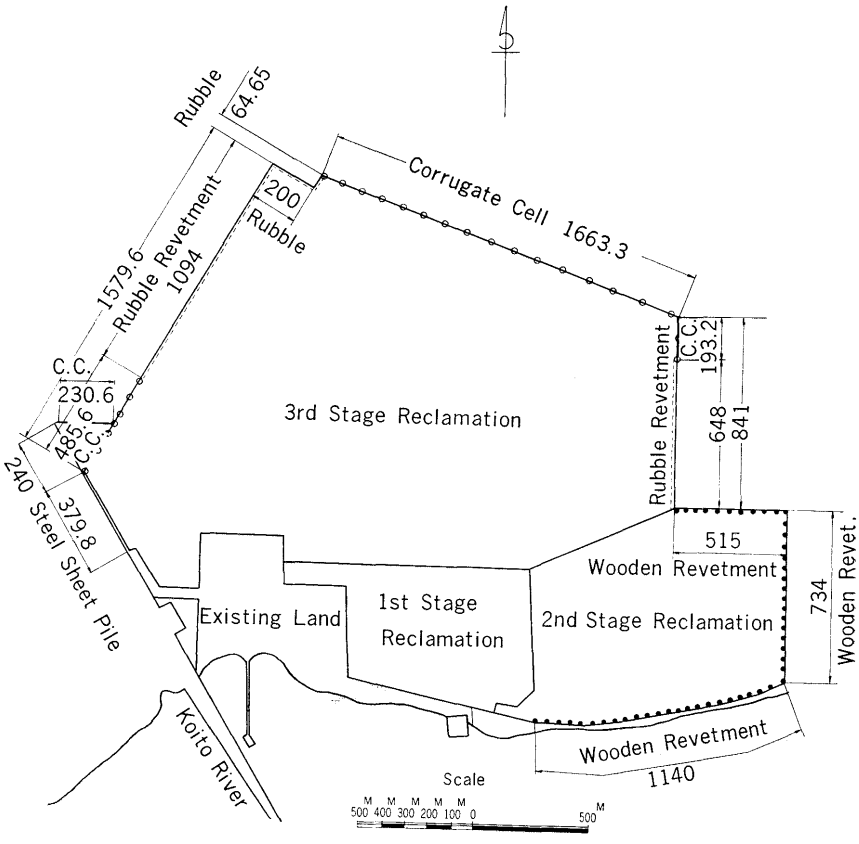
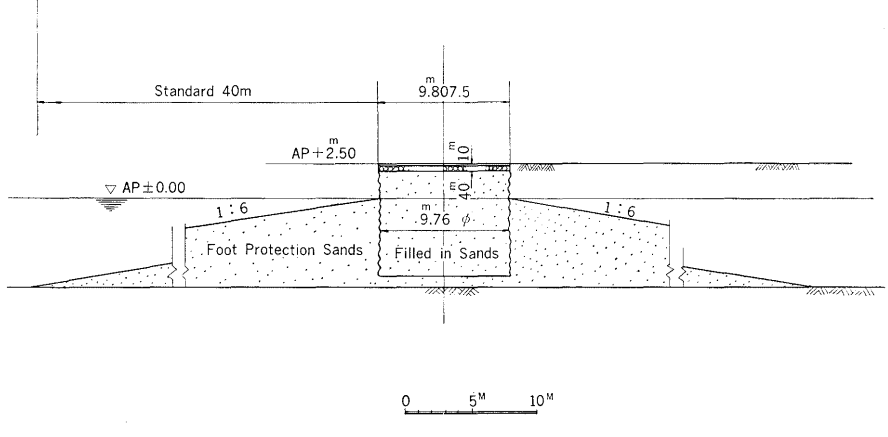



Fig. 3 Standard Cross Section of Corrugate Cell Type Revetment



# *International Transport 1967*

**By Ir. F. Posthuma**
**Drs. J. M. C. Hagenaar**
**J. C. van Oostenrijk**

*(Rotterdam Europoort Delta 1968 No. 2)*

**Sea-Going Shipping**

The 30,000th ship to enter the port of Rotterdam-Europoort last year arrived on the 22nd December 1967. This is the first time in the history of the port this number has been achieved. During the remaining days of 1967, this figure increased to 30,671 which compared with 1966 represented an increase of 8%. The tonnage of the seagoing ships which arrived here in 1967 rose by 6% from 79.7 million N.R.T. in 1966 to 84.3 million N.R.T. in 1967. It is striking that the increase-percentage of the total shipping tonnage was lower than that of the number of ships. This development differs entirely from the picture of recent years.

The increase in the number of ships, which in the year under review was 2,319, was made up of 1,485 ships smaller than 500 B.R.T. (coasters) and 834 ships of more than 500 B.R.T. The exceptionally high increase in the number of coasters can partly be ascribed to the growing significance of Rotterdam-Europoort as the distribution centre for Northwest Europe.

The average net register tonnage of the ships larger than 500 B.R.T. rose from 4,419 N.R.T. in 1966 to 4,450 N.R.T. in 1967. A more clearer picture of the development in shipping can be gained from the survey of ships entered drawing more than 10.49 metres (Table I).

The total number of these ships amounted to 1,355 in 1967. Compared with 1966, this is an increase of 11%. Considerable changes also took place in this group of very large units. In 1965, only one ship entered the port with a draught of more than 15.08 metres. In 1966, the figure was 7 and in 1967 the figure had already reached 35. Of the 1,355 ships mentioned, 462 had dry cargoes; 295 were or carriers, 96 grain ships, 54 coal ships and 17 ships with other dry cargo.

The tankers belong to the ships with the very largest draught. Although the tankers lead the way in the tonnage development in shipping, it should be realised that the "Europe Channel" is also of growing importance to bulk carriers.

The number of sailings in line-shipping rose during the year under review to 12,463.

The shifting of activities from the harbours lying further inside the port to the harbours situated closer to the sea continued during 1967.

**Goods Transport By Sea**

International seaborne goods transport at Rotterdam in 1967 amounted to 141.4 million tons. Compared with 1966, this represents an increase of 8%. The increase-percentage in 1967 was 2% higher than that of the previous year. The growth during the year under review was even higher than the trend of the years 1958-1966.

The relatively strong position held by Rotterdam is shown clearly when comparing the goods-transhipment at Rotterdam in 1967 with that of the other large seaports in the E.E.C. area (Table II). The port activity in the northerly group of ports during 1967 dropped by 1%. The total activities of the southerly group of ports in 1967 was up by 7% compared with the previous year. The total amount of goods transhipped in the northerly group in 1965 was still 33.4 million tons more than in Rotterdam alone. During the years 1966 and 1967 this lead had, however, fallen to 16 million tons. This would seem to show that Rotterdam's position has considerably improved.

The growth of activities in the ports of the northerly group has for some time lagged behind that of the southerly group of ports. Of the northerly group, Emden booked an increase of 5% in the year under review. The decline which has been experienced there in successive years has been brought to a halt. Activities in the ports of Amsterdam and Wilhelmshaven both fell by 2% in 1967. Goods transhipment at Antwerp (+2%) and Bremen (+1%) showed a slight improvement during 1967. It must be pointed out, however, that 1966 was a relatively unfavourable year for Bremen (compared with 1965).

The development in the port of Hamburg is striking. The activities there dropped by no less than 6%, from 37.5 million tons in 1966 to 35.4 million tons in 1967.

The 7% growth of goods transhipment in the ports of the southerly group was the result of the highly increased activities in the ports of Genoa (+16%) and Le Havre (+22%). The increase-percentage of both these ports is considerably higher than that of Rotterdam (+8%).

Despite this, the absolute growth of seaborne goods transport at Rotterdam was much stronger than that of Genoa or Le Havre. The absolute growth at Rotterdam in 1967 appears to be almost as big as the total year's activities in ports like Emden, Nantes or Rouen. The very high increase-percentages at Le Havre and Genoa are undoubtedly linked with the growth of the industrial areas which are served by these ports. Goods transhipment at Marseilles, which increased sharply up to 1966 mainly because of the flow of crude oil, was followed in 1967 by a 2% drop.

It is particularly pleasing to note that the growth of activities at Rotterdam has taken place all along the line.

