PORTS and HARBORS

October, 1968 Vol. 13, No.10

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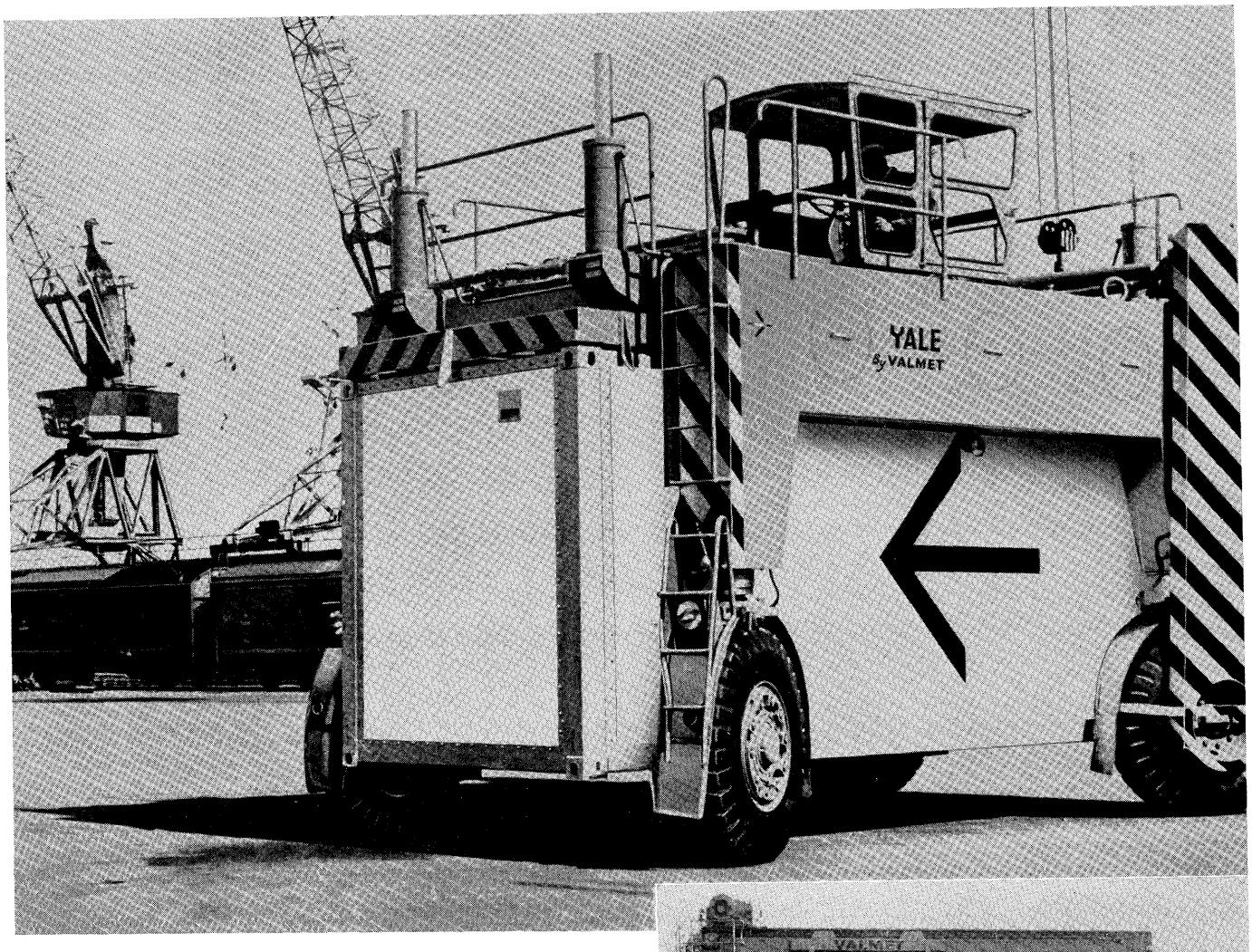

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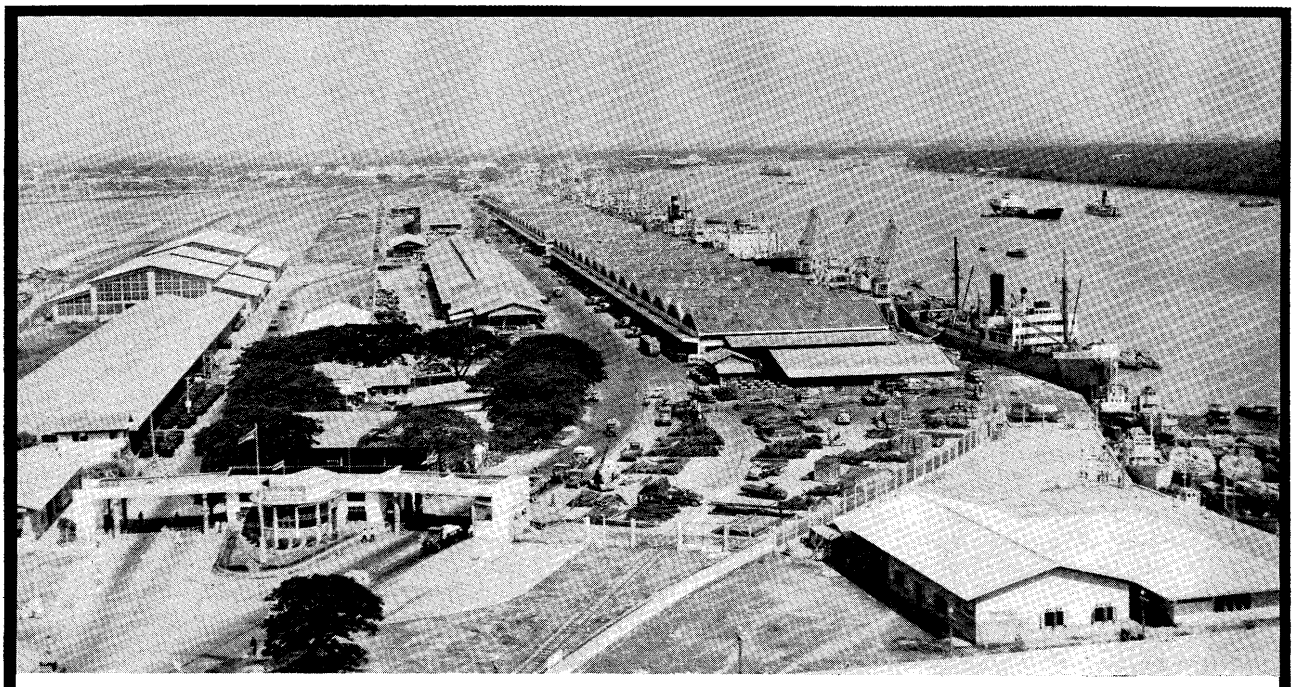

PORT OF BANGKOK

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PORTS and HARBORS

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October, 1968 Vol. 13, No. 10

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PORTS and HARBORS

Forum on Port Problems:

"Kooringa" Points the Way

By J. A. McMeekin

Marketing Manager
Associated Steamship Pty. Ltd.
Melbourne, Australia

Basically, the solution to the increase in costs associated with the carriage of general cargo around the Australian coast can be found by reducing stevedoring costs and shortening the period a ship is in port. These aims can both be achieved by increasing the number of tons handled per hour of the vessel's working time in port. If this increase can also be accomplished by a reduction in the actual labour content employed in the overall operations, then a profitable ship voyage result should follow. The position has been reached when the total of all labour contents for a conventional ship operation is as high as 80% of the freight earnings. Increases in the cost of labour, therefore, have an immediate and considerable effect on costs, and profit levels. In an endeavour to accomplish the foregoing, and make the carriage of general cargo around the Australian coast not only economic from a ship owner's point of view, but desirable from shippers and consignees, first McIlwraith McEacharn Ltd., then Associated Steamships Pty. Ltd., after careful research and planning put into effect the "Kooringa" project. This entailed not only the construction of a new vessel with its attendent sophisticated stowage and handling methods, but the erection and subsequent operation of shore terminals at Melbourne and Fremantle, capable of handling large volumes of cargo rapidly and efficiently.

These terminals operate on the stacking system which was developed by Associated Steamships as distinct from the trailer park system used in the U.S.A. and elsewhere.

The successful entry of Associated Steamships Pty. Ltd. all cellular container ship "Kooringa" in the Melbourne to Fremantle direct general cargo service, has revolutionised freight handling by sea in Australia. The motor vessel "Kooringa" was built for Associated Steamships Pty. Ltd. by the State Dockyard at Newcastle, N.S.W., and is the first cellular container vessel of this type to be constructed anywhere in the world. She is not by world standards a large ship, having an overall length of approximately 420 feet and a deadweight cargo capacity of 5500 tons. She is a distinct departure from any conventional freighter previously seen on the Australian coast, and reflects an entirely new approach to the Interstate general cargo sea trade in this country. The "Kooringa" was planned and built for the carriage of all her cargo in containers (Seatainers). The hull and cargo carrying compartment were specially designed around the Seatainers which she carries, particularly emphasis being given to the installation of the most modern cargo handling equipment to ensure the swiftest possible turnaround at her loading and discharge ports. She is one of the fastest ships on the coast, having exceeded 18 knots on her trials, but operates at a service speed of 16 knots. The ship is powered by a Sulzer Turbo charged direct injection Marine diesel, developing 7500 bhp. The engine and accommodation are located right aft, as in oil tankers.

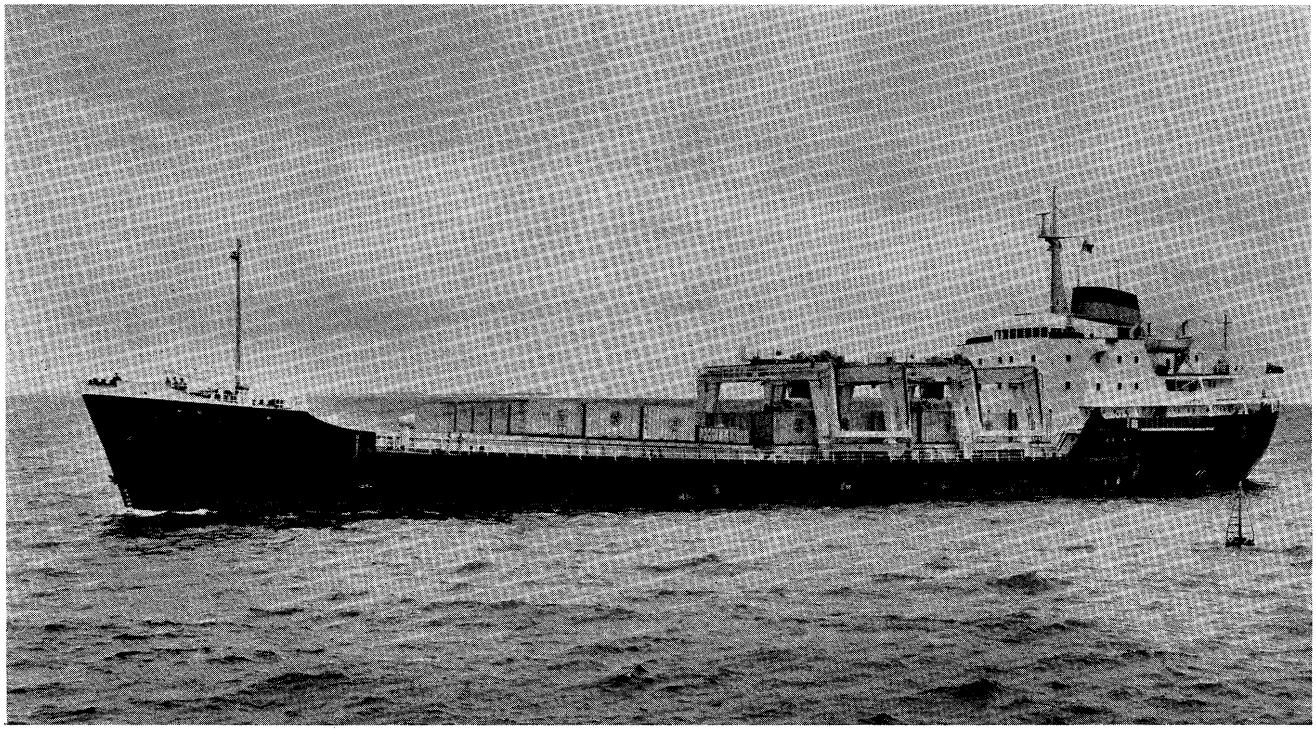
She is beamier than most freighters, having a moulded breadth of 62 feet 6 inches with a gross tonnage of 5825 tons. "Kooringa" has two container holds serviced by 12 cells, i.e. 6 cells to each hatch extending almost full breadth of the ship. Each cell or bay is fitted out completely with container guides, and therefore the ship is able to carry only containers and no "loose" cargo.

The Seatainers are landed directly into the cells they will occupy in the holds during the sea voyage, and thus obviating the time now required to remove the cargo into the wings of or fore and after of the hatch square. At present "Kooringa" is fitted with two portable gantry cranes of special design these having replaced conventional ships derricks and winches. In February next year "Kooringa" will be converted to carry 20 foot I.S.O. Containers and her own gantry cranes will be removed. The vessel will then load and discharge using the shore based portainer cranes that are currently being erected in major Australian ports.

To meet the heavy demands for cooler and refrigerated cargo between Melbourne and Fremantle, Associated Steamships Pty. Ltd. have made provision on "Kooringa" for the carriage of refrigerated Seatainers called "reefers," these units are built to the same model as the Standard 17 tons seatainers. They are fitted with their own electrically operated refrigerator plants, and are stowed on deck and plug into the ship's normal power supply.

"Kooringa" was conceived, designed and built for a special purpose and can be described as the culmination of a carefully planned project, and a symbol of a new era in the concept of materials handling in the Australian general cargo trade.

To obtain a clear appreciation of



M. V. "KOORINGA" entering Fremantle Harbour 14th March 1966.
(Associated Steamships Pty. Ltd.)

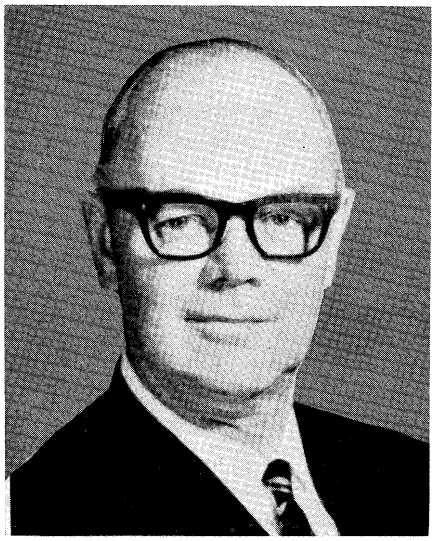
the problems that had to be overcome, and also to give a clear understanding of this ships present role in the industry, a brief examination of the difficulties to be overcome is necessary.

The increase in cost of cargo handling and the transportation of goods by sea, the inroads of road/rail competition has in recent years focussed attention on the urgent need for developing methods which would by-pass much of the costly manhandling of cargo item by item, and also other factors associated with conventional methods of stevedoring which had been customary in the past. Current with the changes and trends in the movement of goods by sea, and land, and for reasons of faster, more economical and conventional handling, has been the increase in usage of unitisation. This consists basically of palletising, containerising, or preslinging suitable items of general cargo which normally are moved in single pieces, such as drums, bundles, boxes, bags, bales, etc.

Containers such as steel cargo containers have many advantages. They offer regularity of service, door to door convenience, less handling, faster loading, simpler stowage, faster transportation turnaround. Freight charge stabilisation, no pilferage, minimal packaging, damage reduction, weather protection, insurance rate reduction, and simpler documentation.

Seatainers have been introduced free to shippers in ever increasing numbers over recent years to transport cargo Interstate in Australia Cargo Vessels on a lift-on lift-off basis. These containers have a capacity of 120 cubic feet and 2 tons 12 cwt. maximum load capacity, and goods are packed into Seatainers at the store of the supplier in one state transported by road to the wharf for shipment, carried interstate by sea, discharged at destination port, and finally delivered by road and rail/road to consignee's store for unpacking. These Seatainers do away with the need for expensive outside packaging and reduce almost to vanishing point the risk of pilferage and damage. Simplified documentation has now greatly streamlined the clerical work involved, one simple document now covers the goods from point despatched to point of delivery.

