

PORTS *and* HARBORS

JUNE 1963

Vol. 8 No. 2

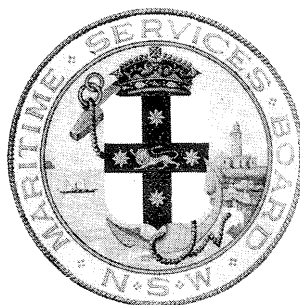


THE INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS

Introducing The Crests of Co-Member Ports

(Each Issue One Port)

THE PORT OF SYDNEY



Aerial view of the Port of Sydney, showing part of its main wharfage area.

THE INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS

OBJECTS AND PURPOSES

(Per Article 3 of Constitution)

The objects and purposes of this Association shall be:

(a) To associate its members from all countries together in the common cause of mutual international friendship and understanding;

(b) To exchange information relative to port and harbor organization, administration, management, development, operation and promotion;

(c) To encourage, develop and promote waterborne commerce to and from all world ports and harbors; and

(d) To encourage the standardization and simplification of procedure governing imports and exports and the clearance of vessels in international trade:—
thereby promoting the peace in the world and the welfare of mankind.

UNDERTAKINGS

(Per Article 3 of Constitution)

This Association shall carry out the following undertakings in order to accomplish the objects and purposes specified in the foregoing Article:

(a) The holding of conferences of the International Association of Ports and Harbors as provided in the By-Laws;

(b) The publication of the minutes of Conferences, an official Association journal or other publication and other special publications concerning ports and harbors, as may be authorized by this Association;

(c) The establishment of relations with other international organizations, associations and agencies on matters of mutual international interest concerning ports and harbors;

(d) The establishment of a center or centers for the collection, tabulation and distribution of information concerning ports and harbors from throughout the world for the benefit of members of this Association and other interested persons:

(e) The dissemination to ports and harbors, and governmental agencies and private operators thereof, of the accomplishments of this Association as expressed in resolutions, bills, reports of committees, and the published proceedings thereof;

(f) The establishment of committees from among the membership of this Association for reference purposes of members engaging in the organization, administration, development, operation, utilization, management or promotion of ports, harbors and other waterfront facilities;

(g) The assumption of other undertakings necessary to effectuate and realize the objects and purposes of this Association.

PORTS and HARBORS

PORTS AND HARBORS is quarterly published by the Central Secretariat of the International Association of Ports and Harbors as an official journal of the Association, to provide its members with information concerning port and harbor development in the world.

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THE INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS

President

John P. Davis

Commissioner

Board of Commissioners of the
Port of Long Beach, Calif., U.S.A.

Chief of the Central Secretariat

Gaku Matsumoto

Editor: Akira Ikeda

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20, Marunouchi 2, Chiyoda-ku, Tokyo, Japan

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(Continued on reverse of back cover.)

From The Central Secretariat

By **Gaku Matsumoto**
Chief of the Central Secretariat
I.A.P.H.

3rd Triennial Conference at New Orleans Reviewed

Meeting under the gavel of Lt. Gen. Huang Jen Ling, President of the Association, the port leaders of 14 nations of the free world spent four days in the first week of May, 1963, discussing their common problems and chartering the constructive policies for furthering its objects, when 139 official registrants participated in the 3rd Triennial Conference of the International Association of Ports and Harbors held in the Royal Orleans Hotel, New Orleans,

La., United States of America, hosted by the Port of New Orleans.

The great success achieved by this international conference through a series of meetings and discussions, which were conducted by all the attendants with so much interest and enthusiasm, will be found in the proceedings, which will be compiled and published by the Central Secretariat in the no distant future.

Apart from these successful

achievements in various practical problems and objectives, mention should also be made that this international meeting has implemented one of the vital purposes of this Association—the promotion of international mutual friendship and understanding through personal acquaintanceships and exchange of personal views.

It was of no small significance that if not for other reasons, the Third Triennial Conference was held in New Orleans which lies almost in the center of the Americas and is located midway not only from the East Coast and the West Coast of the United States, but

(Continued on Page 8)



New officers of the International Association of Ports and Harbors, elected during the group's recent New Orleans meeting, are, from left to right: G. D. G. Perkins, deputy director of the Port of London, second vice-president; John P. Davis, commissioner, Port of Long Beach, California, president; and Chujiro Haraguchi, Mayor of Kobe, Japan, first vice-president.



Several luncheon and dinner gatherings highlighted the business sessions of the recent IAPH conference at New Orleans' Royal Orleans hotel. The May 2nd luncheon session served to introduce foreign delegates to the meeting to some of the culinary delights of the Crescent City. Above, Walter H. Fei, a director of the organization and Vice-Minister of the Ministry of Communications of China, Taiwan, presides at the affair as master of ceremonies and prepares to introduce the first speaker on the program.

Captain T. L. Lewis, deputy director of the Port of New Orleans, presides over the May 4th panel discussions of the recent IAPH conference in New Orleans. With Captain Lewis serving as moderator, the panel took up such vital topics as port safety practices, the use of shore-based radar for harbor traffic control, and the international traffic aspects of handling radioactive materials.



Port of Rotterdam deputy director Hendrik Meijer represented the world's largest transit port at the IAPH conference. Above, he addresses a business session of the meeting, giving his views on the most efficient and profitable methods of port development.