**General Cargo Transport**

Compared with 1966, general cargo transport increased last year

**(Continued on Page 23)**

## ROTTERDAM - EUROPOORT

TABLE I

## NUMBER OF SEA-GOING VESSELS ENTERED AND CLEARED DRAWING > 34'6" = 10.49 m

| DRAUGHT | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | DRAUGHT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 34'6"—35' | 155 | 135 | 180 | 152 | 123 | 163 | 170 | 157 | 134 | 119 | 10.49—10.67 m |
| 35' —35'6" | 27 | 39 | 57 | 30 | 18 | 22 | 29 | 23 | 21 | 17 | 10.67—10.82 m |
| 35'6"—36' | 34 | 60 | 110 | 92 | 52 | 48 | 52 | 73 | 62 | 64 | 10.82—10.97 m |
| 36' —36'6" | 14 | 32 | 57 | 82 | 94 | 109 | 130 | 96 | 118 | 95 | 10.97—11.12 m |
| 36'6"—37' | 8 | 20 | 23 | 79 | 121 | 164 | 142 | 132 | 132 | 96 | 11.12—11.28 m |
| 37' —37'6" | 1 | 3 | 14 | 30 | 23 | 26 | 29 | 14 | 24 | 21 | 11.28—11.43 m |
| 37'6"—38' | 1 | 9 | 10 | 33 | 65 | 61 | 71 | 69 | 67 | 57 | 11.43—11.58 m |
| 38' —38'6" | — | 7 | 11 | 37 | 55 | 78 | 139 | 116 | 115 | 105 | 11.58—11.73 m |
| 38'6"—39' | — | 3 | 5 | 27 | 44 | 42 | 85 | 110 | 134 | 142 | 11.73—11.89 m |
| 39' —39'6" | — | 1 | — | 3 | 5 | 14 | 12 | 50 | 41 | 39 | 11.89—12.04 m |
| 39'6"—40' | — | — | — | — | 6 | 6 | 4 | 10 | 14 | 17 | 12.04—12.19 m |
| 40' —40'6" | — | — | — | 2 | 15 | 7 | 10 | 32 | 62 | 85 | 12.19—12.34 m |
| 40'6"—41' | — | — | — | — | 1 | — | 2 | 15 | 13 | 29 | 12.34—12.50 m |
| 41' —41'6" | — | — | — | 1 | 1 | 2 | 4 | 11 | 36 | 58 | 12.50—12.65 m |
| 41'6"—42' | — | — | — | — | — | 1 | 8 | 7 | 24 | 16 | 12.65—12.80 m |
| 42' —42'6" | — | — | — | 3 | 6 | 5 | 13 | 20 | 29 | 52 | 12.80—12.95 m |
| 42'6"—43' | — | — | — | — | 6 | 4 | 12 | 9 | 11 | 37 | 12.95—13.10 m |
| 43' —43'6" | — | — | — | — | 8 | 8 | 13 | 24 | 8 | 48 | 13.10—13.25 m |
| 43'6"—44' | — | — | — | — | — | 3 | 6 | 8 | 9 | 32 | 13.25—13.41 m |
| 44' —44'6" | — | — | — | — | — | 1 | 4 | 14 | 14 | 44 | 13.41—13.56 m |
| 44'6"—45' | — | — | — | — | 5 | 3 | 4 | 3 | 6 | 8 | 13.56—13.71 m |
| 45' —45'6" | — | — | — | — | 5 | 6 | 13 | 10 | 12 | 23 | 13.71—13.86 m |
| 45'6"—46' | — | — | — | — | 2 | 6 | 11 | 16 | 18 | 12 | 13.86—14.02 m |
| 46' —46'6" | — | — | — | — | 4 | 9 | 8 | 11 | 23 | 25 | 14.02—14.17 m |
| 46'6"—47' | — | — | — | — | 1 | 8 | 3 | 9 | 18 | 9 | 14.17—14.32 m |
| 47' —47'6" | — | — | — | — | — | 7 | 7 | 18 | 25 | 19 | 14.32—14.47 m |
| 47'6"—48' | — | — | — | — | — | 2 | 8 | 7 | 14 | 7 | 14.47—14.63 m |
| 48' —48'6" | — | — | — | — | — | 2 | 2 | 7 | 12 | 24 | 14.63—14.78 m |
| 48'6"—49' | — | — | — | — | — | — | — | 1 | 6 | 12 | 14.78—14.93 m |
| 49' —49'6" | — | — | — | — | — | — | — | 1 | 6 | 8 | 14.93—15.08 m |
| 49'6"—50' | — | — | — | — | — | — | — | 1 | 5 | 6 | 15.08—15.24 m |
| 50' —50'6" | — | — | — | — | — | — | — | — | 1 | 10 | 15.24—15.39 m |
| 50'6"—51' | — | — | — | — | — | — | — | — | — | 10 | 15.39—15.54 m |
| 51' —51'6" | — | — | — | — | — | — | — | — | 1 | 6 | 15.54—15.69 m |
| 51'6"—52' | — | — | — | — | — | — | — | — | — | 2 | 15.69—15.85 m |
| 52' —52'6" | — | — | — | — | — | — | — | — | — | 1 | 15.85—16.00 m |
| 52'6"—53' | — | — | — | — | — | — | — | — | — | — | 16.00—16.15 m |
| 53' —53'6" | — | — | — | — | — | — | — | — | — | — | 16.15—16.31 m |
| 53'6"—54' | — | — | — | — | — | — | — | — | — | — | 16.31—16.46 m |
| 54' —54'6" | — | — | — | — | — | — | — | — | — | — | 16.46—16.61 m |
| 54'6"—55' | — | — | — | — | — | — | — | — | — | — | 16.61—16.76 m |
| 55' —55'6" | — | — | — | — | — | — | — | — | — | — | 16.76—16.92 m |
| 55'6"—56' | — | — | — | — | — | — | — | — | — | — | 16.92—17.07 m |
| 56' —56'6" | — | — | — | — | — | — | — | — | — | — | 17.07—17.22 m |
| 56'6"—57' | — | — | — | — | — | — | — | — | — | — | 17.22—17.37 m |
| 57' —57'6" | — | — | — | — | — | — | — | — | — | — | 17.37—17.53 m |
| 57'6"—58' | — | — | — | — | — | — | — | — | — | — | 17.53—17.68 m |
| 58' —58'6" | — | — | — | — | — | — | — | — | — | — | 17.68—17.83 m |
| 58'6"—59' | — | — | — | — | — | — | — | — | — | — | 17.83—17.98 m |
| 59' —59'6" | — | — | — | — | — | — | — | — | — | — | 17.98—18.14 m |
| 59'6"—60' | — | — | — | — | — | — | — | — | — | — | 18.14—18.29 m |
| 60' —60'6" | — | — | — | — | — | — | — | — | — | — | 18.29—18.44 m |
| 60'6"—61' | — | — | — | — | — | — | — | — | — | — | 18.44—18.59 m |
| 61' —61'6" | — | — | — | — | — | — | — | — | — | — | 18.59—18.75 m |
| 61'6"—62' | — | — | — | — | — | — | — | — | — | — | 18.75—18.90 m |
| 62' —62'6" | — | — | — | — | — | — | — | — | — | — | 18.90—19.05 m |
| 62'6"—63' | — | — | — | — | — | — | — | — | — | — | 19.05—19.20 m |
| 63' —63'6" | — | — | — | — | — | — | — | — | — | — | 19.20—19.35 m |
| 63'6"—64' | — | — | — | — | — | — | — | — | — | — | 19.35—19.50 m |
| total | 240 | 309 | 467 | 571 | 660 | 807 | 991 | 1074 | 1215 | 1355 | |

from 19.8 million tons by 14% to 22.5 million tons. General cargo arrivals in 1967 amounted to 13.4 million tons, which was 3% more than the previous year. Of the general cargo arrivals, 6.1 million tons was for import and 7.3 million tons was incoming transit traffic. The growth in the amount of general cargo arrivals was almost entirely due to the increase in chemical products. General cargo departures rose by no less than 34% from 6.8 million tons in 1966 to 9.1 million tons in the year under review. The 9.1 million tons was made up of 3.7 million tons export and 5.4 million tons of outgoing transit traffic. The growth in outgoing transit of general cargo during 1967 (+50%) was considerably stronger than that of the export (+16%). Chemical products again dominated among the outgoing general cargo. With an increase of 24% in 1967, this group reached a volume of 1.1 million tons. The rise in the other outgoing general cargo was widely spread.

Under the outgoing transit of general cargo, iron and steel products dominated with 2.1 million tons in 1967. Compared with the 830,-000 tons transit traffic in 1966, this can be seen as a notable growth.

This explosive development is due to the sharp rise in German exports of iron and steel products via Rotterdam to Japan, China and the U.S.S.R., among others. Other goods which helped to push up the total of outgoing transit of general cargo were chemical products and machinery. The group of chemical products, which originated from the hinterland, rose by 21% from 1.1 million tons in 1966 to 1.3 million tons in 1967. The outgoing transit of machines amounted to 246,000 tons in 1967, which was 78,000 tons more than in 1966.

**Grain Transport**

Grain transport by seagoing ships at Rotterdam in 1967 reached a volume of 7.2 million tons. Compared with the result achieved in 1966, this represents a rise of 19%. The 7.2 million tons consisted of 6.1 million tons arrivals and 1.1 million tons departures. Under the arrivals was 1.5 million tons wheat mainly originating from: the U.S.A. 800,000 tons, Canada 300,000 tons and Argentina 120,000 tons. Of the 4.6 million tons discharged feed-grains, the maize arrivals of 3.5 million tons was the most important. No less than 2.6 million tons of the maize arrivals came from the U.S.A. Of the total grain arrivals at Rotterdam, 2.6 million tons was destined for import and 3.5 million tons for transit. In the year under review, the import was 11% up on 1966. The rise in transit traffic amounted to 20%. Of the transit grain in 1967, 2.4 million tons was transported to the hinterland by inland-shipping, of which Germany 1,614,000 tons, Belgium 320,000 tons, France 187,000 tons and Switzerland 239,-000 tons.

The remainder of the grain destined for transit was transhipped into smaller seagoing ships and transported to the United Kingdom and Scandinavia. The absolute growth of the transit to the continental hinterland was almost the same as that to overseas destinations.

**Ore Transport**

Ore transport in 1967 reached a volume of 17.8 million tons. This amount was 11% higher than the results of the previous year. Ore transport at Rotterdam in 1967 again consisted almost entirely of arrivals, of which 176,000 tons was import and 17,240,000 tons transit. Of the ore destined for transit in the year under review, 340,000 tons was transhipped into smaller seagoing ships for destinations overseas. The majority of the ore transit was destined for the blast-furnaces in the hinterland.

In 1967, transit traffic was as follows: 15,983,000 tons to the German Federal Republic, 664,000 tons to the Belgian-Luxembourg Economic Union and 206,000 tons to France. Of the total amount of unloaded transit ore (17.2 million tons) in 1967, 13.9 million tons was iron ore. The arrivals of iron ore from African countries rose by only 100,000 tons to 5.3 million tons. Iron ore transit transport from European countries—almost exclusively Scandinavia—rose by 900,000 tons to 5.3 million tons in the year under review. Transit transport of Brazilian iron ore at Rotterdam rose from 372,000 tons in 1966 to 1,584,000 tons in 1967. The transport of iron ore from a number of less important supplier countries in America to Rotterdam dropped considerably in 1967. Canadian iron ore, which totalled 355,000 tons in 1967, only played a small role. During 1967, a considerable amount of Australian iron (414,000 tons) arrived at Rotterdam for the very first time. It is expected that the transport of Australian iron ore to Rotterdam will increase considerably in the next few years, partly due to the use of super bulk carriers.

The following survey clearly shows that ore transport to Rotterdam is making use of ever-increasing sizes

**Table II**

**Seaborne Goods Transport in a Number of Major Ports in the E.E.C. Area from Genoa to Hamburg**

| | 1965 | 1966 | 1967 | 1967 against 1966 |
|---|---|---|---|---|
| | in millions of tons | | | |
| a) Genoa | 34.0 | 39.1 | 45.5 | + 16% |
| Marseilles | 56.2 | 63.5 | 62.5 | − 2% |
| Bordeaux | 7.3 | 7.7 | 7.7 | − 1% |
| Nantes/St. Nazaire | 10.6 | 11.4 | 11.5 | + 1% |
| Rouen | 10.6 | 12.1 | 11.4 | − 5% |
| Le Havre | 28.0 | 30.8 | 37.5 | + 22% |
| Dunkirk | 1.3 | 16.5 | 17.0 | + 3% |
| Southerly ports group | 163.0 | 181.1 | 193.1 | + 7% |
| b) Antwerp | 59.4 | 58.7 | ± 60.0 | + 2% |
| Amsterdam | 13.9 | 14.5 | 14.3 | − 2% |
| Emden | 11.5 | 9.9 | 10.4 | + 5% |
| Wilhelmshaven | 18.5 | 30.3 | 19.9 | − 2% |
| Bremen | 17.5 | 17.3 | 17.4 | + 1% |
| Hamburg | 35.3 | 37.5 | 35.4 | − 6% |
| Northerly ports group | 156.1 | 158.2 | 157.4 | − 1% |
| c) Rotterdam | 122.7 | 130.4 | 141.4 | + 8% |
| d) Total group a+b+c | 441.8 | 469.7 | 491.9 | + 5% |

of ore carriers:

**Ore arrivals at Rotterdam according to ships size**

| Size of ore carriers | 1957 | 1966 | 1967 |
|---|---|---|---|
| up to 12,800 tons | 65.8% | 5.6% | 3.2% |
| from 12,801—16,800 tons | 12.1% | 7.6% | 3.5% |
| from 16,801—22,800 tons | 14.9% | 7.6% | 9.0% |
| from 22,801—27,000 tons | 5.1% | 3.4% | 1.0% |
| from 27,001—36,000 tons | 2.1% | 21.7% | 15.2% |
| from 36,001—50,000 tons | — | 25.7% | 30.4% |
| from 50,001—68,000 tons | — | 22.3% | 17.9% |
| more than 68,000 tons | — | 6.1% | 19.8% |
| total | 100.0% | 100.0% | 100.0% |

It is expected that this development will continue in the years ahead.