The container principle of cargo handling, both in partly converted conventional type ships and specialised construction as in "Kooringa's" case, relies on team co-operation of port and other authorities. The Fremantle Port Authority and Melbourne Harbour Trust have worked in close liaison with "Kooringa's" owners on this project, and both have been most active to assist and clearly see the importance and vast potential in the container concept.



Mr. V. G. Swanson

Port of Melbourne

By V. G. Swanson

Chairman

Melbourne Harbor Trust Commissioners

The Port of Melbourne is a major Australian port serving a hinterland rich in primary and secondary production and reflecting the growing economic prosperity of the nation using its facilities.

Situated at the northern-most point of Port Phillip Bay, the Port handles over 12% of the 90 million tons of cargo throughput of Australian ports annually.

Melbourne is a river port with access to most of its major cargo-handling berths via the River Yarra, the waterway which played an important role in the foundation of the city and the subsequent development of the State of Victoria.

Every year more than 11 million tons of cargo pass across the wharves of the Port of Melbourne to and from ships which pay more than 3,000 visits. Seen here are the berths on the River Yarra in the upper reaches of the Port in close proximity to the city and capital of Melbourne which the Port serves. In the foreground is the new Swanson Dock complex under construction for all-container ships and cargo which will come into the Port from 1969 onwards.

Melbourne is a major passenger terminal on the Australian coast as the city's commercial and industrial activities attract tens of thousands of migrants and visitors a year. The main overseas passenger terminal seen here is Station Pier, and people have been disembarking in this area since 1854.

The Port of Melbourne covers a total area of 10½ square miles, under the control of the Melbourne Harbor Trust Commissioners, providing 105 berths with about 90 of these in regular commercial use by ships making more than 3000 calls annually.

The history of the Harbor Trust Commissioners goes back to 1877. In that year the Authority was set up as a financially independent statutory body created by an Act of the Victorian Parliament and the aim of the Authority was to "improve the Port, extend its facilities, and use the best efforts to increase commerce between Melbourne and the world outside Port Phillip Heads".

From the provision of timber wharves and sheds for sailing ships, steamers and conventional cargo ships in the past, up to the construction of concrete wharves and stacking areas for container and unit-load cargo ships in the present and for the future, the Port Authority has always attempted to carry out this original aim.

Port planning and layout are closely linked with the developments of port users themselves, including shipping lines, stevedoring companies and exporters and importers and their changing requirements are expressed in changed port facilities.

The continued expansion and development of the port is parallelled to that of Victoria, its hinterland, which has experienced a more rapid development over the past ten years than any other Australian State.

The metropolis of Melbourne served by the port is a major financial hub and an industrial and commercial centre of the nation which comprises 2.2 million people or 20 per cent of the nation's population and is the capital of Victoria.

Cargo throughput of the port reflects Melbourne's high degree of industrialisation, with 94% of the cargo exported being general cargo. Victoria is the producer of 26% of Australia's primary products and 33% of its secondary products and major imports through Melbourne include crude oil, petroleum products, phosphatic rock, cars, drugs and chemicals, wearing apparel and textiles, and paper, with major exports including wool, scrap metals, meat, manufactured fruit products flour, etc.

The Port of Melbourne's annual

cargo throughput topped a total 11 million tons in the calendar year 1967, with increasing quantities in almost every sphere of the import and export trade to and from overseas and other Australia ports.

Figures, which give some idea of the character of the port, show that Melbourne is becoming the largest general cargo port in Australia, with the 1967 throughput of general cargo amounting to 6.1 million tons, while bulk cargo accounted for 4.9 million tons.

With most of Melbourne's trade consisting of general cargo now being handled with increasingly sophisticated equipment, both here and overseas, the face of the port has accurately reflected these changes in cargo handling methods in the domestic and overseas trade.

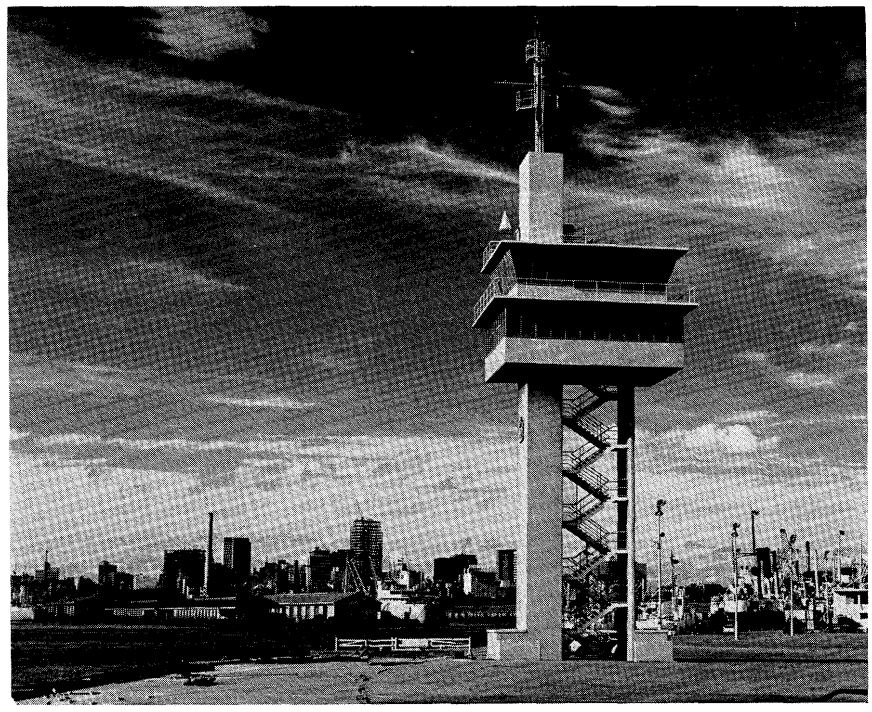
Where port development in the past was concerned with providing facilities for conventional ships and cargo handling methods, it is now planned for the specialised ships carrying unitised and containerised cargoes and it is evident from experience in the Australian trade, that general cargo will be concentrated to a relatively few berths.

The Port of Melbourne's role in the container "revolution" has already been mapped out in the early stages with the construction of the new Swanson Dock container/unit-load complex.

Melbourne will serve as one of three Australian terminal ports in the U.K./Australian all-container trade beginning early in 1969, and it is expected that over one million tons of general cargo can be shipped annually through the terminal berths by the British container consortiums, Overseas Containers Limited and Associated Container Transportation.

The first stage of the Swanson Dock complex is well under way with approximately 23 acres of stacking area and it is intended to provide 1500 feet of a 136 feet wide wharf apron which will carry one 500-Ton portainer crane with lifting capacity of 45 tons.

The extent of containerisation of the many and various types of general cargo is still an "unknown quantity" and several experiments have been conducted through Melbourne recently for the evaluation of handling major Australian ex-



Positive control of navigation and shipping movements in a port are of vital importance, and here in this shipping control centre on the top deck of the tower, master marines control all movements of arriving and departing ships in the Port of Melbourne.

☆

☆ ☆

Major changes are now taking place in cargo handling methods in ports throughout the world, and this scene in one of the Port of Melbourne's large general cargo transit shed will change drastically in the next few years.

← Despite increasing industrialisation, and exports of secondary industry products, wool is still Australia's major export, and the basis of her economic prosperity. In the Port of Melbourne experiments in the handling of wool exports have been going on for some time to meet the changing trends in cargo handling generally. Here are two new methods in the Port of Melbourne, containerisation with high density dumped wool, and unit loading of 54 bales of standard dumped wool. ↓

ports such as meat, wool and fruit, as well as various import cargoes.

On the East side of the Swanson Dock complex, a start has been made in the development of a common user multi-purpose berth, backing on to the existing Appleton Dock system which has a 70 ft. wide wharf apron, three sets of rail tracks and modern 650 feet long by 150 feet wide transit sheds. The Appleton Dock system is already being used increasingly by multi-purpose container/unit-load vessels operating regular services from Melbourne to Europe and the East.

While containerisation and unitisation of cargo in the overseas trade are still in the early stages of development, the Australian coastal trade through Melbourne has reached a high degree of efficiency in the proven use of container and unit-load ships and cargo handling.

Of the port's total general cargo trade in 1967 of 6.1 million tons, almost the entire volume of cargo in the coastal trade amounting to 35% or 2.2 million tons, was handled in containerised or unitised form, with 80% or 1.7 million tons of this amount handled exclusively at six specially designed berths.

Four of these berths are being used by roll-on roll-off, lift-on lift-off, vessels in the trade to the island State of Tasmania, 230 miles south of Melbourne, a trade which has

been highly specialised for nearly ten years. Two more roll-on roll-off, lift-on lift-off berths are being constructed, one for the container/unit-load service to New Zealand and one to expand container/unit-load services around the coast, which may also be used in the proposed container/unit-load service to Japan, to be operated jointly by the Australian National Line and the Japanese "K" Line.

Specialised handling methods in the port are not restricted to general cargo only and, in 1967, most of the 4.9 million tons bulk cargo (or 44% of the total trade volume) was handled at 13 berths designed for handling specific bulk products.

In many cases these bulk cargoes are handled at berths near to the premises of major industries in the port area. The major bulk cargoes shipped through the port are crude oil and petroleum products with the Gellibrand oil berth able to handle tankers of more than 100,000 deadweight tons and 950 feet in length.

Australia is an expanding nation seeking new blood to swell the population, and although passenger shipping presented only 5.3% of the total shipping calling at the port of Melbourne in 1967, the port plays a significant role as a major terminal for migrants intending to establish new homes in Australia.

Migrants have made up a large part of more than one million people who have embarked and disembarked from overseas passenger liners at Station Pier, the port's main passenger terminal, which has undergone numerous extensions and improvements in keeping with the changing requirements of passenger shipping.

The Port of Melbourne is a developing international port geared to providing up-to-date facilities which reflect the changing trends in world shipping and the continued expansion of Australian prosperity through the State of Victoria, the hinterland it serves.

IMCO As Seen by IAPH

Reports by observers from IAPH at IMCO sessions

Report No. 4

Date: February 5~9, 1968
Place: IMCO Headquarters, London
Session: The 9th Session of the Sub-Committee on Tonnage Measurement of the Maritime Safety Committee, IMCO
Observer from IAPH:
Mr. G. E. Young, Assistant General Manager (Finance), Mersey Docks & Harbour Board, Liverpool
Agenda (Provisional): TM IX/1

1. Adoption of the agenda (TM IX/1)
2. Proposal for a universal system of tonnage measurement based on the unification and simplification of existing systems:
   (a) Articles of the Convention
   (b) Regulations annexed to the Convention
   (c) Form of Certificate
   (d) Explanatory note, if any, on the proposed universal system
3. Proposal for a universal system of tonnage measurement based on a new concept:
   (a) Articles of the Convention
   (b) Regulations annexed to the Convention
   (c) Form of Certificate
   (d) Explanatory note, if any, on the proposed universal system
4. Any other matters
5. Report to the Maritime Safety Committee

Text of Report:

Introduction

1. There were delegations from twenty countries and observers from the Panama Canal Company, the Suez Canal Authority, I.C.S., P.I.A.N.C. and I.A.P.H.

2. This Session was almost entirely devoted to the consideration of those proposals to be submitted to the Maritime Safety Committee at the Session in March 1968 which at the Eighth Session of the Sub-Committee it was agreed should be considered. The basis of discussion was therefore the Interim Report of that latter Session, paragraph 22 of which stated that it was agreed that no new proposals could be submitted for consideration at the Ninth Session. The proposals considered were, therefore, the so-called Norwegian System based on the unification and simplification of existing systems and two proposals based on new concepts, one by the United States of America and one a joint proposal by France, Sweden and the United Kingdom. These later became known as proposals A, B and C and for convenience will be so referred to hereafter.

3. From an early stage in the Session, it was apparent that no one of the systems had a clear majority support, and that delegations felt that no system, particularly C, was sufficiently supported by statistical evidence to permit of a comparison being made between them and with existing systems. A clear cut decision was also frustrated by the uncertainty among the delegates as to how far the so-called terms of reference laid down by the Sub-Committee itself in 1961 and approved by the Maritime Safety Committee were still binding. In the result, it was agreed that all three systems should be sent forward without indication of preference.

4. The decision was further complicated by an amendment to C which was strongly proposed by Denmark and which found a great deal of sympathy. The amendment, which will be referred to later, was of such a fundamental nature as to be almost a new proposal.

Proposed Systems agreed to be submitted to the Maritime Safety Committee

5. The three proposals were substantially in the same form as submitted to the previous Session.

6. **Proposal A** — The alteration in the propelling power allowance gives a more equitable scale, particularly for ships at either extreme. The system is designed on the modification of existing systems and provides for gross tonnage determined by multiplying moulded volumes by appropriate conversion factors in an attempt to obtain tonnages as near as

possible to those obtained under present measurement systems and net tonnage derived from gross tonnage by deduction of certain spaces. The Tonnage Mark System is embodied in principle.

Proposal B—The system provides for gross and net tonnages, but these are computed independently by methods which differ from existing systems. Net tonnage is obtained by direct measurement of the moulded volume of passenger spaces and cargo spaces. Both gross and net tonnages are multiplied by conversion factors in an attempt to obtain tonnages as near as possible to those obtained under present measurement systems. The Tonnage Mark System is embodied in principle.

Proposal C—An amendment was introduced to provide a conversion factor to volumetric tonnage in an attempt to make the result as nearly as possible the same as existing gross tonnage. There is no provision for net tonnage, the second parameter being displacement at Summer Loard Line. The Tonnage Mark Scheme is not embodied in this proposal.

7. In connection with this proposal, the Danish Delegates proposed an amendment that there should only be the one parameter of displacement and that all reference to volumetric and gross tonnage should be deleted. The amendment received some measure of support but as it was considered so fundamental a change as to amount to a new system, it was not accepted as an amendment, but it was agreed that this concept should be referred to in the Report. Denmark indicated that they would make a proposal either at the Maritime Safety Committee or at the Congress.

Tonnage Mark Scheme

8. Many delegations expressed a desire to retain the Tonnage Mark Scheme and the privileges it confers on certain types of vessels. There was again reference to the implementation of the Scheme by countries and charging authorities. Very few countries had furnished information as requested at the last Session and the Sub-Committee recommended that the Maritime Safety Committee should obtain the required information from all members of I.M.C.O.

Interim Period

9. Most delegations thought that there would inevitably be an interim period in the adoption of any new system arising out of the different dates of acceptance and by the amount of work that would be involved in issuing new certificates. There was still a considerable body of opinion that charging authorities should operate two distinct schedules for existing and new ships.

Statement by Observer on behalf of I.A.P.H.

10. The question of the non-implementation of the Tonnage Mark Scheme by charging authorities and the continued suggestions that there would be an interim period and that port authorities might adopt two charging schedules called for a statement by your observer and an opportunity was given on the third day of the Session. The text of the statement was published as a working paper and is attached as an annex to this Report.

Conclusions

11. As there has been no firm recommendation on a universal system, the decision now lies with the Maritime Safety Committee and, possibly, ultimately with the Conference in 1969, when there will still be an opportunity for new ideas to be submitted. It would, therefore, seem necessary for I.A.P.H. to continue to try to influence the ultimate decision. Delegates and the Secretariat expressed the hope that I.A.P.H. would be represented at the Maritime Safety Committee Session from the 11th to the 15th March.

12. The points on which opinions should be expressed are,—

(a) the Tonnage Mark Scheme;
(b) the interim period in the adoption of any new system;
(c) the system which would be most acceptable to charging authorities.

13. In connection with the last item (c), members of I.A.P.H. may think that there is considerable merit in the Danish proposal referred to in paragraph 7 as an amendment to Proposal C and would wish to take immediate steps to make their views known to I.M.C.O. In this connection, a Sub-Committee of the United Kingdom Dock and Harbour Authorities' Association considering an alternative to registered tonnage as a basis for the charging of port dues felt that displacement was the most suitable and would in all probability have recommended this had the declaration of displacement been universally required for the purposes of registration. Information has been received that some British shipowners would consider favourably a system based on displacement. Either Proposal C or the Danish amendment would have the advantage over the other two systems in that there would not seem to be any necessity for an interim period.

Working Paper: TM IX/WP. 6

Implementation of Assembly Resolution A. 48 (III)

Statement made by observer (Mr. Young) from the International Association of Ports and Harbors

I am pleased to have the opportunity to speak at this most important session of the Sub-Committee. From the tenor of the statements made throughout this session it is apparent the effect of your recommendations, whatever they may be, on charging authorities is of great concern to all the delegations.

May I first summarise the present position so far as ports and harbors are concerned and then pass on to our hopes for the future.

