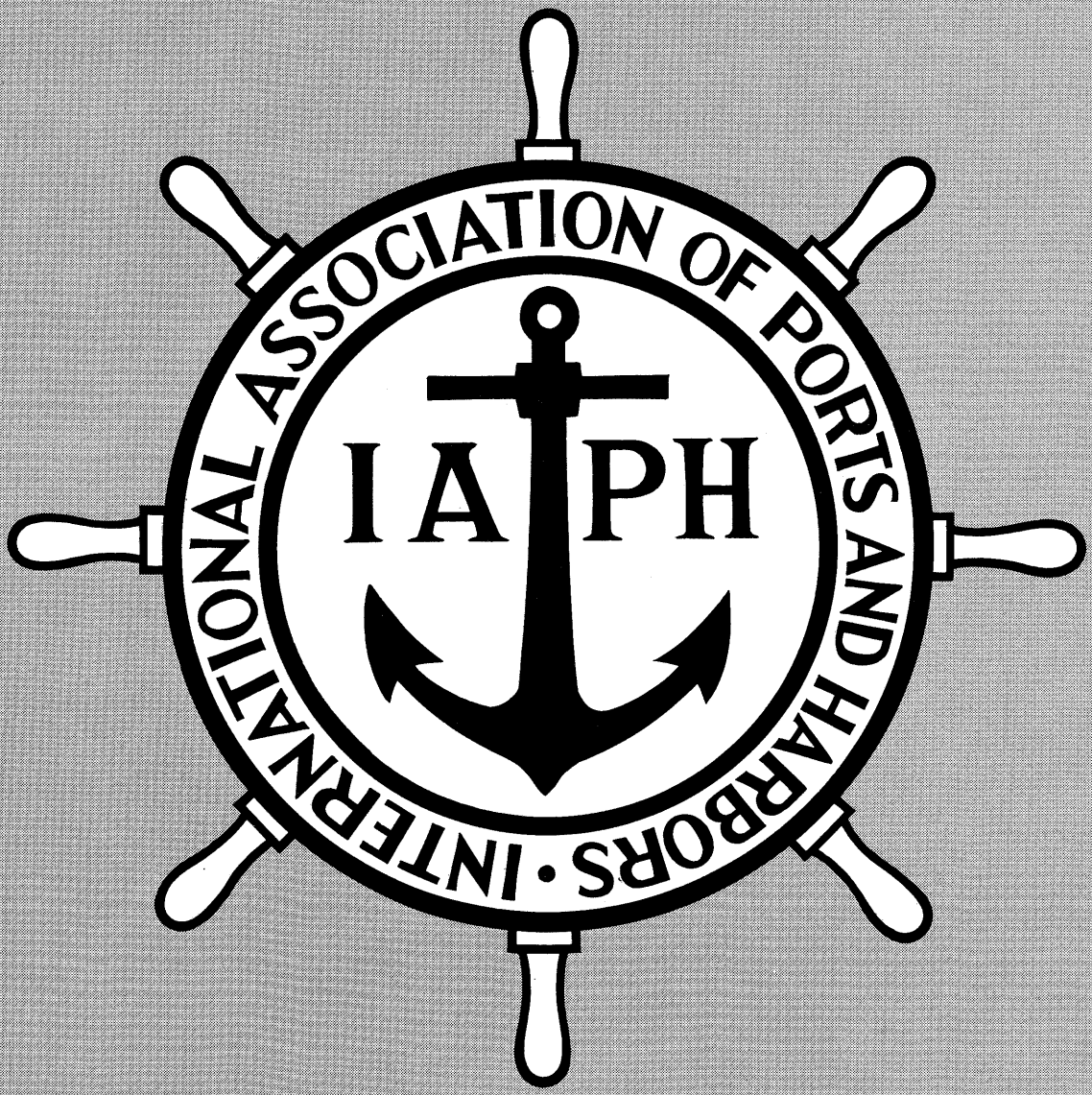
PORTS *and* HARBORS

February, 1968 Vol. 13, No. 2



MELBOURNE CONFERENCE IAPH MARCH 1969

THE INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS

THE PORT OF KOBE

—Modern, Efficient Port With Elegance—

The Port of Kobe, a fine, natural port in the heart of the vital Osaka-Kobe industrial area of Japan, served as a main gateway for shipping and trade between Japan and the Asian continent from ancient times. Described as the "Naples of the Orient," Kobe is renowned for its scenic beauty with the Rokko Mountain Range forming a colorful background to the port city. The headland of Wada to the south at the mouth of Kobe Bay protects the port from high seas.

It is nearly 100 years since Kobe was opened as one of the first trade ports of Japan. Today it is one of the major export ports of Japan and handles cargoes representing 30 per cent of the value of Japan's total export trade.

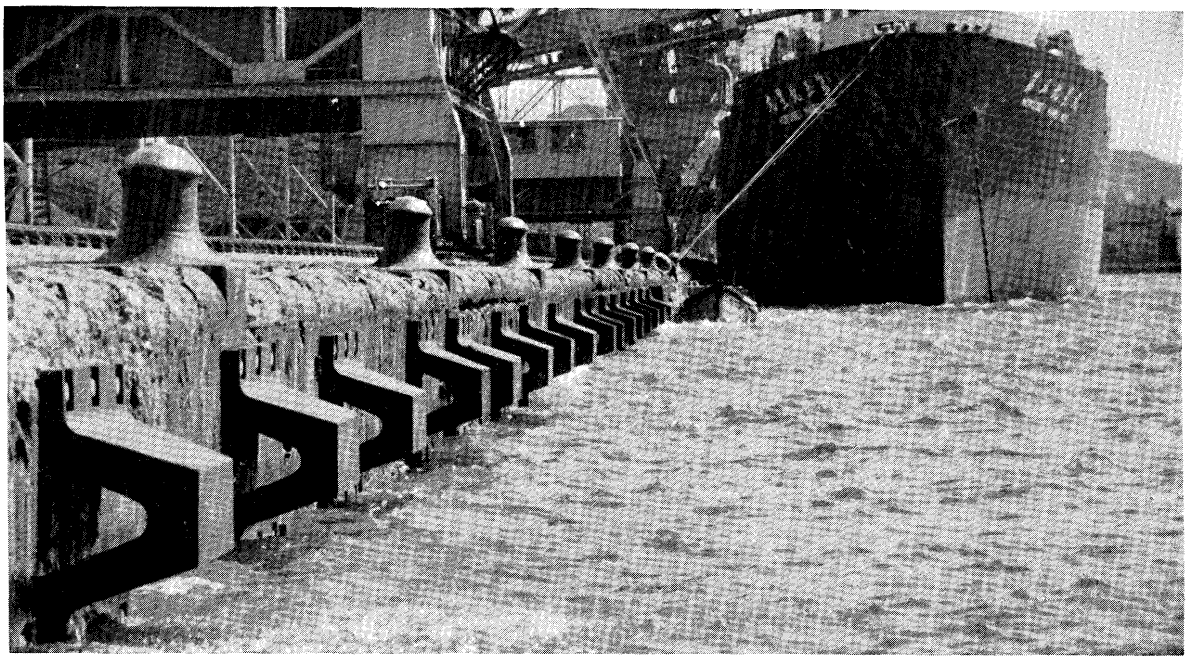
In parallel with the recent growth of Japan's economy, ships and cargoes arriving at Kobe from abroad have been increasing in number and tonnage. This growth has made the expansion of water-front facilities here essential. In the light of this demand, the construction of the Maya pier terminal was undertaken in the eastern section of the Port in fiscal 1959 to increase foreign trade facilities. The Maya terminal, to be completed at a total cost of ¥22 billion by the end of fiscal 1966, is to be a massive and up-to-date unit of four piers capable of accommodating eighteen 20,000-tonners at one time. In order to deal successfully with containership services, preparations are in full swing to make the Maya Pier No. 4 a container terminal to welcome the first container carrier in the summer of 1967.

On the other hand, to connect the Maya terminal now under construction and the Shinko pier terminal already in operation, a semi-suspension bridge, the first of its kind in this part of the world, was completed in June, 1966. This bridge has contributed to a great improvement of the port facilities and functions.

Thus, the Port of Kobe handles more than 7,200 foreign service ships and 42 million tons of foreign and domestic cargoes yearly. It is under a rational management with the motto of "inexpensive, speedy and reliable cargo handling."

With the objective of preparing itself for the world's expanding economy, the Port of Kobe has taken a step forward this year in greeting the container-ship age by beginning its five-year project to construct a 1,000-acre island for increased facilities.

Faster, safer, more efficient port operations with



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And there's no need to redesign existing wharves to outfit them with this completely new and superior type of protection. BRIDGESTONE SUPER ARCH DOCK FENDERS are easily mounted on any flush wall so your savings start with the initial installation and then continue for years of steady, reliable service.

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A unique and original product of BRIDGESTONE, the largest manufacturer of rubber products in the Orient, the Super Arch Dock Fender is available in a wide range of sizes, manufactured to rigid specifications. Write for details on how they can be used to make your port operations safer and more profitable. To meet the diverse needs of a various types of docking installations BRIDGESTONE also offers the Cylindrical Dock Fender.

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OVERSEAS OFFICES: NEW YORK, LONDON, HONG KONG

PORTS and HARBORS

Published monthly by
The International Association of Ports and Harbors
Consultative Status, N.G.O., United Nations, IMCO

Head Office:
Mori 7th Bldg.
2, Tomoe-cho, Minato-ku
Tokyo, Japan
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Toru Akiyama

Editor: Yoshio Hayashi

February, 1968 Vol. 13, No. 2

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Conference Report (*in English*)

A Complete Report Book of the 5th Conference

(All members are entitled to receive one copy each free of charge.)

295 pages, dimensions 212 × 288 × 15 mm, with paper cover, 12 pages of photos on art paper, 7 pages of diagrams and photos, 850 grams net, 900 grams packaged. One copy for each membership unit is being seamailed free of charge.

EXTRA COPIES AVAILABLE at $5 a copy plus postage (See below).

Part One Lists of Participants, Conference Officers, etc.

Part Two Minutes of Conference Sessions

Part Three Record of Panel Discussion on Container Problems

Papers

1. The Role of the Government in Port Development by Dr. H. Sato
2. Problems in the Development of Ports in the ECAFE Countries by Mr. S. Aldewereld
3. Impact on Port Development of Modern Trends in Ship Design by Ir. F. Posthuma
4. The Function of Public Relations in Port Development by Mr. H.C. Brockel
5. Development of Ports and the Role of the World Trade Center by the Hon. T.H. Boggs
6. The Future of Tankers by Comm. E.H.W. Platt

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2. Mr. Y. C. Wang, Kaohsiung, China, on "A Brief Report on Ports of Taiwan".
3. Mr. Robert L. M. Vleugels, Antwerp, on "The Impact of some IMCO Proposals on Port Economy".
4. Dr. F. Marques da Silva, Lisbon, on "Specialization in Harbor Exploitation".
5. Mr. S. A. Finnis, U.K., on "Managaing a Group of Ports".
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9. Mr. J. Eldon Opheim, Seattle, on "Container Research and Planning for Transpacific Services".
10. Mr. Harm Westendorf, Hamburg, on "The Importance of Consolidated Cargo to Hamburg".
11. Mr. Y. Mizuno, Japan, on "Containerization".
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16. Mr. Guy L. Beckett, ECAFE, on "Port Labor and Ship Turn-round".
17. Mr. W. J. Manning, Canada, on "Local Harbor Commissions for Harbor Administration."

Part Four Financial Report

Membership List (as of October 15, 1967)

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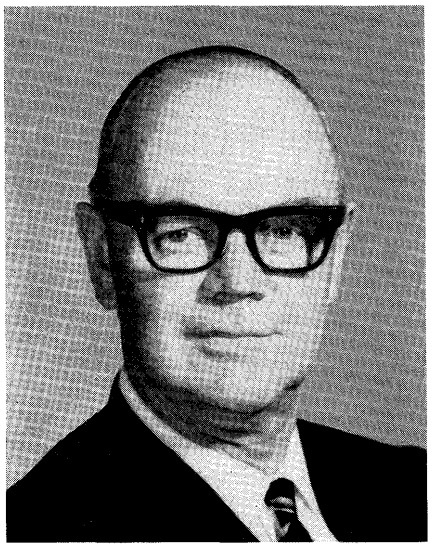
PORTS and HARBORS

Melbourne's Invitation to IAPH Conference 1969

By V. G. Swanson

Chairman
Melbourne Harbor Trust Commissioners



Mr. V. G. Swanson

Gentlemen,

It is with much pleasure that I submit for your consideration details of our proposals for the Sixth Biennial Conference of the IAPH to be held in Melbourne in 1969.

It is, incidentally, proposed to adopt for publicity purposes in relation to the Conference, the title of MELBOURNE CONFERENCE IAPH MARCH 1969.

DATES

The dates which have been selected for the Conference are from Monday 3rd March 1969 to Saturday 8th March 1969.

The period which has been selected is early Autumn in Melbourne and the weather at this period is normally pleasant and stable with an average maximum daytime temperature of 75°F. (24°C.) and an average minimum night temperature of 55°F. (11°C.).

The Melbourne Moomba Festival is also conducted in Melbourne during this week and the City takes on a Gala atmosphere with street decorations being erected for the occasion. During the week many outdoor functions are conducted, culminating in the Moomba Procession which it is proposed Delegates and Ladies will be invited to view on the Monday morning following the Conference, March 10th.

VENUE

The venue which has been selected for the Conference is the Southern Cross Hotel situated in the center of the City of Melbourne.

Accommodation for 600 Delegates and Ladies has been reserved at this Hotel and two other leading Hotels in close proximity to the Conference venue.

PATRON

It is with very much pleasure we advise that His Excellency the Governor of Victoria, Major-General Sir Rohan Delacombe, K.C.M.G., K.B.E., C.B., D.S.O., K. St. J., who is Her Majesty the Queen's personal representative in Victoria, has accepted the role of Patron of the Conference. His Excellency has also agreed to open the Conference.

CONFERENCE CHAIRMAN

It is suggested that the Executive Committee recommend to the Board of Directors the appointment of Mr. V. G. Swanson as Conference Chairman.

HOSTS

The hosts of the Conference will be the Melbourne Harbor Trust Commissioners headed by the Chairman, Mr. V. G. Swanson.

CONFERENCE ORGANIZING COMMITTEE

A Conference Organizing Committee has been convened to undertake the necessary planning for the Conference, the Chairman of which is Mr. V. G. Swanson and the Secretary, Mr. N. L. Fidge.

The address for correspondence will be:

C/-Melbourne Harbor Trust Commissioners, 29 Market Street, Melbourne 3000, AUSTRALIA.
Telephone 61-3281.
Cable Address "Harbor" Melbourne.

REGISTRATION FEE

It is proposed that the Registration Fee for the Conference be $90 Australian which approximates US$100.

This fee will cover a Lady accompanying a Delegate but will not include expenses connected with the Post Conference Tour which are expected to be in the vicinity of $ Aust. 100.

Application Forms for the Conference are being prepared and will be forwarded to Members in due course.

CONFERENCE LANGUAGE

In accordance with Article VII, Section 33 of the Association's By-Laws, the Conference language will be English, although to facilitate

Delegates' participation in Conference proceedings, simultaneous translations will be made available into Japanese and Spanish. French and German translations will also be considered if there is sufficient requirement.

Conference papers will be translated into the various languages provided English translations of the material reaches the Organizing Committee in sufficient time to permit translation and printing to be undertaken.

It is hoped, incidentally, that it might be possible, where translators are not readily available in Melbourne, to forward Members of the Executive Committee, papers for translation into their own languages and for these then to be returned to the Organizing Committee for printing.

With regard to the six main papers which it is proposed to have in the hands of Delegates prior to their departure for the Conference, it will be necessary for the copy, translated into the various languages, to be in the hands of the Organizing Committee, by the 31st August 1968.

Owing to an almost complete close down of printing establishments in Melbourne during the month of January, it will be necessary for all other papers for the Conference to be translated and in the hands of the Organizing Committee by 1st December 1968.

CONFERENCE PROGRAMME

A copy of the programme proposed by the Organizing Committee (which is self explanatory) is attached for the Executive Committee's consideration.

CONFERENCE AGENDA

Also attached for the Executive Committee's consideration is a copy of the proposed Conference Agenda. This has been prepared on a pattern similar to that which was successfully adopted in Tokyo.

This programme allows for presentation of six main papers and nine other smaller papers with a period being set aside of two hours for a panel discussion on a subject yet to be determined.

In view of the importance to the success of the Conference, that the subjects selected for the six main papers (each to occupy one hour including question time) should be of practical and universal interest, it is considered that the topics and speakers should be determined by the Executive Committee.

No endeavour has been made to pre-determine this issue. The following subjects are, however, submitted for consideration:—

1. Paper from Customs Co-operation Council.
2. Paper from Inter Governmental Maritime Consultative Organization.
3. Relative Merits Unitised and Containerised Cargoes.
4. Requirements of a Port to attract World Trade.
5. The Economic Impact of Ports on regions they serve.
6. Techniques of Long Term Planning for Ports.
7. Role of Land Transport to serve Ports.
8. Industrial Development and Port Growth.
9. What a Stevedore expects from a Port.

With regard to the smaller papers, it is suggested that each Speaker could be allotted 25 minutes to divide between his subject and discussion at his discretion, with a minimum, however, of 10 minutes being allowed for questions and answers.

Although provision has been made in the Agenda for a panel discussion covering a period of two hours, the desirability of retaining this proposal in the programme, it is felt, is dependent on a suitable subject for a panel discussion becoming available. If a suitable topic cannot be determined by the Committee at this stage, it is suggested that a decision could be delayed until a later date when, if necessary, smaller papers could be substituted to take up this time.

LADIES' PROGRAMME

A copy of the Ladies' Programme which is proposed by the Organizing Committee is attached for the Executive Committee's perusal and comment.

POST CONFERENCE TOUR

Details are attached of the Post Conference Tour from Monday 10th March to Friday 14th March 1969, which is being planned by the Conference Organizing Committee in liaison with the Maritime Services Board of New South Wales, for participants in the IAPH Melbourne Conference.