**Coal Transport**

It is very satisfying to note that coal transport at Rotterdam, after showing a regular decline in successive years, rose by 28% to 6.4 million tons in 1967 compared with 1966. The revival of outgoing coal transit had already commenced in 1966. The drop in coal arrivals continued in greater measure during 1967. Coal imports fell by 55% from 1 million tons in 1966 to 466,000 tons in 1967. Incoming coal transit rose in the corresponding years by 4% to 2.2 million tons. The big increase in the total coal transport by sea at Rotterdam during 1967 was entirely due to the recovery of the traditional transport of German coal via Rotterdam to overseas countries. In this respect, Italy was mainly concerned in 1967. Outgoing coal transit last year amounted to 3.6 million tons, which was 100% more than in 1966.

**Mineral Oil Transport**

Mineral oil transport at Rotterdam rose by 4% from 75.6 million tons in 1966 to 78.7 million tons in 1967. This increase-percentage was distinctly lower than that of the previous year. The total mineral oil transport at Rotterdam in 1967 consisted of 60.5 million tons arrivals and 18.2 million tons departures. Compared with 1966, arrivals increased by 7%, but departures fell by 3%. The lower increase in oil transport in 1967 can be attributed to the decline in oil departures. The big difficulties experienced by the world tanker shipping during the past year, have had no adverse effect on the oil arrivals at Rotterdam. The oil arrivals at oil ports such as Marseilles and Wilhelmshaven, however, fell as a result of these difficulties.

Of the mineral oil arrivals at Rotterdam, crude oil dominated in 1967 with 47.6 million tons, which was 9% more than in the previous year. The difference between the increase-percentage of the total oil arrivals and the arrivals of crude oil shows that the arrivals of oil products declined in 1967. A considerable shifting took place in the oil products group. The arrivals of benzine in 1966 at 1.4 million tons rose to 3.1 million tons in 1967. The arrivals of gas oil at Rotterdam fell from 6.5 million tons in 1966 to 5.4 million tons the following year. Fuel oil arrivals which in the year under review amounted to 3.3 million tons, was 1 million tons down on 1966.

Notable changes also took place among the countries from which crude oil was shipped to Rotterdam. The transport from Libya which was 13.2 million tons in 1966, dropped to 11.7 million tons. Arrivals from Iran and those via Syria and the Lebanon also fell sharply. The biggest rise was the crude oil arrivals from Oman and Katar, +2.6 million tons and Kuwait, also +2.6 million tons. The arrivals in 1967 from Oman and Katar amounted to 3.9 million tons and from Kuwait 9.7 million tons.

Of the other countries from where arrivals of crude oil at Rotterdam increased, special mention is made of Saudi Arabia, Venezuela, Irak, Algiers and Nigeria.

The drop in the total oil departures was confined to 3% because of the bunkered oil. The amount of bunkered oil in 1967 was 4.7 million tons, 6% more than in 1966. Of the mineral oil departures in 1967, 1.3 million tons crude oil came from overseas.

**Fertilizer Transport**

Transport of fertilizers in 1967 amounted to 4.7 million tons. Compared with 1966, this represents an increase of 17%. Of the 4.7 million tons, 2.7 million tons were arrivals and 2 million tons departures. The arrivals rose by 11% and the departures were up by 26% compared with 1966. The rise in arrivals was due, to the extent of two-thirds, to imports which rose by 70% to 437,000 tons. Incoming transit transport rose by 4% to 2,291,000 tons in the year under review. The volume of fertilizers arrivals in 1967 included 2.3 million tons of raw phosphate. The main suppliers of this raw phosphate were the U.S.A., 874,000 tons, the U.S.S.R., 633,000 tons and Morocco, 506,000 tons. Of the raw phosphate arrivals, 357,000 tons was for import in Holland and 1,955,000 tons for transit. Compared with 1966, the imports increased by 168,000 tons, but the transit transport was down by 117,000 tons. Transport of the raw phosphate transit traffic goes to the Rhine area almost entirely by inland shipping. The fertilizer arrivals in 1967 also included 403,000 tons potassium. In 1966, this transport only amounted to 196,000 tons. Of the 403,000 tons potassium unloaded at Rotterdam, 341,000 tons came from Canada and 34,000 tons from the United States. Potassium arrivals in 1967 consisted of 75,000 tons imports and 328,000 tons transit. It is interesting to note that two-thirds of the potassium fertilizer destined for transit and unloaded at Rotterdam, was transhipped into smaller units and shipped to the United Kingdom. The fertilizer departures in 1967, which consisted of 853,000 tons export and 1,179,000 tons outgoing transit, increased in total by 26% to more than 2 million tons.

The export and the outgoing transit was up by 34% and 21% respectively, compared with 1966.

**Other Bulk Goods**

Transport of other bulk goods, which amounted to 4.1 million tons in 1967, was up by 2% compared with the previous year. This increase-percentage was common to both the arrivals and departures. 80% of the other bulk goods group consists of arrivals from overseas. There was a drop in the incoming

transit of 2% against a 11% increase in imports. Of the other bulk goods arrivals, about one-third was sulphur. The remainder consisted of copra, natural stone, sand, gravel and a considerable quantity of non-defined mineral raw materials.

The departures in 1967 were made up of 285,000 tons exports and 552,-000 tons outgoing transit. The outgoing transit included 166,000 tons of sulphur from overseas and 170,-000 tons of tar and benzene.

**International Inland Shipping**

International transport of goods by inland shipping at Rotterdam rose by 15% from 44.9 million tons in 1966 to 51.4 million tons in 1967. Of the 51.4 million tons, 45.5 million tons was related to Rhine shipping. During 1967, Rhine shipping was up by 6 million tons, while international inland shipping rose by 0.5 million tons.

Of the rise booked by the entire international inland shipping at Rotterdam in the year under review, 5 million tons was related to bulk goods and 1.5 million tons to general cargo. Arrivals and departures of bulk goods in the international inland shipping at Rotterdam, which amounted to 41.9 million tons in 1967, consisted of 17.0 million tons ore, 9.6 million tons mineral oils, 2.5 million tons grain, 5.8 million tons coal, 3.1 million tons fertilizers and 3.9 million tons other bulk goods.

Excluding considerable quantities of mineral oil departures, the bulk goods transported to the hinterland by inland vessels originated mainly from overseas. The rise in transit from overseas is reflected to a large extent in the transit by inland vessels to the hinterland.

International transport of bulk goods from the hinterland also developed strongly last year and reached a volume of 7.7 million tons in 1967, which was 2.1 million tons more than in 1966. This sharp rise was largely due to the revival experienced in the traditional coal transport Germany-Italy via Rotterdam. The total transport of German coal via Rotterdam to overseas was 1.7 million tons in 1966, and in one year had increased to 3.5 million tons. Inland shipping has served seagoing shipping at Rotterdam extremely well with transport of bulk goods. One should not overlook, however, the very great importance of this branch of transport for the transportation of general cargo.

International transport of general cargo by inland shipping at Rotterdam exceeded that of rail and road traffic together. In 1967, no less than 9.6 million tons was transported by international inland shipping at Rotterdam, which was 1.6 million tons more than the previous year. Of this amount, 100,000 tons was departures and 1,500,000 tons arrivals. The sharp rise in general cargo from abroad was largely due to the increase of iron and steel transport (+1.2 million tons) from the hinterland.

**International Rail Transport**

International transport by rail at Rotterdam amounted to 1.7 million tons in 1967. This was 216,000 tons or 14% more than 1966. Against the rise of 333,000 tons arrivals was a drop of 117,000 tons in departures. The increase in arrivals was due to the large quantities of natural stone which arrived by rail from Belgium for the projects on the Maasvlakte and the new harbour entrance.

In the transit sector, both to and from the hinterland, rail transport showed a drop.

**International Road Transport**

The increase in international road transport, which has been recorded for many successive years, continued in 1967. Arrivals and departures together reached a volume of 3,561,-000 tons in 1967, which was 15% higher than the preceding year. The total transport in 1967 consisted of 1,554,000 tons arrivals and 2,007,000 tons departures. The increase in arrivals amounted to 22%, while departures was 10%. Contrary to rail transport, transit by road-trucks increased in both directions, incoming +29% and outgoing transit +6%.

**International Transport via Pipeline**

14.7 million tons of crude oil was pumped through the Rotterdam-Rhine pipeline last year. Compared with 1966, this represents a transport increase of 26%. This increase-percentage is higher than that of all the other branches of transport.

**Conclusion**

1967 was, once again, a year of expanding activity for Rotterdam-Europoort. This applies to both the various categories of goods as the different transport branches. It should, however, be pointed out that the figure for international rail transport is flattered by the arrivals of natural stone being used for the Maasvlakte and new harbour-entrance projects.

In general, the results achieved in 1967 can be seen as being satisfactory.

With regard to the future prospects, it must be realised that heavily subsidised ports abroad will attempt to slow down the port's traffic. However, the possibility of Europoort being accessible to ships having a bigger draught, forms a positive element. The 'Europe Channel' giving access to Rotterdam-Europoort will undoubtedly strengthen Rotterdam's position as distribution port. After the wet bulk products, dry bulk goods (such as ores and grain) and, at a later stage, general cargo (i.e. by means of super container ships), will profit from the 'Europe Channel'. This means that Western Europe will relatively strengthen its competitive position in the International Market.

# Orbiter Probe

## IAPH News:

### Tour Extended

The Post Conference Tour of the Melbourne Conference has been extened by one day. Refer to the letter reproduced below which is being forwarded by the Organizing Committee to delegates to the Melbourne Conference acknowledging receipt of the payments and indicating the hotel reservations. You will note that reference is made to the extension of the Post Conference Tour at no additional cost and to the necessity of advising the Organizing Committee by January 15, 1969 if it is desired to retain accommodation in Sydney until Saturday March 15 morning.