You have had certain information given to you regarding the present charging practice in various countries (I refer to TM IX/7 and TM IX/7 Add. 1) and this indicates that although Governments have implemented the Tonnage Mark Scheme a very large number of ports throughout the world have taken independent action. My Association has received similar information. I would, however, point out that a large majority of ports use net register tonnage, in one form or another and this indicates that ports are not only willing but desire to use any measurement system which is acceptable to shipowners as being a fair basis of comparison between ship and ship.

The Executive Committee of my Association met in New Orleans in mid-January 1968 and though it did not reach any conclusions on this difficult question of Tonnage Measurement there was a strong feeling that whatever form is adopted it should be simple and clear.

Strong objection is felt to any system such as the Tonnage Mark System which provides for measurements which vary according to conditions at any given time. Many ports have not the facilities for physical inspection and indeed climatic conditions may make this impossible.

I am instructed to say that if Governments and shipowners want ports to accept any new system of measurement as a basis for charging, such measurement must be clearly defined in such a way that the applicable figure for any ship can be taken from the Register and that there shall be no necessity for physical inspection of the ship. Unless provision is made for comparison between existing and new ships, ports would properly object to any proposal that a new basis should apply only to new ships. Such a proposal could create serious anomalies and would undoubtedly give rise to complaints from shipowners. Charging authorities and others would be faced with the problem of making their own comparisons between the old and the new measurements in order that existing and new ships be treated fairly as between ship and ship. Individual ports may not be competent to make this comparison and there could be world-wide chaos in charging tariffs. There could also be confusion in safety provisions and manning scales.

May I conclude by saying that the attainment of universal adoption of any system is difficult. There are, in fact, four delegations at this session whose ports are not represented by my Association.

Report No. 5

Date: March 11~15, 1968

Place: IMCO Headquarters, London

Session: The 17th Session of the Maritime Safety Committee, IMCO

Observer from IAPH:
Commander G. V. Parmiter, R. N., River Superintendent and Harbour Master, Port of London Authority

Agenda (Provisional): MSC XVII/1
Opening of the meeting. Election of the Chairman and Vice Chairman

1. Adoption of the Agenda
2. Report of the Secretary-General on credentials
3. Status of the IMCO Convention and of other conventions deposited with IMCO
4. Report of the Sub-Committee on Tonnage Measurement
5. Report of the Sub-Committee on Fire Protection
6. Report of the Sub-Committee on Ship Design and Equipment
7. Report of the Sub-Committee on Subdivision and Stability
8. Marine pollution including Report of the Sub-Committee on Oil Pollution
9. Report of the Sub-Committee on Bulk Cargoes
10. Report of the Sub-Committee on the Carriage of Dangerous Goods
11. Report of the Sub-Committee on Safety of Navigation
12. Report of the Sub-Committee on Radiocommunications
13. Report on the results of the World Administrative Radio Conference: revised International Code of Signals
14. Report of the Sub-Committee on Life-Saving Appliances
15. Simla Rules
16. Amendment of Regulations 27, 28 and 29—Chapter III of the International Convention for the Safety of Life at Sea, 1960 —Proposal by the Government of Canada
17. Weight limit for life-rafts on davits — Proposal by the Government of France
18. Warning signals for vessels fitted with bulbous bow
19. Review of work programme for 1968/9 in the light of any requests from the Legal Committee
20. Date of next session
21. Any other business
22. Consideration of the report of the Committee on the work of its seventeenth session.

Text of Report:

On behalf of the International Association of Ports and Harbours I attended the 17th Session of the Maritime Safety Committee of the Intergovernmental Maritime Consultative Organisation held in London from 11th—15th March, 1968.

Referring to the Agenda (attached), Item 4, Tonnage Measurement is reported on by Mr. G. E. Young of The Mersey Docks and Harbour Board.

Item 5. Fire protection. The Sub-Committee reported on three items.

(a) Classes of flammable liquids from the viewpoint of fire hazard.
(b) Structural requirements for fire protection in ships.
(c) Operational requirements.

On the fourth item (d) Safety measures in ports, it has not yet been possible to study this matter. When it is studied, the Association should be represented on the Sub-Committee.

Items 6 and 7 were not particularly relevant to Ports.

Item 8. Oil pollution. The Sub-Committee's report mainly concerned ships at sea with regard to tank working, de-ballasting and "Load-on-top" procedure. The life of the Sub-Committee was extended for a further year and the Association should be represented when it comes to discussing oil pollution of Ports and Harbours.

Item 9. Bulk Cargoes. The Sub-Committee's report was mainly concerned with ship stability but there are further problems to be discussed regarding loading and discharge of grain and ore concentrates. It was noted that ore concentrates were a very hazardous material and no doubt this will be taken up by the Sub-Committee on Dangerous Goods.

Item 10. Carriage of Dangerous Goods.
This is a very important matter to Port Authorities and considerable work is being achieved especially with regard to Ammonium Nitrate fertilizers, Superphosphates, Insecticides, Aerosols, Silicons and many toxic chemicals. Since stevedores and Dock workers are involved in this, the Association should be represented on the Sub-Committee.

Item 11. Safety of Navigation.
This Sub-Committee dealt mainly with Routeing and Traffic Separation at focal points at Sea, but in regard to such routeing it is important that close attention is paid to Port Approaches in that traffic entering and leaving Ports is not unduly interrupted. Your ob-

server is watching these points. Many items are still under consideration and these include:—
The International Regulations for Preventing Collisions at sea with respect to special signals, ships operating in shallow or narrow channels and Port Approaches.
Navigation of Hovercraft.
Navigation problems posed by Drilling platforms.
Special local signals introduced under Rule 30 of the Collision regulations.
Special rules for port radar services.
Your observer will attend the next meeting of the Sub-Committee and report further on the matters.

Items 12 and 13. Radio Communications.
The requirements of radio communications within Ports are being closely watched in co-operation with the International Chamber of Shipping. This is becoming more important with the advent of walkie-talkie radios and the remote control of cargo handling gear by radio within Ports and Harbours.
The Association should be represented on this Sub-Committee.

Items 14 to 17 were of little concern to the Association.

Item 18 was referred back to the Safety of Navigation Sub-Committee.

The next meeting of the Maritime Safety Committee will be held in London 21st~25th October and the fourth meeting of the Assembly 25th~29th November.

Report No. 6

Date: March 11~15, 1968
Place: IMCO Headquarters, London
Session: The 17th Session of the Maritime Safety Committee, IMCO
Observer from IAPH:
Mr. G. E. Young, Assistant General Manager (Finance), Mersey Docks & Harbour Board, Liverpool
Agenda (Provisional): See Report No. 5
Text of Report:
1. The Report of the Sub-Committee on Tonnage Measurement was considered.
2. The Report (TM IX/15) submitted three proposals—A, B and C in Annexes I, II and III and an explanatory note proposed by Denmark given as Annexe IV, details of which were given in the I.A.P.H. Observer's Report on the Ninth Session of the Sub-Committee—paras. 5/7. No preference had been indicated in the Sub-Committee's Report.
3. The Committee decided that proposals A, B and C should be circulated as soon as possible to all Governments which will be invited to the Conference on Tonnage Measurement to be held in May, 1969 and that at the same time the explanatory note proposed by Denmark should also be circulated.
4. The Committee understood that any Government would be free to submit in due course any comments or new proposals for the Conference.
5. It is quite impossible at this stage to predict what decision will be taken at the Conference and whether a new Convention will emerge. Should the I.A.P.H. wish to influence a decision, it will be necessary for agreement to be reached by its members and for the respective Governments of those members to be pressed to support its recommendations.
6. The I.A.P.H. will, no doubt, be invited to send an observer but will not have the right, though it may be granted the opportunity, to express its views.
7. The Committee also endorsed the view of the Sub-Committee that information should be collected from all Governments concerned about the practice by their relevant authorities in collecting port and harbour dues and in particular the use of the lower tonnage on ships having dual tonnages and it was agreed that the information collected should be brought to the attention of Governments invited to the Conference.

Report No. 7

Date: March 19~22, 1968
Place: IMCO Headquarters, London
Session: The 5th Session of the Sub-Committee on Safety of Navigation of the Maritime Safety Committee, IMCO
Observer from IAPH:
Commander G. V. Parmiter, R. N., River Superintendent and Harbour Master, Port of London Authority
Agenda (Provisional): NAV V/1/Rev. 1

1. Adoption of the agenda (NAV V/1/Rev. 1)
2. Routeing and traffic separation schemes:
   (a) Proposals for establishing new schemes (NAV V/2, NAV V/2/1)
   (b) Principles of implementation and use of such schemes, terms and definitions (MSC XVII/11/Add. 4, MSC XVII/11/Add. 10)
   (c) Lights and shapes for deep-draught vessels when navigating through a narrow channel (MSC XVII/11/Add. 1, NAV V/2/2)
   (d) Preparation of an appropriate publication
3. Standards for training and qualifications of officers and crew; training and qualifications required to use shipborne navigational equipment; standardization of licences for masters and officers (NAV V/3, NAV V/3/1, NAV V/3/2)
4. Efficiency of sound signals (NAV V/4, NAV V/4/1)
5. Disposition of navigation lights (NAV V/5, NAV V/5/1, NAV V/5/2)
6. Operational requirements concerning safety of navigation of non-displacement craft (NAV V/6)
7. Navigational problems related to the operation of drilling platforms (NAV V/7)
8. Additional navigational aids in the Red Sea (NAV V/8)
9. Navigation via satellites (NAV V/9)
10. Use and testing of shipborne navigational equipment; amendments to the appropriate Safety Certificates (NAV V/10)
11. Development and use of speed and distance indicators (MSC XVII/11/Add. 7)
12. Efficiency of navigation lights (MSC XVII/11/Add. 2, MSC XVII/11/Add. 6)
13. Unification of local special rules referred to in Rule 30 of the International Regulations for Preventing Collisions at Sea

14. Revision of the International Regulations for Preventing Collisions at Sea
15. Warning signal for vessels fitted with bulbous bow (MSC XVII/18, MSC XVII/18/Add. 1, MSC XVII/18/Add. 2)
16. Night signal for vessels having on board dangerous goods (MSC XVII/21/1)
17. Freeboard for ships in ballast condition (MSC XVII/21/2)
18. Any other business

Text of Report:

The 5th Session of the Sub Committee on Safety of Navigation of the Maritime Safety Committee of I.M.C.O. was held in London from 19th to 22nd March, 1968.

The Agenda for the Meeting and the list of Participants is attached hereto for reference.

Item 2 (a) and (b) Routing and Traffic Separation Schemes.

The Working Group previously set up continued its examination of Traffic Separation Schemes and adopted schemes for:—

(a) San Francisco
(b) The Baltic
(c) The Norwegian Coast.

It may be noted that the proposals now contain a system of "roundabouts" at certain focal points where ships leave and join the routes, moving only in a counter clockwise direction.

The Working Group gave consideration to principles of approval of routing schemes and areas to be avoided by certain ships. It also recommended that the Secretariat be instructed to prepare a publication on routing for consideration.

In their proposals for Approval of Routing Systems the Working Group has stated—

"1. I.M.C.O. is recognised as the only international body responsible for establishing and recommending measures on an international level concerning routing and areas to be avoided by certain ships."

This is unexceptional as regards traffic on the High Seas, but a conflict occurs in their second proposal, viz:

"Governments should avoid establishing routing systems outside their territorial waters if such systems have not previously been approved and recommended by I.M.C.O. for International use."

Many ports have approaches extending beyond the 3-mile limit and it would be intolerable if Ports had to wait for I.M.C.O. approval before any traffic regulation scheme could be put into force for vessels entering and leaving harbour.

Your delegate will endeavour to get this amended into the positive sense so that Governments **may** establish routing schemes in the approaches to Ports and Harbours outside territorial waters, provided that I.M.C.O. is informed that such a scheme is about to be brought into force.

Maybe I.A.P.H. members will approach their national representatives on I.M.C.O. to revise this restrictive clause. The Legal Committee of I.M.C.O. will be studying the legal implications of this matter.

Item 2 (c) Lights and Shapes for deep draught vessels navigating in narrow channels.

The use of a black cylinder by day and three red vertical lights to indicate a deep draught vessel has at last been agreed and recommended, with reservations by three delegates who requested that it be referred to the Legal Committee.

Item 3 Standards for training etc., was not of concern to I.A.P.H.

Items 4, 5 and 12 concerning navigation lights and sound signals are deferred to the next meeting pending receipt of further information.

Item 6 Hovercraft. Deferred awaiting further experience and information.

Item 7 Drilling Platforms. Extensive discussion ranged widely over all aspects of drilling platforms on the High Seas, but was not particularly relevant to I.A.P.H.

Items 8 to 11 were not of particular interest to I.A.P.H.

Items 13 and 14 Local Special Rules and the revision of the International Collision Regulations.

This item has been deferred to the next session and is clearly going to be a most protracted business. I.A.P.H. is vitally concerned that no attempt be made to amend Rule 30 of the Collision Regulation so as to bring local rules under the control of I.M.C.O. although it is conceded that certain local rules should be standardised for common services, i.e. dredging, divers, construction work etc., in so far as signals are concerned.

The U.K. Docks and Harbours Authorities Association is already in consultation with their National Administration on this subject and it is recommended that I.A.P.H. Members do likewise.

Item 15 Signals for vessels fitted with bulbous bows.

The danger of bulbous bows is only relevant in harbour approaches where tugs, pilot boats and work boats approach a vessel. After considering several ideas the Sub-Committee agreed that the simplest was the best: i.e. a notice board, illuminated at night, stating simply "Danger—bulbous bow", placed forward at the rail each side. To save a further item being raised, your delegate suggested that a similar board should be used to indicate the position of a bow-thrust unit, where so fitted, and this was agreed.

The remaining items did not concern I.A.P.H.

The 6th Session of the Sub-Committee will be held in London, 17th~20th September.

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The Friendly Land

By B. H. Arnold

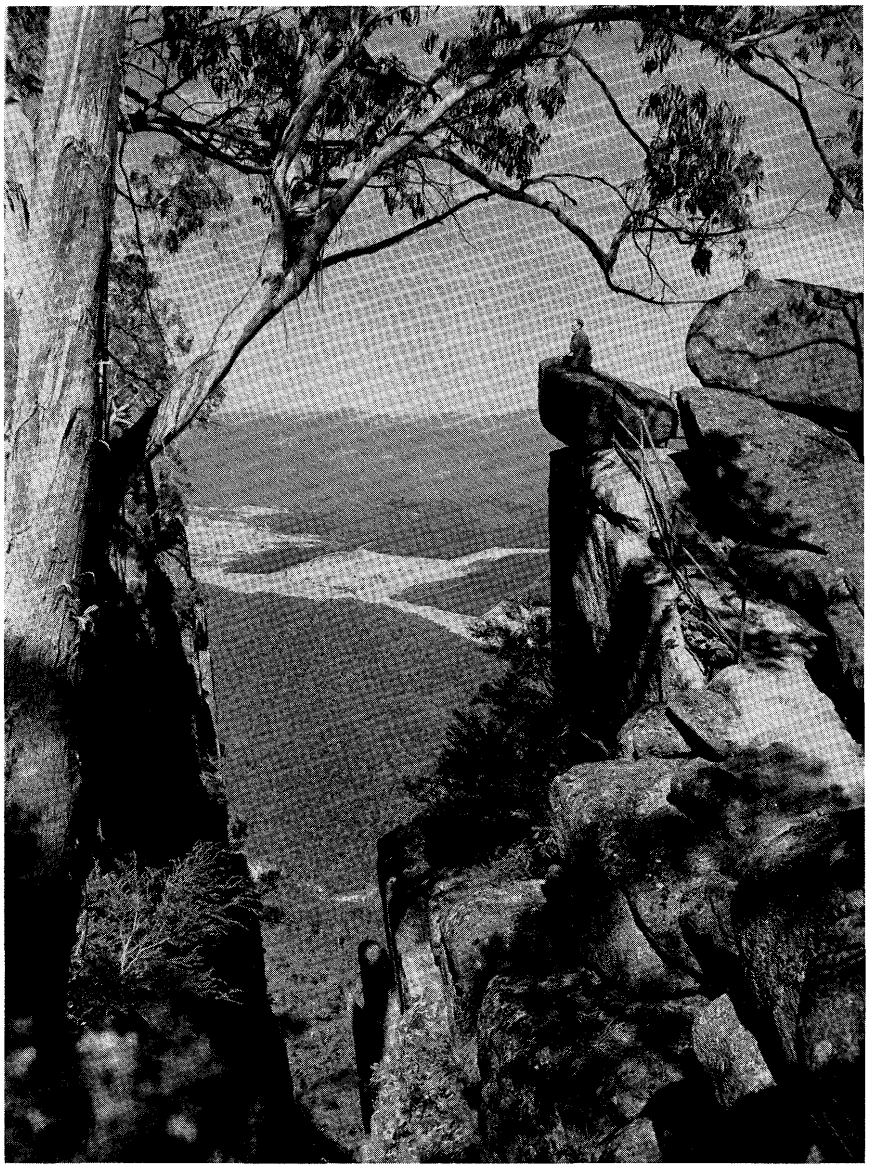
from

Port of Melbourne Quarterly

April-June, 1968

The International Association of Ports and Harbors — representing more than 280 member organisations in 49 countries of the world— has chosen Melbourne as the venue for its next biennial conference to be held next March, and for many of the delegates and their wives who will attend, it will be their first visit to a country which to them is little more than just a name.