The cost of this tour has not as yet been finally determined, but it is expected to be in the vicinity of $ Aust. 100.

For those Delegates and Ladies who will be arriving in or departing from Australia through Fremantle, Western Australia, the Fremantle Port Authority is desirous of offering a tour independently of the Conference arrangements. Unfortunately, owing to the distance of 1800 miles from Perth to Melbourne, it is not considered practicable to include this in the Conference Programme and it is proposed that those wishing to avail themselves of this opportunity make their arrangements with the Fremantle Port Authority direct.

Advice has been received from the Wellington Harbor Board, New Zealand, that it is also desirous of offering a tour for those who will be visiting Wellington on their way to or returning from the Conference.

It is again proposed that those desirous of taking advantage of this opportunity make their arrangements direct with the Wellington Harbor Board.

The Committee has, however, indicated its willingness to circulate to members of the IAPH, information concerning both of these tours, along with the official Conference material which will be forwarded.

(Continued on Next Page)

Proposed Programme—IAPH Melbourne Conference 3rd—10th March 1969

Monday, 3rd March

9.00 a.m.- 5.00 p.m.	Registration of Delegates. Call on the Honorable the Premier of Victoria and the Right Honorable the Lord Mayor of Melbourne by the President, the 2 Vice Presidents, the Secretary General and the Immediate Past President.
* 8.00 p.m.	State Reception by the Honorable the Premier of Victoria.

Tuesday, 4th March

* 9.00 a.m.-10.00 a.m.	Opening of Conference by His Excellency the Governor of Victoria.
10.00 a.m.-10.30 a.m.	Coffee Break.
10.30 a.m.-12.30 p.m.	Conference.
12.30 p.m.- 2.00 p.m.	Lunch.
2.00 p.m.- 4.45 p.m.	Conference. (Coffee 3.00-3.30)
* 7.00 p.m.	Reception by His Excellency the Governor of Victoria in the State Ballroom of Government House. (His Excellency will receive Members of the Executive Committee and their wives in the State Drawing Room).

Wednesday, 5th March

*10.30 a.m.- 5.00 p.m.	Visit to Healesville Wildlife Sanctuary (approximately 40 miles from Melbourne) where Australian Native Animals may be viewed in their natural habitat. Evening Free.

Thursday, 6th March

9.00 a.m.-10.00 a.m.	Conference.
10.00 a.m.-10.30 a.m.	Coffee Break.
10.30 a.m.-12.30 p.m.	Conference.
12.30 p.m.- 2.00 p.m.	Lunch.
2.00 p.m.- 4.45 p.m.	Conference. (Coffee 3.00-3.30)
* 7.00 p.m.	Dinner by the Right Honorable the Lord Mayor and Councillors of the City of Melbourne.

Friday, 7th March

9.00 a.m.-10.00 a.m.	Conference.
10.00 a.m.-10.30 a.m.	Coffee Break.
10.30 a.m.-12.30 p.m.	Conference.
12.30 p.m.- 2.00 p.m.	Lunch.
2.00 p.m.- 5.00 p.m.	Port Tours & Sightseeing.
* 7.00 p.m.	President's Dinner.

Saturday, 8th March

9.00 a.m.-10.15 a.m.	Conference.
10.15 a.m.-10.45 a.m.	Coffee Break.
10.45 a.m.-12.30 p.m.	Conference.
12.30 p.m.- 2.00 p.m.	Lunch.
2.00 p.m.- 3.30 p.m.	Closing Session of Conference.
* 7.00 p.m.	Reception by new President.

Sunday, 9th March

Free.

Monday, 10th March

*10.00 a.m.-12.00 Noon	View Annual Moomba Procession through the City of Melbourne.
* 1.00 p.m.- 3.30 p.m.	Depart by chartered Aircraft for Canberra for Port Conference Tour.

*Delegates and Ladies

Proposed Ladies' Programme—IAPH Melbourne Conference 3rd—10th March 1969

Monday, 3rd March

10.30 a.m.-12.00 Noon	Morning Coffee (venue to be selected).
* 8.00 p.m.	State Reception by the Honorable the Premier of Victoria.

Tuesday, 4th March

* 9.00 a.m.-10.00 a.m.	Official Opening of Conference.
10.00 a.m.-12.30 p.m.	City Sightseeing.
12.30 p.m.- 2.00 p.m.	Lunch (venue to be selected).
2.00 p.m.- 4.00 p.m.	Guided Shopping Tour.
* 7.00 p.m.	Reception by His Excellency the Governor of Victoria in the State Ballroom of Government House. (His Excellency will receive Members of the Executive Committee and their wives in the State Drawing Room).

Wednesday, 5th March

*10.30 a.m.- 5.00 p.m.	Visit to Healesville Wildlife Sanctuary (approximately 40 miles from Melbourne) where Australian Native Animals may be viewed in their natural habitat. Evening Free.

Thursday, 6th March

9.30 a.m.-12.30 p.m.	Visit to "Como" (an historic home) and the Melbourne Botanical Gardens.
12.30 p.m.- 1.30 p.m.	Lunch at a new Restaurant in the Botanical Gardens.
1.30 p.m.- 4.00 p.m.	Visit to Melbourne's Bayside Beaches.
* 7.00 p.m.	Dinner by the Right Honorable the Lord Mayor and Councillors of the City of Melbourne.

Friday, 7th March

9.30 a.m.-12.30 p.m.	Visit to Open Air Art Show conducted each year in conjunction with Moomba Festival and to Melbourne's newly constructed Cultural Centre, and by arrangement to other Institutions of interest to particular ladies.
12.30 p.m.- 2.00 p.m.	Lunch (venue to be selected). Afternoon Free.
* 7.00 p.m.	President's Dinner.

Saturday, 8th March

	Morning Free.
12.00 Noon-1.30 p.m.	Lunch (venue to be selected).
* 2.00 p.m.- 3.30 p.m.	Closing of Conference.
* 7.00 p.m.	Reception by new President.

Sunday, 9th March

Free.

Monday, 10th March

*10.00 a.m.-12.00 Noon	View the Annual Moomba Procession through the City of Melbourne.
* 1.00 p.m.- 3.30 p.m.	Depart by chartered Aircraft for Post Conference Tour.

*Delegates and Ladies

Proposed Timetable, Melbourne Conference I.A.P.H. March 1969

Monday, 3rd March	Tuesday, 4th March	Wednesday, 5th March	Thursday, 6th March	Friday, 7th March	Saturday, 8th March
				8.30 a.m.-9.00 a.m. Resolutions & Bill Committee meet Honorary Membership Committee meet Nominating Committee meet	
9.00 a.m.-5.00 p.m. Registration of Delegates	9.00 a.m.-10.00 a.m. Opening Session 10.00 a.m.-10.30 a.m. Coffee 10.30 a.m.-11.30 a.m. 20 min. Paper 40 min. Discussion 11.30 a.m.-12.30 p.m. 20 min. Papers 40 min. Discussion 12.30 p.m.-2.00 p.m. Lunch	Healesville	.00 a.m.-10.00 a.m. 20 min. Paper 40 min. Discussion 0.00 a.m.-10.30 a.m. Coffee 0.30 a.m.-11.30 a.m. 20 min. Paper 40 min. Discussion 1.30 a.m.-12.30 p.m. 2nd Plenary Session 2.30 p.m.-2.00 p.m. Lunch .30 p.m.-2.00 p.m. Ways & Means Committee meet .30 p.m.-2.00 p.m. Resolutions & Bills Committee meet .00 p.m.-3.00 p.m. 20 min. Paper 40 min. Discussion 3.00 p.m.-3.30 p.m. Coffee 3.30 p.m.-4.45 p.m. 15 min. Speeches (3) 10 min. Discussion on each	9.00 a.m.-10.00 a.m. 20 min. Paper 40 min. Discussion 10.00 a.m.-10.30 a.m. Coffee 10.30 a.m.-12.30 p.m. Panel Discussion 12.30 p.m.-2.00 p.m. Lunch 2.00 p.m.-5.00 p.m. Inspection of Port of Melbourne and City Sightseeing	9.00 a.m.-10.15 a.m. 15 min. Papers (3) 10 min. Discussion on each 10.15 a.m.-10.45 a.m. Coffee 10.45 a.m.-12.30 p.m. 3rd Plenary Session 12.30 p.m.-2.00 p.m. Lunch 2.00 p.m.-3.30 p.m. Closing Session 3.30 p.m.-4.45 p.m. Post Conference Meeting of Board of Directors
2.00 p.m.-4.00 p.m. Pre-Conference Meeting of Board of Directors	2.00 p.m.-3.00 p.m. 1st Plenary Session 3.00 p.m.-3.30 p.m. Coffee 3.00 p.m.-3.30 p.m. Resolutions & Bills Committee meet 3.30 p.m.-4.45 p.m. 15 mins. Speeches (3) 10 mins. Discussion on each				

Proposed Post Conference tour 10th to 14th March 1969, for Participants in IAPH Melbourne Conference

(Estimated Participants—300 Delegates & 100 Ladies)

Monday, 10th March

1.00 p.m.- 3.30 p.m. Delegates & Ladies depart Hotels by Tourist Coaches for Melbourne Airport and join Chartered Aircraft for Canberra.

2.30 p.m.- 5.00 p.m. Delegates & Ladies arrive Canberra. Chartered Tourist Coaches to Rex Hotel (accommodation arranged 2 nights).

7.00 p.m. Reception (Host probably Commonwealth Government).

Tuesday, 11th March

9.30 a.m.- 5.00 p.m. Sightseeing in Canberra; visit to Sheep Station, demonstrations of sheep handling by dogs, sheep shearing, wood chopping and other rural activities.
Evening Free.

Wednesday, 12th March

9.15 a.m.-11.30 a.m. Delegates & Ladies depart Tourist Coaches from Hotel Rex for Canberra Airport and join Chartered Aircraft for Sydney.

10.30 a.m.-12.30 p.m. Arrive Sydney. Tourist Coach transport from Mascot Airport to Hotels. Lunch at Hotels.

3.00 p.m.- 4.30 p.m. Conducted Tourist Coach Tour-City sights.

6.30 p.m. for 7.00 p.m. Official Dinner. Premier, Ministers, Lord Mayor to attend.

Thursday, 13th March

9.30 a.m.- 5.00 p.m. Tourist Coach Tour to Palm Beach. Lunch at Jonahs.
Launch trip on Pittwater.
Return trip by Tourist Coach via West Head, Kuring-gai Chase and North Shore.
Evening Free.

Friday, 14th March

9.30 a.m.-12.30 p.m. Port inspection by Tourist Coach & Chartered Ferry. Lunch on Ferry or at State Office Building or similar catering.

2.15 p.m.- 4.15 p.m. Opera House Inspection or Art Gallery & Museum or Hydrofoil trip to Manly, then Tourist Coach to North Head, Manly Beach, Dobroyd Point, Clontarf and Mosman.

5.45 p.m.- 7.30 p.m. Farewell Cocktail Party and Buffet. Evening Free.

Saturday, 15th March

Departure arrangements.

Proposed Pre and Post Conference Tours

To Be Offered by Fremantle Port Authority Independently of The Arrangements for The Melbourne Conference of The IAPH, 3rd to 8th March 1969.

1. Wednesday, 26th February, 1969 to Friday, 28th February
   3 Days tour of Perth and Fremantle for delegates who pass through Perth prior to the Conference.

2. Saturday, 15th March, 1969 to Monday, 17th March
   3 Days tour of Perth and Fremantle for delegates who will be leaving Australia via Perth.

3. Similar arrangements will also be made for each delegate who does not wish to participate in the Post Conference Tour of Canberra and Sydney and who will be visiting Fremantle immediately the Conference concludes.

COST.

The cost to each person participating in these 3 days tours will be limited to the cost of accommodation only, which is estimated to be $35.00, the participants to be responsible for expenses in travelling to Western Australia.

Seine Bay Terminal For Large Oil Tankers

By Paul Bastard

General Manager

Port of Le Havre Authority

Le Havre, which is the most important refining center of the western coast of France, and as such, interested in directly receiving oil by giant ships, has always expressed its desire to become a relay oil port modeled after Bantry Bay.

Since November 1966 the Port Authority has been engaged in a preliminary study of the conditions required for accommodating large oil tankers in Le Havre. This preliminary preparation has made evident the possibilities of progressive adaptation of the port to the dimensional increases of ships; the first step which will be taken in 1968 consists of the deepening of the tide basin coast (−13.80) and its approach which should then be able to accommodate 200,000 to 250,000 dwt class oil tankers. Other works will follow later in order to facilitate the accommodation of even larger ships.

Since the end of 1966 it became clear that 500,000 tonner would not likely represent the ultimate end in this evolution of oil tankers. Indeed, studies in Japan and in the United Kingdom are being carried out for ships of still greater dimensions. In other respects, economic surveys clearly show that, taking into consideration the cost of consolidating cargo at the starting point, the cost of de-consolidating on arrival as well as the impossibility of using the Suez Canal for the return trip in ballast, 500,000 dwt ships could hardly compete with 250,000 dwt ships which directly link the loading and unloading ports.

Hence arose the necessity for new installations, while accommodating 500,000 dwt ships as initially planned, to be eventually made adaptable for even larger ships. In view of this, and for future assurance, it was considered that installations had to accommodate up to 30 m. draught ships. The existing basins were not suitable for handling neither this draught or the dimensions of corresponding ships; neither was it possible to arrange the approach accordingly; it was, therefore, imperative to seek possible means of constructing installations in the port offing.

Basic Options

The new study is still based upon ships of 500,000 dwt, but as just indicated, the projected installations are conceived in such a way as to be easily adaptable, without major transformation, for ships of much greater dimensions, with draughts up to 30 m. It goes without saying that the rentability of the installations considered which is calculated on the latest data collected on probable characteristics of 500,000 dwt oil tankers will be increased in the event that even larger ships are used.

On the other hand, it has been admitted that, in the present state of technology, the unloading of oil tankers in open sea by mooring to buoys or to towers according to the "single mooring point" system, would bring up perhaps insurmountable difficulties for very large ships. None of the systems used till now for much smaller tankers has in any case given much satisfaction. Thus it seemed indispensable to envisage getting the ships alongside the ducs d'Albe in shelter of a protection providing conditions sufficiently calm for final towing and berthing operations.

The possible sites for the construction of a sea terminal were situated too far away from land for direct berthing; it was also necessary to think of an installation near the berths of a relay depot and of a pumping station.

Taking into consideration all of these factors, it was necessary to look for a site with an approximate depth of −30.00, where berths could be constructed for very large ships as well as an artificial island structure forming a protection against the sea and which would also be used for the installation of a relay depot, pumping station and shelter port for tug boats and related machinery.

Choice of a Site

It is for one part in the depression of Parfond which extends towards west of the Seine estuary, and for another to the right of Cap d'Antifer and at 20 km about west of this cape that the depth of (−30) approaches closest to Havre. Off the Antifer Cape the ocean floor gently slopes down from the coast towards the open sea but the Parfond depression is bordered by stable banks ranging in altitude between −14.00 and −20.00. These natural formations would especially facilitate the construction of a float whose total height above the sea floor would be approximately 26 m. along the border of the Parfond, whereas further to the north to the right of the Antifer, it should attain 35 m. The Parfond site is also better protected than that of the Antifer of the north-east swells and of the dangerous storms from the south-west.

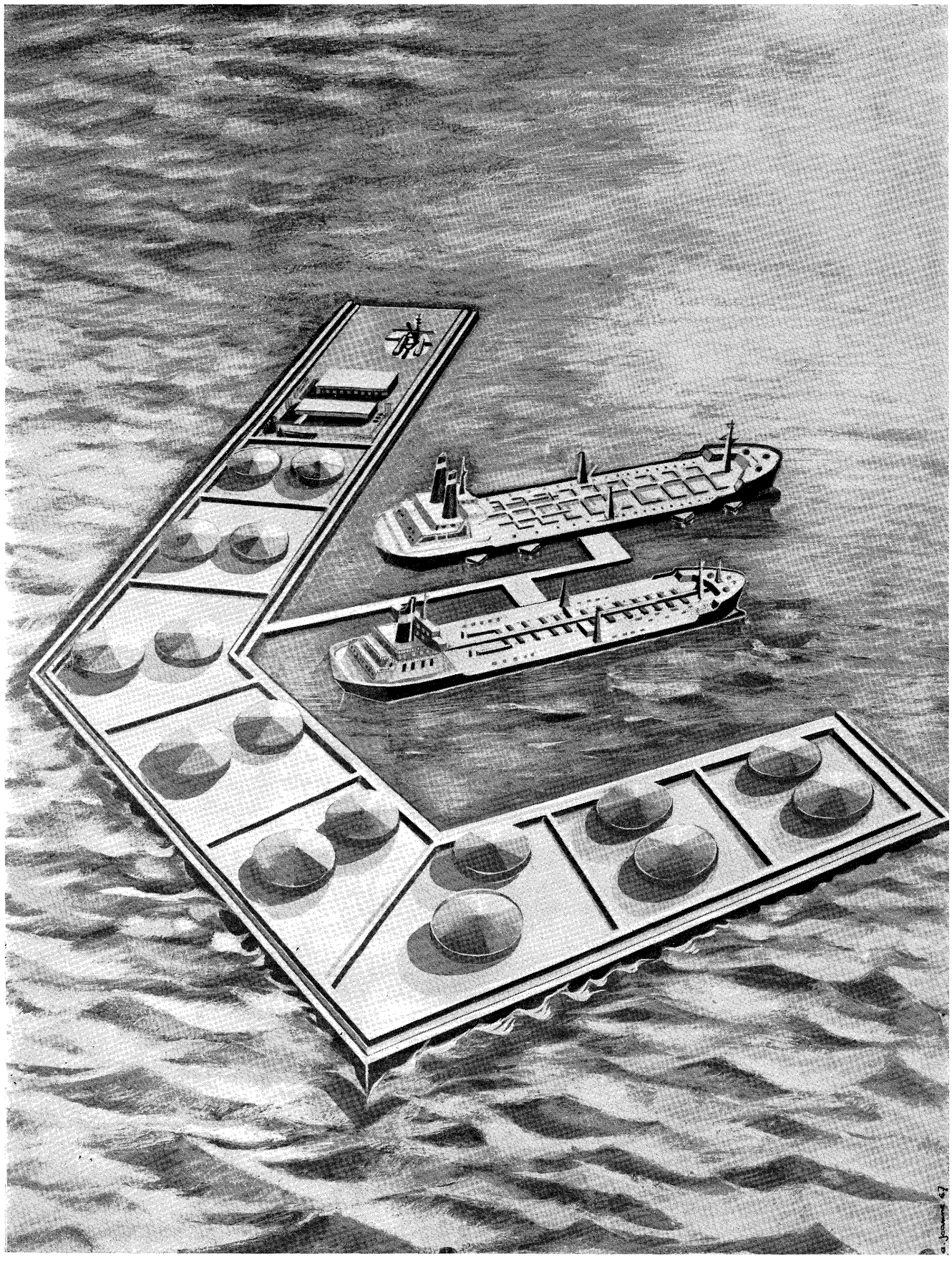
All of these advantages lead to a preference for the Parfond site over that of the Antifer, although construction on this latter site may also be considered.