George C. Stohlman, was photographed as he presented an award to Rear Admiral Gordon McLintock, president of the International Cargo Handling Coordination Association at one of the business sessions.



Delegates from ports all over the world came to New Orleans to attend the third triennial conference, held in the Crescent City's Royal Orleans May 1-4. 14 countries were represented, as were the majority of the IAPH's 60 member ports. Above, V. G. Swanson of the Melbourne, Australia, Harbor Trust, addresses a luncheon gathering of the group, as Lt. Gen. J. L. Huang, head of the China Steam Navigation Company and retiring president of the group, and George C. Stohlman, president of the Board of Commissioners of the Port of New Orleans, listen intently.



Delegates to the third triennial IAPH conference disembark after their May 3rd harbor inspection tour on the harbor excursion steamer SS President. The group was able to observe first hand the miles of wharves and installations that enable New Orleans to maintain her place as the second port of the U.S. and one of the ten largest ports in the world.

Massages of Greeting

I have learned with much pleasure from Congressman Hale Boggs that the International Association of Ports and Harbors is holding its Third Triennial Conference in New Orleans which is appropriately one of America's outstanding gateways for seaborne trade. We welcome to our shores this group representing ports of the free world. Your efforts in the promotion of world trade make an important contribution to the improvement of living standards everywhere and to mankind's goal of world peace. Best wishes for a successful gathering.

*John F. Kennedy, President of the
United States of America*

It gives me great pleasure to have this opportunity to extend my sincere greetings to all the delegates to the Third Triennial Conference of the International Association of Ports and Harbours now being held in the beautiful City of New Orleans.

I would like to pay a high tribute to the efforts made by the Association to combine together its members from many countries of the world in common cause of mutual international friendship and understanding.

Japan is an old maritime nation and depends heavily upon international trade. She, therefore, warmly welcomes the important role being played by the Association.

In closing, I hope that this Conference will prove of value and significance in that it will contribute a step further towards ultimate realization of the objects and purposes of the Association.

*Hayato Ikeda
Prime Minister of Japan*

Sincere greetings and best wishes to the success to the Third Triennial Conference of the International Association of Ports and Harbors.

*Dr. Chen, Minister of Communications,
Republic of China*

Would you be kind enough to tell your colleagues how much I regret not being able to attend the World Congress of The International Association of Ports and Harbours in New Orleans and convey to them my best wishes for success and good work during this meeting.

Maritime communications have always played a particularly important part in the building of our modern world. They are still absolutely necessary. It is important to go on improving them because through trade they promote links between men of different continents.

Europe most particularly looks towards the sea and the other parts of the world. For over ten years she has been making persistent efforts to achieve improving unity through common rules and institutions. This road marked by difficulties but also by the creation and the success of the coal and steel community of the Common Market and of EURATOM leads to political unity. Unification will allow Europe engaged in a partnership with the United States to contribute to prosperity and to world peace with best regards.

Jean Monnet, Paris, France

It is my profound regret that circumstances do not permit me to attend the Third Triennial Conference of the International Association of Ports and Harbors being held in New Orleans, Louisiana, the United States of America. However, let me most sincerely hope that this conference will achieve a great success, through the exchange of views and discussions conducted by its members of various countries assembled there in a spirit of international friendship and cooperation. I am highly privileged to have been elected as one of the Honorary Members of this Association, who are still strictly limited in number. As such, while being confident of a great future it has before it, I would say I am ready to do what little I can in order to contribute towards its further development.

Prince Takamatsu, Japan

It is with pleasure that I acknowledge your letter of the 9th inst., in which you extend to me a cordial invitation to attend the III Triennial Conference of the International Association of Ports and Harbors which will be held in that city from the 1st to 5th May, 1963.

I appreciate your kind invitation and wish to inform you that due to previous business commitments of this Secretariat that require my attendance in Mexico, I will not be able to attend this meeting, for which I apologize, but I am designating as a representative of the Secretariat of the Navy and mine, Messrs. Captain Rafael Cordera Paredes, Director General of the Merchant Marine and Engineer Jesus Sanchez Hernandez, Director General of Maritime Works, so that they may attend this Conference.

I express my best wishes for a most successful accomplishment in this important event, and take this opportunity to assure you of my high and distinguished consideration.

Admiral C. G. Manuel Zermeño Araico
Secretario de la Secretaria de Marina, Mexico



Pre-Conference Directors Meeting, April 30.



W. J. Amoss, director of the Port of New Orleans, welcomes IAPH delegates to the third triennial conference, as Lt. Gen. J. L. Huang, retiring president of the organization (Partially hidden by the rostrum), George C. Stohlman, president of the Board of Commissioners of the Port of New Orleans, and the Hon. Victor H. Schiro, Mayor of the City of New Orleans, listen attentively.

(Continued from Page 3)

also from the European and the Asiatic regions. By including quite a number of attendants from all of these continents, the conference proved to be really international, true to the name of this Association.

When, therefore, the Port of New Orleans made the bid to host the conference in New Orleans, it was accepted by the entire Association membership with a deep appreciation. Since the Conference program and agenda were discussed and blueprinted in Taipei, Taiwan, China, at the Executive Committee meeting held in March, 1962, only a year before the Conference, the Port of New Orleans had been ably and efficiently engaged in the preparation, publicizing the forthcoming conference throughout the world and taking serious and thoroughgoing efforts particularly in obtaining guest speakers of the highest caliber for the common benefit of all the attendants.