Australia, that strange land "Down Under", roughly the same size as the United States of America or the Continent of Europe, is probably better known for its outstanding individuals, than as a country or nation. Australian tennis stars, golfers, racing drivers, and more recently another bantamweight boxer, have won world acclaim and honours in their particular spheres of sport. Australian artists have won honours on the world stage, while Australian scientists have won rare accolades in medicine and science, to mention only a few.



Pulpit Rock, dominating feature of National Park, Mount Buffalo, Victoria, overlooks Buckland Valley.—Australian News and Information Bureau

And yet as a nation or a country, Australia, from a visitor's point of view, still appears to be an unknown entity whose outstanding features seem to be the kangaroo and the boomerang.

To the international industrialist, the man of commerce, and the financier, Australia is well known in the specific and particular spheres of their activity.

For many years the nation's rich mineral deposits have aroused the interest of industrialists in all corners of the globe—an interest which has been heightened in recent years by the discovery of further extensive mineral, oil, and natural gas deposits.

In the world of commerce, Australia is well known as being among the first twelve leading trading nations, both as an important market and as a rich source of primary and secondary produce.

In financial circles, Australia is in high standing as an investment area because of its stable political climate; its tremendous industrial, commercial and social development; and its high productivity and standard of living.

And yet the considerable knowledge in these specific spheres of activity only present limited aspects of a country and people, a full comprehension and understanding of which requires a visitor to combine the activities of a businessman with that of the tourist. In the main, visits made for business purposes are extremely brief, demanding intense activity entirely centred around business affairs, and with a strict limit on time, even social occasions have strong business overtones.

The tourist visitor, however, has no particular aim except to see the country he is visiting, to meet the people if he can, and to enjoy and savour the life which the people live in the country he is visiting. For

this reason it is the tourist visitor who, very often, gains a more comprehensive appreciation of a country. A visitor who devotes his time to a combination of both business and tourist activity, in roughly equal proportion, gains perhaps the greatest appreciation and comprehension of any country.

In the past few years, a substantially increased flow of business visitors have come to Australia, and to Melbourne and the State of Victoria, in particular. The Port of Melbourne has also seen its share of overseas port shipping, industrial and commercial executives attracted by Australia's unprecedented development.

However, Australia is now also making a concerted drive to attract more of both the purely tourist visitor as well as the business-tourist visitor and the organisers of the Sixth Conference of the I.A.P.H. have planned a combination of business and tourist activity for the attending delegates and their ladies, which, it is hoped, will give them as comprehensive a knowledge of the country as is possible.

International tourism has become the biggest single export industry of any country in the world, and in the past Australia has had only a modest share of the millions of people who travel out of their own countries each year. It has been estimated that in 1966, 290 million people travelled abroad, but only 211,000 overseas visitors came to Australia, a number which in no way reflects the tourist attractions which the country has to offer. In fact, it is anticipated that in the next ten years, the annual number of visitors is expected to reach the million mark.

The questions which arise of course are: — "What has Australia to offer?" and "Why haven't more people 'discovered' the place?"

The answer to the second question is of greater relevance, as it is one of fundamental geography. Australia has always been at a disadvantage because of the distance which separates the Island Continent from other world centres, particularly Europe.

Australia, although situated in an Asian region and sphere of influence, is European in outlook and background, and its relative remoteness from the region of its origins has played an important part in the nation's development.

Not so long ago Australia's koala population was nearing extinction but regorous protection and careful rehabilitation measures have saved them. They now thrive in many native haunts as well as the numerous habitat is confined to forest country on the east coast of Australia. It lives its whole life in trees and ventures to ground only when moving from tree to tree. The leaves of a few selected species of eucalyptus form the koala's almost exclusive diet.—Australian News and Information Bureau

For more than one hundred years after Australia was discovered and settled in 1788, a voyage to the new land lasted up to five months, while a journey of two months was considered a record-breaking event. Even today, fast luxury passenger liners, which in themselves are floating holiday resorts, still take several weeks to bring thousands of new settlers and travellers each year. Also despite modern air travel, time and distance are still a considerable factor. Australia is still 30 hours' flying time from the United Kingdom and Europe; 22 hours from the east coast of North America, and 14 hours from both Japan and the East, and the continent of Africa.

Until comparatively recently, the time and costs involved were strict-

Pride of motherhood. A Great Grey or Forester kangaroo (Macropus major) with a joey in the pouch. The joey, which is about nine months old is about ready to leave the pouch permanently.—Australian News Information Bureau

ly limiting factors in purely tourist travel to Australia, but in the past decade the revolution in travel has drastically reduced the time factor, and thereby the impact of distance. The cost factor is also being drastically reduced, so that travel is no longer the exclusive preserve of the well-to-do, but is coming into the reach of most people in affluent societies.

In such changing circumstances, there can be little doubt that Australia is on the threshold of a tourist boom which the tourist attractions of the oldest continent deserve, and which the unprecedented national development makes an inescapable requisite for overseas business interests.

The answer to the first question of "What has Australia to offer?" is more complex.

Like every other country and people on earth, Australia has features and characteristics which are peculiarly its own. It has advantages and shortcomings which differ greatly from those of other countries and other people. It also has physical features and scenic attractions which are not comparable to anywhere else.

It is the opinion of overseas visitors that Australia has five major items which are of interest to the traveller. In oredr of preference they are:—

1. The Australian outback — the vast sunburnt heart of the 2.9 million square miles continent immensely rich in minerals, through which small numbers of nomadic stone age aboriginals still wander, and where the visitor can hunt buffalo or crocodile, mine for opals or gold; and see a type of scenery which nature has painted in hues which have to be seen to be believed.
2. The Great Barrier Reef — the chain of coral and islands extending over a thousand miles along Australia's north-eastern shore, fringed by white beaches under a tropic sky.
3. The flora and fauna—the flowers, birds and animals, particularly the kangaroo and koala which are uniquely Australian, and which are a never failing source of interest to visitors.
4. The vibrant life in the country—the entire continent is undergoing a dynamic development.
5. The friendliness of the Australian people — a recent questionnaire answered by people who had travelled and visited countries in the Pacific region showed that 68 per cent of the visitors had been impressed with the friendliness of the people.

In the final analysis of course, much of the pleasure and interest in travel is in meeting people, both one's fellow travellers and those who live in the countries being visited, and many a journey anticipated with pleasure, has been marred by the incompatibility and unfriendliness of other people.

If then the overseas opinion of Australians has a solid foundation, the pleasure of travelling and visiting a country in which one feels at home and among friends is greatly enhanced, and is a factor on which it is impossible to place a monetary value.

In view of the more favourable international travel conditions, Australia is now gearing herself to cater for a substantial increase in tourist activity, which is more than warranted by the attractions the country has to offer.

The Federal Government has established its own tourist organisation — the Australian Tourist Commission—which is giving a national

A kangaroo in captivity quickly becomes a friendly pet—as these young children are discovering at a zoo in Melbourne, Australia.—Australian News and Information Bureau

emphasis to tourist promotion as well as adding to and supporting activities which are undertaken by the various independent States.

Accommodation is a basic requirement for visitors, and considerable expansion of the range, quality and number of facilities is now taking place throughout the continent.

Contrary to a deep-rooted Australian opinion, the majority of overseas visitors do not demand luxury accommodation, but rather require comfortable accommodation, at reasonable prices, preferably built and located to suit the natural beauty of the surrounding countryside.

The considerable changes in the time and cost factors in world travel in the past decade, and the further changes still to come in the 1970s and 1980s, require equally drastic changes in thinking, because unlike the traveller of the past, the present day visitor to Europe, the United States, Japan, Africa or Australia is not necessarily a millionaire. Travel today is within the reach of so many people who are not well-to-do in the general accepted sense.

It is a strange paradox that Australia which is one of the least tourist frequented areas, nevertheless contains a people which per head of population travel more than any other. A high standard of living, comparable with the nation's continuing prosperity and development, have made it possible for thousands of young people from all walks of life to travel abroad. Greatly changed work entitlements, such as long service leave and increased retirement benefits, have also made it possible for many elderly and retired people to travel abroad in far greater numbers.

And in fact more people in all walks of life everywhere are now travelling outside their own countries.

Apart from accommodation, the Tourist Commission, together with the Tourist organisations of the various States, is particularly active in further developing the nation's tourist attractions and facilities including the means of transportation.

Australia's appeal lies mainly in its uniqueness. The vast island continent, bounded by more than 12,400 miles of coastline, has one-third of its land lying in the tropics; has a greater area under snow than Switzerland, with snow resorts becoming a part of the international ski circuit; and a more temperate climate over most of its area than other countries in the same latitude.

It is a land of strange contrasts, of vast areas of arid sunburnt country and rich fertile coastal plains; of lonely isolated settlements served by flying doctors and linked by radio, and bustling cosmopolitan centres of various degrees of sophistication; of major primary producing areas which supply and feed the world with wool and wheat, butter, cheese and meat, and centres which are highly industrialised, making aircraft and ships, steel and aluminium, cars and trains, electronic equipment and chemicals and plastics; a land rich in iron, silver, gold, and other minerals, but poor in natural water resources; and a homogenous people, with seven out of ten owning their own homes, who spend most of their leisure time in the open in a variety of activities.

Australia has been referred to in some quarters as "the last of the frontier lands", in the sense of national development where initiative, enterprise, and courage are part of the way of life of the majority of the people, and which gives the tourist visitor a feeling of breathtaking adventure.

Review of 1967

By Frederic A. Potts

President
Philadelphia Port Corporation

(from "1967 Annual Report")

The past year has been one of action and implementation of policies and plans which were adopted since the Philadelphia Port Corporation was formed. Of outstanding significance was the start of construction of the new Tioga Marine Terminal. As noted in last year's Annual Report, the site for the terminal was chosen in 1966, real estate assemblage was commenced and design engineering initiated. Activity at this planned terminal, including discussion with prospective tenants, continued throughout the year. Specifications were prepared, bids were solicited for site preparation, the contract awarded and the Tioga groundbreaking ceremony was held on September 29, 1967. This indeed is a record-breaking period of time to solve the myriad problems involved prior to the building of a terminal complex of such magnitude.

Tioga will cover some 90 acres of prime land along 3,300 feet of water-front. The Corporation will provide five marginal berths plus one auxiliary slip berth at the lower end for general cargo and for roll-on roll-off operations. There will also be one special-purpose slip berth at the upper end to accomodate liquefied natural gas ships of the Philadelphia Gas Works. The finest and most up-to-date facilities for streamlined handling of conventional breakbulk cargo and for expeditious transfer of container cargo will be available. Although container cargo is now only in the developmental stage within the Delaware River Port area, it is expected to gain considerable momentum over

Overall view of the Port of Philadelphia showing many of the older type "finger" piers, many of which are being demolished and others are being rehabilitated to the extent economically feasible.

the next several years. Tioga will provide two key items for port operators in the handling of container cargo, i.e., large amounts of backup land for assembling and storing containers as well as special type cranes specifically designed for container handling.

The total cost of Tioga Marine Terminal is estimated at $18,500,000 with completion scheduled for the first quarter of 1969.

The three-berth Packer Avenue Marine Terminal, a City-State project, was rapidly nearing completion at the close of 1967, and an agreement in principle was reached with the City to lease this terminal to the Corporation under terms similar to those in the Consolidated Lease for the older pier facilities. Since Packer Avenue was designed prior to the present container revolution now sweeping the world, the Port Corporation is presently making arrangements to provide a heavy lift mobile crane which will give the tenant the ability to handle the heaviest containers in expeditious fashion.

The Corporation has consummated an agreement with Penn Central Transportation Company for acquisition of approximately 45 acres adjoining and immediately downstream of Packer Avenue Marine Terminal for the provision of a specialized container facility. There will be two marginal berths plus one slip berth at the lower end with roll-on roll-off capability. Suitable container cranes will be furnished. Thus in its fully completed form, Packer Avenue Marine Terminal, as with Tioga, will be a fully coordinated, completely flexible marine terminal complex. Construction of this $8,500,000 extension is scheduled to start about mid-1968, and completion is scheduled for mid-1969.

In last year's Annual Report, it was mentioned that the Tioga Marine Terminal might possibly be expanded to the north and to the south for a total of 14 berths. This still is a longer-term possibility, but immediate action has been deferred. During mid-1967 when Corporation officers were investigating the possibility for expansion of Tioga, the Philadelphia Industrial Development Corporation helpfully reported the availability of approximately 124 acres of excellent waterfront land near the mouth of the Schuylkill River on the southwest shore immediately below the Penrose Avenue Bridge. The frontage on the river totals 2,400 feet, which could accommodate four conventional-size general cargo ships or three of the new larger all-container ships. The Corporation has signed a preliminary agreement with the owner, Gulf Oil Corporation; a contract for necessary soil borings and site investigation has been prepared, and design studies initiated.

Packer Avenue Marine Terminal—at the present time contains 3 marginal berths, 3 transit sheds, 2 warehouses and a refrigerated warehouse, covering 65 acres. A 45-acre extension providing 2 additional marginal berths and 1 slip berth on the downstream end will be provided within the next year and will be constructed specifically for handling containers.

Downstream and immediately adjacent to this site, there are several hundred acres of land owned by the Federal Government which are presently being used for deposit of dredge spoil from channel maintenance. The entire area could be acquired in due course for major future expansion, thereby enabling the enlarged future terminal to stretch down to the mouth of the Schuylkill River and around into the Delaware River.

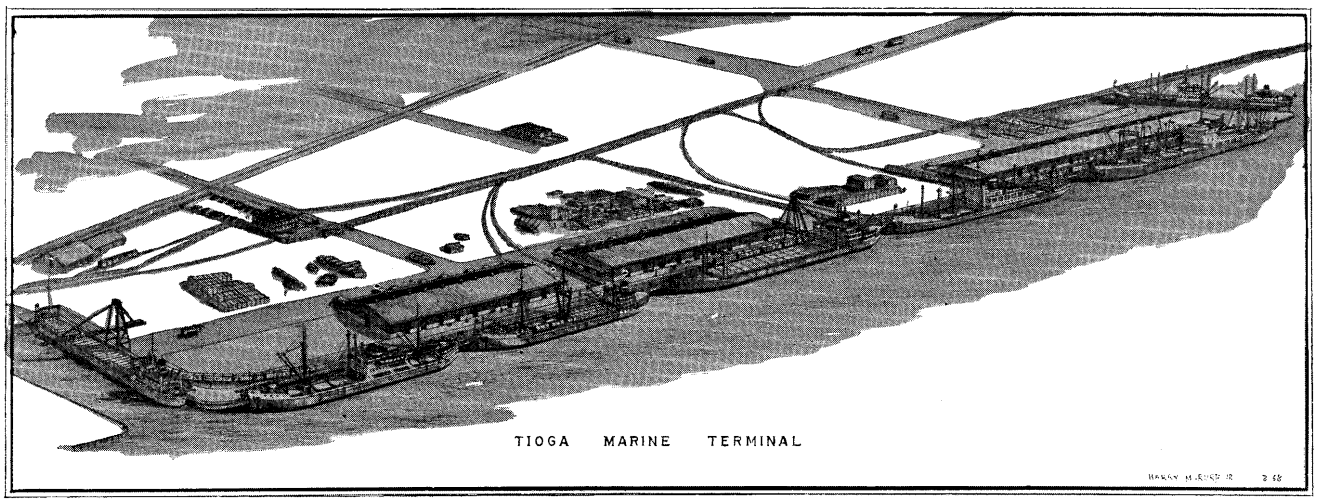
Port operators have exhibited intense interest in this new terminal, and it is anticipated that the first 124 acres of Penrose Avenue Marine Terminal can be made ready in late 1969 for a total expenditure of approximately $12,500,000.