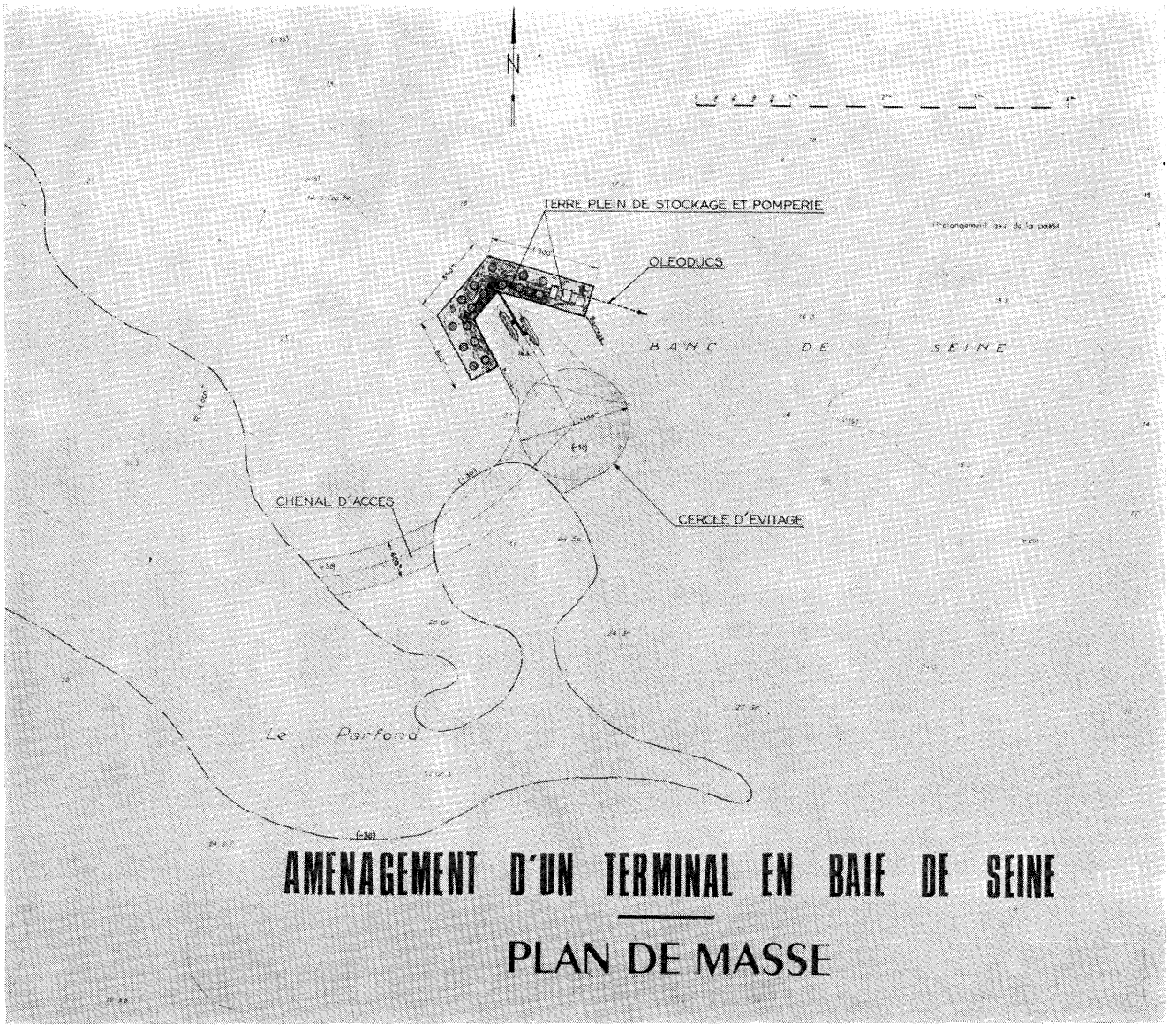
Outline of the Terminal Facilities

The float would be on the northern border of the Parfond depression, 27 km. from the port oil depots. It would be constructed in depths of −14.00 to −18.00 and backed

(Continued on Page 12)

Plan of Off-Shore Tanker Port





AMENAGEMENT D'UN TERMINAL EN BAIE DE SEINE

PLAN DE MASSE

(**Continued from Page 10**)

against a coastal bank (−14.00). The float, in the shape of a very open "U," would turn its concavity towards the south-east, in which there would be constructed two berths sheltered, therefore, from swells coming from areas between 250° and 40° which are by far the strongest (maximum amplitude of 4 m.). The two lateral sections of the float would protect the interior cove against swells from the south-west and north-east; the shelter, therefore, would only be completely open to swells from the south-east; due to a very weak fetch, the amplitude remains weak, also. In this manner the float can offer protection not only to the tankers themselves (which would hardly risk excess motion under the effect of the weak amplitude swells which only last for short periods like those of the English channel) but also to those service boats which would have to intervene during the final berthing stage.

The platform with a width of 340 m. would cover the three sections of the float whose respective lengths would be as follows: south-west sector, 800 m.; northwest sector, 850 m.; north sector, 1,200 m. The utilization surface area of the platform would, therefore, total 800,000 m².

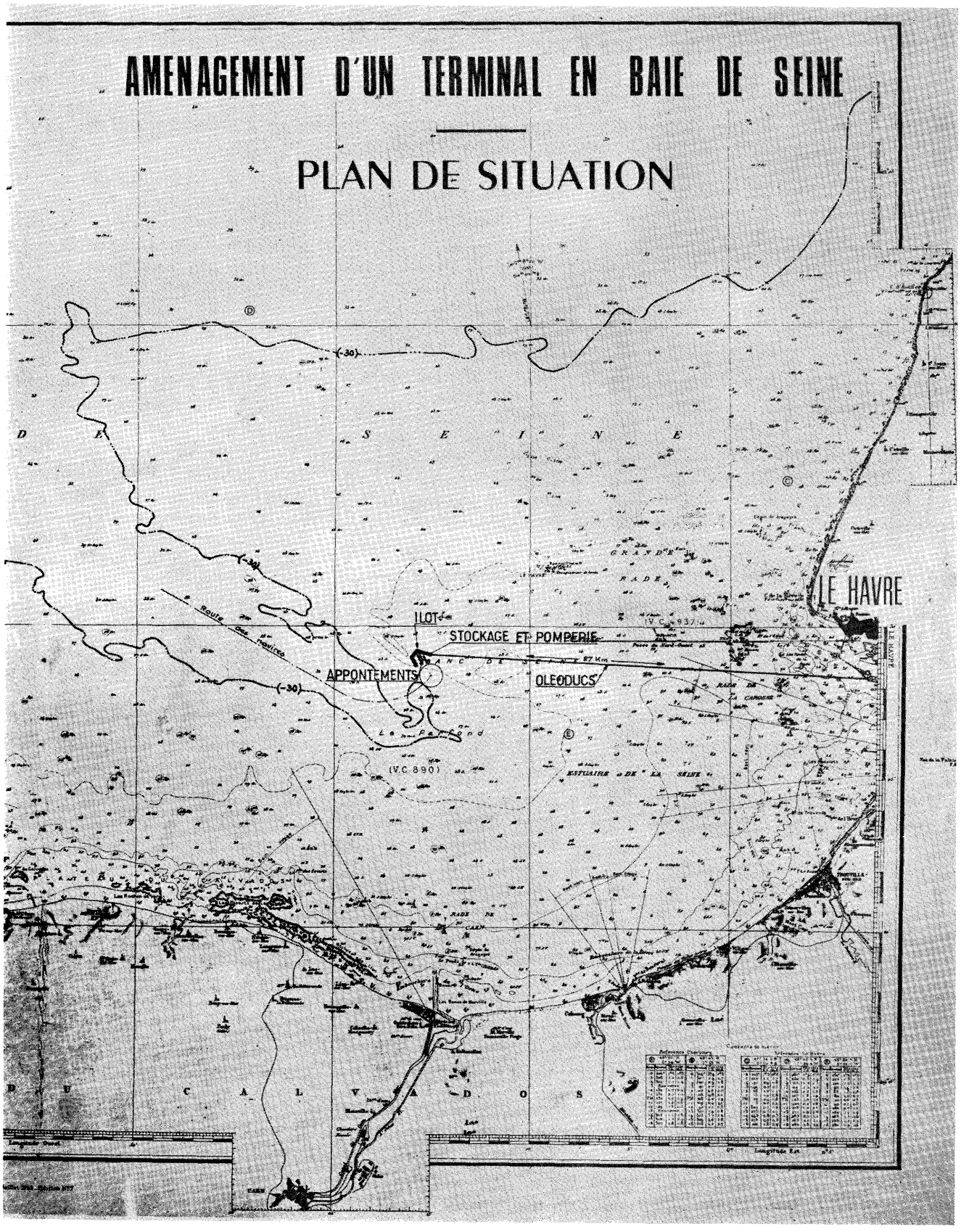
The banks of the float would be composed of pre-stressed concrete caissons, which would be constructed in the interior of Le Havre Port, floated out and stranded in place. On the exterior banks these caissons would serve as vertical breakwaters which would not present any risk, taking into account the water depth in relation to the maximal amplitude of the swell. On the interior banks, the caissons would constitute service wharves.

There would be two berths composed of a bunch of large-diameter tube-piles. Nothing would prevent, of course, the subsequent construction of other berths along the float, notably on the north sector. A pile footbridge and two platforms, which would also support unloading gantries and the pipelines, will provide access to ships.

The orientation of the berths was chosen in such a way as to facilitate the entry and exit of ships. Entry would be through a 400 m. wide passage, joining the Parfond axis by a 4,000 m. radius curve and ending in a turning basin of 1,200 m. in diameter situated at the berth waterway. The turnround and the berthing would be accomplished with the aid of tug boats during a

(**Continued on Page 14**)

Terminal Location in Seine Bay



(Continued from Page 12)

slack in current which lasts about two hours. At the moment of these slacks the height of the tide is between 4.50 m. and 6 m. Thirty-meter draught ships would, therefore, always be assured of having at their disposal during their turn-round a return of at least 4.50 m. under the keel. Taking into account the obviously lower ballast draught, departures could be directly made even outside the approach channel and without the help of tugboats, perhaps except for the departure of gang-plank-furnished vessels. The nautical facilities offered by the terminal would, therefore, be very extensive.

Terminal Equipment, Stocking and Pumping

Besides its role as a shelter port, the float would have as its essential function the housing of a relay transit shed and pumping station. Considering the length and the cost of sea-lines, it would indeed be fitting to allow the terminal enough capacity so that the flow of the sealines joining the land would be as close as possible to the average flow calculated upon the annual duration of functioning reasonably admissible for the pumping station. The following facts were taken into consideration in the calculations:

The annual number of port calls at each berth would be 120 and the capacity of each berth would increase under these conditions (for ships of 500,000 dwt) to 60 million tons.

Tankers would be unloaded at the rate of 40,000 m^3/h so that the unloading time of a large tanker would run about half a day.

The theoretical capacity of the terminal should allow for the simultaneous unloading of two 500,000 dwt ships and will increase under these conditions to approximately one million cubic metres. This capacity should be at maximum doubled in order to take into consideration the arrival of fleets consisting of more than two ships.

The joining of the terminal to port oil depots would be accomplished by means of two 40" diameters sea lines. The flow would be 9,000 m^3/h. Under these conditions the pumping station should have two pumping groups of 10,000 each. The pumps would be run either by directly connected diesel engines or by an electric power station with motors feeding groups of electro-pumps.

The projected installations would accommodate 200,000 dwt ships along the caissons on the inside of the float without special installations. Direct transshipment of part of the cargo brought in by 500,000 dwt ships and larger ones, therefore, can also be guaranteed under certain economic conditions. It does not seem, however, that this can constitute a final solution for the de-consolidation of large cargoes. Direct transshipment can only be envisaged as an exceptional measure and, is most cases, it will be necessary to transit the cargo before re-shipping. After a first brief investigation, it appeared that the solution consisting of transiting on land in the port transit sheds was more lucrative than to do so on the float.

All these arrangements have, at present, only been the object of preliminary studies, but the Port Authority of Le Havre in the next few months will undertake a vast survey and study program.

In the first place, observation cruises will be effectuated in view of swells, currents and tides. A guaging station will be equipped for this reason, whereas reconnaissance excursions will specify the nature of the land and complete the first geotechnical information collected by scintillator prospecting.

Investigations will be made at the same time in the hydraulic laboratory in order to fix the contours of the float so that the shelter of tankers will be guaranteed maximum security. The maneuvering conditions of ships in the approach and in the turround area will also be studied with the help of a reduced model of a super tanker.

Trials in swell-filled canals will allow the detailing the enclosing sea-wall characteristics, whereas a rational survey of the terminal by simulating traffic will be made.

Conclusions:

The tide basin and entry of Le Havre Port can be adapted under favorable conditions to the dimensional increase of ships utilized for transportation of crude oil. At the end of 1969, therefore, berth No. 8 will be ready for accommodating tankers of 200,000/250,000 dwt and final improvements will facilitate the accommodation of even larger ships at the interior of the port.

It is, however, evident that one cannot, at present, fix a limit to the size increase of tankers and that it is necessary to foresee the day when the characteristics of the site and the dimensions of the existing port will no longer be sufficient. The Seine Bay project is concerned with this eventuality.

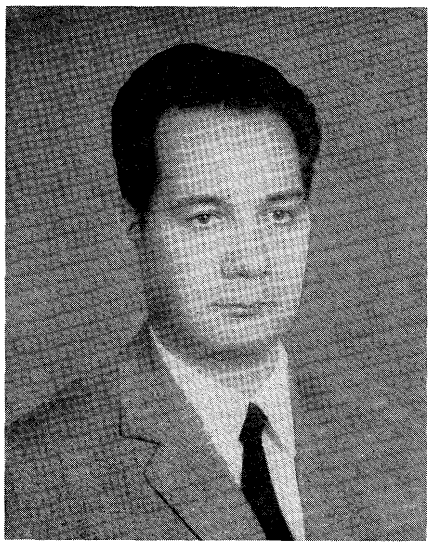
At present, it is obviously a question of making a schematic study in which numerous points must be verified, made exact and completed. A certain number of conclusions can, however, be drawn:

—The development of terminal installations consisting of an artificial float, berths, pumping station and sea lines joining the land is technically possible in the Parfond site; oil tankers of the following generations could be received there, practically without tonnage limitations under very favorable nautical conditions.

—Economically speaking, this terminal would favor extension of hinterland traffic of Le Havre, thanks to very satisfactory economic conditions: for an annual commerce evaluated at 50 million tons for 1980, the cost of passage by the terminal would be around 0.51 F/t.

—This terminal could also be used with supplementary investment for receiving de-consolidating traffic, the cargoes being stocked in the port oil depot, to be reloaded then at oil berths in the tide basin.

Complementary surveys which are on the point of being undertaken will be effectuated during 1968 in order to define in a more detailed manner in a year's time the characteristics of the project which, when realized, would enable Le Havre Port to adapt itself without reserve to the verified evolution in the maritime shipping of oil.



Dr. Fernando Marques da Silva

Portuguese Ports— Shipping Traffic in 1964

By Courtesy of Dr. Fernando Marques da Silva

Administracao-Geral do Porto de Lisboa
Lisbon, Portugal

As in preceding years (1), the tables published in this article serve the purpose of giving some idea of the shipping traffic in Portuguese ports during the year 1964.

Following the method we adopted in the past, we shall begin by showing the general traffic of incoming shipping: (Table 1)

This table shows the share of each national territory in the shipping traffic. It is to be noted that, by comparison with 1963, there was an increase both in the number of ships (8 more) and in the gross tonnage (435,014 gross tons more). This increase is especially due to the ports of the Metropolitan territory, as in overseas ports there was even a decrease largely to be ascribed to foreign shipping (about 1,088,075 gross tons).

By contrast, the rise in the gross tonnage of foreign shipping, totalling approximately 1,267,086 gross tons, should be stressed.

As regards the number of ships, the increase was very slight (8 vessels more); indeed, while the rise in the overseas ports (+11.9 per cent) was quite significant, there was a considerable drop in Metropolitan ports, especially as far as national shipping is concerned (−20.9 per cent).

Tables II and III set out in detail the shares of the various ports —both of the Metropolitan territory and of the Overseas Provinces—in the general shipping traffic, giving the number of ships and also the gross tonnage, a distinction being made between national and foreign vessels.

As regards the ports of Continental Portugal and Madeira, it will be seen that to an increase in the number and tonnage of foreign vessels there corresponds a decrease in the corresponding figures for national shipping.

However, while in Continental Portugal the result still is an increase in total gross tonnage over 1963 (+3 per cent)—and here the increase for Leixões and Lisbon (318,760 gross tons and 398,217 gross tons respectively) should be particularly noted—this is not the case for Madeira, where there was even a decrease partly due to less intensive use of the port of Funchal (35,665 gross tons less, 85 vessels less), which, however, may be

1) "Port of Lisbon Bulletin" nos. 27, 40, 57, 79, 92, 100, 130, 138, 153, 163 and 176, in which were published tables relating to the shipping traffic respectively for the years 1951, 1952, 1953, 1954-5, 1956, 1957, 1958-9, 1960, 1961, 1962 and 1963.