Highlights of the Conference

On May 1 the curtain was raised and the 3rd Triennial Conference was opened with due ceremonies under the chairmanship of Mr. J. Amoss, director of the Port of New Orleans, chairman of the

host committee. The ceremonies were attended by, besides the delegates and representatives from some 60 ports and related organi-

zations from all parts of the world, many guests of honor, including Mr. George C. Stohlman, President, Board of Commissioners, Port of New Orleans, The Hon. Victor H. Schiro, Mayor of New Orleans; The Hon. Jimmie H. Davis, Governor of Louisiana; The Hon. Hale Boggs, U.S. House of Representatives, House Majority Whip; Col. Edmund H. Lang, Secretary of American Section, Permanent International Association of Navigation Congresses; Rear Adm. Gordon McLintock, International President, International Cargo Handling Coordination Association; Mr. J. L. Stanton, President, American Association of Port Authorities; and Mr. John Groh, President, Gulf Ports Association, who extended their welcome or greetings. Also, the messages of greeting extended from President John F. Kennedy of the United States, Prime Minister Hayato Ikeda of Japan, Mr. Jean Monnet, France, as well as from the Association's Honorary Members, Prince Takamatsu of Japan and Admiral C. G. Manuel Zermeno Araico of Mexico, were announced to the attendants.

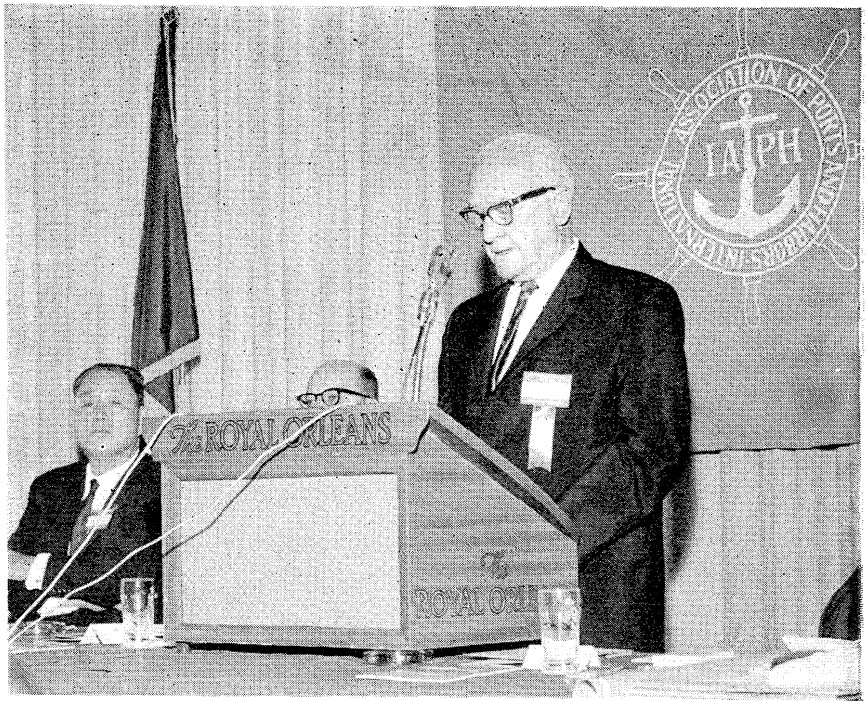
The conference was held, in



Tadashi Hida, director of the Japan Port & Harbor Bureau, Ministry of Transportation, addresses one of the general IAPH business sessions during the group's recent New Orleans gathering. Paying close attention to Mr. Hida's remarks are, from left to right, Gaku Matsumoto, president of the Japan Port & Harbor Association; Lt. Gen. J. L. Huang, president of the China Steam Navigation Co., and Charles V. Vickers, general manager of the Port of Long Beach.

part, in conjunction with the Mississippi Valley World Trade Conference which was meeting at the same time in the city, and several luncheon and dinner sessions were sponsored jointly by the two groups, sharing the common speakers.

To break the ice of the business activities of the four day session Conference, Mr. Gaku Matsumoto, Chief of the Central Secretariat, made a report on the triennial affairs and finance of the Association in the business session in plenary meeting on the afternoon of the first day. Following this, the important problems commonly faced by the port people of the world at the moment, which were placed on the agenda, were discussed and studied one after another, eagerly and enthusiastically, by the attendants in panels and seminar sessions, hearing in between the expert views of the guest speakers. These speakers included: Mr. William Blackie, President, Caterpillar Tractor Co.; Mr. R. N. Campbell, Jr. and Mr. J. P. Ewin, Jr., Ewin, Campbell and Gottlieb, Consulting Engineers, New Orleans; Mr. Roy J. Mitchell, Vice President, Decca Radar, Inc.; Mr. James Timpson, Vice President, Soros Associates Inc.; Mr. Felipe Herrera, President, Inter-American Development Bank; Admiral Robert H. Meade, Partner, Parsons, Brinckerhoff, Quade & Douglas, Engineers; Mr. Charles M. Meriwether, Director, Export-Import Bank; Mr. Harvey Williams, Chairman, Commission on Commercial Policy of the International Chamber of Commerce; Mr. A. A. Wells, Director, Division of International Affairs, Atomic Energy Commission; Mr. Louis C. Purdey, General Manager, Toledo-Lucas County Port Authority; Mr. R. T. Spangler, Port Manager, Broward County Port Authority, Port Evergreen; Mr. Keiji Fukuda, Director, Port Bureau, Tokyo Metropolitan Government; Dr. Chujiro Haraguchi, Mayor of Kobe, Japan; Dr. Tadashi Hida, Director, Port and Harbor Bureau, Japanese Ministry of Transportation; Mr. Albert Lyle King, Director, Marine Terminals, Port of New York Authority; Col. William H. Lewis, Consultant, Port of New Orleans; Mr. H. P. Meijer,