For the longer term, the Port Corporation has initiated, in conjunction with the Delaware River Port Authority, a comprehensive regional port development plan encompassing the area from Trenton to the sea, with costs being shared equally. The study is being conducted by Tippetts-Abbett-McCarthy-Stratton.

The City has requested that the Port Corporation undertake engineering supervision of the site construction contract for the Penn's Landing project. The Corporation will be reimbursed for the appropriate cost of services rendered.

The firm of Lukens, Savage & Washburn was selected from proposals submitted by three highly qualified insurance firms interested in acting as insurance consultants to the Corporation. The analysis of the Corporation's insurance complexities and the expert guidance provided on insurance coverage has been most helpful. The consultant strongly urged that insurance appraisals be prepared for all the piers and ancillary facilities in order to establish up-to-date replacement values and actual cash values for insurance purposes. The Manufacturers' Appraisal Company was chosen from four qualified firms which submitted proposals for the performance of this important work.

In order to determine appropriate compensatory rates and methods for charging tenants for the use of container-type cranes, and taking into account the possibility of rapid economic obsolescence, a contract was awarded to Swindell-Dressler Company to make a survey in depth and



Tioga Marine Terminal—covers 90 acres, contains 5 marginal berths and 1 slip berth at each end. The upstream slip berth is reserved exclusively for liquefied natural gas ships. The entire complex will have the most up-to-date capability for handling containerized cargo as well as conventional break-bulk cargo. Estimated completion date, spring 1969.

supply the practical guidance necessary.

A substantial addition to the Port's present capacity for handling container cargo was the acquisition of approximately 25 acres of land, including a warehouse building and a small office building at Delaware and Oregon Avenues opposite Piers 96, 98 and 100. This area, including buildings, has been completely rehabilitated and leased to the operator of the three piers, thereby bringing valuable new business through the Port.

During the year just completed the Port Corporation has evidenced its role as a responsible landlord of the older general cargo facilities along the Philadelphia waterfront. Approximately $800,000 has been committed to the maintenance and selected major rehabilitation of these facilities, including administration and supervision.

Corporation executives have entered into the broader spectrum of port affairs by taking an active part in the programs of appropriate port associations on the international, national, regional and local levels. Such activity enables the Corporation to keep abreast of new developments worldwide and permits it to contribute in substantive fashion to areas of mutual interest.

During the last twelve months numerous port-oriented individuals from the United States and 15 foreign countries visited the Port, expressing much interest in the rapid progress being made and in the unique organizational structure of the Philadelphia Port Corporation. For a large number of the visitors, this has been their first exposure to the Delaware Valley area; and the opportunity was utilized to acquaint these individuals with the exceptional advantages of routing cargo through this great port area and living and working in the Delaware Valley.

In cooperation with Mayor James H. J. Tate's program to hire the hard-core unemployed, the Corporation has made every effort to add such workers to its ranks, placing them in situations where additional help was needed and where the employees could upgrade themselves by acquiring additional skills.

The thrust of the Port Corporation's program has been strengthened immeasurably by the experienced counsel and ready assistance of Mayor James H. J. Tate, key members of his administration and the several operating and staff departments within the City's organizational framework. City Council and its President likewise have been most helpful, particularly with regard to authorizing the expeditious purchase of real estate and in appropriating the necessary funds for the Port Corporation's operation.

In this same vein, the administrative and legislative branches of the Commonwealth of Pennsylvania have advanced the Port's stature with helpful publicity programs, the Governor's foreign trade missions, international trade seminars and port-related legislation including appropriations.

During the calendar year 1967, several distinguished members completed their terms of office on the Board of Directors—Karl R. Bopp, Edward C. McAuliffe, John J. O'Shea, Frank M. Steinberg and John K. Tabor. These outstanding leaders have our sincere appreciation for the support which they gave the new Corporation.

Welcomed to the Board were Clifford L. Jones, Francis H. Muldoon, William Meyle, Jr., David M. Walker and Alfred R. Pierce. Their experience and singular qualities have added greatly to the deliberations of the Board.

In conclusion, my appreciation is extended to the Directors for their interest and personal contribution; to the Executive Committee for its discernment and guidance; to all of the Corporation's tenants for their continuing cooperation; and to the news media — newspapers, magazines, trade journals, radio and television stations — for their valuable coverage and support. Commendation is due General Allen F. Clark, Jr., Executive Vice President, and the entire organization for an outstanding performance.

Orbiter Probe

IAPH News :

Secretary General

Mr. Toru Akiyama, the Secretary General, went on the 4th overseas business trip this year on August 16, 1968. During the 2-week trip to the U.S. this time, which included attendance at the AOCI (Airport Operators' Council International) Board Meeting in Jackson Hole, Wyoming, Mr. Akiyama visited Ottawa, Canada, where Mr. Howard A. Mann, Chairman of the National Harbours Board, awaited him at the airport.

Joined by Mr. W. J. Manning of the Department of Transport, the three sat together at lunch table and exchanged views. Mr. Mann, the IAPH 2nd Vice President, while still limping slightly from the ski injury suffered last winter which prevented him from attending the Executive Committee Meeting in New Orleans last January, was full of ideas for inviting the 7th IAPH Conference to Canada.

On August 26, Mr. Akiyama visited Mr. Thomas T. Soules, Port Director of Boston, Massachusetts Port Authority, in Boston, and was taken around the Port. At the Port Authority Office, Mr. Akiyama was given a gift of a silver bowl, from Mr. Adward J. King, Executive Director.

On August 29, Mr. Akiyama visited the Port of New York Authority in New York. There was much talk among Mr. Tobin, Mr. King, Mr. Wiley and Mr. Akiyama, on IAPH, the Tobin Committee, and the Melbourne Conference. In the morning, Mr. Akiyama and Mr. Kusu, IAPH Under Secretary, were taken to the Elizabeth Container Terminal for inspection, and in the afternoon, were shown the construction site of the New York Port Authority World Trade Center buildings from a high office window overlooking it.

Mr. Brotherson

Mr. W. H. Brotherson, President of the Maritime Services Board of N.S.W., Australia, is scheduled to attend the ECAFE Conference in Singapore October 9~18.

After that, Mr. Brotherson will arrive in Japan to meet Governor Tanaka of the Mie Prefecture. In Japan he will be joined by Captain H. J. Harvey, the Harbour Master, Sydney, and Mr. H. D. Howe, the Board's Assistant Electric Engineer.

Captain Harvey is particularly interested in harbour control so far as the movements of shipping are concerned and Mr. Howe will be investigating the procedure which the Board will need to adopt in operating a general purpose container terminal in Sydney, while Mr. Brotherson himself will be investigating the operation of International Trade Centers.

Mr. Toru Akiyama, IAPH Secretary General, accompanied by Mr. Shigehiro Kusu, IAPH Under Secretary, visited the Port of New York Authority on August 29, 1968. Seated in the Commissioners Ante Room 1510 in the Port Authority Building are, in clockwise order: Mr. R. A. Belfiglio, Asst. to Planning and Dev. Dir.: Mr. G. F. Tozzoli, Dir. World Trade Dept.; Mr. J. R. Wiley, Aviation Dir.; Mr. Akiyama; Mr. A. J. Tobin, Executive Director; Mr. W. W. Kenn, Aviation Public Ser.; Mr. J. M. Malone, Asst. to Marine Terminals Director; Mr. L. King, Marine Terminals Dir.; Mr. Kusu. (The Port of New York Authority)

Four men hold one silver bowl, a gift from the Port of Boston to Mr. Toru Akiyama, Secretary General, in the Office of the Massachusetts Port Authority on August 26, 1968. Left to right: Mr. Shigehiro Kusu, IAPH Under Secretary; Mr. Edward J. King, Executive Director, MSA; Mr. Akiyama; Mr. Thomas T. Soules, Port Director of Boston.

IAPH Directory 1969

IAPH Membership Directory 1969, has been mailed out to all members, 3 copies each per unit to Regular Members, 2 copies to Corporate Members, and one copy to Individual Supporting Members.

The pocket-sized book with beige cover contains 276 pages. It gives all the important personnel of Regular and Corporate Members as well as Individual Members. The Index of names gives all the listed individual names, nearly 1,700 in all, in alphabetical order, to facilitate quick location of what he is and in which port.

The book includes the names of Past Presidents, Convention Locations, Comtemporary Officers and Directors, Legal Counsellors and Special Committee Members. It also carries the full text of the Constitution and By-Laws. There are also 36 ads according to its Advertisers' Index. The last page is used to show the location of the Head Office where any member of IAPH is always welcome to call in case you visit Tokyo. A Membership application form is inserted.

Although all IAPH members are getting copies of the New Directory gratis, extra copies are available at US$2 per copy including seamail postage to non-members, but for members it is only US$1 at a 50% discount. If you want it airmailed, you are requested to pay additional airmail postage as follows:

No. of Copies	Area 1	Area 2	Area 3
1	US$1.05	US$1.40	US$1.75
2	US$2.00	US$2.65	US$3.30
3	US$3.00	US$4.00	US$5.00

Area 1: Asia (excluding the Near East), Australia, New Zealand.

Area 2: Canada, U.S.A., Central America, Hawaii, West Indies.

Area 3: Europe, Africa, South America, the Near East.

Shipping Forecast

San Francisco, Calif.: — Conventional vessels will continue to carry the major portion of ocean commerce for at least 75 years, according to a study prepared for the Department of Transportation.

The report predicted that ocean-borne trade will reach about 35 billion long tons—21.7 billion in dry cargo and 13.4 billion in tanker cargo—by 2043.

The study, prepared by Litton Systems, Inc., noted that the U.S. share of the growing global market for shipping services is declining partially because foreign firms are making better use of technological innovations.

The report also made these points:

1. Coastal barge trade "should evolve by 1983" since most ports are unable to handle jumboized cargo vessels.

2. "A completely automated ship, with or without shore control, supervised by a reduced crew, is feasible within 35 years, and, in the distant future, unmanned ships are technically feasible."

3. "Low-cost, lightweight nuclear power plants will secure an increasing share of the conventional ship market, beginning about the turn of the century." (Pacific Shipper, August 19)

NYSA-ILA Dispute

San Francisco, Calif.:—The New York Shipping Association last week made its first counterproposal to the International Longshoremen's Association in an effort to ward off a strike on the Atlantic and Gulf Coasts when the current contract expires September 30.

The offer fell far short of union demands on a number of points, particularly on the critical issues of wages and containerization.

The NYSA, which represents some 145 steamship lines, offered a total pay package of 48 cents (12 cents a year) in its four-year package. ILA members now earn $3.62 an hour in wages at North Atlantic ports. The union has asked for a shorter work week and wages of $6 an hour—virtually doubling pay for 40 hours.

The shipping lines want complete freedom on the movement of containerized cargo and a portwide basis under which dockers will work anywhere needed in the bi-state port of New York.

The ILA has demanded the right to strip and load all container, even boxes with manufacturers' labels and used by single shippers. The union has also rejected portwide

senority.

Meanwhile in Washington, D.C., the International Transport Workers Federation, led by ILA president Thomas W. Gleason, adopted a resolution aimed at assuring that "the packing and unpacking of seagoing containers is and will be done by dock labor within the docks."

Since dockworkers from Japan and Europe as well as the U.S. belong to the ITWF, the net effect of this resolution—if all longshore unions observe it—will be to slow down the global trend toward containierization. (Pacific Shipper, August 12)

'Land Bridge' Fever

San Francisco Calif.:—One of the most talked-about topics in transportation circles today is the "land bridge" concept of the movement of international cargoes intermodally by ships and fast, nonstop trains across continents.

One man who has already gained day-by-day working experience in intermodal transportation is John A. Grygiel, manager of market research of the Atchison, Topeka & Santa Fe Railway. The Santa Fe has offered "a package of proposals" to the maritime industry, calling for a unitized train of 80 cars moving between the East and West Coasts in both directions on a five-day schedule each way.

Speaking at a seminar of the AFL-CIO Maritime Trades Department, the Santa Fe executive revealed a realistic understanding of the problems entailed in a "land bridge" partnership between steamship lines and rail carriers.

The traditional rivalry between the railroads and steamship lines will have to be replaced by cooperation to a degree neither mode would have dreamed possible before the advent of the container and intermodality, he indicated.

And Mr. Grygiel—as a railroader—was ready to make a major concession. In order to achieve an effective "land bridge" service in which all can profit, the railroads probably will have to "pare their costs" to bring them into line with lower waterborne freight charges, he said.

But, to be effective and profitable, both the rail and water carriers must be assured that cargo volume, both east and west across the continental U.S. between Europe and the Orient, is full. Neither will profit, he warned, if only partial loads are moved in either direction.

"The ships have to be assured that the unitized trains will be standing by, ready to be loaded and to roll. And the trains are going to expect the ships to move on schedule, so that the trains won't have excessive amounts of dead time in port."

This takes on greater significance in the light of another opinion which Mr. Grygiel expressed:

"The land bridge isn't going to close any old markets—it's going to open up a new one."

Consequently, the railroad executive believes, the Great Lakes and the Panama Canal will continue to be important "as long as bulk shipping continues to expand" because liquid and dry bulk cargoes cannot be exchanged between ships and trains as containerized cargo can.

The implication was clear. The steamship lines interested in "land bridge" service have hard work ahead of them if they want to generate sufficient containerization cargoes to make it pay.

Mr. Grygiel expressed a hope that unsubsidized lines will have a chance to participate "in this lucrative market," but said the subsidized operators "would be the ones to cash in the most on the idea." He concluded:

"If the subsidized lines go out and beat the bushes for commercial cargo, if the railroads bring their rates down so that they match the ocean freight rates—and if both segments . . . work together on technological improvements, then we can look forward to an unprecedented era of prosperity." (Pacific Shipper, August 12)

Winter Closing

Cornwall, Ontario, Seaway Notice No. 14 of 1968:—Weather and ice permitting, the St. Lawrence Seaway will remain open to navigation until the dates shown below.

AREA	CLOSING DATE
Welland Canal	December 22, 1968
Sault Ste. Marie Canal (Canadian)	December 15, 1968
Lake Ontario to Montreal Section	December 10, 1968
Lachine & Cornwall Canals will permanently close	November 30,1968

If weather and ice conditions permit, navigation on the Montreal to Lake Ontario Section may be extended beyond the official closing date on a day-to-day basis.

The United States Seaway Development Corporation has given notice that the Wiley-Dondero Canal will close for winter repair work at 4:00 p.m. on December 15.

As published in Seaway Notice No. 7 of March 26, 1968, and noted above, the Lachine and Cornwall Canals will be permanently closed to navigation on November 30, 1968. (The St. Lawrence Seaway Authority)

Charges Raised

Ottawa, September 19, 1968:—In a notice to the Shipping industry, the St. Lawrence Seaway Authority announced today that, effective October 1, 1968, wharfage, storage and lying-up charges at Seaway property will be raised to meet the increase in operating costs since the last rate adjustment in 1963.

Under the new rates, top wharfage charges will be increased to 12 cents a ton for bulk cargo and 27 cents for general cargo. A vessel berthed in a canal will not be charged side wharfage for the first forty-eight hours but will be charged 2¼ cents per gross registered ton for each following period of twenty-four hours or part thereof.

Storage charges on Seaway-administered canal land will be brought to 1½ cents per square foot of occupied area for each period of seven days, or part thereof. However, no charge is made for the first forty-eight hours.

Vessels lying-up at a Seaway canal or berth will be charged 3 cents per gross registered ton for each thirty-day period, or part thereof during the navigation season. During the non-navigation season, the same rate will apply, with a minimum charge of $50. (The St. Lawrence Seaway Authority)

Forty-ton crane at the Port of Los Angeles' new East-West Container Terminal looms massively above its diminutive imitators, 6-year-old Bradley Reed of Torrance, and 3½-year-old Stacy Sayuki Yamoto (recent Nisei Week Baby Princess) of Los Angeles, as the youngsters create their own erector set version of the huge lifting mechanism. The 150-foot-high crane is the first of its kind designed to lift two unattached 20-foot containers at once, or one 40-footer, and it can handle 96 of the large 20-foot shipping vans per hour. The new $6 million facility to handle containerized cargo from Japan was dedicated Monday (Sept. 16).

Better Colpuertos

San Francisco, Calif.: — Cargo handling capacity of major Colombian ports is due to double next year with the completion of a $37.6 million development program.