TABLE I

GENERAL SHIPPING TRAFFIC IN 1964 (*)

Territory	TOTAL		NATIONAL SHIPPING		FOREIGN SHIPPING	
	Quantity	Gross ton	Quantity	Gross ton	Quantity	Gross ton
OVERALL TOTAL	36,329	96,227,597	18,353	30,382,344	18,246	65,845,253
Metropolitan territory	16,150	44,535,925	9,054	14,658,875	7,096	29,877,050
Continental Portugal	10,663	28,508,731	4,544	8,350,406	6,119	20,158,325
Madeira	2,700	10,171,837	2,164	3,296,592	536	6,875,245
Azores	2,787	5,855,357	2,346	3,011,877	441	2,843,480
Overseas Provinces	20,179	51,691,672	9,299	15,723,469	11,150	35,968,203
Cape Verde	4,303	8,622,232	3,332	1,153,962	971	7,468,270
S. Tomé and Príncipe	827	1,217,787	781	1,031,061	46	186,186
Angola	4,260	13,400,617	3,440	7,672,687	820	5,727,930
Mozambique	4,280	25,370,160	1,732	5,815,433	2,548	19,554,727
Macao	6,728	3,014,514	3	15,795	6,725	2,998,719
Timor	51	66,362	11	33,991	40	32,371

(*) *The traffic in Guinea ports is not included.*

TABLE II
METROPOLITAN TERRITORY

Territory	TOTAL		NATIONAL SHIPPING		FOREIGN SHIPPING	
	Quantity	Gross tonnage	Quantity	Gross tonnage	Quantity	Gross tonnage
OVERALL TOTAL	16, 150	44, 535, 925	9, 054	14, 658, 875	7, 096	29, 877, 050
Continental Portugal	10, 663	28, 508, 731	4, 544	8, 350, 406	6, 119	20, 158, 325
Aveiro	179	145, 210	107	93, 813	72	51, 397
Cascais	7	50, 040	—	—	7	50, 040
Douro	936	573, 559	444	191, 489	492	382, 070
Faro	77	22, 890	50	5, 254	27	17, 636
Figueira da Foz	13	6, 631	8	6, 056	5	575
Lagos	9	6, 975	—	—	9	6, 975
Leixões	2, 204	4, 459, 954	657	1, 696, 384	1, 547	2, 763, 570
Lisbon	5, 728	21, 598, 837	2, 328	5, 665, 161	3, 400	15, 933, 676
Olhão	37	15, 890	20	5, 156	17	10, 734
Peniche	2	719	—	—	2	719
Portimão	192	351, 813	103	86, 828	89	264, 985
Setúbal	966	1, 058, 336	626	468, 284	340	590, 052
Sines	1	92	1	92	—	—
Viana do Castelo	57	29, 145	42	21, 059	15	8, 086
Vila Nova de Milfontes	4	365	4	365	—	—
Vila Real de Santo António	251	188, 275	154	110, 465	97	77, 810
Madeira	2, 700	10, 171, 837	2, 164	3, 296, 592	536	6, 875, 245
Funchal	1, 767	9, 931, 606	1, 231	3, 056, 361	536	6, 875, 245
Porto Santo	933	240, 231	933	240, 231	—	—
Azores	2, 787	5, 855, 357	2, 346	3, 011, 877	441	2, 843, 480
Angra do Heroismo	492	915, 013	445	559, 442	47	355, 571
Cais do Pico	289	190, 172	288	189, 063	1	1, 109
Calheta	140	110, 239	140	110, 239	—	—
Fajã Grande	5	9, 018	5	9, 018	—	—
Horta	392	843, 388	297	410, 498	95	432, 890
Lages do Pico	69	86, 090	69	86, 090	—	—
Lages das Flores	28	70, 127	28	70, 127	—	—
Ponta Delgada	635	2, 279, 061	403	792, 251	232	1, 486, 810
Santa Cruz das Flores	38	112, 646	34	88, 065	4	24, 581
Santa Cruz da Graciosa	202	247, 531	202	247, 531	—	—
Velas	206	154, 873	206	154, 873	—	—
Vila do Porto	195	312, 796	185	221, 878	10	90, 918
Vila Franca do Campo	11	654	11	654	—	—
Vila Nova do Corvo	21	49, 501	21	49, 501	—	—
Vila Praina do Vitória	64	474, 248	12	22, 647	52	451, 601

Source: Data provided by the National Statistical Institute.

only occasional.

In the Azores the general trend remains unchanged, i.e., there was an increase solely in Portuguese vessels, as regards both number and tonnage, though in both respects there was a decrease when the respective totals are considered.

Special reference should be made to the position attained by the port of Ponta Delgada in 1964 as a result of an increase both in the number of vessels (30 more) and in gross tonnage (347,986 gross tons more) as compared with 1963.

As regards the Overseas Provinces (see Table III), traffic in Cape Verde shows a trend which is contrary to the usual one there: an increase in the number of ships and a decrease in tonnage; the figures for national shipping are now higher than the ones for last year (112 vessels more, 66,811 gross tons more), whereas the figures for foreign shipping show a marked decrease (33 ships less, 776,374 gross tons less).

This goes for Angola as well (83 vessels less and 290,463 gross tons less, respectively).

Also noteworthy is the position attained by Porto Grande as the most important port in Cape Verde (total traffic: 7,872,463 gross tons), while in Angola the ports with the heaviest shipping traffic are Lobito, Luanda and Moçámedes.

In S. Tomé and Príncipe there was a decrease in the number of ships and in tonnage. This decrease occurred both in national and in foreign shipping, the decisive factor for this drop being the less intense traffic at the port of Ana Chaves (73 ships less, 49,109 gross tons less).

In Mozambique there continues the trend towards an improvement in the share of national shipping. 1963 being characterized by a rise both in the number of ships and in the gross tonnage (11 ships more, 267,620 gross tons more).

The traffic of Lourenço Marques is more or less the same as in 1963; Nacala, however, has lost its position as the third port of that province in favour of Moçambique, which is due to a substantial drop in the former's traffic (236,809 gross tons less) rather than to a rise in the latter's (only 22,685 gross tons more).

In Macao there was a decrease both in the number of ships and in the gross tonnage. Such decrease is divided between national and foreign shipping, in whose tonnage mainly it was very marked (7,146 gross tons less and 267,954 gross

(Continued on Page 21)

TABLE III
OVERSEAS PROVINCES

Ports	TOTAL		NATIONAL SHIPPING		FOREIGN SHIPPING	
	Quantity	Gross tonnage	Quantity	Gross tonnage	Quantity	Gross tonnage
OVERALL TOTAL	20, 179	51, 691, 672	9, 299	15, 723, 469	11, 150	35, 968, 203
Cape Verde	4, 303	8, 622, 232	3, 332	1, 153, 962	971	7, 468, 270
Furna	120	22, 009	120	22, 009	—	—
Paul	162	23, 717	162	23, 717	—	—
Pedra de Lume	112	111, 245	97	55, 950	15	55, 295
Ponta do Sol	113	18, 249	113	18, 249	—	—
Porto Grande	2, 002	7, 872, 462	1, 060	529, 303	942	7, 343, 159
Porto de Maio	157	14, 347	157	14, 347	—	—
Porto Novo	344	26, 975	344	26, 975	—	—
Praia	383	339, 002	380	337, 037	3	1, 965
Preguiça	44	6, 520	44	6, 520	—	—
Sal-Rei	79	8, 245	79	8, 245	—	—
Santa Maria	49	35, 487	41	5, 196	8	30, 291
São Filipe	142	29, 793	142	29, 793	—	—
Tarrafal do Monte Trigo	229	55, 881	229	55, 881	—	—
Other ports and harbours	357	58, 300	354	20, 740	3	37, 560
Guinea (*)	—	—	—	—	—	—
S. Tomé and Príncipe	827	1, 217, 787	781	1, 031, 601	46	186, 186
Ana Chaves	447	1, 031, 024	403	855, 774	44	175, 250
Other ports and harbours	380	186, 763	378	175, 827	2	10, 936
Angola	4, 260	13, 400, 617	3, 440	7, 672, 687	820	5, 727, 930
Ambriz	10	58, 785	10	58, 785	—	—
Ambrizete	2	165	2	165	—	—
Baía dos Tigres	206	50, 842	203	32, 216	3	18, 626
Benguela	99	8, 118	98	7, 819	1	299
Cabinda	436	700, 088	401	526, 914	35	173, 174
Cuio	17	83, 858	17	83, 858	—	—
Landana	88	141, 432	85	124, 909	3	16, 523
Lobito	1, 021	5, 152, 378	653	2, 287, 649	368	2, 864, 729
Luanda	1, 344	4, 921, 484	1, 048	2, 931, 621	296	1, 989, 863
Lucira	54	12, 818	54	12, 818	—	—
Moçâmedes	475	1, 385, 711	449	1, 100, 086	26	285, 625
Novo Redondo	82	262, 166	52	129, 672	30	132, 494
Porto Alexandre	99	170, 572	87	104, 319	12	66, 253
Porto Amboim	113	367, 064	71	188, 579	42	178, 485
Santo António do Zaire	95	75, 528	94	75, 136	1	392
Other ports and harbours	119	9, 608	116	8, 141	3	1, 467
Mozambique	4, 280	25, 370, 160	1, 732	5, 815, 433	2, 548	19, 554, 727
António Enes	173	357, 809	146	250, 388	27	107, 421
Beira	1, 181	8, 405, 440	258	1, 268, 253	923	7, 137, 187
Chinde	156	204, 867	126	185, 855	30	19, 012
Inhambane	39	64, 571	35	62, 202	4	2, 369
Lourenço Marques	1, 591	12, 579, 899	275	1, 713, 960	1, 316	10, 865, 939
Moçambique	195	916, 448	150	582, 071	45	334, 377
Nacala	192	895, 378	131	423, 623	61	471, 755
Pebane	99	167, 723	92	157, 202	7	10, 521
Porto Amélia	150	736, 924	117	479, 373	33	257, 551
Quelimane	283	580, 328	234	392, 520	49	187, 808
Other ports and harbours	221	460, 773	168	299, 986	53	160, 787
Macao	6, 728	3, 014, 514	3	15, 795	6, 725	2, 998, 719
Macao	6, 728	3, 014, 514	3	15, 795	6, 725	2, 998, 719
Timor	51	66, 362	11	33, 991	40	32, 371
Dili	51	66, 362	11	33, 991	40	32, 371

(*) *No data on the shipping traffic in the ports of Guinea are given as such data were neither published by the National Statistical Institute nor received by the Statistical Department of the Port of Lisbon Authority.*

Source: Data provided by the National Statistical Institute.

One of the sea-passenger terminal in the Port of Lisbon—Rocha do Conde de Óbidos

TABLE IV
INCOMING SHIPPING
(gross tons)—Percentage Distribution

Territory	1964		1963		1951	
	National	Foreign	National	Foreign	National	Foreign
Continental Portugal	29. 29	70. 71	30. 12	69. 88	29. 30	70. 70
Madeira	32. 41	67. 59	34. 16	65. 84	28. 02	71. 98
Azores	51. 44	48. 56	55. 98	44. 02	51. 62	48. 38
Cape Verde	13. 38	86. 62	11. 65	88. 35	17. 37	82. 63
Guinea	—	—	—	—	85. 12	14. 88
S. Tomé and Príncipe	84. 71	15. 29	81. 01	18. 99	91. 35	8. 65
Angola	57. 26	42. 74	55. 11	44. 89	61. 49	38. 51
Mozambique	22. 92	77. 08	21. 91	78. 09	24. 88	75. 12
India	—	—	—	—	0. 82	99. 18
Macao	0. 52	99. 48	0. 83	99. 17	0. 19	99. 81
Timor	51. 22	48. 78	37. 94	62. 06	18. 02	81. 98
Overall percentage	31. 57	68. 43	31. 45	68. 55	31. 25	68. 75

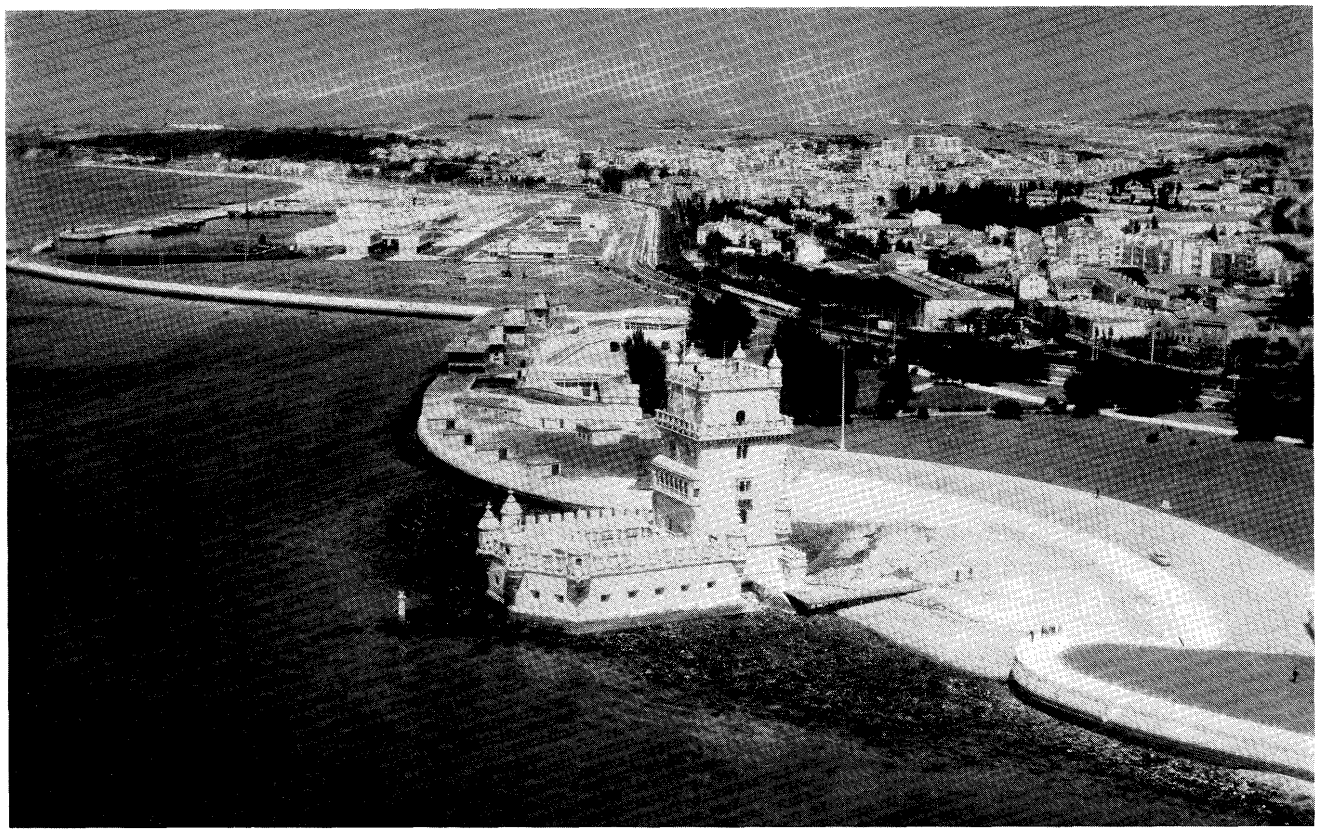
TABLE V
INCOMING SHIPPING
Gross tons—Indices

Territory	1964		1963		1951	
	National	Foreign	National	Foreign	National	Foreign
Continental Portugal	181	182	181	174	100	100
Madeira	238	193	254	191	100	100
Azores	151	152	158	133	100	100
Cape Verde	146	199	138	219	100	100
Guinea	—	—	—	—	100	100
S. Tomé and Príncipe	117	223	118	293	100	100
Angola	177	211	170	221	100	100
Mozambique	170	190	162	192	100	100
Macao	231	85	335	78	100	100
Timor	226	47	171	62	100	100
Overall indices	173	171	172	170	100	100

Alcântara Dock and sea passenger terminals of "Alcântara" and "Rocha do Conde de Óbidos"—Lisbon. On the foreground the "Salazar Bridge" (right bank of the Tagus)

TABLE VI
AVERAGE TONNAGE

Territory	Total			National Shipping			Foreign Shipping		
	1964	1963	1962	1964	1963	1962	1964	1963	1962
Continental Portugal	2,674	2,200	2,245	1,838	1,261	1,303	3,294	3,241	3,226
Madeira	3,767	3,613	3,961	1,523	1,506	1,679	12,827	13,204	12,436
Azores	2,101	1,972	1,985	1,284	1,268	1,302	6,448	6,730	6,638
Cape Verde	2,004	2,209	2,101	346	338	297	7,691	8,212	7,626
S. Tomé and Príncipe	1,473	1,294	1,297	1,321	1,114	1,145	4,048	4,134	4,071
Angola	3,146	3,315	3,111	2,230	2,352	2,233	6,985	6,665	6,321
Mozambique	5,928	5,753	5,724	3,358	3,224	3,049	7,675	7,376	7,562
Macao	448	637	657	5,265	7,647	7,643	446	632	654
Timor	1,301	1,478	1,825	3,090	3,686	6,859	809	1,082	1,335
METROPOLITAN TERRITORY	2,758	2,385	2,434	1,619	1,312	1,369	4,210	4,177	4,100
OVERSEAS PROVINCES	2,562	2,893	2,900	1,691	1,674	1,657	3,226	4,115	4,216
OVERALL AVERAGE	2,649	2,637	2,669	1,655	1,472	1,502	3,609	4,142	4,165



Tower of Belém — Blazon of the Port of Lisbon. On the background, left, the new fishing dock of Pedroucos