George C. Stohlman, president of the Board of Commissioners of the Port of New Orleans, extends a hearty welcome to the delegates attending the early May conference of the International Association of Ports and Harbors during the opening session. The conference was held in the city's Royal Orleans Hotel. Listening intently to Mr. Stohlman's remarks are, from left to right, Lt. Gen. J. L. Huang, retiring president of the organization, and General J. Gallinghouse (partially hidden by rostrum), president of the Orleans Parish Levee Board.



Mayor of New Orleans Victor H. Schiro presents an honorary citizenship certificate to John Groh, a director of the IAPH and also director of the Port of Lake Charles, during one of the opening sessions of the organization's early May New Orleans conference. Looking on approvingly are Gerald J. Gallinghouse, president of the Orleans Parish Levee Board (just visible above rostrum), W. J. Amoss, director of the Port of New Orleans (standing behind Mayor Schiro), and George C. Stohlman, president of the Board of Commissioners of the Port of New Orleans.

Deputy Managing Director, Port of Rotterdam; Mr. G. Dudley G. Perkins, Deputy General Manager, Port of London Authority; Mr. J. L. Stanton, Executive Director, Maryland Port Authority and President of AAPA; Mr. Rae F. Watts, Port Director, Port of San Francisco; etc.



A highlight of the joint luncheon meeting between the IAPH and the Mississippi Valley World Trade Conference, which had been meeting at the Roosevelt Hotel during the same period as the IAPH meeting, was the presentation by retiring president Lt. Gen. J. L. Huang of an honorary membership in the International Association of Ports and Harbors to Congressman Hale Boggs, House Majority Whip and the principal speaker at the affair.

Congressman Hale Boggs Elected Honorary Member

In the plenary session of the conference on Saturday, May 4, when it was closed, announcement was made of the election of The Hon. Hale Boggs, House of Representatives of the Congress of the United States, House Majority Whip, as the third Honorary Member of this Association.

Mr. John P. Davis, Long Beach, Assumes Presidency for Next Triennial Term

According to the nomination of Mr. John P. Davis, Commissioner, Port of Long Beach, as the President of this Association for the next triennial term, unanimously made by the Nominating Committee, he was elected as the new

IAPH President, replacing Lt. Gen. Huang Jen Lin, the past President, on the closing day of the Conference. Concurrently, Dr. Chujiro Haraguchi, Mayor of Kobe, Japan, and Mr. G. Dudley G. Perkins, Deputy General Manager, Port of London Authority, England, were elected respectively as the First and the Second Vice President.

Important Decisions of the Conference Reviewed

(1) Standing Committees

The results of activities of the two Standing Committees—Committee on Port Administration and Utilization and Committee on Cooperation with Other International Organizations—were reported respectively by their Chairmen, and it was unanimously decided in the

plenary session that these two committees should continue at the study of the subject matters referred to them, Mr. Charles L. Vickers, General Manager, Port of Long Beach, and Dr. Tadashi Hida, Director, Port and Harbor Bureau, Japanese Ministry of Transportation, being reappointed as their Chairman respectively. Further, decision was made on the activation of No. 2 Committee on Commerce and International Relations, which had been inactivated by the decision of the 1959 Triennial Conference at Mexico City.

(2) Division of the World into Three Regions

Regarding regions referred to in the By-Laws, it was decided, in view of the membership situation, to divide the world into three

regions: American Region (North and South America, including Hawaii); European Region (Europe and Africa, including the countries on the Mediterranean and Aegean Seas and Madagascar); and Asiatic Region (Asia and Australia, including the countries on the Persian Gulf).

The Nominating Committee for preparing the nomination of the Association officers, was accordingly reorganized so as to have 9 members who would be appointed by the delegate members of the Association caucusing in separate groups by regions, as said above. In the same token, each Standing or Triennial Conference Committee was so reorganized as to be composed of not less than six members, who will, so far as practicable, be so selected as to ensure that each of the three regions will be equitably represented thereon.

(3) Number of National Directors

It was originally provided in the By-Laws that the Board of Directors should be composed, besides the President, the First Vice President and the Second Vice President, of one elective Director from each country, irrespective of the number of its members. However, in conformity with the actual membership situation, amendment was made in the provisions of the By-Laws so that the Board of Directors be composed of one elective Director from each country represented by not more than ten Regular Members, two elective Directors from each country represented by more than ten and not more than twenty Regular Members, three elective Directors from each country represented by more than twenty Regular Members, and subject to the approval of the Board of Directors, one elective Director from each country represented only by one or more Supporting Members of this Association.

By virtue of this new arrangement, it has become possible for Japan with 30 Regular Members and the United States with 13 Regular Members to have 3 and 2 elective Directors, respectively.