According to a government announcement last week, dock space will be increased by 65 per cent and 75 per cent more warehousing space will be available at major ports, including Buenaventura on the Pacific Coast—which handles over half of Columbia's foreign trade.

Improvement of rail and highway access to the interior is part of the mammoth transport development program. The Colombian Ports Authority (Colpuertos) has mapped plans for additional port improvements between 1970 and 1973, at a cost of $9.8 million.

The government said the current development program has produced these results to date:

- Stepped up cargo handling speed —to 66 tons per hour in 1967 from 58 tons in 1966.
- "significant" reduction in turnaround time, including an increase in dock time to 71.4 per cent of total ship time in port.

The impact of containerization has been minimal at Columbian ports since existing facilities are not suited to big cargo vans. The government said "planning is underway to add new specialized docks and cranes for large containers." (Pacific Shipper, August 19)

Flour Loaded

Buffalo, N.Y.: — The ocean-going Greek-Flag Orient Importer recently arrived in Buffalo and loaded 1700 tons of relief flour after anchoring outside the breakwall overnight. The Importer, in the last leg of a voyage up the Great Lakes and back, began its trip in May before a walkout of Canadian Seaway workers closed the Welland Canal.

After loading the Turkey-bound flour, the freighter headed for Port Colborne to join about 43 other ocean freighters lined up at the Welland Canal's south entrance to await the strike's end. Skipper of the Importer, which carries a crew of 32, is Antonios Foskolos.

Thomas P. Edwards of the Lancaster Steamship Agency, Buffalo agent for the Importer, said Buffalo was the Importer's last U.S. port of call after loading cargoes at several upper Lakes ports. (Port of Buffalo Progress Bulletin)

Ikeda Dies

Los Angeles, Calif., Sept. 23: — Akira Ikeda, who represented the Port of Los Angeles in Japan, became ill and died suddenly while on a visit here on September 20, 1968.

Ikeda, 66, had attended dedication of the East-West Container Terminal and remained here to continue conference with port officials.

A graduate of Tohoku Imperial University, Ikeda once was in charge of the international affairs section of the International Association of Ports and Harbors in Tokyo and edited its quarterly magazine.

He was Japanese liaison officer during General Douglas MacArthur's occupation of Japan. He joined the Port of Los Angeles in 1958.

The body was returned to Tokyo in the morning of the 23rd and funeral service will be held from 1 p.m. to 2 p.m. on the 24th at 37-17 4-chome, Hommachi, Nakano-ku, Tokyo. (Shipping and Trading News)

Trade Mission

Los Angeles, Calif., September 17: —To conclude and sign a profitable steel warehousing agreement and

enter into negotiations with a Japanese shipping line for Port facilities, a four-man trade mission will leave Los Angeles for Tokyo on October 24, it was announced today.

At the same time, the trade mission will sign a goodwill trade agreement with the highly industrial Prefecture of Okayama in a concerted effort to increase two-way trade between Japan and the City of Los Angeles.

The trade mission will be headed by Taul Watanabe, president, Los Angeles Board of Harbor Commissioners, and will include Commissioner Dr. Robert Fenton Craig, a USC law professor; Bernard J. Caughlin, general manager of the Port, and Kermit R. Sadler, the Port's director of trade development and traffic manager.

"Our former trade mission to Japan," Watanabe said, "resulted in bringing to Los Angeles a consortium of four Japanese shipping lines in a container operation, which will produce more than $300,000 per year in direct revenue for the Port.

"When we sign the warehousing contracts next month, it will mean that hundreds of thousands of tons of steel and steel products each year will be added to the economy of the Southland," he said.

"On this trip, we will start negotiations to lease some of our Port facilities to a major Japanese shipping line. And we expect these negotiations to be successfully concluded," Watanabe added.

Governor T. Kato, who heads the Prefecture of Okayama, will receive the trade mission and the agreement will be signed in his office. Watanabe will sign on behalf of Mayor Sam Yorty.

"As a result of our three previous goodwill trade agreements signed in Japan with the Prefecture of industrial centers, immediate benefits have resulted for the citizens of Los Angeles," Watanabe said.

"Industrialists in the Prefecture of Nagasaki have started negotiations to open manufacturing plants here. The Prefecture of Hokkaido has opened a Los Angeles trade office to promote two-way trade, and the Prefecture of Miyagi will shortly open an office here."

After the goodwill agreement is signed, Watanabe pointed out, the City of Los Angeles will have entered into pacts with four key industrial centers of Japan.

While in Japan, the trade mission will also solicit business with trading companies, manufacturing concerns and shipping lines. They plan a similar program in Taiwan, Hong Kong and the Philippines on their three-week business trip. (Port of Los Angeles News Release)

Review of the Year

New Orleans, La.: — In the Annual Report covering the fiscal year ending June 30, 1968, recently submitted to Governor John J. McKeithen of Louisiana, the Board of Commissioners of the port of New Orleans reports that 19,595,355 tons of cargo were loaded or unloaded at public port facilities.

General cargo imports showed a 26 per cent increase, and exports were down 7 per cent. The combination of general cargo imports and exports amounted to 5,654,143 tons, a 7 per cent increase.

The U.S. Department of Commerce estimates that the total dollar value of foreign commerce handled at all port facilities, both public and private, was $2,402,000,000 for the fiscal year.

Other indicators of port activity were as follows: Public Bulk Terminal, 1,398,643 tons, up 6 per cent; banana imports, 283,208 tons, down 27 per cent; grain exports, 11,527,-846 tons, down 3 per cent; coffee imports, 3,773,881 tons, up 3 per cent.

U.S. Customs collections amounted to $64,099,202, an increase of 14 per cent.

Major construction projects included modernization work at the Napoleon Avenue Wharf complex and at Pauline Street Wharf. Improvements continued at the Public Bulk Terminal, and the huge Rivergate international exhibition facility neared completion. Total capital expenditures during 1967~68 amounted to $8,841,400.

During the year, the Board petitioned Congress and the U.S. Army Corps of Engineers to revise the Mississippi River-Gulf Outlet project from its present dimensions of 36 feet deep and 500 feet wide to 50 feet deep and 750 feet wide. This enlargement, together with the construction of a new and larger lock connecting the Industrial Canal with the Mississippi River is important to the economy of the whole Mississippi Valley.

The continued refusal by the railroad companies serving the port of New Orleans to absorb more than 15 cents of the port's 35 cent-per-ton wharfage fee and to absorb the full Public Belt Railroad switching charge for cars moving to and from the port has depressed the rate of growth of port activity, the report continues. These policies of the railroads continue to place New Orleans and other Louisiana ports at a competitive disadvantage with many other ports in the nation.

The deaths of port Director W. J. Amoss and of George S. Dinwiddie, Board of Commissioners finance chairman were a loss to the port and the community at large. Eads Poitevent has been named finance chairman, but at this time, no successor to Amoss has been named.

The Board of Commissioners has urged Governor McKeithen and the legislature to make available sufficient state funds to enable the port to continue a vital program of wharf construction and rehabilitation necessary to accommodate changes in cargo handling techniques, to meet the needs of an increasing volume of cargo and to maintain the port's competitive position. (Port of New Orleans)

Port Film

San Diego, Calif., September 9:— The San Diego Unified Port District today put into general circulation its first educational/promotion motion picture film.

Titled "Portal to Success," the 28-minute color film will be offered on a loan basis to libraries, service clubs, business organizations and television stations.

Don L. Nay, port director, said the film will be distributed nationally and should contribute substantially to increasing public interest in the San Diego area and its commercial and recreational harbor.

"The film is particularly significant to the Port of San Diego and

Combined to Containerize

Fifty New York Foreign Freight Forwarders Form Consortium To Consolidate Cargoes for Oceanborne Containers

From "Via Port of New York" April, 1968

Eighty-five per cent of the Port of New York's general cargo exports traversing the North Atlantic are subject to containerization, say port economists and distribution experts. Yet, large quantities of these exports arrive at port in less-than-carload and less-than-truckload lots. Who will be responsible for consolidating these shipments? Who will be responsible for stowing and devanning these containers?

According to Donald T. Cameron, president of Arncam Shipping Company and the New York Foreign Freight Forwarders & Brokers Association, Inc., the forwarders of America's Container Capital are the natural and most obvious group to fill the role. The preparation of shipping, financial, governmental, insurance and many other allied documents is their traditional responsibility. Mr. Cameron explains, "No other group could cover the world market in the same way as the international forwarding community and its branches, which can always be impartial or universal in its approach. This", says Mr. Cameron, "is exactly what the shipper requires. The shipper calls on an international freight forwarder to be his impartial, professional advisor, giving him universal service."

For this reason, fifty of the port's leading foreign freight forwarders, under Mr. Cameron's leadership, banded together in 1967 to form Forwarders Intermodal Container Corporation (FICO). Mr. Cameron has taken a leave of absence from Arncam Shipping to assume the presidency of FICO on a full-time management basis in order to guide its initial development.

Today, FICO — with offices in Lower Manhattan at 11 Broadway and modern terminal facilities at Building 265, Port Newark—is in operation as a non-vessel owning common carrier (NVOCC). FICO issues its own tariffs, and has the same responsibility to the shipper as any common carrier. As a NVOCC it benefits both the shipper and the steamship lines. For the shipper it offers impartiality and long experience in documentation. The steamship lines benefit since FICO brings relief from the costly, terminal congesting, and time consuming process of handling thousands of small parcels at waterfront terminals and stowing them into containers. FICO also obviates to some degree the need of ocean carriers to maintain a force of documentation experts for the needed paperwork.

FICO tariffs now cover carriage between the Port of New York and the Antwerp-Hamburg range, the French Atlantic ports, United Kingdom, Puerto Rico, and Scandinavia. In these overseas markets, forwarder groups similar to FICO are handling containers upon their arrival and arranging deliveries to consignees. Conversely, they are consolidating and providing documentation services to their export customers. European groups cooperating with FICO are Antwerp Container Forwarding, Antwerp; Conship, Bremen and Hamburg; Amcon (Amsterdam Container Consolidation Group), Amsterdam; Express Container Transport, Ltd., London; and Scanfreight (AB Scandinavian Freight Container System), Gothenburg.

Export shipments arrive by truck and rail at the FICO distribution building at Port Newark where they are consolidated according to port of destination by members of the International Longshoremen's Association employed by Held Warehouse and Transportation Corp. The longshoremen, experienced in handling shipborne parcel freight, stow the containers with equal skill. After stowage, a manifest is prepared for each container. The consolidated van then is drayed to a nearby containership terminal for shipment to the similarly organized forwarding group abroad under one bill of lading per ship per port. In other words, if five containers are being shipped to a single port on the same ship, only one bill of lading is necessary to cover the shipment. This is the great saving in documentation and handling that the system provides the shipping companies—one or more large vans and one shipping document. As is true in many fields of business,

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the entire bay community because it will coincide with the promotional program now underway in anticipation of the area's 200th anniversary celebration," Nay said. "Our main purpose in having this film made, of course, is the promotion of the Port of San Diego's commercial and industrial facilities toward an increase in Port business, as well as publicizing its recreational and visitor oriented attractions. We are certain the film will fulfill the requirements in this regard."

Filmed primarily on San Diego tidelands in scenes ranging from Shelter Island to Imperial Beach, "Portal to Success" uses the talents of four local actors to carry the narration. Emphasized at various points in the production are San Diego International Airport, Harbor Island, the Tenth Avenue and new 24th Street marine terminals, the Chula Vista small boat marina and plans for future developments in the south bay area.

Ralph Hall Productions, which has created a number of motion pictures in San Diego for the U.S. Navy, City of San Diego and other organizations, produced the film. (Port of San Diego News Release)

FICO performs the traditional role of the middleman, i.e., buying wholesale and selling retail—in this case, ocean-going cargo space.

Donald Cameron likens FICO's role to the domestic forwarders or carloading companies which serve railroads and rail freight shippers. And just as the railroads no longer will accept less-than-carload shipments, Mr. Cameron predicts that within three to five years containership operators will no longer accept less-than-containerload freight. FICO's president also anticipates enactment of legislation proposed to Congress by Secretary of Transportation Alan Boyd which will permit joint rates and through routing, as well as authorizing a new intermodal tariff filing party, not necessarily a carrier.

In elaborating on FICO's future and such impending legislation, Mr. Cameron explains, "The 'spheres of influence' and/or modes of transportation, for the purpose of allowing interested parties to offer a **true single factor rate** from inland supply point to overseas inland destination, could cooperate in the following manner: A forwarder group such as FICO, acting as a NVOCC, gets together with certificated ICC carriers and ocean carriers or other parties subject to the jurisdiction of the FMC, ICC and/or CAB. These interested parties agree amongst themselves to charge a through rate from inland point to overseas delivery point. In addition, the NVOCC in the United States should be permitted to make arrangements with the forwarder groups outside the United States. This would allow consolidated container loads to move from port of entry to inland point of destination under the filed through rate."

Almost every day reveals new responses to new demands in containerized shipping at the Port of New York. Forwarders Intermodal Container Corporation is one of these responses. The rapid growth of this organization from conception to reality is representative of the port's continuing leadership in the age of intermodal transport.

Bulk Bagging Plant

San Diego, Calif.:—The new bulk bagging plant at Tenth Avenue Marine Terminal this month celebrates its first birthday with a report that nearly two million bags of bulk cargo have been produced in its first twelve months of operation.

Dick Maul, president of Freight Handlers, Inc., said the plant has processed approximately 100,000 tons of varied bulk products during its first year. This represents about 16% of the total outbound Port of San Diego tonnage.

The bagging facilities are at the Tenth Avenue Terminal, permitting direct delivery from the end of the bagging line to ship's tackle or to the transit shed preparatory to loading. Freight Handlers, Inc. last week was in the process of bagging 20,000 tons of potash for export, a job expected to be completed about the date of this SAILING SCHEDULE.

The plant has the capacity to bag any free-flowing solid, such as granular material, grains, pellets, etc. Its major products in the past year have been potash, diammonium phosphates, borates and soda ash.

In the past ten days, approximately 22,000 tons of bagged potash bound for India and Pakistan were lifted by the S.S. CENTERVILLE, the HALYCON PANTHER and the Indian flag vessel, VISHVA NIDHI. The bulk of the material is on its way to India to aid in re-development of that country's agriculture. (Port of San Diego Newsletter)

M. A. Conference News

San Francisco, Calif., August 15:—

• **Never ending increase** in tanker and bulk ship sizes is repeatedly called to attention of public officials responsible for harbor planning and project funding, by your Conference. **Items:** The **Universe Ireland,** first of six identical tankers, was recently delivered for Middle East-Bantry Bay (Ireland) service. Length: 1,134 feet. Beam: 175 feet. Draft: 79 feet. Gross tonnage: 312,000. **Item:** Six New England governors have proposed developing a 100-foot natural harbor on Maine's north coastline. **Item:** Standard Oil (N.J.) has ordered 20 supertankers ranging from 190,000 to 250,000 tons each. **Item:** More than 60% of the 294 large tankers on order will gross more than 200,000 tons. **Item:** Japanese government official says a 500,000 ton tanker is the "maximum size useable for current international shipping" and the Spanish government is considering a super port on its north coast at Bilbao for such half-million tonners.

• **"Section 8" studies**—unique, in-depth harbor studies by the Corps of Engineers—were pioneered by the Conference. First in history was authorized last October (for Golden Gate region) and initial funding ($25,000) is in current budget. More recently, Conference vice chairman Larry Whiteneck and Bob Langner successfully sought similar authority for Los Angeles-Long Beach Harbor, through good offices of Congressman Harold T. "Bizz" Johnson. Other government agencies are keenly interested (as is Congress) in this expanded investigation effort . . . U.S. Maritime Administration recently contracted with Stanford Research Institute for bulk commodity shipping forecast (maximum study cost: ($85,000) and with Booz-Allen Applied Research for 25-year projections (1970~1995) of a dozen dry bulk ocean cargoes.

• **Port of Sacramento** recently celebrated fifth anniversary, noting it has served 535 ships and moved 3-1/3 million tons of cargo. Of total handled, all but a million tons passed through the port since early 1966, emphasizing accelerating growth.

• **California's world trade volume** continues to soar, according to Commerce Dept. Three Customs Districts' total for first five months reached $2,443,800,000! (This excludes intercoastal, coastwise and non-contiguous trade with U.S. territory.) Exports ($1,302 million) jumped 21%—imports ($1.142 million) are up 19%. Judged by ship traffic since May, 1968 should end up as still another record year.