TABLE VII

Year	NATIONAL SHIPPING			FOREIGN SHIPPING	
	Total	Gross Tonnage	Share	Gross Tonnage	Share
1964 *	96, 227, 597	30, 382, 344	31. 57	65, 845, 253	68. 43
1963 *	95, 792, 583	30, 126, 341	31. 45	65, 666, 242	68. 55
1962 *	91, 009, 376	28, 766, 848	31. 60	62, 242, 528	68. 40
1961	85, 580, 573	26, 263, 494	30. 69	59, 317, 079	69. 31
1960	88, 679, 731	25, 512, 605	28. 77	63, 167, 126	71. 23
1959	83, 484, 922	25, 090, 880	30. 05	58, 394, 042	69. 95
1958	80, 407, 195	24, 229, 093	30. 13	56, 178, 102	69. 87
1957	77, 128, 087	22, 853, 860	29. 63	54, 274, 227	70. 37
1956	70, 079, 679	22, 748, 624	32. 46	47, 331, 055	67. 54
1955	70, 484, 356	22, 399, 709	31. 78	48, 084, 647	68. 22
1954	72, 332, 763	21, 751, 443	30. 07	50, 581, 320	69. 93
1953	66, 019, 802	20, 424, 418	30. 94	45, 595, 384	69. 06
1952	58, 630, 817	19, 229, 643	32. 80	39, 401, 174	67. 20
1951	56, 131, 230	17, 543, 704	31. 25	38, 587, 526	68. 75

(*) *The ports of Guinea are not included.*

TABLE VIII

Territory	GROSS TONNAGE, INCOMING SHIPPING			SHARE IN RELATION TO TOTAL		
	1964	1963	1951	1964	1963	1951
TOTAL	96, 227, 597	95, 792, 583	56, 131, 230	100. 00	100. 00	100. 00
Continental Portugal	28, 508, 731	27, 674, 366	15, 703, 723	29. 63	28. 89	27. 98
Madeira	10, 171, 837	10, 308, 124	4, 947, 974	10. 57	10. 76	8. 81
Azores	5, 855, 357	5, 641, 295	3, 861, 600	6. 08	5. 89	6. 88
Cape Verde	8, 622, 232	9, 331, 795	4, 549, 995	8. 96	9. 74	8. 11
Guinea	—	—	115, 237	—	—	0. 20
S. Tomé and Príncipe	1, 217, 787	1, 284, 560	962, 763	1. 27	1. 34	1. 72
Angola	13, 400, 617	13, 406, 565	7, 062, 567	13. 93	13. 99	12. 58
Mozambique	25, 370, 160	25, 324, 174	13, 729, 374	26. 36	26. 44	24. 46
India	—	—	1, 597, 562	—	—	2. 85
Macao	3, 014, 514	2, 753, 706	3, 516, 876	3. 13	2. 88	6. 26
Timor	66, 362	67, 998	83, 559	0. 07	0. 07	0. 15

(Continued from Page 16)

tons less, respectively).

Lastly, in Timor, to an increase of 5 vessels over 1963 there corresponds a decrease in tonnage (1,636 gross tons less) which is even more significant for foreign shipping (9,826 gross tons less), though partly offset by an opposite trend as regards national shipping (8,190 gross tons more).

The figures for incoming shipping in Portuguese ports in 1964 will now be given in two tables, the purpose of which is to describe their evolution through the percentage distribution of the total tonnage between national and foreign shipping (Table IV), and through index figures based on the year 1951 (Table V).

In the first of these tables it will be noted that there is a trend towards a stabilization of the overall picture, as indeed the figures for 1964 (31.57 per cent for national shipping and 68.43 per cent for foreign shipping) do not diverge greatly from those for 1951 (31.25 per cent and 68.75 per cent respectively).

Contrary to what happened in 1963, there was a decrease in national shipping in the ports of Continental Portugal, whereas in the Overseas Provinces the decrease was in foreign shipping, there having been an increase in Portuguese shipping with the sole exception of the port of Macao.

However, as regards this latter province, and also Timor, the small volume of traffic compared with the other Overseas Provinces does not make it possible to give any great relevance to the exceptional features pointed out.

Luanda—Vista da baía vendo-se o novo Banco Angola

If we analyse Table V, we shall see that, as shown by the indices given in it, the global situation increased by just one point between 1963 and 1964 as regards both national and foreign shipping.

Other facts, too, deserve special mention, as, for instance, the increase in foreign shipping in Metropolitan Portugal, and the decrease in national shipping. As regards the Overseas Provinces, the opposite trend is to be noted, with the exception of Macao, where the same trend as in Metropolitan Portugal predominates (a decrease of 31 per cent in national shipping—the greatest fluctuation registered in the overseas territories—and an increase of 9 per cent in foreign shipping).

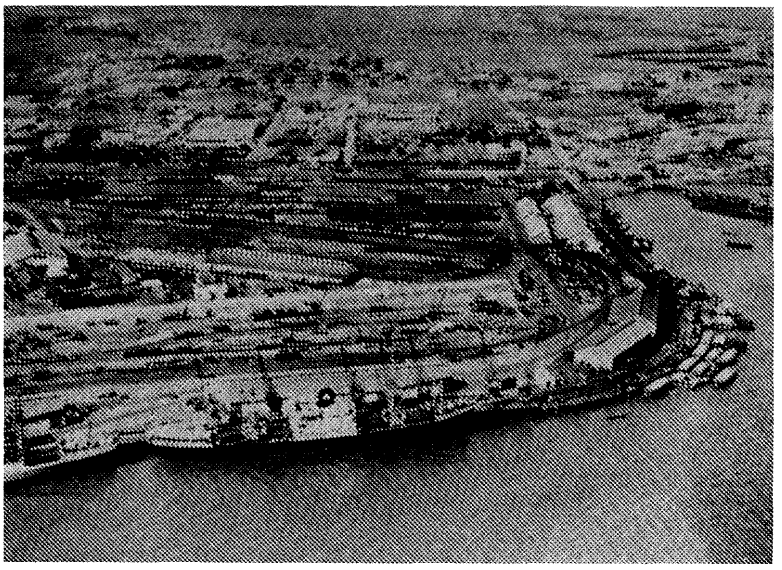
Another fact to be stressed is that, by comparison with 1951, Macao ceased to be the province with the greatest increase, this position being occupied in 1964 by Madeira (238 per cent).

Table VI indicates the average tonnage of incoming shipping in the various parts of the national territory.

This table shows that there was

TABLE IX
DISTRIBUTION OF SHIPPING TRAFFIC
INCOMING SHIPPING (GROSS TONS)

Territory	1964		1963		1951	
	National	Foreign	National	Foreign	National	Foreign
TOTAL	30, 382, 344	65, 845, 253	30, 126, 341	65, 666, 242	17, 543, 704	38, 587, 526
Continental Portugal	8, 350, 406	20, 158, 325	8, 334, 558	19, 339, 808	4, 601, 433	11, 102, 290
Madeira	3, 296, 592	6, 875, 245	3, 521, 454	6, 786, 660	1, 386, 410	3, 561, 564
Azores	3, 011, 877	2, 843, 480	3, 157, 799	2, 483, 496	1, 993, 230	1, 868, 370
Cape Verde	1, 153, 962	7, 468, 270	1, 087, 151	8, 244, 644	790, 523	3, 759, 472
Guinea	—	—	—	—	98, 091	17, 146
S. Tomé and Príncipe	1, 031, 601	186, 186	1, 040, 642	243, 918	879, 449	83, 314
Angola	7, 672, 687	5, 727, 930	7, 388, 172	6, 018, 393	4, 342, 945	2, 719, 622
Mozambique	5, 815, 433	19, 554, 727	5, 547, 813	19, 776, 361	3, 416, 540	10, 312, 834
India	—	—	—	—	13, 177	1, 584, 385
Macao	15, 795	2, 998, 719	22, 941	2, 730, 765	6, 852	3, 510, 024
Timor	33, 991	32, 371	25, 801	42, 197	15, 054	68, 505



Porto da Beira — Mozambique

a slight increase in 1964 over the preceding year, since to the increase in Metropolitan ports there corresponds a decrease in the Overseas Provinces, this being especially due to the direct influence of the foreign shipping decreases in Madeira, Macao and Timor (377 gross tons less, 186 gross tons less and 273 gross tons less respectively).

Madeira's position in this respect is noteworthy, in view of the truly remarkable average tonnage registered in its ports: 12,827 gross tons.

Table VII shows in its turn that, contrary to what happened in 1963, there was in 1964 an increase in the share of the gross tonnage of national shipping; this increase is, however, offset by a decrease in the corresponding figure for foreign shipping which, nevertheless, makes up over two thirds of the overall traffic.

Table VIII shows the percentage distribution of the total gross tonnage for incoming shipping among the various parts of the national territory, it being tried to ascertain the trend in the share of each territory in the general traffic through comparison with the distributions for the years 1963 and 1951.

It will be seen that in 1964 there was no change from the preceding year in the relative position of each territory; in some however, there were slight increases (Continental Portugal, the Azores and Madeira) offset by decreases in others with the exception of Timor, whose relative figure is the same as in 1963.

Table IX gives the distribution of the shipping traffic of national and foreign vessels expressed in gross tons for each territory of the Portuguese area, a comparison being also made with the two immediately preceding years.

The data contained in this table make it possible to say that the fluctuation percentages have not changed in the last two years for the territories as a whole (0.8 per cent for national shipping and 0.3 per cent for foreign shipping).

It should, however, be pointed out that in the Continent alone there was a simultaneous increase in the tonnage both of national shipping (15,848 gross tons more) and foreign shipping (818,517 gross tons more); indeed, with the exception of S. Tomé and Príncipe — where there was a decrease in both: respectively 9,041 gross tons less and 57,732 gross tons less—in the other territories only one of the categories (either national or foreign shipping) shows an increase in tonnage.

Finally, Table X gives the main Portuguese ports by decreasing order of traffic volume in gross tonnage in 1964, comparing it with 1963 and 1951:

Compared with 1963, in the 1964 traffic we should point out as outstanding factors the loss of the positions occupied in that year by the ports of Porto Grande and Nacala, and the remarkable increase in the traffic of the port of Setúbal. Lisbon still holds its position as the most important port (21,598,837 gross tons), followed by Lourenço Marques and Funchal, though in the two latter there was a decrease of respectively 86,171 and 35,665 gross tons.

TABLE X
TRAFFIC OF THE MAIN PORTUGUESE PORTS

Ports	1964		1963		1951	
	Gross tonnage	Share	Gross tonnage	Share	Gross tonnage	Share
Lisbon	21, 598, 837	22. 45	21, 200, 620	22. 13	11, 906, 035	21. 21
Lourenço Marques	12, 579, 899	13. 07	12, 666, 070	13. 22	6, 852, 497	12. 21
Funchal	9, 931, 606	10. 32	9, 967, 271	10. 40	4, 868, 417	8. 67
Beira	8, 405, 440	8. 73	8, 004, 550	8. 35	4, 304, 220	7. 67
Porto Grande	7, 872, 462	8. 18	8, 594, 125	8. 97	4, 180, 324	7. 45
Lobito	5, 152, 378	5. 35	5, 448, 554	5. 68	2, 919, 456	5. 20
Luanda	4, 921, 484	5. 11	4, 838, 848	5. 05	1, 735, 089	3. 09
Leixões	4, 459, 954	4. 63	4, 141, 194	4. 32	2, 165, 710	3. 86
Macao	3, 014, 514	3. 13	2, 753, 706	2. 87	3, 516, 876	6. 27
Ponta Delgada	2, 279, 061	2. 37	1, 931, 165	2. 01	1, 623, 181	2. 89
Moçâmedes	1, 385, 711	1. 44	1, 199, 756	1. 25	983, 089	1. 75
Setúbal	1, 058, 336	1. 10	937, 462	0. 97	695, 245	1. 24
Ana Chaves	1, 031, 024	1. 07	1, 080, 133	1. 12	860, 415	1. 53
Moçambique	916, 448	0. 95	893, 763	0. 93	1, 051, 903	1. 87
Angra do Heroismo	915, 013	0. 95	1, 130, 595	1. 18	324, 364	0. 58
Nacala	895, 378	0. 93	1, 132, 187	1. 18	54, 792	0. 10
Horta	843, 388	0. 88	897, 077	0. 93	566, 696	1. 00

Orbiter Probe

IAPH News:

Executive Committee Meets In New Orleans

The Executive Committee of IAPH met January 16-20 in New Orleans, La., U.S.A. where the following eight members of the Committee were present: Dr. Chujiro Haraguchi, President (Mayor of Kobe), Rt. Hon. Viscount Simon, Immediate Past President (Chairman, Port of London Authority), Mr. V. G. Swanson, First Vice President (Chairman, Melbourne Harbor Trust Commissioners), Mr. A. Lyle King, Committee Member (Director, Marine Terminal Dept., Port of New York Authority), Mr. W. J. Manning, Committee Member (Director, Marine Works, Department of Transport, Canada), Mr. Gengo Tsuboi, Committee Member (Managing Director, Japan Shipowners' Association), Mr. W. J. Amoss, Committee Member (Director, Port of New Orleans), and Mr. J. den Toom, Committee Member (Managing Director, Dienst der Havens en Handelsinrichtingen, Netherlands).

Also present were Mr. Cyrus C. Guidry, IAPH Legal Counselor (Port Counsel, Port of New Orleans), Mr. N. L. Fidge, aide to Mr. Swanson, Mr. Ronald A. Belfiglio, Administrative Assistant to Mr. Austin J. Tobin, Executive Director, Port of New York Authority, Mr. Kotaro Yamada, Chief, Foreign Affairs Section, Kobe, Mr. Junichi Taniguchi, Secretary to Mayor of Kobe, Mr. Kosaku Masuda, Civil Engineer, Research and Planning Division, Kobe.

IAPH Head Office was represented there by Mr. Toru Akiyama, Secretary General, Mr. Takeo Okamoto, Under Secretary, and Mr. Shigehiro Kusu, Under Secretary.

Salient purpose of the session was the approval of the detailed plans submitted by Mr. Swanson for the 6th IAPH Conference in 1969 to be held in Melbourne, Australia. The invitation and plans submitted are introduced on Pages 5~9.

The Secretary General submitted a detailed interim report on the Association affairs since the 5th Conference of May, 1967 in Tokyo. Membership as of December 31, 1967 totaled 274 including 135 Regular Members, 64 Corporate Members, 46 Individual Members, 4 Life Members, 10 Honorary Members, and 10 Founder Members. Compared with the last official total of 244 as of April 30, 1967 just before the 5th Conference, it indicated an increase of 30.

Reviews were made of IAPH's relations with the U.N. with which IAPH holds consultative status B, the I.M.C.O. which accorded the consultative status to IAPH in October, 1967, and the C.C.C. (Customs Co-operation Council), a world-wide inter-governmental organization dealing exclusively with Customs questions. It was reported that the C.C.C. wrote to IAPH in May, 1967 requesting IAPH to furnish its observations on international transport by container in relation to the customs. While IAPH could not give its views by way of a reply, the consensus of the ports inquired was that it was important for IAPH to establish a friendly relationship with the Council.

There was a tangible progress on the Technical Assistance Fund in line with Mr. Tobin's special report and the Secretary General's new proposal for amending the IAPH By-Laws to enable the Secretary General to administer the Fund legally. The draft resolution is to be submitted to the coming General Meeting in Melbourne.

Although Mr. Austin J. Tobin, Chairman of Committee on International Port Development (Executive Director of Port of New York Authority) had intended to attend the Meeting personally to present a report on his Committee, urgent matters in New York made it impossible for him to do so. His written reports, one on the Technical Assistance Fund, and the other, a full report on his Committee's Activities, were presented and annotated by Messrs. King and Belfiglio of New York.

At one of the sessions Lord Simon introduced reports received from IAPH representatives appointed by him who attended the following IMCO Sessions: Sub-Committee on Safety of Navigation, 4th Session, December 4-8, 1967 (Commander G. V. Parmiter, R. N., River Superintendent and Harbour Master, Port of London Authority), Legal Committee, 2nd Session, November 20-24, 1967 (Mr. T. A. McLoughlin, Secretary, Dock and Harbor Authorities' Association), and Sub-Committee on Tonnage Measurement, 8th Session, December 11-20, 1967 (Mr. G. E. Young, Assistant General Manager, Finance, Mersey Docks and Harbor Board).

Commander Parmiter took part in the discussions on the establishment of special routes or lanes for ships, the use of VHF radiotelephony for collision avoidance and exchange of navigational information and other agenda and found them very pertinent to port authorities. Mr. T. A. McLoughlin joined discussions on legal implications brought to light by the "Torrey Canyon" disaster. Mr. Young got really involved in the debate on tonnage measurement. He stood up bravely to state the case for port authorities and to clear the misunderstanding which appeared to be held against ports.

In the interest of those observers representing IAPH, Lord Simon felt that, while IAPH right now had no machinery for reaching quickly a common view on any problem,

(Continued on Next Page Bottom)

International Seminar on Port Management

Netherlands Universities Foundation
for International Co-operation
The Hague

The Fourth International Seminar on Port Management in the Netherlands will be held from April 22nd —May 25th, 1968 at Delft, Rotterdam and Amsterdam.

The theoretical part of the course consists of lectures on transportation problems, nautical subjects, port management, the lay-out of port areas and cargo handling, given during a two-week study period at the International Courses in Hydraulic and Sanitary Engineering, Delft. These courses are organized by the Delft Technological University in co-operation with the Netherlands Universities Foundation for International Co-operation (NUFFIC), The Hague.

In the remaining three weeks visits (with explanatory lectures) will be made to various aspects of the ports of Amsterdam and Rotterdam and a study excursion to ports in Great Britain.

The past three seminars were attended by in total 78 participants, mainly senior port officials, from 40 different countries.

The text of introductory brochure is reproduced below:

Introduction

The speeding up of the turnround of shipping at ports has been referred to by the United Nations' Conference on Trade and Development as being a vital problem in relation to world trade. Foreign port administrators, many coming through the intermediary of the United Nations, have spent observation periods in Dutch ports. It is doubtful whether these means of observation have always yielded good results.

A theoretical basis was lacking. It was easy to observe the techniques, but difficult to understand why they were applied. It also often proved difficult to adapt the knowledge acquired in the Netherlands to the situation in the observer's country.