Incidentally, you are warned against overlooking the following in connection with air travel bookings. As stated in the brochure "Invitation to Melbourne", overseas delegates making their air bookings to attend the Melbourne Conference are advised to ENSURE that their round trip air ticket INCLUDES a Melbourne-to-Sydney section. If this ticketing is not held, an additional cost of $21.20 Aust. will be applicable over and above the $100 Aust. being quoted for the Tour.

(Letter Reprinted)

3565/63
Dear

We are in receipt of your Application Forms for the Melbourne Conference of the international Association of Ports and Harbors and I have pleasure in returning herewith an acknowledgement of the moneys forwarded with your application.

Also enclosed is confirmation of the hotel booking for the period of the Conference, which has been made on your behalf.

Hotel accommodation for the Post Conference Tour will be advised at time of Registration.

Please produce the receipted copy of the Financial Requirements Form enclosed herewith when completing registration at the Conference.

In the Conference material which you have already received, it was advised that the Post Conference Tour would end on the evening of Friday the 14th March 1969.

The Maritime Services Board of New South Wales has now advised that it has been possible to extend the Post Conference Tour, at no additional cost to the participants, to include accommodation in Sydney for the night of Friday 14th and breakfast on the morning of Saturday 15th March.

Delegates are asked to please make note of this fact.

Participants in the Post Conference Tour are also asked to note that if it is desired to retain accommodation in Sydney **after the end** of the Post Conference Tour, it is essential that they advise their requirements not later than the 15th January 1969, otherwise extension of accommodation arrengements cannot be guaranteed owing to an anticipated shortage of accommodation in Sydney at the time of the visit.

This imformation should be forwarded to—

The Secretary,
Organizing Committee,
Melbourne Conference IAPH,
Box 2239T,
Melbourne,
AUSTRALIA, 3001.

at the earliest opportunity to enable it to be passed on to the appropriate Authority for the necessary reservations to be made.

Looking forward with pleasure to you visit to Melbourne.

Yours sincerely,

N. L. Fidge,
Secretary,
Organizing Committee.

**Seating arrangements at the opening session of the Melbourne Conference are being studied October 14, 1968 with the help of a sketch in Mr. Swanson's room of the Melbourne Harbor Trust Building. From left to right: Mr. N. L. Fidge, Secretary, Organizing Committee; Mr. V. G. Swanson, Chairman, Melbourne Harbor Trust Commissioners; Mr. Toru Akiyama, IAPH Secretary General; Mr. Shigehiro Kusu, IAPH Under Secretary.**

## S. G. in Australia

At the request of Mr. Swanson, Chairman, Melbourne Harbor Trust Commissioners, Mr. Toru Akiyama, IAPH Secretary General, flew to Australia and called on Mr. Swanson in the Melbourne Harbor Trust Building on October 14, and discussed the entire Conference details with Mr. Swanson and Mr. N.L. Fidge, Secretary, Organizing Committee, and inspected the Conference site in the Southern Cross Hotel. Mr. Akiyama found the Conference hall satisfactory for the purpose.

In the absence of Mr. Brotherson, President of the Maritime Services Board, who was in Singapore (ref. "Ports and Harbors" October 1968, page 23), Mr. Akiyama paid a courtesy call at the Board in Sydney on October 17. In the morning, Mr. J.M. Wallace, Engineer-in-Chief, took Mr. Akiyama and Mr. Shigehiro Kusu, IAPH Under Secretary, to an inspection tour of the great and beautiful Port of Sydney. At noon, Mr. Akiyama had a pleasant lunch with Mr. G.P. Hill, Vice-President of the Board, Capt. B. S. Johnson, Commissioner, Mr. J. M. Wallace, and Mr. Sweetman, Assistant to Mr. Brotherson.

Mr. Akiyama's own business then took him away to Noumea, Rome and other Italian cities before letting him back in Tokyo October 27 over the Arctic Pole.

## Swedish Master Stevedores

A study group of 16 Swedish stevedoring company executives arrived in Tokyo from Honolulu on September 30 for a 5-day inspection of Japan's ports, and departed from Japan on October 5. The group consisted of members of Swedish Master Stevedores' Association. ICHCA Japan Chapter (Japan Cargo Handling Mechanization Association) had been approached for assistance.

Mr. Toru Akiyama, IAPH Secretary General, who happens to be the President of the Japanese Association, used his influence in making arrangements for inspection tours. During its stay in Japan, the group, with the assistance of Japanese stevedoring associations, inspected cargo handling operations in the ports of Tokyo, Osaka, Kobe and Yokohama.

## Mr. Brotherson in Tokyo

Mr. W. H. Brotherson, President of the Maritime Services Board of N. S. A., Australia, arrived in Tokyo Monday, October 21 after attending the ECAFE Conference in Singapore October 9-18. He was joined in Tokyo by Captain H. J. Harvey, Harbour Master, Sydney, and Mr. H. D. Howe, the Board's Assistant Electric Engineer.

Mr. Brotherson and the two Sydney Port officials had lunch at Hotel Okura Tuesday with Dr. H. Sato, IAPH Deputy Secretary General, Mr. Kisaburo Enomoto, Counselor, Keihin (Tokyo Bay) Port Development Authority, Mr. Yasuyuki Mizuno, Director, Nippon Yusen Kaisha, and two IAPH staff members.

Tuesday morning and afternoon, the Sydney party made inspection tours of container terminals in Tokyo and Yokohama accompanied by Mr. Enomoto who also introduced the party to Mr. Den Takase, President of the Tokyo Bay Port Development Authority. Tuesday evening Mr. Mizuno introduced the party to Mr. Yoshiya Ariyoshi, President of N. Y. K.

Wednesday morning the Sydney team visited a topographical model plant in suburban Tokyo and "K" Line officials in downtown Tokyo. At noon they were guests at the WTC Club Luncheon at Hotel Okura where Mr. Brotherson gave an address at the request of the host, Mr. Gaku Matsumoto, Presiden of the World Trade Center of Japan. Mr. Brotherson was introduced there to another guest, Mr. Donald B. Jackson, President of the World Trade Club of Seattle, Wash., U.S.A. and exchanged views with him and Mr. Matsumoto on World Trade Center activities.

Wednesday afternoon the Sydney team departed from Tokyo by train for Yokkaichi (See news of Yokkaichi below.).

## Reference Material

Mr. G. Maffait, IAPH Individual Supporting Member, wrote a book "Ports d'Afrique, des Antilles, de Guyane" in French in January 1967, containing information on the following ports: Ports of West Africa (Dakar, Abidjian, Pointe Noire et Douala), Ports of Morocco (Adadir, Casablanca, Kenitra, Mohammedia, Tangier), Port of Dibouti (Ethiopia), Port of Tamanave (Malagache), Pointe de Galets, Ports of South African Republic (Cape Town, Durban), Port Louis (Mauritius), Port Beira, Lourenco Marques, Matadi (Congo Kinshasha), Lagos Apapa (Nigeria), Mombasa (Kenya), Monrovia (Liberia), Pointe-a-Pitre (Guadaloupe Island), Port-de-France (Martinique Island), Cayenne, St. Laurent (Guyana), Port of Paramaribo (Surinam).

Besides the maps and detailed information on these ports, the paper gives their geographic, organizational, functional and other classifications, so that the reader could easily find out whether a port is fluvial, natural or artificial, or whether it is run by a governmental department, a railroad company, or a chamber of commerce, etc. Those wishing to read the paper should write direct to the following address:

Mr. George Maffait
126 Lotissement de la Vallee
83 La Croix Valmer
France

## C C C

The Customs Co-operation Council (C.C.C.) held the 61st/62nd Sessions of the Permanent Technical Committee in Brussels September 25 —October 4, 1968. Of the agenda discussed, Item V described below would be of particular interest to IAPH members:

V. Means of facilitating through international transport of goods and Customs treatment of goods carried in containers:
   1. Consideration of the Reports submitted by the special Working Party on its second and third Sessions.
   2. Examination of the draft uniform container manifest prepared by the Economic Com-

mission for Europe.

The next, 63rd/64th Sessions of the Committee is tentatively scheduled to be held March 17-22, 1969.

## I.S.O. vs. A.S.A.

Paris:—The I.S.O. standards for large containers (8′ by 8′ section) which have been fixed following several international conferences by the I.S.O. and the American Standards Association, have not been adopted by all American consignors and shipping companies.

In this manner, Container Marine Lines has just ordered 300 containers 8½ feet high, Sealand Service Inc. uses containers 8½ feet high and 35 feet long. The Atlantic Container Line which contemplates purchasing 5,000 containers, is also inclined to adopt the height of 8½ feet, and the Integrated Container Service Inc., a leasing concern, advocates a height of 9 feet; parallel to this action, a draft law already approved by the American Senate, forbids the introducing of compulsory standards, and the U.S. Marine Administration, which originally supported the introducing of I.S.O. standards, has let it be understood that it would not refuse requests for subsidies for building container ships not complying with I.S.O. standards, provided the profit earning of these ships can be proved.

N.B.—After these information items, it is interesting to point out the recent **official** promulgation by the I.S.O. of the Recommendation (dimensions and ratings of containers) which specifically standardizes containers of series 1 of uniform section (8′ × 8′) (Recommendation R 668-1968 of **February 1968**).

We can only hope that these standards will be as widely adopted as possible, being a decided factor favourable to the interchangeability of containers, and hence, the development of combined traffic by means of these appliances. (Bulletin of I.C.B., June 1968)

## 32" x 48" Pallets

Paris:—Exchanges of flat pallets between adjacent railway systems have shown fresh progress during 1967: in comparison to 1966, an increase of about 15% has been recorded. During the year, new countries have joined this fleet, bringing the number of participants up from 14 to 17, to whom Poland and Rumania will undoubtedly be added in 1968.

With regard to the box-pallet pool, made possible by adopting a standard model by railway administrations, this has recently been the subject of an agreement which lays down methods of exchanges and which will undoubtedly come into force towards the end of 1968. (Bulletin of I.C.B., June 1968)

## LAVERS

Cornwall, Ontario, September 25:—As a measure to improve the scheduling of vessels throughout the Seaway System, the St. Lawrence Seaway Authority and the Saint Lawrence Seaway Development Corporation (hereinafter referred to as the Authority) will co-ordinate communication and vessel reporting procedures with the U.S. Coast Guard Lake Vessel Reporting System (LAVERS) commencing at 0001, October 1, 1968.