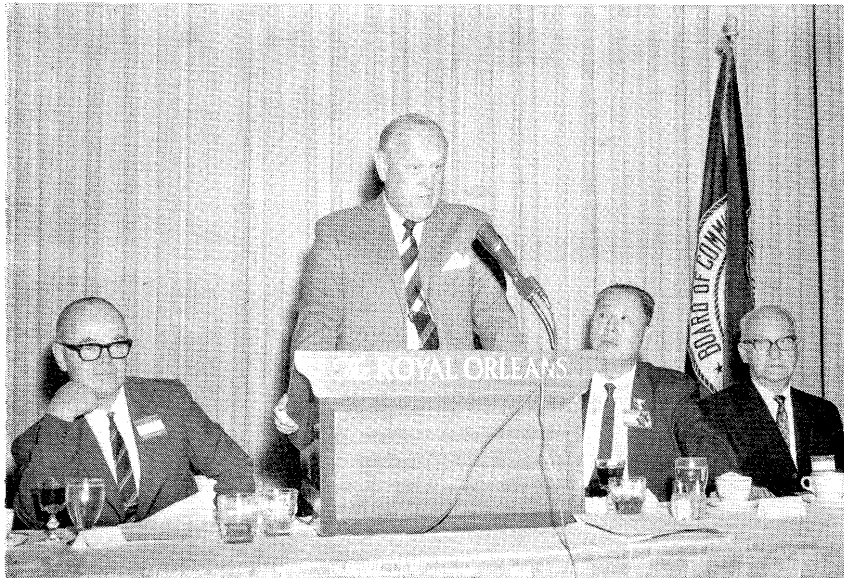
Charles L. Vickers, general manager of the Port of Long Beach, California, addresses one of the general business sessions of the recent IAPH convention at New Orleans. Intently taking some notes on Mr. Vickers' remarks is, at left, Lt. Gen. J. L. Huang, retiring president of the organization, and president of the China Steam Navigation Co.



Gaku Matsumoto, president of the Japan Port & Harbor Association and chief of the Central IAPH Secretariat, was photographed as he addressed a session of the world port meeting during the first week of May. Looking on intently is Tadashi Hida, director of the Japan Port & Harbor Bureau of the Ministry of Transportation in Tokyo.



Several noted speakers in the fields of business and government addressed the IAPH delegates during their early May meeting in New Orleans. Above, Charles M. Meriwether, director of the Export-Import Bank, speaks to the luncheon gathering on the first day of the conference on the topic of "Financing Port Development in Developing Countries," as George C. Stohlman, at left, president of the Port of New Orleans' Board of Commissioners, and Lt. Gen. J. L. Huang, retiring president of the organization, listen attentively.



Harvey Williams, chairman of the Commission on Commercial Policy of the International Chamber of Commerce, addressed the IAPH luncheon gathering on the first day of the group's recent New Orleans conference. Intent on Mr. Williams' remarks are, from left to right: V. G. Swanson of the Melbourne Harbor Trust; Lt. Gen. J. L. Huang, retiring president of the organization, and George C. Stohlman, president of the Board of Commissioners of the Port of New Orleans.

London to Be the Place of Next Conference in 1965

In the post-Conference Board of Directors meeting, which took place following the closing session of the Conference on Saturday, May 4, it was unanimously agreed upon that the next Triennial Conference would be held in 1965 for the two reasons that this year would fall on the 10th anniversary of this Association and by having the conference in that year, the Association could catch up the lost years by the past Triennial Conferences which failed to be regularly held every three years. Concerning the place of the next Triennial Conference, many countries seemed to be interested in its invitation to their places, but finally Mr. G. Dudley G. Perkins, of the Port of London Authority, made, on behalf of his port, the bid to host it in London in 1965. This bid was unanimously accepted by the Board, partly for the reason that on the general principle that a Triennial Conference should be held in rotation in the three regions. Thus, the place and date of the next Triennial Conference were officially decided.

New Executive Committee Members Appointed

Continued from the previous triennial term, it was decided at the Board of Directors meeting to retain the Executive Committee, composed of members appointed from among the Directors, for the next triennial term. The setup was so decided as to be composed of nine members, with the inclusion of the past President as a member. The new members appointed are as follows: Mr. John P. Davis, President, Long Beach, U.S.A.; Dr. C. Haraguchi, First Vice President, Japan; Mr. Howard A. Mann, Ottawa, Canada; Mr. V. G. Swanson, Melbourne, Australia; Mr. Albert Lyle King, New York, U.S.A.; Mr. W. J. Amoss, New Orleans, U.S.A.; Mr. G. D. G. Perkins, London, U.K.; Mr. Mateo Kalafatovich, Lima, Peru; and Lt. Gen. Huang Jen Ling, Past President, Taipei, Taiwan, China.