For this reason the need was felt to organize a special seminar. The International Technical Assistance Department of the Ministry of Foreign Affairs which gave its intermediary for study visits to the Dutch ports took the initiative to combine individual requests by means of an international seminar. The Port Authorities of Amsterdam and Rotterdam, which have frequently been approached by individual visitors, were pleased to give their full support to this idea.

The formal teaching part of the seminar is the responsibility of the International Courses in Hydraulic and Sanitary Engineering in Delft. The 11 month International (postgraduate) Course in Hydraulic Engineering given by this institution, which was held in 1957 for the first time, has been offering in its "tidal and coastal engineering branch" an all-round training to port- and harbor engineers. It is obvious that the same ground cannot be covered in a 5 week seminar as in the full 11 month course; therefore the programme of the seminar does not contain a discussion of structural and hydraulic aspects but is confined to a thorough treatment of the organizational and management aspects of ports.

The former three Seminars on Port Management have brought together 76 port administrators from 39 different countries. The discussions between them proved to be very valuable. Therefore each participant is expected to deliver a short statement on problems of special importance of his work in his country. Candidate-participants are requested to take material with them which they would like to present at Delft.

Subjects Taught in the Seminar

A. lecture parts: April 22-27 and May 20-25, 1968, and possibly a few other dates.

1. General survey of transportation problems and nautical subjects.
   a. Communication.
      Size and development of world traffic. Characteristics of land and water transport. Economic significance of transport of goods.
   b. Nautical subjects.
      Identification and measuring of ships according to international regulations. Development in size and type of ship.
2. Port Management.
   The international character of ports and their dependency on

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when IAPH was represented at international conferences, even if only by observers, IAPH might sometimes be expected at least to indicate the attitude which it was likely to take up.

Office Moving

Effective April 1, 1968, the IAPH Head Office is scheduled to move to new quarters at the following address:

The International Association of Ports and Harbors
Kotohira-Kaikan Bldg. 4th floor
1, Shiba-Kotohira-cho, Minato-ku, Tokyo, Japan

The new office is located more conveniently than before, and is a little spacier. The move is motivated by an urge to join the neighborhood of friendly bodies, for the entire 4th floor of the building is to be occupied by 6 port-related offices, i.e. Japan Port and Harbor Association, Japan Cargo Handling Mechanization Association, the Reclamation and Dredging Association of Japan, Keihin (Tokyo Bay) Port Development Authority, Hanshin (Osaka Bay) Port Development Authority, and IAPH.

local political context.
Diversity of port organization, the port area and port function. Statistics and reports as tools of management.
Operation and financing of a port. Port labor. Safety and health.
Public relations. Co-ordination between ports.

3. Lay-out of port areas.
Master plan and design features of general and specialized berths. Road and railway connections of ports.
4. Cargo Handling.
Aids to quicker turn-round of ships.
Handling of roll-on roll-off and container cargoes.

B. programme of visits to and around the ports of Amsterdam and Rotterdam

1. Amsterdam: April 29—May 4, 1968
Introductory lectures on the port, its history, organization, operation and future.
Visits with explanatory lectures to:
The harbor entrance at Ijmuiden and the locks and new breakwaters.
Theory and practice of handling a general cargo from various types of ships.
Handling special cargoes such as cereals, soft and hard wood.
Freezing warehouses. Shipbuilding and repair yards.
Fishing port. Harbor police and fire brigade.
2. Rotterdam: May 13-18, 1968
Introductory lectures on the port, its history, organization, operation and future.
Visits with explanatory lectures to:
Various sections of the port with the large port extensions at Europoort.
Stevedoring enterprises and warehouses. Port training institute.
Handling of containers and of unit loads.
Mechanical transhipment and storage of general cargoes and cereals. Navigational radar stations.

C. study visit to a few ports in Great Britain organized with the assistance of the British Ports Council: May 4-11, 1968
Ports of Hull and Immingham: conservancy of the estuary; handling of general cargo and bulk goods; study of the fishing harbor.
Ports of Felixstowe and Harwich: roll-on roll-off berths; handling of passengers and containers.
Port of London and Tilbury: modernization of the port and of cargo handling methods; recuperation of old harbor areas.

D. participants' statements on conditions in their own countries

Application and Admission

The seminar is open to government officials and other qualified candidates who in their daily activities have been confronted with problems of port management for a number of years. Candidates should preferably have a university degree, although in special cases experience can replace a university background. No simple formula can be given for the conditions of admission and for this reason applications will be considered individually. In order to enable the organizers to judge the applications properly, candidates should fill in the attached application form as completely and clearly as possible and return it to the Registrar.

All candidates are required to submit a letter of recommendation from their employer. They are advised not to come to the Netherlands to follow the seminar before they have received notice of admission. In order to promote a close contact between the lecturers and participants and to stimulate discussions, the number of participants will be limited to 25.

Duration of the Seminar

The seminar will begin on Monday, April 22 and close on Saturday, May 25, 1968. Participants are expected to arrive on Sunday, April 21, 1968.

Language

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

Fees and Other Expenses

The participation fee is Dfl. 2000, —, which includes the tuition fee, travel costs for the fieldtrips within the context of the course and the cost of lodging and breakfast during the period of the course. Participants are required to pay lunch and dinner expenses.

Unfortunately it cannot be guaranteed that hotels will always have single rooms available.

The participation fee should be paid before or on registration day. Those preferring to pay in advance are requested to have the participation fee paid into the account of NUFFIC at the Amsterdam—Rotterdam Bank, 14, Wagenstraat, The Hague.

Fellowships

It is expected that a number of participants will be granted fellowships by their employers or by national or international fellowship granting organizations, such as the United Nations, the International Labor Organization (I.L.O.) or the Organization for Economic Co-operation and Development (O.E.C.D.). Candidates who wish to receive information about financial facilities provided by the Netherlands to candidates coming from developing countries should apply to the Netherlands Diplomatic Representative in their countries. Netherlands Government fellowships do not include an amount for travel expenses from the country of origin to the Netherlands and v.v.

Insurance

Participants are expected to insure themselves against health, accident and third-party liability risks for the duration of the seminar.

Land Bridge Defied

San Francisco, Calif., December 11: — The virtually-certain "containership overtonnaging" that will take place in the Pacific next year will leave little room for operations by conventional freighters, one of Japan's top shipping executives told PACIFIC SHIPPER last week.

Y. Mizuno, newly appointed managing director of NYK Line, said that approximately two million tons of cargo will move from Japan to the West Coast in 1968, about 60 per cent of it (1.2 million tons) suitable for containerization.

"That's not enough cargo to maintain the fleet of containerships that will be in service on the run." In fact, he added, it's "very doubtful if there will be much room for conventional ships" in the trade.

He noted, however, that break-bulk carriers will still play an important role in movement of steel goods and less-than-vanload lots. Otherwise, the containership and the specialized bulk carrier will dominate.

Mr. Mizuno, who is in charge of NYK's container program, was in San Francisco on the last leg of an inspection tour of containership facilities in Oakland and Los Angeles, specifically to see "preparations which Matson is making for NYK ships in California." (Matson Navigation Co. and NYK are partners in a shoreside container service pact.) He was accompanied by K. Yokoyama, an executive of NYK's planning division.

Mr. Mizuno expressed skepticism about the new concept of the United States as a land bridge for Japan-Europe cargo. Fast newbuildings on the all-water route "could easily complete the transit in 27-30 days," which is competitive with the intermodal run contemplated by land bridge enthusiasts and "eliminates the complications involved in transshipment," he said.

Noting that Sea-Land Service is expected to begin trans-Pacific operations in mid-1968, Mr. Mizuno said the carrier's 35-foot containers are "not acceptable" for Japanese highways or railroads. "The 24-foot container will play a limited role," at least for the present, "but the 35-foot container will be even more limited." (Pacific Shipper)

Van Consolidators

Baltimore, Md., January 15: — Four steamship terminal operators at the Port of Baltimore's Locust Point Terminal have joined to form Baltimore Cargo Handlers Inc., a new pierside container handling firm at this container-oriented port.

Effective February 1, the new firm will receive containers, load or unload, consolidate, and deliver to all steamship lines and will operate at Pier 5, Locust Point Marine Terminal.

In announcing the creation of the new firm, President C. J. Caulfield, stated, "we are beginning this operation to meet the changing needs that containerization brings to ocean shipping.

"Among these changing needs, will be consolidation of less-than-container shipments into full container loads—the stuffing and the unstuffing of containers; Forwarders that have multiple shipments can use Baltimore Cargo Handler's container consolidation service; Even fully loaded containers can be received and delivered to the steamship lines.

"This will be a 'port-wide' operation as we will deliver or receive from any terminal in the Port of Baltimore. In fact we are 'world-wide' in that, we extend this service not only to U.S. exporters, but to foreign exporters shipping to the U.S."

The firm is using ILA deep-sea labor in loading and unloading containers. (Maryland Port Authority News Release)

New Frontier

Buffalo, N.Y.:—With passage of the $2½ billion bond issue, the Niagara Frontier looks forward to a tremendous upsurge in business. This flexing of our business muscles in Western New York will result from the construction of scores of plants and industries along the many new highways now in progress and those planned for the near future.

With a new $2,400,000 warehouse and a $400,000 gantry crane augmenting Buffalo's ideal situation on the Great Lakes, it is also predicted that Buffalo will become one of the prime container port areas on the Lakes. With these expanded facilities, new chapters in Buffalo's shipping history have already been written.

In respect to air travel, from January through June of 1967, a total of 926,578 passengers arrived or departed Greater Buffalo International Airport on scheduled airlines and the airport is again headed for a record-breaking year.

Acclaimed the most accessible city in North America, Metropolitan Buffalo is definitely the hub of a mighty transportation network providing economical passenger, freight and express transportation by rail, air, truck, bus, water and highway. It is therefore with great enthusiasm and expectation that the recently formed Niagara Frontier Transportation Authority anticipates the development of all these potentials for even greater growth and prosperity in Western New York. (Port of Buffalo)

Maritime Books

Houston, Texas:—A new treatise on "The Ocean Freight Forwarder, The Exporter and the Law" has been published by Cornell Maritime Press, Inc. Said to be a first in its field, the book was written by Gerald H. Ullman, long-time counsel for the New York Freight Forwarders and Brokers Association. The book is priced at $5.

"Export/Import Traffic Management and Forwarding" by Alfred Murr, published by Cornell Maritime Press, Inc., is a new edition that has been updated in every section. This handbook is a comprehensive coverage of the subjects prepared by a man of broad practical business and teaching experience. This is a definitive work which will meet the constantly growing need for information on this vital phase of international business. The volume is $10 from the publisher in Cambridge, Maryland 21613.

"Ports of the World 1967" and "Tanker & Bulk Carrier World Directory," two publications of interest to ship owners and operators are now being distributed in the United States by John de Graff,

Inc., 34 Oak Avenue, Tuckahoe, N.Y. 10707, at $20.00 each.

"Ports of the World," published by Shipping World Limited, London, gives a brief description of the world's ports, giving location, accommodations, services available, fees, requirements, local holidays and other information useful to calling vessels.

"Tanker & Bulk Carrier World Directory" is published by Terminus Publications Limited, of London. It has tables of various statistics relating to tanker operation, fleet size and building programs. It also lists tanker terminals, giving location, number of berths, water depth and maximum ship lengths. The major portion of the book is an alphabetical listing of all operating tankers and of bulk carriers of more than 20,000 d.w.t., showing size, flag, owner, and place and date of building. (Port of Houston Magazine, December)

Oceanographic Firm

Long Beach, Calif.:—Plans have been announced to form a new oceanographic firm to be headquartered in Long Beach.

The company, to be called Deep Oil Technology Inc., will carry out developmental work on deep-ocean recovery of oil, with its services offered to oil companies engaged in offshore activities.

The new firm will be owned 80 per cent by the Fluor Corporation Ltd. of Los Angeles, and 20 per cent by Ocean Science and Engineering, Inc., of Washington, D.C. In addition, Fluor announced it plans to acquire an 8 per cent interest in OSE.

President of the organization will be Ed Horton, currently western operations manager for OSE. The Long Beach headquarters will be staffed by ocean-oil design and field engineers and scientists.

Fluor is an international engineering-construction company serving the petroleum, chemical and petrochemical industries. The firm recently diversified its operations into offshore and onshore oil drilling by acquiring the B. L. McFarland Group of companies, now operated as Coral Drilling Inc. It also announced plans to acquire Caldrill Inc., a California-based drilling company.

OSE designs, builds and operates ships and tools for precise sampling and evaluation of undersea mineral deposits. Its fleet includes three scientific ships and a number of smaller survey vessels.

J. R. Fluor, president of The Fluor Corporation, said the new company would enable Fluor to expand its know-how and services to customers. "We welcome the opportunity to work with OSE and their president, Willard Bascom, who has achieved an international reputation in oceanography," he added. (Port Ambassador)

Conveyor for Hire

Long Beach, Calif.: — Effective November 1, 1967, the conveyor type, dry bulk cargo shiploader, located at Pier D, Berths 28-29, Port of Long Beach, became available to all stevedoring companies, terminal operators, steamship lines and others on a tariff basis.

The Pier D bulkloader has proven an efficient facility for loading fertilizers, including potash and urea, as well as petroleum coke and other dry bulk commodities.

A basic charge of 38 cents per 2,000 lbs. will be assessed by the Port for the use of this bulkloader, including utilities and maintenance. Auxiliary equipment to be furnished free of charge includes car shakers, ship trimmers and air pollution control equipment. If air pollution equipment is not necessary, a discount of 5 cents per ton will be made by the Port. A cleaning charge of $300.00 per use will be made. The user must furnish all operators and rail switching equipment. (Port Ambassador)

Ports Group

New Orleans, La., January 16: — Nine committee members of the International Association of Ports and Harbors, led by its president, Dr. Chujiro Haraguchi, mayor of Kobe, Japan, are convening here for a five-day meeting.

Also being represented here are Australia, Canada, The Netherlands, the United Kingdom and the United States.

The 13-year-old organization has 274 members, including 135 port organizations, in 49 countries.

Also among the members are shipowning companies and associations, stevedore companies and shipbuilding consultants.

Among the topics of discussion will be the sixth biennial conference, to be held in March, 1969, in Melbourne, Australia.

Meetings here this week are being conducted in offices of the Dock Board. W. J. Amoss, director of the Port of New Orleans, is one of the three American members of the executive committee.

The IAPH was established in Los Angeles in 1955. The central headquarters is in Tokyo.

While in New Orleans, the visitors will see the Michoud Assembly Facility and the Bulk Handling Plant. (Times Picayune)

Mr. Swanson

New Orleans, La., January 17:— Australia might be considered "down under" geographically but with regard to port operations the country might better be considered "up over" or ahead in many respects.

The Australian port, for example,have considerably more experience in container cargo operations than do this country's ports.

V. G. Swanson, chairman of the Melbourne Harbor Trust, said here today that the shipping industry of his country has employed unitized cargo packaging and roll-on, roll-off cargo handling in Australia's domestic coastwise trade for 10 years.

Swanson, who is also first vice-president of the International Association of Ports and Harbors, is here this week to attend meetings of the IAPH executive committee in progress at the International Trade Mart.

Australia's coastwise shipping is brisk and is handled almost completely by vessels and terminals equipped for roll-on, roll-off loading and discharge.

Swanson said, however, that Australia is just getting into overseas container operations. Still his port, Melbourne, is ahead of U.S. Gulf ports.

Melbourne has a full container-

ship terminal under construction now to handle United Kingdom cargoes, which is to be in operation by February, 1968. The port authority anticipates full container service with this country and Japan by the end of next year or early 1970.

Swanson noted, however, that the trend to unitized cargo and roll-on, roll-off loading operations poses a problem for ports throughout the world.

As more container facilities—ships and terminals—come into play, he said, conventional facilities will become obsolete. Accommodating the container trend, therefore, in an economical fashion becomes a critical financial problem.

Like New Orleans, Melbourne must finance capital improvements solely with the revenues of its own operations. Melbourne is somewhat worse off than New Orleans in this aspect because the government taxes the port on the basis of gross income.

This is the sort of problem that caused the formation of IAPH. Delegates from the major ports of the world meet regularly to try and arrive at common solutions to common difficulties.

Also here for the executive committee meeting are a large delegation from Japan, including Dr. Chujiro Haraguchi, mayor of Kobe and IAPH president, and Gengo Tsuboi, managing director of the Japanese Shipowners' Association; the Rt. Hon. Viscount Gilbert Simon, chairman of the Port of London Authority; W. J. Manning, director, Port Management of Amsterdam, and a number of IAPH staff members.

W. J. Amoss, port director here, is a member of the committee. The meetings are taking place in the Dock Board's of fices.

While here, the delegation will tour the port facilities, the Michoud Assembly Facility and the city. (New Orleans States)

Port Budget

New York, Jan. 11:—The Port of New York Authority's 1968 budget was adopted today by the Commissioners of the bi-state agency, according to an announcement by Chairman S. Sloan Colt following the monthly Board meeting at 111 Eighth Avenue. The Authority has projected as a result of operations a net revenue before debt service of $106,780,000, including $7,813,000 of anticipated income from investments. These net revenues are projected to be 2.19 times the amount of long-term operating debt service of $48,830,000. After providing for $44,000,000 of short-term note maturities it is estimated that an amount of $13,950,000 will be available for transfer to the Authority's reserve funds. This will meet the statutory reserve fund requirements of 10 per cent of outstanding funded debt and the policy of providing for the next two year's debt service. The budget for the year anticipates operating expenses of $122,194,000. Gross operating revenues are estimated at $221,161,000.

The Port Authority's capital program is estimated to be $204,992,000 which includes $14,600,000 for interest during construction. It is estimated that this construction program at its major public facilities will provide employment for 6,000 New Jersey and New York residents who will earn about $58,500,000.

To keep pace with the phenomenal growth in air traffic and the heavy demands made on the regional airports, the Authority has provided for an expenditure of $66,000,000 for the redevelopment and expansion of its airports. At Newark Airport $31,700,000 has been provided for the continued redevelopment of this site. This includes construction of two of the three new passenger terminals, land development, road and highway improvements, expansion of the fuel distribution system, and payment to the State of New Jersey for highway interchanges.