As mariners will be aware LAVERS was introduced in the interest of improving marine safety on the Great Lakes. This system which is based upon voluntary vessel participation has received the approbation and support of the great majority of inland shipping companies and vessels operating in the area extending from the prescribed Check Point Alpha in the upper St. Lawrence River throughout all the lakes of the Great Lakes System. With respect to ocean vessels however, statistics indicate that the proportion of participation is very much less than that of inland vessels.

The Authority recognizes the very important role played by LAVERS in vessel safety and would encourage all vessels, both inland and ocean going, to participate.

With respect to Seaway planning and scheduling, the improved information flow achieved from the relay of LAVERS vessel arrival and departure times will provide the Seaway with early and accurate knowledge of vessel positions. This information in turn can be processed to provide more efficient scheduling for vessels intending to transit the Seaway System.

The Authority is confident that the aquisition of this accurate and timely vessel information will ensure the optimum utilization of Seaway facilities with a resultant significant reduction to transit times of vessels.

Amendment to the LAVERS publication issued by the Commander, 9th Coast Guard District, is now in the course of promulgation. (The St. Lawrence Seaway Authority)

## $3.5 Billion for Ports

San Francisco, Calif.:—More than $3.5 billion in local funds—$2 for every Federal dollar—will have been spent on the improvement of North American ports and marine terminal facilities by 1970, according to a 25-year "Port Development Expenditure Survey" published by the American Association of Port Authorities.

The study covers expenditures for port facilities in the continental United States, Alaska, Hawaii, Puerto Rico and Canada from January, 1946 to December, 1965. It also contains projections of expected spending for the period from January, 1966 through December, 1970.

The report—compiled with Maritime Administration assistance—noted that $2.5 billion was invested in ports in the 20 years after World War Two and predicted expenditure of another $1 billion by 1970. (Pacific Shipper, September 16)

## "Queen Elizabeth"

Hollywood-Fort Lauderdale, Fla., October 3:—Sometime next month the Queen Elizabeth, world's largest passenger ship, is expected to put in an appearance at Port Everglades, closing out an illustrious career as "Queen of the Seas."

The 82,998-ton liner is now tentatively scheduled to arrive from Southampton November 30. The massive ship will be moved to a temporary location at a berth south of the passenger pier. Here she will remain until such time as the Intracoastal Waterway is dredged to a depth of 36 feet for a distance of more than one mile south. Then—some four to six months later—the Queen will be escorted to her permanent location, to assume her new role

as a convention center and major Florida tourist attraction.

The Queen comes to this South Florida port as the result of efforts by the Port Commission, who leased a 135-acre waterfront tract to the vessel's new owners. Signing of the lease culminated weeks of negotiations and paved the way for providing a Florida home for the 1031-foot liner.

Cunard Line sold the Queen Elizabeth to a trio of Philadelphia businessmen last April for $7.75 million. Her final voyage will be Oct. 30 from New York to Cherbourg and Southampton. As soon thereafter as practicable, the ship will be delivered to her new locale at Port Everglades. The return trans-atlantic sailing will be with an operational crew only and without passengers.

Once here, the Queen will undergo extensive alterations to provide a convention hall with seating capacity for 5,000 people; 700 hotel rooms, 50 exclusive shops and stores, two theaters and seven restaurants.

A network of access roads, leading eastward from U.S. Highway One to the permanent location of the Queen, will be required to handle the anticipated flow of traffic to the ship. As a major tourist attraction, the transformed liner is expected to attract several million visitors yearly. (Port Everglades News)

## Esso and Galveston

Galveston, Texas:—Esso International Services Inc., New York (on behalf of Creole Petroleum Corporation) and Mr. C.S. Devoy, General Manager of the Galveston Wharves, announce the selection of the Port of Galveston as the receiving, staging, packing and shipping area for Creole Petroleum's multi-million dollar desulphurization project to be constructed in Amuay, Venezuela.

The contract between Esso International Services Inc. and the Galveston Wharves, which is effective August 1, 1968, includes the preferential use of Wharves' Pier 15.

According to Esso's Purchasing-Traffic officials, selection of Galveston as the staging area and port of exit for the project was based primarily on the recent successful staging of their extensive "Project Libya" at the port. This project involved the movement of cargo on 10 ships over a 21 month period.

Of particular importance in Esso's consideration and selection of Galveston was the Wharves' Pier Point Packers Division which will handle crating for the project. Mr. W. L. Brewster is Manager of the Wharves' crating service. Mr. R. L. Caddell, Wharves' Superintendent of Construction and Maintenance, coordinates all projects. Mr. A. Janke is the Wharves' Chief Clerk on the Creople project.

Mr. Charles G. Thompsen, of Esso, has been assigned to Galveston as Esso's representative and expediter for the project.

Freight forwarding will be handled by one of Esso's freight forwarders, Universal Transcontinental Corporation, New York, through their Galveston correspondent, H. E. Schurig & Co., with offices at the Cotton Exchange Building.

Expressing pleasure at having contracted with Esso to handle another significant export project, Mr. Devoy commented that the Galveston Wharves is unique among port agencies in that it controls and operates all of the many essential services required at the port of exit for a project of this magnitude, including port operated switching railroad, preferential berthing assignment of vessels and all other port operations. (News from the Port of Galveston)

## Deputy General Manager

Los Angeles, Calif.: — A Port of Seattle executive has been selected for appointment to the newly-created position of second deputy general manager at the Port of Los Angeles, it was announced today (Friday, Sept. 27) by Bernard J. Caughlin, general manager, Los Angeles Harbor Department.

Fred B. Crawford, 39, was chosen from among the more than 300 applicants for the $26,424-a-year post after interviews by the Los Angeles Board of Harbor Commissioners and Caughlin at the September 18 meeting of the commission. Following final approval by the Civil Service Commission and the City Council of his Civil Service-exempt appointment, Crawford will vacate his position of assistant general manager of the Port of Seattle to accept the Port of Los Angeles post.

In selecting Crawford for the new position, Caughlin said he would be particularly valuable to the Harbor Department because of his extensive experience in real estate work.

During nearly eight years with the Port of Seattle, Crawford first headed the Properties and Industrial Development Department before becoming assistant general manager four years ago.

Crawford, a graduate of the University of Washington School of Business, has had wide experience in commercial and industrial real estate. He is a member of the Society of Industrial Realtors.

Crawford and his wife Sally have four children, ages 11, 10, 8 and 4 years. (Port of Los Angeles News Release)

## New Orleans News

• New Orleans, La.:—The port of New Orleans registered 98.95 per cent more last-port-of-call vessel clearances than its nearest Gulf competitor during calendar year 1967.

New Orleans cleared 1,989 vessels, almost twice the amount cleared at Tampa and at Houston.

The port had 45.73 per cent more first-port-of-call entrances than its nearest competitor, the port of Houston. New Orleans recorded 1,488 first-port-of-call entrances.

These figures represent first and last port-of-call arrivals and departures and not total number of vessels calling at the port. During 1967, New Orleans recorded 4,571 vessel arrivals.

• The Rivergate, the huge New Orleans exhibition-convention facility and one of the most impressive new buildings in the country, launched into business with a bang recently when the Louisiana Restaurant Association presented what was acclaimed as its most successful convention to date.

More than a dozen local and national events will be held at The Rivergate during the coming months. The versatility of the place can be gauged by the wide variety of its users—international sports, automobile and boat exhibitors; a

local cat fanciers club, Southern Medical Association, National Swimming Pool Institute, and American Institute of Chemical Engineers, as well as the Southern Baptist Association. Other functions join the list at a quickening pace, now that the grandeur and practicality of the facility are visible for all to see.

• The M/V DEFIANT, a bulk carrier drawing 37 feet four inches of water, recently traversed the Mississippi River-Gulf Outlet, which has a project depth of 36 feet. This is the deepest draft on record of any ship using the seaway.

The feat was accomplished with the aid of high tide and favorable winds, according to a U.S. Army Corps of Engineers spokesman. The vessel carried approximately 23,553 short tons of various ores, which were transferred to barges at the port's Public Bulk Terminal.

• "The contents, packed in palletized CASE carboard Ox-boxes similar to our parent company's domestic pack, were rapidly unloaded and shipped out to the local dealers in the same condition U.S. domestic dealers would receive their parts."

This comment is from a letter written by R. Murphy of J. I. Case (Australia) Pty. Ltd. in Sydney, Australia, referring to a shipment of tractor parts sent from Racine, Wisconsin, in three 20-foot containers via New Orleans recently aboard a Farrell Line ship.

The containers arrived in perfect condition, Murphy relates in his letter to the Board of Commissioners of the port of New Orleans. This is believed to be the first shipment of containers to be forwarded from the Midwest via New Orleans for Australia.

• The Nervion Line, represented in New Orleans by Kerr Steamship Co., Inc., is now offering regular westbound general cargo service from all Spanish and Portuguese ports to the United States Gulf Coast.

Until recently, the line only offered regular east-bound service on this route. Sailings are twice monthly each way. New Orleans is the last port-of-call on the out-bound service eastward. (Port of New Orleans News Letter)

## 7th St. Terminal

Oakland, Calif.:—A string of flat cars powered by a diesel switch engine and carrying a potpourri of American and Japanese containers crashed through a ceremonial barrier to open the Port of Oakland's 7th Street Marine Terminal. At the moment of impact, executives from the seven container lines located at the terminal triggered a cylinder over the tracks, releasing 100 pounds of confetti on the train.

The "barrier breaking" was followed by a luncheon at which Oakland Tribune publisher William F. Knowland was principal speaker. Master of ceremonies was Port Commission president Peter M. Tripp. Dedication general chaiman was retired banker Elmo A. Mazzera.

Top executives representing the seven steamship lines which have established their Bay Area operations at 7th Street participated in the dedication ceremony. Representatives from the shipping lines included: Motozo Hattori, "K" Line president; Shuichi Okada, Japan Line president; Saburo Yamashita-Shinnihon president; E. Akita, Mitsui O.S.K. director; T. Matsue, Showa Shipping executive vice president; Norman Scott, Matson Navigation executive vice president; and K. Kawamura, senior N.Y.K. representative in San Francisco.

The dedication marked the opening of two sites at the $30 million, 140-acre complex which will be fully developed by 1970.

One is the two-berth, two-crane, 42 acre site occupied by Matson for its Hawaii and Far East service. N.Y.K. and Showa will also use this area. Matson also has options on 24 acres and two berths.

The other area, leased to Mitsui O.S.K., Japan Line, "K" Line and Yamashita-Shinnihon, includes a berth, a container marshalling yard and a huge 30-long-ton-capacity crane.

Mitsui and Yamashita-Shinnihon have also leased a 20,000-square-foot truck and rail terminal building. The Japanese area will begin handling ships next month. A fourth berth for general use is now ready for use.