• **With state's population** now exceeding Canada's, its dynamic economy was recently put in perspective by excellent United California Bank study (copies available) titled "International Trade — Its Impact on California and the U.S.". Dr.

Ray Jallow (UCB chief economist) cites stake in world commerce and calls for freer trade. Using 1967 total production figures (GNP), California rates as seventh largest nation in world (after USA, USSR, West Germany, Japan, U.K. and France)! Per-capita GNP is more than double that of any but U.S. Other highlights: L.A. and S.F. Customs Districts rank 5th and 6th busiest in nation. State's exports rose 93% 1962 to 1967 (double U.S. rate)—imports 63% (California makes substantial contribution to favorable balance of nation's trade). Our leadinig customer is Japan (almost 34% of all California shipments) where we buy 37% of our imports. Coffee leads our waterborne imports, followed by iron and steel products, oil and automobiles. Number one export was fruits and nuts, then industrial and office machines, raw cotton. (from California Marine Affairs Conference News Letter)

Fiscal Growth

San Francisco, Calif., August 30: —The San Francisco Port Authority, which reported record net earnings in the 1967~68 fiscal year, has assigned the surplus to new harbor improvement projects, it was announced today by Port Director Rae F. Watts.

Net earnings in the fiscal year which ended June 30 were $2,282,-432 on a total revenue of $11,096,882 —both higher than any previous year in the Port of San Francisco's 105-year history.

Watts said the surplus will be used to help pay for the construction of new grain handling facilities at the Port's Islais Creek Grain Terminal, and for planned container and LASH (lighter aboard ship) facilities at India Basin.

The Port Authority has awarded a $4.7 million contract for the construction of a new grain elevator, to double the present facility's capacity, and for mechanized handling equipment to make it one of the most modern and efficient terminals on the Pacific Coast.

Container and LASH facilities are planned by the Port at a 230-acre site in India Basin.

Increased steamship activity—the number of calls by cargo ships and the tonnage moved across the piers —was cited by Watts as responsible for the gain in total operating revenue, which includes dockage, wharfage, and rental receipts.

Total tonnage of 5,111,779 for fiscal 1968, Watts reported, was more than 20,000 tons higher than for the previous fiscal year. And, he added, in the first six months of the calendar year 1968, tonnage was 200,000 tons ahead of last year.

With heavy increases in foreign export shipments, the Port reported 2.6 million tons of cargo passed over deep-water piers and specialty terminals through the month of June. This figure compares with a total of 2,377,200 for the same period last year. (San Francisco Port Authority)

Port Festival

Kobe:—The annual Port Festival of Kobe will be observed October 21~22 with ceremonies and pageantry under the supervision of Dr. Chujiro Haraguchi, Mayor of Kobe City.

The guests at the celebration to be held in the International House on October 21 will include three men from Kobe's Sister Port of Seattle, Mr. Robert W. Norquist, Commissioner, Mr. J. Eldon Opheim, General Manager, and Mr. Robert O. Edwards, Director, Trade Development Department.

A scaled-down ship model is to be presented by Mr. Norquist to Kobe, in return for a small model of historical Japanese ship presented by Port of Kobe to Seattle last year. In the international procession of decorated floats will take part one dubbed "Port of Seattle".

Japan Ports Assembly

Tokyo:—Dr. Chujiro Haraguchi, President of IAPH was re-elected as President of the Japan Port and Harbor Association at its 40th Annual Assembly on September 13, 1968, in the City of Muroran, Hokkaido, while Dr. Hajime Sato, IAPH Senior Under-Secretary, was re-elected as Director General of the Association. Both will serve their respective capacities till the next Assembly to be held in the City of Chiba in 1969.

Among the newly elected Directors are included two IAPH Directors for Japan, Dr. Shizuo Kuroda, Mr. Yonekichi Yanagisawa, and two Alternate Directors, Dr. Tadashi Hida, Mr. Den Takase.

At one of the sessions, Dr. Haraguchi reminded the 1,000-odd audience of the Melbourne Conference of IAPH next March and Dr. Sato also solicited participation in the Conference from the platform.

Mr. Takeo Okamoto, IAPH Under-Secretary, flew to Hokkaido barely to make the last session of the Assembly with information materials for the Melbourne Conference.

Long-Range Policy

Tokyo: — The Bureau for Ports and Harbors of the Transport Ministry submitted to a meeting of the ministry's bureau directors on September 11 a long-range policy outlook for the ministry's port and harbor administration covering the next two decades.

The bureau formed this outlook on the assumption that the nation's ports and harbors would handle in 1985 about 5.2 times the total volume of sea cargo handled in 1965 or about 4,200 million tons.

The bureau believes it necessary to form such a long-range policy outlook in view of the importance of ports and harbors to the nation's continued economic growth.

Ports and harbors are defined in the outlook as "the vital bastion for an international flow of goods which will grow in keeping with the progress of the national economy."

Called for in the outlook are administrative efforts in the following directions:

—Emphasis should be given to the expansion of such key international commerce ports frequented by cargoliners as those within the Bay of Tokyo, Bay of Ise, Bay of Osaka and the Kammon area.

—Besides, efforts for development of 40 "local distribution center ports", including Niigata and Muroran should be stepped up.

—In developing these "local distribution center ports" such latest shipping trends as "sea-land through

transport," the tonnage enlargement of carriers, and cargo-by-cargo carrier specialization should be taken into account by equipping them with latest pier and terminal facilities to enhance their functions.

—Efforts should also be directed toward the development of about 25 "industrial ports" to enhance regional industrial development, including Kashima of Ibaraki Prefecture. Projects for industrial land development should be promoted along with those for port and harbor development in local industrial areas.

(In the bureau's estimation, about 1,700,000 hectares of land or nearly as large an area as that of Shikoku, can be reclaimed from the sea if coastal waters of up to 15 meters deep are filled up and about 4,200,-000 hectares or nearly as large an area as that of Kyushu, if such waters are filled up to 30 meters in depth.)

—With regard to ports and harbors within the bounds of major cities such as Tokyo, Nagoya, Osaka and Kitakyushu, efforts for their development must be planned in complete harmony with these cities' socio-economic functions.

—A sum of about ¥12,300,000 million will be needed for a full achievement of the port and harbor development task envisioned in this outlook between fiscal 1968 and 1985. Besides, an additional ¥6,500,-000 million and ¥1,500,000 million will be necessary for land development and seashore preservation purposes, respectively. (Shipping and Trade News)

Sea-Land-Air Vans

Tokyo:—Kobe Steel Ltd. recently exported nine containers good for a sea-land-air transport of cargo to the Soviet National Air Corp. (Aeroflot) to be used for its recently opened Japan-Europe via Siberia intermodal transport service.

These are the first such versatile containers ever manufactured in the world, Kobe Steel claims.

Yamashita-Shinnihon Steamship of Japan and Royal Dutch Airlines (KLM) of the Netherlands are assisting this Aeroflot service.

The service route is divided into a Yokohama-Nakhodka section covered by Russian liners, a Nakhodka-Vladivostok section served by trucks, and a Vladivostok-Moscow-Amsterdam section covered by Aeroflot's Antonov AN12 air-carriers. Points beyond Amsterdam are served by KLM's carriers.

Yamashita-Shinnihon is serving as booking agents in Japan for this Aeroflot service.

Kobe Steel hopes that whith the steady expansion of this and other intermodal container shipping services, many more orders will come from abroad for its newly designed multipurpose container. It is priced at ¥300,000.

The container's measurements are 1.32 × 2.14 × 1.78 meters, its capacity is 5 cubic meters and its maximum loading capacity is 1.35 tons.

Made up of a special aluminum alloy, the container itself has a very small weight of 126 kilograms.

Designed on the basis of the International Air Transportation Association's technical information, the container is strong in structure and easy to handle, be it carried by air, sea or land.

The container has three openings on the front side and a lower part of one opening is removable to facilitate the packer's convenience. (Shipping and Trade News)

Kuwait is Ready

London, August 28:—Next month the first of the six tankers of 312.000 tons d.w. being built in Japan for the Gulf Oil Corporation will call at Kuwait to load crude oil.

To accommodate such vessels a new terminal has had to be built by the Kuwait Oil Company. A special hydrographic survey was carried out in mid-1966 to ensure a channel with a depth adequate for the vessel's 75 ft. draught at the main loading point which is 9.6 miles out to sea from Mena al Ahmadi.

A steel platform was built in Greece and towed round the Cape of Good Hope. Having six legs, 210 ft. long, it was fixed in place in 95 ft. of water. The legs were driven 70 ft. into the sea bed and the platform then jacked up to a height 44 ft. above low water o.s.t. The platform, together with six dolphins, gives a terminal with an overall length of 1,620 ft.

Loading will be at the rate of 15,000 tons an hour and may be raised eventually to 19,000 tons an hour. It will take these tankers about 20 hours to load. Beneath the platform deck are two tanks which will be used to relieve pressure if the flow of oil should have to be stopped suddenly in an emergency.

The crude will come from the tank farm through a 48 in. submarine line—the largest ocean crude line in the world.

A 20 in. bunker submarine line also runs out to the platform. The Kuwait Oil Company's northern fields are linked by a 48 in. gravity line to the Ahmadi tank farm, to which Burgau crude comes, for maximum flexibility. (Lloyd's List)

Laos In-Transit Shed

Bangkok: — On July 16, 1968 at 2.00 p.m., Tao Boonphu Nantadhammicho, Laotian Deputy Commercial Attache to Thailand who will be stationed at the Laos in-transit shed, the Port of Bangkok, in order to give speedy cooperation to the Thai authorities, led by Tao Vongs Srimuang, Laotian Commercial Attache, reported for duty to Maj. Gen. Prachuab Suntrangkoon, Director of the Port Authority of Thailand.

The party then was conducted on a tour of port activity and on in-transit sheds both in and outside the customs fence by Nai Chalor Pleehachinda, Chief of Warehouse Division. Tao Boonphu Nantadhammicho will soon assume his duty at the intransit sheds of the Port Authority. (P.A.T. News)

Tankers, Polluters

Singapore:—Government shipping officials blamed large tankers for the increase in oil pollution of Singapore's waters and beaches.

They said these vessels generally cleaned out their tanks within port limits because it was cheaper than getting them cleaned in international waters.

The Singapore Port Authority is believed to be studying suggestions to increase the penalty for this of-

fense in order to deter sea captains from carrying out cleansing operations of their vessels within port limits.

The present penalty is a fine not exceeding Singapore $200.

Singapore is the world's fourth largest port and handles more than 1,000 vessels of over 75 tons a month. (Shipping and Trade News)

Van Clearance Depot

Glasgow, August 27: — The first Customs approved Inland Container Clearance Depot to become operational in Scotland goes into service today (Wednesday) at Braehead, Renfrew.

Designed to handle general cargo for containers, it provides facilities for packing containers for export and unpacking imports under Customs' supervision.

The depot is operated by Clyde Container Services Limited, a consortium of the Clyde Port Authority, Anchor Line Limited, Scottish Area Transport Group Limited and Archibald Young (Storage) Limited.

Its manager, Mr. G. S. Gorman, says: "We cater for the vast number who ship less than a full container load of cargo at any one time and our service, therefore, brings the advantages of containerisation within the reach of every shipper. Only those with large consignments can make use of door-to-door containers.

"We will deal with a substantial volume of cargo being shipped in containers through Glasgow docks and also through the Clydeport Container Terminal at Greenock when it becomes operational. The depot, however, is available for the packing and unpacking of containers being shipped to or from any part of the world through any U.K. port."

The depot is run by an efficient team equipped with fork-lift trucks to move cargo on pallets between the receiving and despatching area, the storage area in which goods are grouped according to destination in the 500 ft. × 100 ft. shed, and the bays in which containers are end-loaded and emptied.

Says Mr. Gorman: "Braehead is the ideal location for an operation of this kind—it is close to the M8 motorway and to Greenock, 18 miles away, and has excellent road access to the industrial areas of Central Scotland and the South." (Clyde Container Services Ltd., Braehead, Renfrew)

Maritime Industrial Development Areas

Clyde Port Authority

(4th September, 1968)

In the National Ports Council's Reports for 1966 and 1967 reference is made to a Government sponsored study to determine areas in the country which might be suitable as Maritime Industrial Development Areas (M.I.D.A.). A M.I.D.A. envisages an area of at least 5,000 acres of flat land, either available or obtainable by reclamation, coupled with adjacent deep water which would permit development of a large industrial complex with port based and related industries. Examples of this type of development already exist in the Continent of Europe at, for instance, Rotterdam, Antwerp and Le Havre.

The Clyde's natural deep water and safe navigational approaches are without equal in the United Kingdom and the Clyde is the only location in the United Kingdom where the 500,000 tons and even larger oil tankers projected for the future could be accommodated. The need, however, for a sufficiently large area of flat land to enable full exploitation of the Clyde's navigational advantages has been apparent to the Clyde Port Authority and the Authority's Engineers, under the direction of their Engineer-in-Chief, Mr. R. B. Braithwaite, have for some time been investigating the feasibility of obtaining such an area or areas of flat land, extending to not less than 5,000 acres which would qualify for a M.I.D.A. on the Clyde.

It has already been made public that Messrs. Colvilles, in conjunction with the Authority, have been investigating the feasibility of deep water berthage facilities for a new ore discharging plant at Ardmore, coupled with sufficient land to enable the steel works complex ultimately to be moved adjacent to the iron ore unloading facilities. This can be incorporated in the proposed reclamation scheme.

The reclamation scheme which has been devised by Mr. Braithwaite and his team (shown on the attached plan), is to extend the present canalisation of the river westwards from Bowling for a further 12 miles to the Tail of the Bank. A total area of some 9 square miles of ground can be obtained by forming bunds and reclaiming the foreshore on the north and south sides of the lower reaches of the river (on the north side 4,295 acres between Craigendoran and the River Leven and on the south side 1,345 acres between Port Glasgow and Longhaugh—a total of 5,640 acres). By utilising material from the river bed for the reclamations this will simultaneously deepen the river channel to give access to the reclaimed areas for very large bulk vessels. The area of 120 acres to be reclaimed for the Murco Petroleum Company is additional to the 5,640 acres obtainable from the Scheme.

The river channel opposite Greenock will be re-aligned and deepened to 60 ft. at L.W.O.S.T., making available a potential 1 mile length of riverside berthage while over the remainder of the reclaimed frontage, which has a potential of providing 12 miles of riverside berthage, the river will be deepened to 50 ft. at L.W.O.S.T. The riverside berths for any particular industry can be constructed as and when required, the berths being inset into the reclamation areas to obviate the need for turning circles.

The major part of the reclama-

tion on the north side from Ardmore Point to the River Leven would be undertaken on the basis of forming a shallow polder to Ordnance Datum level, i.e. about half-tide level, and the remainder of the reclamation from Craigendoran to Ardmore on the north side and from Port Glasgow to Longhaugh on the south side, would be brought up to a level of about +13 O.D. (2 ft. above the highest recorded tide). The quantity of material required for the reclamations is about 74 million cubic yards and the total cost of obtaining the reclaimed land, including bunding the whole area incorporating sheet piling, is estimated to be approximately £28 million. The shallow polder type reclamation between Ardmore and the Leven is the most economic and rapid method of reclaiming this large area which itself extends to almost 4,000 acres since each additional foot in height would cost an estimated further £2 million and require 6½ million cubic yards of material. By adopting sheet piling both areas on the north and south sides of the river can be bunded speedily within a period of some two years and thereafter the actual infilling carried out in sections, as and when required.

The present limiting depth in the approaches off Gourock is 60 ft. at L.W.O.S.T. permitting the passage of 150,000 d.w.t. vessels. By carrying out limited dredging works in these approaches, 78 ft. of water at L.W.O.S.T. can be made available to permit the passage of 250,000 d.w.t. vessels to a bulk discharging facility in the form of a jetty at the west end of the north reclamation area. Oil tankers in excess of 250,000 d.w.t. would be confined to the Firth where sheltered berthage can be provided with depths alongside of 100 ft. or more at L.W.O.S.T. at such locations as Wemyss Bay and Loch Long, where existing depths in the approach channels are far in excess of what is required for any vessel yet envisaged.

The natural advantages of the Clyde's safe deep water approaches, coupled with the availability of almost 6,000 acres of flat land (9 square miles) with immediately adjacent deep water ranging from 50 ft. to 60 ft. at L.W.O.S.T. provide a potential M.I.D.A. on the Clyde which in the view of the Clyde Port Authority cannot be bettered in the United Kingdom. Such a Scheme accommodating the steel industry and with potential for further oil development, a power station if necessary, and an associated industrial complex could be the very key to the economic revival not only of the West of Scotland but of Scotland as a whole.