At John F. Kennedy International Airport, expenditures totaling $25,300,000 have been included in the budget to provide for increased traffic and larger aircraft. This provides for the expansion of the International Arrival and Airline Wing Buildings, runway and taxiway improvements, and additions to unit terminal buildings.

The bi-state agency also included under its capital program $79,300,000 for The World Trade Center to cover the City-Port Authority 23½-acre land fill project along the lower Manhattan waterfront on the Hudson River, as well as payments to steel fabricators, continued excavation, an electric substation, pedestrian underpass, and other costs.

At the Port Authority's New Jersey marine terminals, the continued demand for space is reflected by the $27,300,000 capital expenditures planned at the Elizabeth-Port Authority Marine Terminal and Port Newark.

For the continued expansion at the Elizabeth-Port Authority Marine Terminal, $15,700,000 has been provided for wharf and berth construction, dredging and installation of cranes.

The Port Newark capital budget of $11,600,000 includes construction of new berths, expansion of existing buildings and facilities, and the rehabilitation of the Navy wharf area.

At the tunnels and bridges, $6,400,000 of capital funds are being provided for improvements in traffic control, rehabilitation of electrical and lighting systems and modifications to plaza and road connections.

Planned capital expenditures of $3,900,000 for the Port Authority Bus Terminal provide for property purchase and engineering services for the improvement and expansion of the Terminal.

The Port Authority Trans-Hudson (PATH) Corporation's capital expenditures provide for a total of $20,700,000 for the continued improvement and rehabilitation of the PATH rapid transit system and associated projects. (Port of New York Authority)

Board Chairman for 1968

Oakland, Calif., January 2: — At its annual election of officers, the Oakland Board of Port Commissioners today named Peter M. Tripp as president and Robert E. Mortensen as vice president for 1968.

Tripp, who succeeds Emmett Kilpatrick, has been a Port Commis-

sioner since 1959 and is senior member of the Board. This is his second term as president.

The new president has a long and distinguished record as a public official, and as a leader in community service activities.

He served as a member of the Oakland Housing Authority and was its chairman from 1950 to 1952, when he was appointed to a vacancy on the City Council. He was subsequently elected to the City Council in 1955 and later served as Oakland Vice-Mayor.

Tripp is past president of the Lake Merritt Lions Club, East Oakland Breakfast Club, Piedmont Avenue Merchants Association and the Oakland Chapter of the Order of Ahepa. He has also served as chairman of the Oakland March of Dimes, and has been a director of the American Red Cross and the Easter Seal Society.

Tripp is owner of the Peter Tripp Insurance Agency, and was one of the founders and served as chairman of the board of directors of the First National Bank of Oakland.

Mortensen, president of Mortensen's Carpet Co. in Oakland, was appointed to the Board of Port Commissioners in July, 1967.

A native of Oakland, Mortensen received a commission in the Army Air Force during World War II, and saw extensive service in the European Theater of Operations.

Mortensen is a member of the Fruitvale Lodge 336, Scottish Rite; Aahmes Shrine; the City of Oakland Manpower Commission; and the advisory board of Big Brothers.

He is past president of the Elmhurst Lions Club; past board member, Boy Scouts of America, San Francisco Bay Area Council; past board member, Green Cross; member of the City of Oakland's 1966 Finance and Employment Committee; and was co-chairman of the Oakland Job Fair in 1966.

Port Commissioners are nominated by the Mayor of Oakland and are appointed to staggered six-year terms by the City Council. They serve without compensation, and exercise general policy responsibility for all aspects of Port operations.

Other men serving on the Port Commission include Edward G. Brown, an Oakland attorney; Emmett Kilpatrick, an Oakland realtor; and George J. Vukasin, vice president of Peerless Coffee Company. (Port of Oakland)

Year-End Statement

By David M. Walker, Chairman

Delaware River Port Authority

A new all-time high in foreign commerce through the Ports of Philadelphia during 1967 is a partial reflection of programs, already under way to attract increased trade and provides a firm foundation for further growth in the years ahead.

The port is now in a period of immense transition. Both private industry and public agencies like the Delaware River Port Authority and the Philadelphia Port Corporation have mounted programs designed to bring a realization of our full potential.

This cannot be accomplished overnight. The competition with other seaports is a tough battle. Opportunities have been missed and there has been ground lost in not keeping abreast of such developments as containerization. Nevertheless, a fresh start has been made and there is strong reason for encouragement.

Not to be lost sight of is the fact that despite some past short-comings the Ports of Philadelphia remain the nation's second busiest seaport.

Port Authority statisticians estimate that 57 million tons of imports-exports were handled in the 12-month period ending December 31. This is the sixth consecutive year in which latest total exceeded peaks set the previous year.

An uptrend in foreign commerce has been in evidence most of the time since 1952, when it amounted to 25,768,708 tons. That figure was more than doubled by 1966's 55,763,624.

It is a rather impressive showing and many of our competitors would be greatly pleased to be doing that volume of business. However, the major portion of it represents bulk cargo, which has a lesser economic impact than general cargo. There has been some expansion in the latter, but the port must capture a larger share of the total non-bulk business and that is the goal of all concerned.

The Delaware River Port Authority is a leader in this effort. Its annual budget for selling shippers on moving goods via Delaware River ports now exceeds $1 million. One of its most recent expansions was the opening of an office in Tokyo to take advantage of opportunities inherent in the business boom in the Far East. The Authority already maintains staffs in London and Brussels and there are plans for other branches abroad.

We have also become involved in port facility matters for the first time. A plan calling for modern terminals at Chester, Pa., and Camden, N. J., has been approved by New Jersey and awaits similar action in Pennsylvania.

It is designed as a regional approach to port planning, taking cognizance of Philadelphia Port Corporation's program of construction in Philadelphia. Also, the Port Authority and the Port Corporation are jointly sponsoring an engineering study to coordinate future planning.

Ships have already begun docking at the Port Corporation's spanking new terminal at Packer Avenue, which has been leased to Lavino Shipping Company and is scheduled for formal dedication soon. The

Corporation has broken ground for Tioga Terminal in the Port Richmond section of Philadelphia and has revealed plans for a Penrose Terminal on the Schuylkill River.

Other encouraging developments in the port include the initiation of port-wide container handling and storage by Independent Pier Company, Lavino's efforts to purchase additional land at Girard Point, the leasing of more back-up space by Rainbow Terminals, the further expansion of Northern Metal Company, Camden Marine Terminal's improvement program and Delaware River Terminal Company joining hands with Luckenbach Steamship Company to offer a broader service.

Since the port is the crown jewel of the two state area's economy, these improvements can have a far-reaching effect upon the future well-being of millions.

The waterfront program is backed by transportation planning which will provide an expedited movement of goods to market and people to jobs.

The rapid transit line the Authority is building between Lindenwold, N. J. and midcity Philadelphia will offer new commuting opportunities for the suburban-minded and the two additional bridges it has scheduled across the Delaware River at Chester and at Delair will connect with superhighways in both states and relieve tomorrow's traffic build-up on its present busy spans, the Benjamin Franklin and the Walt Whitman.

Russia as a 'Land Bridge'

San Francisco, Calif., December 18: — While U.S. carriers have been "studying" the feasibility of using the continential United States as a land-bridge between the Far East and Europe, a competing route has opened up via the trans-Siberian railway.

That point was made recently by Dale W. Hardin, Interstate Commerce commissioner, at a talk before the Chicago regional chapter of ICC practitioners and the Chicago Traffic Club. Japan already is using Russia as a land-bridge to European markets, he noted.

The principal need, Mr. Harding said, is "to get our own house in order with respect to coordinated transportation within and among the several modes. Otherwise, we shall not be in a position to provide the quality of service necessary to attract ocean-to-ocean, land-bridge traffic."

He observed that the concept of America as a land-bridge between "certain countries on the continents of Asia and Europe stirs the imagination — suggesting all kinds of possibilities and benefits. The recent closing of the Suez Canal should spur such efforts." (Pacific Shipper)

Challenge Met By Portland With $12,500,000 Bond Package

(from Harbor News)
Portland Public Docks
Portland, Ore.
U.S.A.

The Portland Commission of Public Docks Tuesday, November 21, announced it will seek voter approval of a $12,500,000 bond issue at the primary election May 28, 1968 to help finance a capital improvement program designed to assure protection of Portland's position as a leading world seaport.

Raymond M. Kell, Commission chairman, said the bond issue would be required to finance part of a $16,800,000 capital program, with the remainder to be financed from Dock Commission earnings. He said the total harbor development program of the Dock Commission over the next ten years could be as great as $20,000,000, depending upon the amount of Commission earnings which can be plowed into the plan.

More than half the program announced involves projects designed to meet and to anticipate the demands of the container revolution in maritime commerce.

Following this action, the next step required of the Commission is formal submission of the program to the Portland City Council, with a request that the general obligation bond measure be placed on the primary election ballot next May.

Kell pointed out that Portland ranks second only to Los Angeles among U.S. Pacific Coast ports in terms of total waterborne commerce handled, that the prime concern of the Commission of Public Docks in this total is in the field of general cargo commodities, and that the capital program will protect and expand Portland's future in that field.

He said $3,283,000 of the required bond fund is earmarked to develop and adapt the new Terminal 2, two-berth complex to the point where Portland will have the most modern, flexible terminal that can be constructed for the handling of containers and conventional "break bulk" general cargo.

Seven million dollars will be used to construct the basic structure and back-up facilities for a new container-general cargo terminal, a two-berth unit duplicating the Terminal 2 complex now under construction.

The remainder of the $12,500,000 bond fund would be used for water pollution abatement, cargo crane installation, upgrading and modernization of existing facilities to meet the heavier load requirements brought about by containerization and other methods of cargo unitization, and construction of a specialty dock for side port vessels and roll-on, roll-off cargoes. This work will amount to $2,250,000.

From its own earnings, the Commission plans to spend at least

$4,270,000 for the construction of a cargo distribution shed, construction of mobile cranes for the handling of barge cargoes, development and expansion of container and general cargo holding areas, completion of the modernization of terminal rail networks, initial preparation of the Terminal 4 Extension site for future development; and for property acquisition.

Kell said cargo commodities handled over general cargo berths has demonstrated a steady growth rate of 36,500 tons annually over the past ten years, and that projections presently indicate the need for a start on new construction, beyond the Terminal 2 complex, in 1971. He said the Commission must plan now to meet that minimum growth potential and to anticipate faster growth.

Kell said the bond issue properly should be considered as an investment in the future of Portland, and pointed to a recent study by the University of Oregon Bureau of Business and Economic Research which reported that in 1965 there were 15,262 jobs in Portland which depended upon the waterfront and that the annual payroll from these jobs was $103,800,000. In addition, another 17,000 jobs were linked to the seaport because of the export of manufactured goods or the import of materials for a manufacturing process.

Since 1951, Kell said, the Commission has invested $6,000,000 of earnings in public dock facilities, along with $16,000,000 of bond funds.

"The Commission's goal is to more as rapidly as possible to the point where public support will no longer be necessary," Kell said. "The Commission has solid reason to believe that future bond authorizations beyond that of 1968 will be retired in part, or quite possibly entirely, from Commission earnings."

As examples of the kind of competition Portland is facing from rival seaports, Kell said Seattle is embarked on a five-year, $30,000,000 waterfront rebuilding program to reconstruct its 1920 waterfront to provide 16 berths for general cargo and containers; Tacoma is progressing an $18,000,000 port improvement program; and San Francisco is completing a $50,000,000 program of harbor improvement.

Capital Program

Projects to be funded from a $12,500,000 bond issue:

1. Develop and adapt the new Terminal 2 complex to the point where Portland will have the most modern, flexible terminal which can be constructed for the purpose of handling containers and conventional general cargo commodities.
   a. Fully develop the holding yard, including hardstand, rail and road nets, utilities, etc. $1,450,000
   b. Purchase and install one container-multiple purpose crane and one conventional whirley crane $1,000,000
   c. Erect transit shed for cargo requiring cover $833,000
   $3,283,000
2. Construct basic structure and support area for a new, two-berth terminal $7,000,000
3. Install whirley crane at Berths 6-7-8, Terminal 1 ..... $250,000
4. Reconstruct and strengthen dock aprons, Berths 1-2, Terminal 4 ..... $800,000
5. Provide water pollution abatement, all terminals $500,000
6. Strengthen and pave dock aprons, Berths 1-2, Terminal 1 ..... $200,000
7. Construct specialty dock for side port vessels, roll-on, roll-off cargoes $500,000
   $12,533,000

Projects to be funded from Commission's own earnings (minimum program):

1. Construct cargo distribution shed, Terminal 2.. $1,080,000
2. Construct two mobile elevators for barge cargoes $200,000
3. Prepare Terminal 4 extension site, including clearing, fill to harbor line, air network and roadways..$750,000
4. Fully develop Terminal 4 general cargo capability, expand container holding yard $600,000
5. Complete modernization of Terminal 4 rail network $400,000
6. Clear and pave additional area for cargo support, Terminal 1 ..... $120,000
7. Reconstruct rail leads across city streets, Terminals 1, 2 ..... $120,000
8. Property acquisition $1,000,000
   $ 4,270,000

TOTAL: Bond Funds plus CPD Earnings .. $16,803,000

Bagging Plant

San Diego, Calif.: — The bulk cargo bagging facility at Tenth Avenue Marine Terminal handled more than 60,000 tons of cargo during its first four months of operation, with a sharp up-swing in tonnages expected for the first few weeks of 1968.

In full operation since September 1, the new bagging plant was expected to handle about 150,000 tons in its first year.

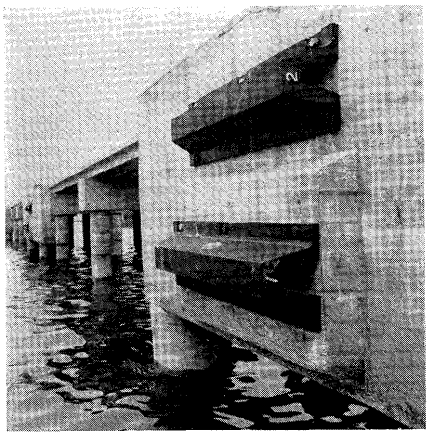
Capt. Richard Maul, vice president of Crescent Wharf & Warehouse Co., parent organization for the bagging plant, said contracts in hand indicate between 25,000 and 30,000 tons will be bagged at the San Diego facility within the first four or five weeks of the new year.

Primary cargo for the plant is potash, although Capt. Maul said the firm also has bagged about 11,000 tons of di-ammonium phosphate and is expecting a greater variety of cargo in the coming months. (Port of San Diego Newsletter)

Puerto Cabello

Tokyo: — Hundreds of rubber fenders have been shipped to Venezuela from Japan for installation at Puerto Cabello. The order was placed by the Ministerio de Obras Publicas Venezuela with Bridgestone Tire Company of Japan.

The photo below shows the "Super Arch" type rubber fenders, 300 mm high and 2,500 mm wide, mounted on a pier. Puerto Cabello will have 157 pcs. of the same size, 151 pcs. of 200 × 2,000 mm size and 16 pcs. of 300 × 2,000 mm size. (Bridgestone Tire Company)



Land for Terminals

Melbourne: — A large number of inquiries have been received from local and overseas companies interested in leasing land for container and unit-cargo operations in the Swanson and Appleton Dock areas.

The inquiries are for lots of land ranging from 5 to 33 acres, stretching to the north of Appleton Dock, and taking in both east and west sides of Swanson Dock.

Trans-Ocean Containers, a subsidiary of Associated Container Transportation, one of the two British consortia that are building container ships for the U.K.-Australia service, is the only company that has an option for land east of Swanson Dock.

The area is part of the new container dock complex, and is for about 21 acres.

It plans to use the land as a depot.

The company plans to establish its main center of operations in Melbourne, because of the port's dominance as an export port in Australia.

A.C.T. are building three container ships for the U.K.-Australia service, first of which is due in Melbourne early in 1969.

The other British consortium, Overseas Containers Ltd., is building six container ships for the same service, which is also scheduled to come into operation about the same time. (Melbourne Harbor Trust Port Gazette)

Trade Rise

Melbourne: — Trade through the Port of Melbourne during the first nine months of this year has shown an appreciable rise compared with the corresponding period in 1966.

The upward trend of cargo throughput, evident in the first half of this year, has continued into the third quarter, resulting in an overall increase of 3.09% in the nine month period.

Total cargo handled for the period amounted to 8,221,109 tons, an increase of 246,081 tons compared with last year.

The increase in cargo throughput has been due mainly to a substantial increase in the amount of general cargo being handled through the port. Total trade amounted to 4,545,814 tons of general cargo, an increase of 6.7%, and 3,645,170 tons of bulk cargo, a small decrease of 0.9%.

The total cargo of 8,221,109 tons comprised 5,919,555 tons of imports from overseas and Australian ports, and 2,271,429 tons of exports to overseas and other Australian ports.

Overseas Trade

The overseas trade amounted to 4,093,309 tons of imports, an increase of 240,041 tons, and 1,369,080 tons of exports, an increase of 25,-902 tons.

The increased volume of overseas trade was mainly due to larger quantities of crude oil, cars, drugs and chemicals, paper, machinery, timber, wood pulp and foodstuffs, being imported into the Port, and scrap metal, oats, briquettes, milk, cream and wheat being exported.

Coastal Trade

In the coastal trade between Melbourne and all other Australian ports, the volume of cargo amounted to 2,728,595 tons, a slight decrease of 32,093 tons, for the corresponding period last year.

Although exports in the coastal trade showed an increase of 138,011 tons for the period, it was not enough to offset the decrease of 170,102 tons in imports.

Increased exports were due to motor cars, petrol, foodstuffs, groceries, machinery and ale, beer and stout, being shipped in greater volume to other ports in the coastal trade, while the drop in imports was due mainly to bulk items such as coal, raw sugar, motor spirit, oil, pyrites, and molasses being discharged in lesser quantities. (Melbourne Harbor Trust Port Gazette)

Sister Ports

Sydney, January 22: — The Port of Sydney has entered into a sister-ship affiliation with the Japanese port of Yokkaichi.