Conference Program Committee to Be Inaugurated

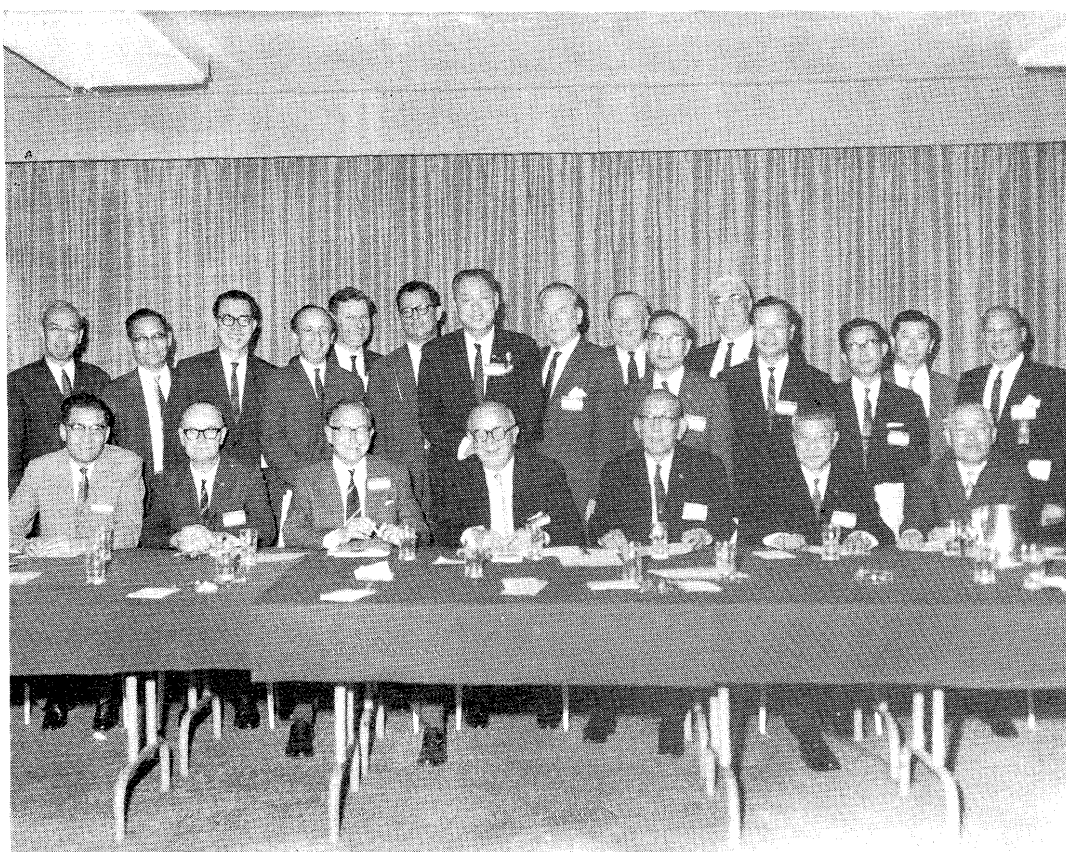
It was also decided to appoint a Conference Program Committee in order to facilitate the preparation for a Triennial Conference, in working out the Conference agenda and program, in inviting adequate guest speakers, etc.

Joint Legal Counsel Enlarged

To cope with the enlarged Association membership, the joint legal counsel was enlarged from the existing two members to five. The new counsel is composed of: Mr. Arthur W. Nordstrom, Chief Counsel of the Port of Los Angeles; Mr. J. Kerwin Rooney, Chief Counsel of the Port of Oakland; Mr. Cyrus C. Guidry, Chief Counsel of the Port of New Orleans; Mr. John C. Spence, Attorney to the Port of Long Beach; and Mr. Sydney Goldstein, Chief Counsel of the Port of New York Authority.



Colonel Edmund H. Lang, secretary of the American section of the Permanent International Association of Navigation Congresses, was photographed as he addressed one of the IAPH business gatherings. Taking in every word arde at right, George C. Stohlman, president of the Board of Commissioners of the Port of New Orleans, and New Orleans Mayor Victor H. Schiro.



The new Board of Directors of the International Association of Ports and Harbors was photographed just before they conducted their first business meeting for their present term of office following the close of the conference on May 4.

FORUM ON PORT PROBLEMS

10 Years Progress of IAPH and Our Aspirations

John P. Davis

*President, IAPH, and Commissioner of
the Port of Long Beach*

Those of us who were privileged to be in on the beginnings of this organization cannot but be gratified at the progress that has been made in the short ten years of its existence.

Because of the vision of Gaku Matsumoto who never once lost sight of the broad objectives of this organization, who never deviated from those goals, we shall always be eternally grateful.

For there were those of us who during those early days when its membership was composed principally of Ports in the Pacific basin, thought the most we could attain was an association confined to that area. Why not bend all our efforts in this direction? Create and maintain a strong organization of Pacific Coast and Orient Ports. Time has proven that this was a selfish and isolated viewpoint.

For this organization had for its objectives something infinitely more valuable than the selfish interests of a comparatively few ports. It was to create a fraternity of Port people the world over. Something that could help bring together on a personal basis those of us whose interests are similar. To exchange information to reconcile viewpoints, to render assistance to those Ports of emerging new Nations. And in this exchange to make our contribution as an industry towards better world understanding. Certainly objectives such as these are worthy of our earnest consideration and support. In this shrunken

world of ours, the annihilation of space has brought about an entirely new concept in our relationship with each other. Face to face meetings are the new order.

It follows that this association as it grows in numbers and influence can be an important factor in bringing together Port people the world over.

There are many procedures unique to each Country which work hardships on world trade. Studies should be made to simplify and standardize these procedures. Excessive red tape should be cut to a minimum. Cargoes must flow with the least amount of interrup-

tion. We shall expect our membership to suggest to us problems we can attack on a world wide basis without interfering with already existing organization.