In their shift to container operations, the six Japanese lines will spend close to $57 million on ships, containers and related equipment for the California service.

In conventional tonnage, these companies represented 62 percent of Japan's fleet in 1967, and carried 70 percent of the general cargoes leaving or arriving in Japan by Japanese vessels.

Matson and the six Japanese lines join Sea-Land Service in its Oakland location. Sea-Land has a 44-acre site elsewhere in the Outer Harbor, and each year handles one million tons of freight there.

Port of Oakland executive director Ben E. Nutter states the Matson and Japanese tonnage should boost Oakland's annual container volume past the 3 million mark by the end of 1969.

Handling of the new cargoes is expected to create hundreds of jobs in Oakland, and about 10 million in wages and benefits for the community.

Nutter said that the terminal, being developed at the site of the old S.P. Ferry Mole, will eventually have eight berths, two fishing piers, and public areas, a revolving restaurant 70-feet high and a 16-acre unit train terminal. (Port of Oakland)

## Tenth Av. Marine Terminal

San Diego, Calif., September 30:—The Unified Port District's Tenth Avenue Marine Terminal will observe its tenth anniversary October 6 by inviting the public to an action-packed open house.

The 96-acre marine terminal will be open to the public next Sunday from 9:30 a.m. to 4:30 p.m.

High on the list of attractions for the public will be Mariachi bands, local high school musical groups, Ozzie's Marching Band, continuous motion picture programs by American President Lines, the Port of San Diego and other organizations.

The San Diego Fire Department will stage an "aerial" show; the U.S. Coast Guard will demonstrate air/sea rescue units and tactics, and the Unified Port District's fire boat will display its fire-fighting capabilities.

Exhibits and displays will range

from specially-designed railroad cars to trucking companies, oceanographic research and imported automobiles to ship chandlers and agricultural products.

With more than 20,000 visitors anticipated, at this date twenty import/export firms also have scheduled displays of commodities prominent in world trade. Several of the firms will have world trade items for sale to the public. (Port of San Diego Newsletter)

## Christmas Oranges

Seattle, Wash.: — The Unshu is coming.

And if that doesn't mean anything to this generation, it isn't surprising. It has been 27 years since these tasty zipper-skinned oranges — Christmas oranges—have arrived in this country.

After long-time negotiations with U. S. Department of Agriculture and Quarantine and Food and Drug agencies, the little seedless tangerine-type mandarins are going to arrive in Seattle about December 1st, in plenty of time for Christmas which used to be the traditional time they were distributed and put into kid's Christmas stockings.

The 27-year ban was lifted last year by these U. S. authorities after 20 years of constant effort and personal expense by Minoru Kimura and his brother Eiji, both of whom died this past year. They were victorious only in seeing the ban lifted for the Pacific Northwest non-citrus growing states of Washington, Oregon, Idaho and Montana; they were not destined to see their dream fulfilled to see this first shipment arrive.

Some 112,000 boxes, over 1 million pounds, of these Christmas oranges will arrive at Port of Seattle piers just after Thanksgiving. Continuing the struggle to re-introduce these oranges is Takauki (Taky) Kimura, younger brother of Minoru and Eiji. Taky is president of the Great Empire Trading Company, Seattle import/export firm (which is the exclusive distributor of the oranges); he is also owner of the First Hill IGA supermaket in Seattle, where you may be sure Unshus will be prominently displayed.

The first shipment leaves Kobe, Seattle's sister-port and sister-city. After arrival, Kimura will distribute the oranges to the four states for the holidays. (Port of Seattle)

## Qualey to Thailand

Charleston, S.C., October 2:—The South Carolina State Ports Authority has announced that John P. Qualey, Executive Assistant to the General Manager, will go to Thailand early next year to assist that country in a study of its ports.

The request for Mr. Qualey's services was made by the U. S. Agency for International Development for a transportation study of Thailand that will be made for AID under the coordination of Wilbur Smith & Associates.

Mr. Qualey, who also went to India in 1966 for three months at the request of Secretary of Agriculture Freeman, will be part of a 12-man team studying Thailand's transportation systems. Other members of the team will study other modes of transportation. He will study the ports of Thailand.

The purpose of the study is to recommend a coordinated plan of transportation for Thailand which has experienced a rapidly growing economy and rapid growth in its transportation system in the past few years.

As a port operations expert, according to Wilbur Smith & Associates, Mr. Qualey will review Thailand's ports for future growth and capital needs, and efficiency requirements.

He will be in Thailand for the month of February next year.

Mr. Qualey, who has been with the South Carolina Ports Authority since 1948, was cited by the U. S. government for his service in India in 1966 for assisting in expediting the unloading of grain cargoes at India's ports, where famine conditions made it necessary to import huge quantities of grain.

Now in his 48th year of maritime operations, he is and has been for several years chairman of the standing committee on port operations of the American Association of Port Authorities and chairman of the committee on port operations of the South Atlantic and Caribbean Ports Association.

He is also a member of the National Defense Executive Reserve and in the event of a national emergency would be federal port controller of the port of Charleston.

Mr. Qualey was named "South Carolina's World Trade Man of the Year" in 1967.

He is a director of the Charleston Cotton Exchange; a past president of the Maritime Association of the Port of Charleston; a past president of the Propeller Club of Charleston; and a member of the National Defense Transportation Association.

He attended local schools in Yonkers, New York, and attended New York University and Brooklyn Univesity.

From 1920 to 1930, he was with Southern Pacific Steamship Lines in New York before becoming assistant superintendent of the Jay Street Terminal in Brooklyn for nine years. Later in 1939, he became associated with Seatrain Lines, Hoboken, New Jersey. He became a member of the Authority's staff in 1948 as assistant operations manager. (S.C. State Ports Authority)

## New Warf Complex

Sydney, September 27:—The new four-berth wharf complex in Central Darling Harbour will be officially brought into commission on Monday afternoon.

The Premier, Mr. R. W. Askin will officiate at a short ceremony to be held in the cargo shed on No. 10 Berth, Darling Harbour, the last of the four berths to be completed.

The President of the Maritime Services Board, Mr. W. H. Brotherson, said today that the four-berth complex, which cost a total of $10 million, has a total wharf face of 2,400 lineal feet. It comprises an area of 24 acres and the four cargo sheds have a total area of 266,000 sq. feet.

Mr. Brotherson said that No. 7 Berth, at the northern end of the complex is used mainly for the roll-on/roll-off vessels plying between Sydney and Tasmania. It has a cargo shed 425 feet long by 120 feet wide.

The other three berths, Nos. 8, 9 and 10, are used by overseas cargo

vessels and are particularly suitable for use by the new unit cargo type ships which are coming to Sydney in increasing numbers.

He said the cargo sheds on these berths are 500 feet long by 150 feet wide and are the largest clear span cargo sheds at present available in any Australian port.

Mr. Brotherson said that the commissioning of No. 10 Berth completes the Central Darling Harbour reconstruction programme but No. 6 Berth to the north has already been demolished and work will commence soon on the demolition of No. 5 Berth to make way for the provision of new modern wharfage in the northern section of Darling Harbour which will embrace the whole of the area extending from the reconstructed wharfage to Millers Point. (The Maritime Services Board of N.S.W.)

## Container Terminal

Taipei, October 4:—Taiwan will shortly launch a four-year programme to convert the south-western port of Kaohsiung into a container terminal, the Central News Agency said to-day.

The programme will involve the construction of a special pier for container ships, a warehouse with a capacity of 700,000 tons and will cost $5 m, the agency added. (Lloyd's List)

## Against Oil Pollution

Hong Kong: — Steps are being taken by Government to prevent future oil pollution of the Colony's beaches and harbour. This assurance was given by the Director of Urban Services, the Hon. D. R. W. Alexander in the Legislative Council this afternoon. He was replying to a question from the Hon. J. C. Brown on whether Government was satisfied it has adequate facilities and equipment for dealing with further oil pollution. Mr. Alexander said the Director of Marine had anticipated the problem of oil pollution, even before the recent grounding of the "Columbia Trader" and had made certain recommendations to Government. These envisage the delineation of routes for oil tankers, the provision of booms and emulsifiers to contain and disperse oil spillage, the demarcation of the Colony's waters into zones for storage purposes, and the introduction of a VHF plan for two-way ship and shore as well as inter-ship radio communication at short ranges. Approval is being sought for the acquisition of the booms and emulsifiers. When these become available, Government should be in a position to contain a spillage of up to 1,500 tons of fuel oil. In the meantime, the Director of Marine is continuing his discussions with other Government departments involved to ensure that the most effective co-ordination is achieved and to determine ways in which further supplies of stores and equipment may be acquired with the least possible delay in the event of an oil spillage greater than that for which provision is now being made. (Hong Kong Government Information Services)

## Port Island

Kobe: — The commencement ceremony of the construction of "Port Island" was held at the Q Shed on the 4th Pier of the Port of Kobe October 9, at 10 a.m. at the joint sponsorship of the Third District Port Construction Bureau, Osaka Bay Port Development Authority and the City of Kobe, with the presence of Transport Minister Nakasone, Mr. Moichi Miyazaki, Director of Bureau for Ports and Harbors, Mayor Haraguchi of Kobe, Mayor Chuma of Osaka, and 700 guests.

The "Port Island", to be completed in 1975 at the total cost of ¥114 billion, will have an area of 4,220,000 m², with 6 container berths and 26 ordinary berths and a bridge connecting the island with the present Port of Kobe.

## Port Festival

Kobe:—Port Festival of Kobe was observed October 21~22 with ceremonies and pageantry. One of the ceremonies was the "Model Ship Presentation Ceremony" in which Model Ship "James Tuft" brought from Seattle, sister Port of Kobe, was presented by Mr. J. Eldon Opheim, General Manager of Port of Seattle, to Mayor Haraguchi of Kobe in return for a gift of a Japanese model ship presented by Kobe to Seattle last August.

The International Parade of floats held October 21 was joined by a Port of Seattle float with Mr. Opheim and Mr. Edwards of Seattle astride. A 2½-hour Container Seminar was held at the Oriental Hotel October 22 with the presence of Mr. Yasuhiko Nagata, Director of Port and Harbor Bureau, Kobe City, Mr. Opheim, Mr. Edwards and other Kobe Port officials.

## Sydney-Yokkaichi Tieup

Yokkaichi:—Mr. W. H. Brotherson, President of the Maritime Services Board of N.S.W., Australia, was warmly welcomed in Yokkaichi City by Mr. Satoru Tanaka, President of Yokkaichi Authority, Governor of Mie Prefecture.