In announcing this today, Mr. W. H. Brotherson, President of the Maritime Services Board, said that the Governor of the Mie Prefecture in Japan, Governor S. Tanaka, visited Sydney towards the end of last year with a delegation of Japanese businessmen and during the course of the visit had discussions with the Premier and other Ministers on business matters of common interest.

The delegation approached the Maritime Services Board during the course of the visit and raised the question of the Port of Sydney affiliating as a Sister Port with Yokkaichi, and the Board agreed to the affiliation between the two ports.

Mr. Brotherson said that the Japanese ports are generally controlled either by the City or Prefectural Governments.

In the case of Yokkaichi, the port is under the control of the Prefecture and the Prefectural Governor is also the President of the port authority.

Yokkaichi is situated on Ise Bay on the south-eastern coast of Honshu Island which is the main island of Japan.

Although it is not one of the biggest ports in the country, it handles more than 60% of the wool shipped from Australia and as Sydney is a major wool exporting port in Australia, the two ports have a great deal in common.

Mr. Brotherson pointed out that the sister-ship affiliation arrange-

ments did not involve the City of Sydney or the State of New South Wales in any way and the affiliation was intended as a token of friendship and co-operation between the port authorities.

He said that, as far as he knew, this was the first occasion any Australian port had entered into an affiliation of this nature with a Japanese port. (The Maritime Services Board of N.S.W.)

Icebreaker

Tokyo: — The **Gizhiga,** an 8,700-dw/t icebreaker of Soviet Russia's Far Eastern Steamship Co., being operated as a freighter by Kawasaki Kisen Kaisha on a consignment basis, left Yokohama Thursday on the Japan/St. Lawrence route.

The freighter is the first to operate in the winter season on the route.

Arriving at Montreal in 32 days, the freighter will visit Quebec and be bound for Japan.

Late January the **Capitain Bondarenko,** a sister ship to the **Gizhiga,** is scheduled to sail from Montreal for Japan and Hongkong for a one-way service.

Thus, Kawasaki Kisen is scheduled to operate 1.5 sailings for this winter on the route on a consignment basis.

The two ships are the Soviet Union's most up-to-date icebreakers capable of making a speed of 15.5 knots with a 7,200-hp engine. Its cargo capacity is 328,000 cubic feet.

The **Gizhiga** was completed at the end of last December at Komsomolsk, and the present sailing is her maiden voyage. The **Capitain Bondarenko** was completed about two years earlier.

Operation of ships bound from Japan to Eastern Canada is suspended in the winter season. Kawasaki Kisen, however, decided last December to make use of Russian icebreakers as freighters in order to provide a constant service to shippers.

Prior to the departure from Yokohama of the icebreaker, Captain F. Polunin and Deputy Captain N. Inushkin gave a press conference Wednesday at Kawasaki Kisen's Tokyo branch office, Marunouchi, Tokyo on navigation in the Arctic zone by icebreakers.

They revealed that Soviet Russia owns seven icebreakers, including a nuclear powered icebreaker.

They said the **Gizhiga** is capable of breaking 1.5-meter thick ice, has smaller space for the engine and larger cargo space than other icebreakers. The vessel is equipped with two 60-ton derricks and facilities for a helicopter's taking off and landing.

This powerful icebreaker can cover the distance from Murmansk to Yokohama via the Arctic zone in 20 to 25 days, they further said, and if the meteorological conditions are favorable, the distance will be covered in two weeks.

They said the meteorological conditions in the Arctic are favorable usually in the two months of August and September. Therefore, it will be early in July that a vessel has to leave Murmansk to pass through the zone on a run to Japan, they said.

Their vessel has a crew of 65,

Kobe Container Crane

The first container handling crane of U.S. design to be installed in Japan makes a trial lift at the Port of Kobe. The "Portainer" shoreside crane was designed by Paceco of Alameda, Calif., and built in Japan by the Mitsui Shipbuilding and Engineering Co., Ltd., a Paceco licensee. Owned by the City of Kobe, it will handle both 20 and 24-ft. containers weighing as much as 27.5 tons for the Japanese N.Y.K.—Matson Lines. (PACECO)

larger than the number of crewmembers aboard an ordinary freighter, they said. The large number of crewmembers is necessary for the vessel to adopt a four-shift or five-shift system for the health of the crewmembers to work under the rigorous meteorological conditions, they said.

For instance, they said that a watchman will not be able to be on duty for long hours under these conditions. (Shipping and Trade News)

N. Z. Port Conference

Wellington, November 24: — The New Zealand Government has approved the calling of a conference to consider organization and employment on the New Zealand waterfront in an attempt to speed-up the turn-round of shipping. The Minister of Labor, Mr. Tom Shand, told Parliament last night the conference would have similar functions to those of the National Stevedoring Industry Conference in Australia under the chairmanship of Mr. A. E. Woodward.

"The Woodward Commission has achieved considerable success in bringing about agreement on future employment on the waterfront in Australia," Mr. Shand said.

"It is to be hoped that the parties concerned in New Zealand will approach the problem with a similar determination to agree on conditions which will lead to a reduction of the enormous cost of slow turn-round of shipping on the New Zealand waterfront."

Mr. Shand said the New Zealand conference would be chaired by Judge K. J. Archer, chairman of the Waterfront Industry Tribunal for 16 years. The conference would include representations from shipowners, port employers, waterside workers, the Federation of Labor, harbor boards, the Harbor Board Employees' Union, the Waterfront Industry Commission, and the Department of Labor.

Mr. Shand said the principal parties had all indicated their acceptance in principle of the proposed approach. The conference would consider changes in cargo handling methods which could result from the adoption of unit loading techniques, or the introduction of container ships or other vessels designed for new methods of cargo handling.—Reuter. (Lloyd's List)

Correction

For the article "Arab Port" on page 11 of "International News Letter" December 1967 issue, the country was designated erroneously as "South Arabia," when it should have stood "Bahrain."

Outlet for Exports

Liverpool, November 20:—Speaking at the Annual Dinner of the Liverpool Marine Engineers' and Naval Architects' Guild at the Adelphi Hotel, Liverpool, on Friday night (November 17), Sir Clifford Dove, C.B.E., E.R.D., Director General of the Mersey Docks and Harbor Board, stressed Britain's economic dependence upon the Port of Liverpool as the main outlet for her exports.

Sir Clifford said,—

"For the second year running the National Ports Council in their digest of statistics showed that the largest volume of deep sea exports from Great Britain passes through the Port of Liverpool and that, of course, includes Birkenhead with its remarkable exports record. Why should this be? What is the answer? It is simple. 60% of all the United Kingdom's exports are manufactured within 100 miles of the Port of which nearly half moves less than 25 miles to the docks. Within this 100 mile radius lies the great weight of the Country's industrial production."

Sir Clifford also referred to the changes in the size and design of ships and a tendency to move cargo in "large Boxes" (Containers).

"These changes will not only dramatically affect design and financial investment in new ships and ports but, so we are warned, are even likely to change the very lanes over which cargo has travelled by land and sea for centuries. Quite a thought for those with a financial or commercial stake, or a social interest in the areas likely to be affected, but equally those who are contemplating making the moves will, no doubt, weigh the risk of leaving the old, well tried tracks and their terminals to their competitors, many of whom have for years been waiting for such a chance."

Sir Clifford concluded,—

"The great attraction of a Port, certainly to ships lies in its ability to offer a balance of in and out cargoes, as witness Liverpool's North American, West African and Australian trades. Herein lies much of it's strength, situated as it is in a region where roughly 30% of Great Britain's population resides, buying between them over 50% of all goods purchased in the country, consuming for example over 50% of all branded food products, smoking almost 50% of the cigarettes and tobacco sold, buying 47% of the men's and 45% of the women's clothing, and so I can go on but I have said enough to stress that Liverpool owes its place to no inexplicable, unreliable quirk but to economic commonsense, and those, if there be any, who seek to alter the economic flow of goods along the main industrial axis of this country, could find themselves clutching the shadow whilst some intruder grasps the substance." (Mersey Docks and Harbor Board)

Hoverport

London, January 11: — The plan to build Britain's first hoverport at Pegwell Bay, near Ramsgate, was given the go-ahead yesterday by the Minister of Housing and Local Government, Mr. Anthony Greenwood.

The £500,000 terminal, to be built by Hoverlloyd, Ltd., will be the setting-off point for a regular cross-Channel service using the giant SR-N4 hovercraft. The 250-seater SR-N4 will run a service between Pegwell Bay and Calais.

The Hoverlloyd application was the subject of a planning inquiry last January, which was reopened in September so that the possibility of using Dover Harbor, instead of Pegwell Bay, could be investigated.

NO REASONABLE ALTERNATIVE

A letter giving the Minister's decision says he agreed with his in-

spector, Mr. C. Hilton, that the evidence given at the reopened inquiry showed that Dover Harbor would be unsuitable for the kind of service to which Hoverlloyd were committed, and that no other reasonable alternative location had been suggested.

Announcing the decision, the Ministry of Housing and Local Government said the Minister had considered views expressed by the Nature Conservancy, National Parks Commission, National Trust, World Wild Life Fund and other bodies who objected to the proposal on the ground that Pegwell Bay was of high scientific and amenity value.

Safeguards imposed by the Minister in granting permission for the development are a prohibition on development within 20 ft. of the upper edge of the cliff. The lay-out of the site, including siting and design of buildings, is to be approved by the Minister.

RESTRICTED AREA

In his report following the reopened inquiry, the inspector concluded that while it would be possible to operate the SR-N4 from Dover Harbor, the restricted area and the artificial hazards inseparable from a harbor might create difficult operating conditions in bad weather for a service dependent entirely on hovercraft.

He concluded that for Hoverlloyd to operate from Dover would be to accept limitations imposed by the harbor, rather than by conditions in the Channel, whereas a virtually all-weather day and night service could be operated from Pegwell Bay.

The board of Hoverlloyd, in a statement yesterday, regretted that it had taken so long for the decision to be made. "The delay has in fact set us back about one year and has created many difficulties in the planning and organizing for our new hovercraft service."

Their first craft would be delivered according to contract in April/May this year. The SR-N4, the largest hovercraft ever constructed, would transport 250 passengers and 30 cars. The estimated journey time for crossing the Channel was about 35 minutes. Now that the point of departure from England was resolved, fares and timetables were now being considered. (Lloyd's List)

Liner Port

Bremen: — Speed, modern handling installations and rational cargo-handling methods are the traditional trumps of Bremen as an international base port. It is therefore not surprising that two-thirds of all the ships calling at Bremen and Bremerhaven are engaged in the liner trades. The liner business is even more emphasized when measured in net registered tonnage. Some 75% of the registered applicable ship-space using the Bremen ports are subject to liner shipping conditions.

Approximately 680 liner vessels arrive each month, which gives an average of 24 daily. The outward-bound liner services have improved considerably. The regular services dispatch 550 liner ships monthly outwards, after completion of loading. The increase in traders include foremost those in service to Scandinavia, Great Britain and Ireland, as well as those to the northern Mediterranean area, East-Africa the Far East, the Atlantic coast of North America, the East coast of South America and North America's West coast.

Liner shipping copes with well over half the cargo in Bremen, to the most variable main-trading areas in the outgoing voyages. For instance, liner ships as good as exclusively, at the present time, carry all the cargo from the Bremen ports to African ports of destination (with the exception of West Africa) as well as to the Near East, Central America, the Middle East and to Australia. Tramp shipping was able to secure an unusually large proportion of the cargo for China. On the average each liner ship today takes 550 tons. In the opposite direction each liner ship discharges an average of 650 tons. (Bremen Air Mail)

Container Port

Hamburg: — The United States Lines has selected Hamburg as the chief container shipping port for West Germany, it was announced January 19.

The agreement was signed that day between the American shipping line and Hamburg port authorities making Hamburg a full member in the exclusive club of European harbors able to handle all-container ships.

A spokesman for the United States Lines said the first container ship will dock at Hamburg in April.

The company's container ships can cross the Atlantic in less than six days, he said. They carry their cargo in bulk containers that can be loaded or unloaded in a fraction of the time needed for a conventionally stored cargo.

Shipping experts expect Bremerhaven to become a container port at a later date. (Japan Times)

Hamburg's Versatility

Hamburg (Ship Via Hamburg, October, 1967): — "In spite of the recession in the Federal Republic, Germany's largest seaport last year achieved a new peak with a total cargo turnover of 37.5 million tons. The main reason for this favorable development was Hamburg's versatility. And that applies not only to the port itself, which with its all-purpose cargo handling equipment and storage facilities can handle all types of goods, but also to Hamburg's economy as a whole. Above all in the sectors of shipping, foreign trade and manufacturing industry, it has supplied the port with an increased volume of cargo." This is the generalized conclusion of the annual report of the Hamburger Hafen-und Lagerhaus-Aktiengesellschaft (HHLA), recently published. One of the most notable items, so the HHLA states, is that Hamburg's location on the margin of the EEC, so often deplored, has in actual fact worked out to its advantage, since here the European markets and the world overseas meet. With only a few exceptions, all countries of the small Free Trade Area and the Eastern trading areas have increased their transit shipments via Hamburg and, with it, made a considerable contribution to the growth of the total traffic. 1966, for Hamburg too, was a container year, the HHLA report con-

tinues. Five shipping companies started container services to North America with general cargo vessels suitably converted, and Hamburg, in addition to other installations, made available for them a Terminal in Waltershof which can be extended to cope with all future demands. In the Sandtorhafen basin a combination roll-on/roll-off-general cargo facility went into service in line with the rationalization efforts in the European traffic.

Though the number of ships arriving was slightly down compared with the previous year, the total tonnage reached a peak with 36.6 million net registered tons. The flags of 66 countries were seen in the port with; of course, the West German colors prevailing. Then followed Great Britain, Norway and the Netherlands. For the first time Liberia took over the fourth position in front of Sweden, France and Denmark. Panama as well improved its position in the league. The year's "newcomers" were Monaco, Saudi Arabia, Luxemburg, Algeria, Canada and Nicaragua.

The network of 260 regular services was as concentrated and widely ranging as ever. As a result of continuing measures of rationalization and coordination the average monthly sailings were, indeed, slightly below the previous year's figures, but this affected almost exclusively the European trade. Overseas, particularly to North America, sailings again increased, and the port's attraction for urgent general cargo shipments overseas was again demonstrated most markedly. 345 cargo liners on a monthly average left for European ports, 170 for America, 103 Africa, 94 Asia, 15 for Australia.

Again mainly high-value industrial products were dispatched via Hamburg with destination overseas. The average value per ton of the Federal German exports routed via the port — DM 2,622 — was more than threefold the general average of DM 855 of the Federal Republic's shipments overseas.

Traffic from the EEC area via Hamburg rose by 5.2 per cent. The EFTA countries' transit shipments increased pretty well over the whole range, the rates of growth of the Austrian trade being 8 per cent, of Switzerland and Sweden 11 and 14 per cent respectively, Norway 17 and Finland — associated to the EFTA — 30 per cent. Traffic with the East also went up. Particularly noteworthy was that East Germany with a rise of 23 per cent to 1.7 million tons for the first time again got ahead of Czechoslovakia (1.5 million tons).

Goods handled by the Hamburger Hafen-und Lagerhaus-AG. at a good 4.5 million tons were more or less the same as the previous year. Owing to the steady progress made in the rationalization of handling operations, total hours worked in HHLA's quayside operations dropped by around 5 per cent to 4,855 million man-hours with the same cargo turnover.

Warehouse A going into operation at the beginning of the business year raised the total storage area at the disposal of the HHLA by 40,000 to 200,000 square meters at the end of last year. 246,000 tons of cargo moved in and out of storage (the previous year: 173,000 tons) was an absolute post-war record. Over the year, stocks in the various warehouses averaged 70,000 tons (34 p.c. over the preceding year).

50,000th Ship

Rotterdam: — On 22 December 1967, the "Ville de Nantes" was the 30,000th ship to enter Rotterdam-Europoort this year. The "Ville de Nantes" was carrying a cargo of general merchandise from Hamburg and was berthed in the Lekhaven.

This is the first time in the history of the Port of Rotterdam that this number has been achieved.

The record year in the pre-war was 1938 when 15,360 seagoing ships entered the port. The restoration of the port started in 1945 and was completed in 1950, but the pre-war record was not exceeded until 1952 and only then by a few tens of ships.

On the 27th December 1955, the "La Plata" was welcomed as the 20,000th ship of the year in Rotterdam. The jump to the 25,000th ship, however, took longer. This number was reached on the 18th December 1962 when the "Tosterö" entered the port. It is particularly satisfying that after 1962, the increase in the number of seagoing ships to arrive in the port has quickened despite the common fact of the ever-increasing size of the bulk-goods ships, especially the tankers. That in spite of this development, an increase in the number of ships can be recorded, is partly due to the growing significance of Rotterdam-Europoort as European distribution-center, which, in particular, has caused the number of coasters to continually increase.

The pleasure gained by the arrival of the 30,000th ship is increased by the fact that the goods traffic also shows good progress.

Based on the results for the first nine months of this year, it can be expected that the throughput in 1967 will amount to some 140 million tons.

Everybody closely connected with the port of Rotterdam will feel a sense of pride that Rotterdam-Europoort has again been successful in consolidating its place at the top of the list of world seaports.

We believe that this development can be seen as an indication of the continually growing interest for the services which the port renders to international trade, industries and shipowners spread throughout the entire world. (Municipal Port of Rotterdam)

500,000-tonner ?

Rotterdam, November 17:—Rotterdam, the world's biggest port, is reserving an area west of the city for future use by 500,000-ton tankers, the Mayor, Mr. W. Thomassen, said yesterday. He was speaking during a municipal council debate on the financing of a channel to make Rotterdam accessible to 200,-000-ton tankers by 1970.

Mr. Thomassen said there was no doubt that 500,000-ton tankers would come. "These vessels can enter the North Sea. When the time comes we shall have to hoist all sails, but there is no need to hurry because they are not yet under construction."—Reuter. (Lloyd's List)

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