Mention should be made of the recent New Orleans Conference. This meeting marked a turning point in the life of this organization. The attendance was excellent. The enthusiasm engendered was most gratifying, due entirely to the untiring efforts of Mr. Amoss and his staff plus the hospitality of the New Orleans Harbor Board.

As your new President may I make this personal appeal. I am following in the footsteps of one, General Huang of Taiwan, whose contributions towards the growth of this Association have been great. I am sure that he joins me in this suggestion. If you believe in this Association, its aims and purposes, its eventual destiny as the prestige Association of the Ports World. Will you do this? Appoint yourself a committee of one to inform and invite any Port not now a member to join with us. For I firmly believe that in the years ahead membership in the International Association of Ports and Harbors will become a desirable privilege.

Let us make the London Conference in 1965 an outstanding success.

Words of Appreciation from Past President, Lt. Gen. Huang

*To the Board of Directors and
Delegates to the 3rd Triennial
Conference of the I.A.P.H.:*

To each of you as you return to your home ports, it is my great pleasure to address my personal thanks for your loyalty to the cause and your contribution to the success of the Third Triennial Conference of the IAPH. The kindly way in which you helped me in my task as your President will always be remembered.

It is this spirit of fraternity and cooperation which has brought our Association to

the prominence which it now enjoys in the shipping world. It is the extension of this good fellowship which will bring other ports into our membership. I am happy that the IAPH is now in the safe and experienced hands of our new President, Mr. John P. Davis.

In thanking you for your helpful attendance at New Orleans I wish you great success as you implement the resolutions of the Conference with your own port authorities.

May the I.A.P.H. go from strength to strength.

Third Port Seminar Takes Place in Tokyo

The Government-sponsored port seminar took place for the third time in Tokyo in May, 1963. For the Third Seminar of Ports and Harbors, under the Colombo Plan for Southeast Asia, the Technical Cooperation Plan for Other Asian Areas, the Technical Cooperation Program for the Middle and Near East and the Technical Cooperation Program for Latin America, organized by the Japanese Government and arranged by the Overseas Technical Cooperation Agency, the Central Secretariat of the International Association of Ports and Harbors acted as the co-ordinator as for the last two seminars held respectively in 1962 and 1961.

Aiming at a contribution towards the development of the countries participating and a promotion of their mutual understanding and friendships, through analyses of and discussions on various problems pertaining to the management, operation, construction and improvement of ports as

well as the development of a waterfront industrial zone, this Seminar was held for one month from May 13 from June 24 at the Overseas Technical Cooperation Agency building and the Asia Center, the first week being used for the orientation of the participants and the opening ceremony to mark the beginning of lectures and field studies being held on May 20.

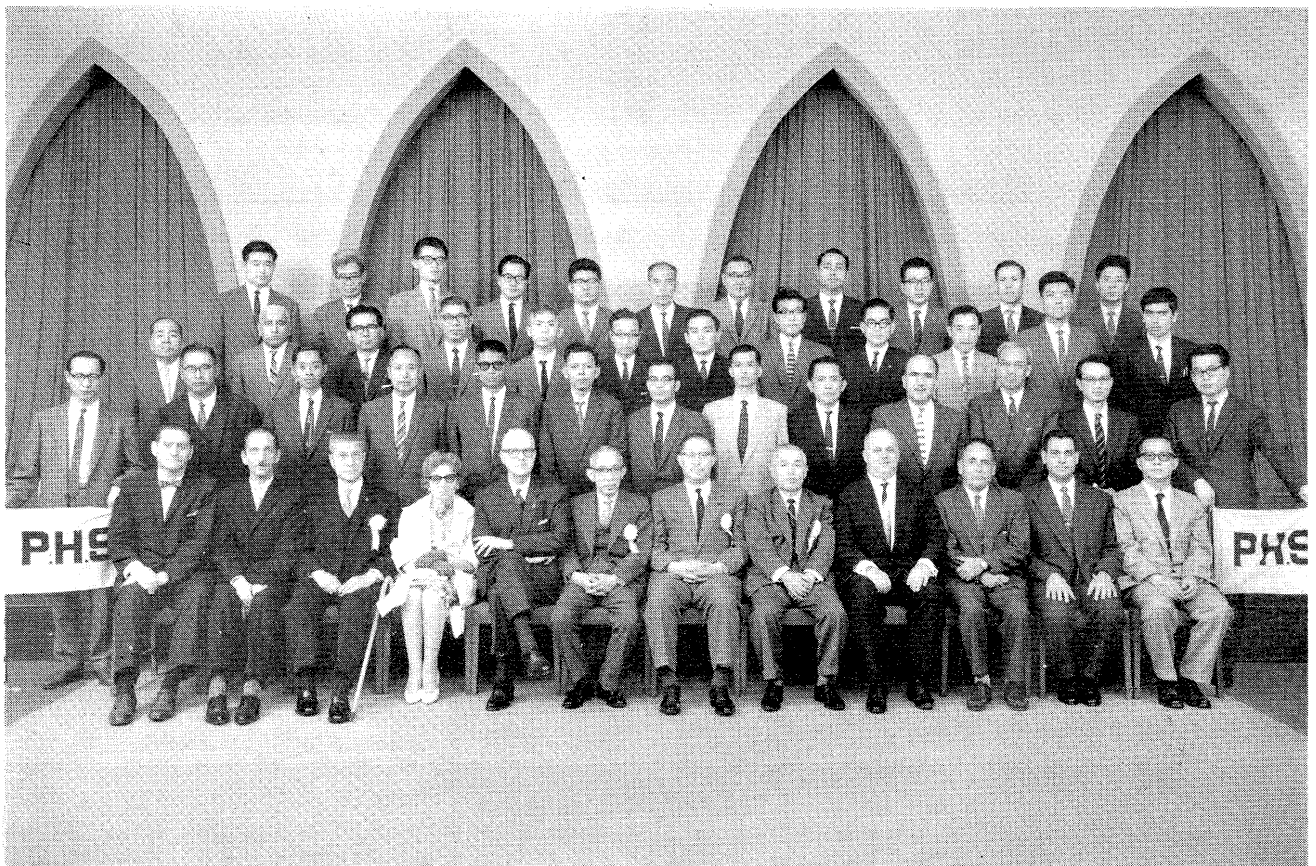
Invitations to participate in the seminar were extended to 24 countries—Peru, Colombia, Chile, Argentine, Brazil, and Venezuela in Latin America; Egypt, Syria, Turkey, Iraq, Iran and Nigeria in Middle and Near East and Africa; and Republic of China, India, Pakistan, Malaya, Singapore, Thailand, Philippines, Indonesia, Ceylon, Viet-Nam, and Cambodia in Asia. However, the port officials who participated in the seminar for this year were 17 in number, representing 15 countries, whose names and titles are given in the list inserted in these pages along