The Authority have forwarded a copy of the Scheme to the National Ports Council, the Ministry of Transport and the Scottish Development Department and asked that the Clyde be considered as a M.I.D.A. They have also submitted the Scheme to the Consultants of the Clyde Estuary Development Group and copies have been sent to the several Planning Authorities who are also members of the Clyde Estuary Development Group for their consideration.

The Seaforth Project

Liverpool: — The Mersey Docks and Harbour Board have begun work on a major dock development at Seaforth, north of the existing port complex. It is estimated that the project will cost £35 million and it will be completed in 1971.

The prime purpose of the new development is to provide deeper and longer berths supported by extensive land areas, for larger ships and container services. At the same time, the programme of port modernisation, which has already cost more than £55 million, can be accelerated by enabling work to be carried out on facilities which are below standard. The new port area will be necessary in view of the anticipated trade growth forecast by independent economic surveys.

The overall scheme will provide 10 modern deep water berths for general cargo, specialised accommodation for packaged timber, bulk grain and installations for the mechanised discharge and handling of meat and other perishable cargoes. The whole of the north side of the dock can be developed for container ships. Considerable land areas have been made available for the reception and stowage of containers and further land can be brought into use as the trade develops.

It is emphasised that the development is completely flexible as to the type of berth to be provided. In broad terms, the new dock will be able to provide well over one mile of quay frontage within the 357 acres to be enclosed and an initial depth of water of 48 ft. A 130 ft. wide passage will be cut through the north wall of Gladstone Dock to give access to the new port area. Ships will use the Gladstone River Entrance which is 1,070 ft. long and 130 ft. wide.

The area will be served by road and rail and it is envisaged that lorry holding areas and car parking will be included as well as facilities for administration, plant and equipment storage and maintenance. Full amenities of the most modern design will be provided for dock workers.

The new dock will enable the Port of Liverpool to improve even further its position as one of the main import ports and the major export port of the country, serving a large concentration of population and industry.

Gladstone Container Terminal

A deep water berth for container ships is now available at Gladstone Dock. Whilst this is only an interim measure pending the construction of a permanent container terminal within the new dock scheme the existing Gladstone Graving Dock with its heavy cranage has been adapted for the specialised needs of containerised cargo. The berth will be fully equipped with discharging and quay handling plant in the summer of 1968.

The dock is 1,050 ft. long and 120 ft. wide with an available water depth of 43 ft. The adjacent land area to the north is capable of accommodating more than 1,000 containers and the berth will have facilities available to enable roll-on/roll-off operations to be carried out. A 50-ton quay crane is available on the south side of the dock.

An order has been placed with Stacatruc Ltd., of Birmingham, for six series 510 Clark Van Carriers at a cost of more than £220,000. These carriers are capable of moving containers up to 40 ft. long and weigh-

The PLA Annual Report

The PLA Monthly, June

Last year was a frustrating one for the PLA. At the end of 1966 there was good reason to believe that, given normal trading conditions, a modest surplus on the statutory accounting basis might be achieved in 1967. But 1967 was not a normal trading year and it ended with the Authority showing a deficit of £1.6 million. When one recalls that a disastrous unofficial strike brought the Royal Docks to a stop for no less than nine weeks and also affected, though for a shorter period, other parts of the port, the only grim consolation we in the PLA can derive is to be glad that efforts to minimise the effects of the strike kept the deficit down. In short, but for the hard and sustained labours of all concerned, the effects could have been worse.

Apart from the effects of the strike, the level of trade in 1967 was considerably lower than had been generally forecast at the end of 1966, since the national economy did not make its prophesied recovery.

Then in September the plan for the decasualisation of dock labour involved the PLA, as it did every other employer of dock labour, in substantially increased costs. The PLA thought it right to absorb a part of the additional cost and, though some charges on imports were increased, no increase was made in charges for handling goods for export, nor in any other port charge.

These increased burdens came at a time when, due to the radical modernisation of port facilities by the Authority, finances were under a strain in any case. Capital expenditure by the PLA during 1967 was £10.9 million. The Authority finds itself in the position of a farmer, creating a new farm, with seeds in the ground but not yet having reaped the harvest. A fully developed container berth costs, with equipment, over £2 million and construction takes about two years. Probably a further two years has to elapse before the berth generates enough revenue to earn an economic return on capital. Meanwhile the older installations are losing traffic and incur losses which can only be eliminated when it is possible to close them down completely.

The general economic outlook is not good and so the PLA are not assuming that the worst is past. Imports have always provided the greater part of the Authority's revenues and national policies designed to restrain imports, even though exports are stimulated, are bound to make life difficult. In these circumstances financial planning in the Authority aims at viability within the next three years.

In contrast to the financial picture, the panorama of work done within the framework of the vast modernisation programme is a wide one with impressive features. Stage II of the new dock development at Tilbury came into operational use in July when the first ship arrived at No. 42 Berth; Stage III monolith sinking and quay construction has been completed, as has the perimeter road. So has the new impounding station and discharge culverts. A new main gate, providing eight traffic lanes, came into use on 11th September. This has greatly improved access to the docks. The month of May, 1967, saw the start of work on the £5 million riverside bulk grain terminal and rapid progress has been made on this project.

These are but a few of the many projects in hand at Tilbury. The complete list of engineering works completed and in progress throughout the Port is a very long one indeed. At the Royal Docks, for example, the Western Entrance was reconstructed and re-opened to barge traffic during the year. At the Royal Albert Dock a parking area for containers for use in conjunction with Nos. 14/16 sheds was completed. At India and Millwall Docks a vast new transit shed of revolutionary design, and providing three floors, was brought into use. Maintenance costs at the Surrey Commercial Docks have been reduced by the closing of the Surrey Entrance and communications improved by the provision of a road across the filled-in entrance.

New plant and equipment provided during the year included 24 quay cranes, 17 mobile cranes, 42 fork lift trucks, a new floating crane — the **London Atlas** — and much other plant.

It is not easy for the layman to grasp the scale of engineering work and mechanical plant provision in a port the size of London. Its organisation and control are a huge task requiring the services of many experts.

No port can function without safe and deep approaches for the ships which use it. The outstanding achievement of the year in this sector was the dredging and opening of the new Knock John Channel to facilitate the entry of deep-draughted oil tankers. Tankers arriving with a draught in excess of 40 ft. are now commonplace.

Scientific studies of the river's regimen, leading to realignment of the channel in Gravesend Reach and other measures, have resulted in substantial savings in maintenance dredging in the River. Thanks to these measures, and also those taken in relation to Barking Reach, maintenance dredging now runs at 10,000 hopper tons per year compared to 500,000 hopper tons per year in the past.

A new and revolutionary pusher tug, the **Broodbank,** was commissioned for use in conjunction with the dredger fleet and a new survey launch, the **Maplin,** also came into

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ing up to 30 tons. They can stack 20 ft. containers three high and 40 ft. containers two high. In a busy container park they can move down an aisle with only 4 ft. clearance on either side.

An order valued at over £400,000 has also been placed with Stothert and Pitt Ltd., of Bath for two 35-ton transporter cranes for container handling at the berth. Delivery of these cranes is expected in the summer of 1968.

service.

The Salvage Section had some remarkable activities to its credit during the year, as when the **Bow Prince** sank athwart the channel opposite the old Millwall Dock entrance after collision with the **Thomas Hardie.** The PLA's Salvage Section has a primary duty to keep the fairway open to navigation and the **Bow Prince** was removed from the channel within a matter of hours. A similarly expeditious operation was carried out when the **Birgit Muller** sank in the channel in Lower Gravesend Reach.

On the administrative side, new River Bye laws were drafted and confirmed by the Minister of Transport. These came into operation on 8th January, 1968. The legal side of the Authority's business was also streamlined and a Bill promoted in the 1967/68 Session of Parliament completes the work of consolidating and bringing up to date the Port of London Acts and connected legislation.

So much happens in the Port of London in the course of a year that nothing short of an encyclopaedia could do justice to its immense and varied activity. The management and running of such an enterprise is a colossal task. In the necessarily dispassionate and factual confines of an annual report only the barest outline is possible. But there are few more fascinating arenas of human activity than great seaports. If you would like to know in more detail what goes on in the Port of London, why not place a subscription for this journal which chronicles tideway life all the year round?

Humber, Tidal Model

London:—Mr. Stephen Swingler, M. P., Minister of State at the Ministry of Transport, will perform the official opening of a £250,000 tidal model of the Humber estuary for the British Transport Docks Board at Hull on Friday (September, 20th).

The 337 ft.-long model, which accurately represents a 55-mile stretch of the Humber from a point nine miles seaward of Spurn Head to the confluence of the Yorkshire Ouse and the River Trent, is claimed to be one of the largest hydraulic models of a river estuary in Europe. It will be used for a period expected to be as long as 20 years, for experiments connected with harbour and navigation projects and problems of flooding, siltation and pollution, as well as to determine the long-term trade potential of one of the country's largest estuaries.

Commenting on the model project, which was begun by the Docks Board and the former Humber Conservancy Board four years ago, Mr. J. A. Lacey, Chief Docks Manager at Hull and now responsible for conservancy matters in the estuary, drew attention to the fact that more than 25 million tons of trade were already passing through the four Humber ports of Hull, Goole, Grimsby and Immingham annually and that the 1969 total was expected to show a substantial increase.

"Near the mouth of the Humber considerable areas of mud flats which are exposed at low water lie adjacent to very deep natural channels", Mr. Lacey went on, "and this new model will help us to ascertain the feasibility of reclamation for large-scale industrial development alongside this deep water.

"It is possible that developments on the lines of Rotterdam-Europoort will be found to be practical."

The spectacular growth in the size of oil tankers in recent years, and the accompanying trend in bulk carriers and container ships, poses problems for many port authorities, and the Humber is no exception. Already a programme of dredging is in hand which will permit 200,000-ton tankers to call at Immingham next year with cargoes of up to 135,000 tons of petroleum for the new refineries there; there will then be a need to study the problems involved in bring fully-laden vessels of this size into the estuary. It is possible that studies on the model may indicate the possibility of such vessels being accommodated at Immingham or even further up the estuary.

The Humber Tidal Model is accommodated at King George Dock in a specially-constructed building 380 ft. long, 145 ft. wide at its eastern end, 100 ft. wide at its western end and 280 ft. high. Inside, an overhead gantry running the length of the building will give research engineers access to extensive water areas which would otherwise be inaccessible, and will permit the use of vertical photography for record purposes.

Tides in the Humber are reproduced in the model by storing a column of water representing the difference between high and low water in a large tank with its open bottom submerged just below "sea level" and controlling its release into the model by varying air pressure within the tank. The estuary's natural tidal cycle of 12½ hours is reproduced in 8 minutes 46 seconds.

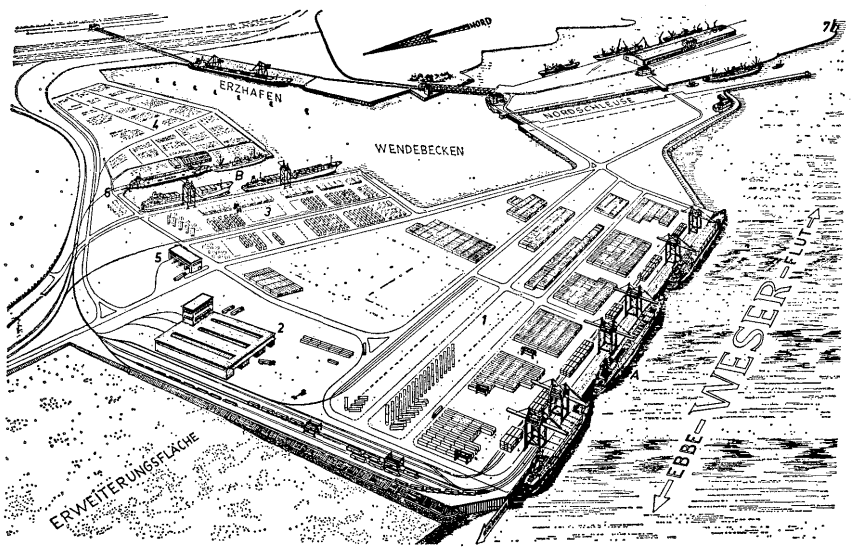
The Docks Board retained the Hydraulics Research Station of the

Container Traffic via Bremen

Bremen Air Mail

September 2, 1968

The Bremen/Bremerhaven port group alone holds a 85 per cent part of all containers imported or exported through German ports. Since February, 1968, the Federal Railways have started the service of the express goods train "Delphin" carrying daily quantities of 110 to 115 large containers from Bremen and Hamburg via Hanover to the Western and Southern areas of Germany of which about 100 come every day from Bremen and Bremerhaven. The rapidly increasing container transshipment induced the Federal Railways to establish by the



end of May 1968 the service of a second container express train.

Whilst exact data on the total turnover of other ports and Europe as a whole have not been published up to now, Bremen has continuously stated the obtained results: In 1963, Bremen/Bremerhaven had a transshipment of 22.529 tons of mixed cargo in containers (in 1964, this quantity was increased up to 31.239 tons and in 1965 up to 47.165 tons). The real uprise, however, began on 5th May, 1966, when the first German container terminal was inaugurated in the Bremen ports. On 1st October, 1966, the first German container bridge was erected in Bremen and, in the mentioned year, the container turnover was increased to 102.338 tons. This number of tons was equal to about 1 per cent of the total mixed-cargo turnover. The year 1967 brought forth a triplication of the 1967 result i.e. transshipment was increased to 341.937 tons corresponding to about 4 per cent of the mixed-cargo turnover. Such considerable increase of the container turnover continued also in 1968.

For the time being, Bremen is the sole European port directly touched at by three overseas lines with fully containerized ships. In autumn this year, another shipping company will add a fourth fully containerized service. In total, Bremen is already now served by 8 regular container lines.

The first special-design bridge for quick handling of large containers inaugurated on 1-10-1966 was in the meantime followed by a second in Bremen and a third in Bremerhaven which is actually the biggest in Europe: 70 metres high, 89 metre cantilever arm, 45 tons lifting capacity, electronically controlled. Now in August, this year, a fourth container bridge has been built in Bremerhaven, thus leaving all competing ports far behind.

The great advance Bremen has in container traffic is first of all the result of the efforts of Dr. Bortscheller, Senator for Ports, Shipping and Transport, but also of the fact that Bremen is the sole European port the mixed-cargo part of the whole turnover is above 50 per cent and, apart from this, that there is an excellent cooperation with the Federal Railways which is a vital essential in Central Europe. The ports comprise nearly 300 km of rails up to four tracks side by side. More than 50 per cent of all goods arrived by sea are retransmitted by rail.

The illustration above shows the large port area available in Bremerhaven at the Weser mouth for further development of container traffic. Two of the eight container handling bridges shown are already in operation and one of these two is the biggest in Europe. In the Northern port (B), container transshipment is made already since March, this year. At the river quay (A) with a water depth of 16 metres, construction work is done. Behind the river quay, there is a container storage area of 400.000 square metres (1); a packing center with administration building (2) and an 800.000 square metres storage area at the West side of Northern port (B). The East side of the Northern port (4) comprises a storage area for container-automobile transshipment of 77.000 square metres. In order to ensure quick clearance, provision has been made for an automobile yard building (5) and, by the side of same, for a roll-on/roll-off installation having a carrying capacity of 60 tons. On top, right-hand, there leaves the England ferryboat (60.000~80.000 passengers per year). Moreover, there is the Columbus quay (100.000 overseas passengers per year). In the foreground (bottom, left-hand in the illustration), you can see part of the two million square metre extension area.

Ministry of Technology at Wallingford to undertake the design of the model and the scientific supervision of the investigations, and a Steering Committee, the Humber Estuary Research Committee (H.E.R.C.) has been appointed to assume direct responsibility for overall control of this Research Project, the members of which are drawn from the Hydraulics Research Station, Wallingford, and the British Transport Docks Board, under the Chairmanship of Mr. F.J.T. Kestner, Principal Scientific Officer, Hydraulics Research Station. A Research Engineer and staff have also been appointed by the Board in the Department of the Chief Docks Engineer, Hull, to conduct the investigations. (British Transport Docks Board)

Correction

In Ports and Harbors, August issue, page 24, and September issue, page 32, the airmail charge of 3 copies of the journal to the Area 3 was indicated as US$94.20 per year, when the figure should be corrected to US$34.20.

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