Thursday, in a ceremony at the Yokkaichi Chamber of Commerce and Industry Building, a Joint Declaration of Sister-Port Affiliation was announced, as follows:

The Port of Sydney and the Port of Yokkaichi hereby declare their mutual intent to enter into a sister-port relationship.

This relationship will become effective as of the 24th of October in the year 1968.

The Port of Sydney and the Port of Yokkaichi pledge to contribute to the prosperity of their sister-port; to promote in general the trade between their two countries; and to establish as quickly as possible a firm basis of mutual friendship and cooperation with each other through every available means.

To this declaration we affix the signatures of the respective Port Authority Presidents, on this day of October 24, 1968.

Satoru Tanaka
President, Yokkaichi Port Authority.
Governor of Mie Prefecture
W. H. Brotherson
President of the Maritime Services Board of N.S.W.

# *Antwerp—National Port —International Community*

Antwerp:—It looks as if there is some contradiction in this title. Antwerp, indeed, is often called the "national port of Belgium" and such is not at all an exaggeration, as 90% of the maritime cargo shipped or received via Belgian ports is handled by Antwerp.

No wonder that the Belgian community as a whole takes a great interest in the development of the port's activity and in the expansion of its facilities.

200 million dollars have been invested by the national government and the city of Antwerp in port works only during the last ten years. But this figure refers to the port development projects only. In fact, much more has been invested to the benefit of the Belgian port "number one".

—The improvement of the navigability of the river Scheldt, the link between the port and the sea. Ten years ago 35,000 tonners were the biggest vessels calling at Antwerp. Nowadays 70,000 tonners are regularly calling and some more river draining works are under way in order to reach the 85,000 level.

—The development of the expressway-network. Antwerp is a nucleus for the E3- the E10 and the E39 expressways.

The canalsystem has already been greatly improved and is being further expanded, including f.i. new Scheldt-Rhin-canal.

The railway substructure and equipment has greatly been modernized by the National Railway-company. At the same time new material and new commercial formulas have been put into practice, including such special services as the TERRE (Transeuropean railroad express) for container transportation.

But Antwerp is also an international community. Though the part of the ships flying the national flag is most important, it does not represent more than 5% of the ships tonnage intervening in the waterborne traffic at Antwerp.

Antwerp indeed is an open gateway where every merchant fleet is welcome. All can have a share in the abundant cargo flow which is particularly developed on the loading side. Out of a total tonnage of 62 million (in 1967) over 12 million tons are constituted by general cargo loaded for overseas destinations.

The industrial boom in the port zone again reflects the international character of Antwerp. A series of new industries, tankfarms, terminals are located in Antwerp. They not only include Belgian enterprises and capital but for the far greatest part foreign investments from the United States of America, Germany, the United Kingdom, U.S.S.R. and France.

International cooperation indeed is a main characteristic of the Antwerp port economy. (Antwerp Port News)

## Port Labor

Antwerp:—The annual report of the Dock workers' Union at Antwerp contains some interesting remarks with regard to the workers attitude towards the transport revolution. The social problem created by the unit load mainly resides in the preservation of the so-called "contingent" i.e. the number of dock workers enjoying guaranteed minimum wages regardless of the work available. The Union intends to freeze this contingent. Same would thus decrease by non-replaced departures of workers, to a reduced number about which, however, nothing definite is being said at present (Some foresee a reduction of 30 till 40% for 1970).

As regards the preservation of work at the docks, the report suggests that container stuffing and unstuffing operations should be maintained near the waterfront. This however can only be realized in co-operation with the goods' cliency and the shipping companies, and it is rather doubtful whether such views can materialize. The Union also takes a firm stand against prior poststevedoring activities carried out by ships' crews.

According to the Union the dockworker of the future must become a specialized technician in order to valorize as much as possible the large investments made by the public authorities and private enterprise. In other words: quantity must be gradually replaced by quality. (Antwerp Port News)

## Gladstone, Seaforth

Liverpool: — The Mersey Docks and Harbour Board announce the following items of interests:—

**Gladstone Container Terminal**

Work has begun on the extension of the container crane tracks at the North side of the Terminal by more than 200 feet. This will improve the area of operation of the two 35 ton Stothert and Pitt container cranes, the first of which is already working, and the second in course of construction.

At the east end of the Terminal a concrete ramp is to be constructed for roll-on/roll-off operations. This will enable full use of the terminal by ships of Atlantic Container Lines which are expected to use Liverpool for their United States container service.

**Seaforth**

The British Hydromechanics Research Association, Bedford, are to construct a model of a new design of dock gate in connection with the Seaforth new dock. The gate will be one of two required for the 130 ft. wide passage which will link Seaforth with Gladstone Dock.

The model will determine working conditions in the passage, and provide information as to the water flow in the passage with the operation of Gladstone River Entrance, which will provide access for ships using the first ten berths to be provided at Seaforth. (Mersey Docks and Harbour Board)

# The Port of London Act 1968


## By I. Hughes, Solicitor

*Port of London Authority*


(Reprinted from The PLA Monthly, September 1968)

The detailed law concerning the Port of London, contained in 18 Acts of Parliament dating from 1890 to 1967, and more than a dozen statutory instruments, is replaced by one piece of legislation, the Port of London Act 1968. The new Act came into force on 26th July this year and repeals virtually all previous Port of London Acts.

The Port of London legislation governs the internal affairs of the PLA. As a public company is constituted and obtains its powers under Articles and Memorandum of Association, so the PLA depend on the Port of London Acts, now the Act of 1968, for the establishment of their constitution, their borrowing powers, their powers to engage in operations and development, and for rules governing their general administration and financial management. The legislation also provides the PLA with their powers to regulate the activities of others, to control pollution, to control works and dredging in the Thames and provides safeguards for the proper exercise of these powers.

Briefly, the Act of 1968 does three things. First it repeals, without replacement, parts of the previous Port of London Acts which were obsolete, spent or otherwise unnecessary. Secondly, it brings together with drafting amendments and some amendments in substance, those parts of the previous Acts which are still required. Many of these either needed little revision or had already been revised recently. Thirdly, it introduces some new provisions covering a wide range of subjects. Because the Act does affect others, new measures have been discussed in advance and one of the objects of the consolidation is to make the legislation more accessible and more easily understood. The sheer volume of legislation has been greatly reduced but the new Act is still a formidable document.

The new Act comes some 60 years after the first Port of London Act, a public Act of 1908, which established the PLA, but numerous Acts relating to dock companies were in force at that time and were not repealed. Further Port of London Acts quickly followed the 1908 Act and these were brought together in a consolidation measure, the Port of London (Consolidation) Act 1920, which remained the principal Act until repealed by the Act of 1968. But the Act of 1920 had been considerably amended by subsequent Acts and Orders, producing a tangle of legislation urgently requiring modernisation.

The redrafting or repeal of many of the old provisions and the enactment of some new provisions has been effected in recent Port of London Acts in preparation for the final consolidation. The legislation has roots which go back to the 18th century. To unravel the tangle and to produce a modern enactment required a great deal of historical research, analysis, discussion and negotiation. Much of this work was done by Miss V. A. Novarra, now Manager, Central Services, who was appointed to the PLA's Legal Department specifically to work on their legislation.

Some of the old provisions reveal interesting thoughts in the mind of the legislature early in this century. For example, the Act of 1920 repeated an earlier provision putting the PLA under a duty to "take such steps as they think best calculated to diminish the evils of casual employment and to promote the more convenient and regular engagement of workmen" employed in the Port. This provision is repealed as spent by the new Act!

New provisions which may be of special interest because they affect the public include the following:

**Regulation of vessels**

The Act provides a completely new power to the PLA to give general directions to vessels to promote safe and convenient navigation in the Thames. Before publication the directions are to be agreed with the pilotage authority and the Chamber of Shipping of the United Kingdom. The directions may prescribe the channels to be used by vessels and the areas in the Thames which vessels may, or may not, use for mooring; may secure that vessels move only at certain times and may require the master of a vessel to give information to a harbourmaster of the vessel's intended movements in the port. This power is in addition to a harbourmaster's power to give directions to particular vessels.

The PLA, or a dock manager, or a dock master may also give directions to vessels in the docks, and in the approaches to the docks, to ensure the safety of vessels at the docks, or to secure the efficient conduct of business carried on at the docks.

**Licensing of works in the Thames**

The rights of appeal against PLA decisions under the liccensing system for works in the Thames are extended. The Act of 1920 gave a right of appeal to the Board of Trade against a refusal to grant a works licence on reasonable terms, but there was no right of appeal against the terms of a licence and the right of appeal against revocation was limited. There is now a right of appeal to the Board of Trade against a condition proposed in a licence, against a variation of a licence and against a revocation of a licence as well as the previous right of appeal against a refusal to grant a licence.

The consideration for a licence is to be agreed between the PLA and the applicant, or failing agreement assessed by an arbitrator appointed by the President of the Royal In-

stitution of Chartered Surveyors.

**Dangerous goods**

The present provision requiring the owner or master of a vessel to give notice to the PLA when a vessel carrying dangerous goods enters the Port has been widened to cover a requirement that notice shall be given of an intention to load dangerous goods on a vessel within the port.

**Road traffic legislation**

The provisions governing road traffic on dock roads have been brought into line with modern Road Traffic Acts and the law relating to breathalyser tests is applied to dock roads.

## Better Paid Dockers

Liverpool:—"The port is now set for a dramatic improvement in productivity," said a shipowners' representative following the announcement of new incentive payments for dockers engaged in discharging deep-sea vessels at Liverpool. Commenting on the new deal, the Liverpool Dock Labour Joint Committee, representing employers and employees, said: "The agreement will come into operation on June 17 and the committee are confident that it will lead to a substantial increase in productivity with a resultant increase in the take home pay of dock workers employed on discharging operations."

A spokesman for the Mersey Docks & Harbour Board said: "This agreement is most heartily welcomed by the Board. It will enable the port once again to set a standard in efficiency and speed in cargo handling."

The agreement follows that reached last March between the port employers and the Transport and General Workers' Union on new pay scales for loading operations.

The port now has a completely new structure of payments for all cargoes handled. The agreement in March gave dockers a guaranteed £17 for a 40-hour week and this has been retained in the new rates for discharging cargo.

Mr. Lew Lloyd, docks district secretary of the T & GWU, said that the pay scheme for loading cargo had justified itself in a rise in increased productivity and in dockers' earnings. The new agreement, he was confident, would produce the same result with cargoes coming in to the port. (Port of Liverpool Bulletin)

## Export of Cereals

Rouen:—The French inclination for cereal exports has increased these last years with the growing up of output and yield. So it was necessary to find new outlets to foreign countries to export this surplus output.

In searching for sales at better price, the port of Rouen had to play a determining part.

The proximity of chief producing corn regions allows to the port of Rouen to reduce very much transport taxes to sea-ships. Consequently, Rouen had to take quickly the 1st place in Europe in the list of exporting cereal ports.

The capacity for cereal storage rises up in the port to 100,000 t (with a silo of 40,000 t).

The traffic must reach this year 1,500,000 t sent through all the world: Northern and Eastern Europe, Southern America, Japan, China and also barley for brewery for the U.S.A.

For farther countries, we have to send important loads. So, the port Authority of Rouen and pilots have perfected a technique to flow down with two tides to export so cargoes more and more important (actual record: 17,285 t).

The speed of wave propagation tide in the Seine is so important that vessels which sail up the Seine from its estuary to Rouen, if they pass the estuary on the high tide hour of Le Havre find in every spot of the river the local high tide. Under those conditions a ship sailing up, during a spring tide period, can have a draught over 10 m (32′ 9″), draught that allows more or less a dead weight of 20,000 t.

On the contrary vessels which want to sail down with "maree directe" (i.e. Without stopping casting anchor) and are obliged to cross the estuary on high tide must meet low tide in dowstream between La Mailleraye and Vatteville, which limits the draught (the draught allowed to sail down with "maree directe" is now of 26 feet, i.e. 7.95 m).

The technique to sail down with two tides allows under some conditions of tide to increase allowed draughts to sail down. This technique consists in making start ships some hours before from Rouen and to stop their sailing down by casting anchor near Villequier, in a deep part of the river, to wait the local low tide. The ship starts again a little after low tide to pass in the estuary at high tide hour at Le Havre. The allowed draught can reach 9.00 m (29′ 6″).

It is this technique that used the "Banario" on Saturday the 21st of September with a draught of 9 m.

This Liberian ship (BANA Navigation Cy Ltd. from "K" line) of 148 m in length sailed down with a complete cargo of 14,700 t of cereals for Japan. The "Banario" begun to load on Tuesday the 17th of September at silos of Elie pier and finished on the 20th of September at 6 o'clock in the evening. She left the port on the 21st of September at 9.45 in the morning to arrive at Villequier at 2 in the afternoon. After some hours of waiting, she passed the estuary to Tokyo.

Next years will allow to improve these records.

Now it is the second trial of this new technique which must allow to the port of Rouen to keep its first place with cereal exports. (Rouen Port News)

## Another New Facility

Hamburg: — The Rhenus Gesellschaft fuer Schiffahrt, Spedition und Lagerei mbH., Mannheim, has erected a facility for the storage and handling of fertilizers, steel products and general cargo on the Reiherstieg Canal. The water alongside the installation will take sea-going vessels and there are good over-the-road connections. A yearly turnover of 30,000 tons of fertilizers is expected. 5,400 square metres, partly air-conditioned, are available for the handling and storage of general cargo, and another shed is being built for this purpose. The facility has been erected at a cost of DM 5 million. (Ship Via Hamburg)

## Autos to U.S.A.

Hamburg: — MS "Irish Elm" of the Irish Shipping Ltd., Dublin, started on her maiden voyage from Hamburg to Houston with a cargo of 2,600 private cars, including Opels, Volvos, BMW's, Mercedes and Porsches. Of 38,000 tdw, she is the largest vessel so far equipped with car decks by the Blohm + Voss yard, and the second in the world with five superposed hoistable car decks where vehicles can be stowed in eight tiers. The "Irish Elm", which is sailing in charter of the Wallenius company, will return to Hamburg with a load of grain.

Using four ship cranes and one quayside crane an average hundred automobiles per hour were handled aboard. In charge as quay operator was the Hamburger Hafen-und Lagerhaus-AG., as stevedores, Messrs. Gerd Buss. (Ship Via Hamburg)

## To Austria Via Hamburg

Hamburg: — Two compressor plants and parts for a third plant, total weight 165 tons, were discharged in Hamburg by MS "Buchenstein". Manufacturers are Messrs. Clark Brothers Co., Olean/N.Y., consignees the Australian Mineral Oil Authority. The 6-cylinder plants were shipped in individual parts, the heaviest of which weighing 59.5 tons, whilst the accessories arrived in three 40-ft. open top containers. A floating crane of the Hamburger Hafen- und Lagerhaus-AG. placed the heavy lifts on to two special well wagons. Each of the compressors has a yearly throughput of 360 million cu. m. (Ship Via Hamburg)

## Genoa Container Show

Genoa, June 26: — After having concluded its very intense and interesting Spring programme in which there were important initiatives for trying out new conceptions that were very successful, the Fair of Genoa is now preparing the second part of its annual activity. The first manifestation of this second part will be the International Container Show which will take place from 19th to 27th October.

In the meanwhile in the programme of the preparatory activities being carried out for this Show, there will be a series of the most important German firms specialized in the handling of containers. These demonstrations will take place tomorrow in the Fair at 2 o'clock and the press will also be present. This show was initiated last year in the programme of the International Fair of Communications, it immediately assumed its own personal appearance attracting the interest of both Foreign and Italian operators who saw, for the first time in history, a European review on the new techniques of transporting goods which are developing with exceptional rapidity all over the world and that also interest Italy very much.

The fair of Genoa launched this idea of a show for containers at the right moment hence the great success it had last year, which will be confirmed again this year by the presence of all the firms which took part in the first edition. This year many other important firms will join the ranks to make it an even greater success.

For example, to demonstrate the interest which the manifestation has provoked everywhere, it is enough to remember that the S.N.C.F. (Societe nationale Chemins de Fer) will patronize the participation of a group made up of French firms which will occupy an area of 1,000 sq. meters situated in the open. They will present apart from containers, a series of apparatus and plants for the handling of containers on the railway.

During the first edition of this show one of the highlights was the International Meeting on Containers organized in collaboration with the C.I.S.Co. This meeting made it possible to discuss the problems caused by the use of containers on an international level for the first time in Italy.

The meeting will be held again this year and will be even more interesting than before, because a group of specialists, coming from every corner of the world and in particular from Australia, Japan, the United States and Russia, will take part and hold speeches so this year's meeting will assume the aspect of a true symposium. (Press Dept., Fiera Internationale di Genova)

## Container Service

Barcelona: — The vessel "EXPORT CHALLENGER" arrived in Barcelona about mid April last. This vessels is owned by the American Export Isbrandtsen Lines, thus initiating the first regular service of container-carrying vessels to ply between the ports of New York and Barcelona and vice-versa.

At present this service is fortnightly, but as from July next it will become weekly, with fixed sailing dates, and will be serviced by four twin ships adapted to the special stowage and quick handling of the containers. These vessels of 12,500 tons displacement carry a total of 444 containers of the $20 \times 8 \times 8$ ft. unified type. On the first stopover, 60 containers were unloaded, with a net weight of 620 tons, and 65 others were loaded with some 500 tons.

During later stopovers it was possible to unload and load up to 220 containers during the 14 hours stay in Barcelona. (Puerto De Barcelona Boletin Informativo, May)

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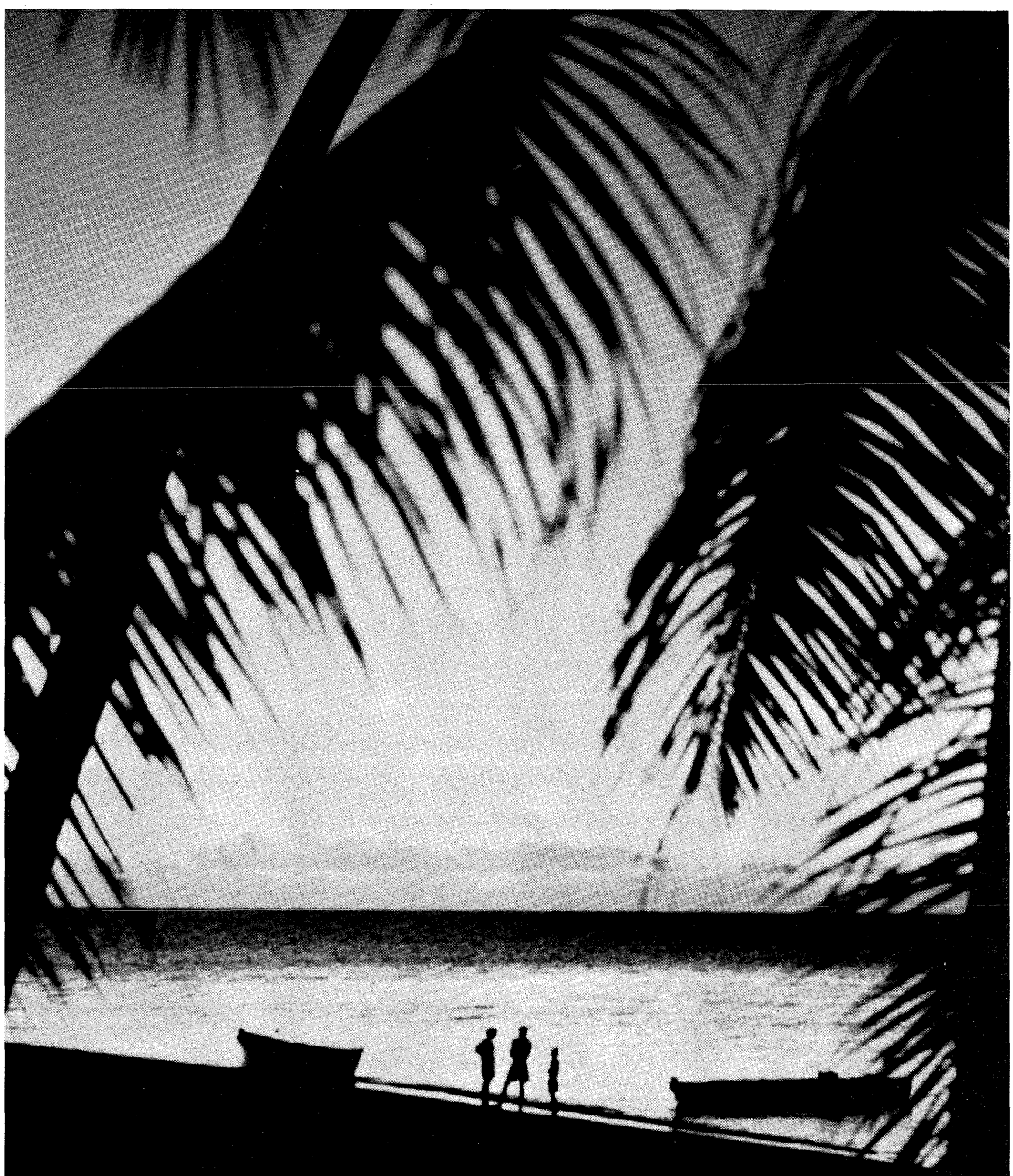

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