Participants Invited to IAPH Day

On May 23 the IAPH Day was held to entertain the participants in a garden party at the Chinzanso Restaurant in Tokyo. It was jointly sponsored by the International Association of Ports and Harbors, the Japn Cargo Handling Mechanization Association, the Japan Dredger Technical Society, the Japan Harbor Works Consultants Association, the Japan Port and Harbor Association and the Reclamation and Dredging Association.

Participants Joined the Port and Harbor Seminar Club

The Port and Harbor Seminar Club was organized by the participants in the first Seminar on Ports and Harbors of 1961, for the purpose of promoting mutual cooperation, friendship and understanding among themselves for the future. This club was joined by all of the participants in the present seminar who eagerly supported the idea, this making the entire membership to grow to 69.



Participants in the Third Port Seminar from 15 countries are shown in above photo taken with guests and lecturers after the opening ceremony of the Seminar on May 20.

Participants in the Port Seminar of 1963

Argentina

F.R.A. Prestien Inspector of Hydrographic Studies
Ministry of Public Works.

Brazil

Arthur Miranda Ramos Superintendent Engineer of Para-
nagua Port Authority.

Chile

Carlos Roderiguez Schelli Chief Engineer in Charge of
Dredges & Equipments Dept.
Direction of Port Works Ministry
of Public Works.

Gustavo Dahlgren Lossen Chief Engineer of the Planning
Dept. Direction of Port Works
Ministry of Public Works.

Republic of China

Hai Chuen Hsieh Chief of Port Operation Super-
vision Division, Taiwan Provincial
Government

Indonesia

Soejono Director of General Management
Board of Harbours.

Iran

Abdullah Izadi Head of General Engineering
Dept. Ports & Navigation Organi-
zation, Ministry of Economy.

Nigeria

S.B. Peters Senior Traffic Officer, Nigerian
Ports Authority, Lagos.

Pakistan

S.H. Pasha Joint Director of Ports, East-
Pakistan Inland Water Transporta-
tion Authority.

Peru

Enrique Romero Padilla Chief of the Technical Dept. in
Ports Administration.

Philippines

Ricardo Q. Dantes Chief, Planning Engineer, Divi-
sion of Ports & Harbours, Bureau
of Public Works.

Ricardo N. Curz Acting Arrastre Superintendent,
Bureau of Customs.

Singapore

Leong Tong Hoi Asst. Traffic Manager S.H.B.

Syria

Fathi A. Wafa Head of Civil Engineering Dept.
Latakia Port Company.

Thailand

Manoje Watanatada Chief of Civil Engineering Divi-
sion, Port Authority of Thailand.

U. A. R.

Tag Eldin Abdel Gawad Chief of Soil Mechanics Lab. Re-
search Centre, Suez Canal Authori-
ty, Ismailia.

Vietnam

Cao Thai Pho Chief of the Overall Operation
Subdiv.

Grain Exports through New Orleans

The Port of New Orleans export-
ed more grain during the month
of April than in any other single
month, Board of Trade figures in-
dicated. Port elevators exported
23,762,000 bushels.

Previous high for a single
month was 23,523,000 bushels ex-
ported in December, 1961.

A breakdown of the exports
showed that corn led with 12,165,-
000, followed by soybean, 6,309,-
000; wheat, 4,160,000; sorghums,
773,000; barley, 273,000, and rye,
82,000 bushels.

Shipments to foreign countries
found 4,030,000 bushels going to
Japan; Holland, 3,379,000; Italy,
2,320,000; Yugoslavia, 1,807,000;
Belgium, 1,759,000; West Ger-
many, 1,386,000; United Arab Re-
public, 1,265,000; Denmark, 1,023,-
000 bushels. Grain was also sent
in lesser amounts to some 20 other
foreign countries.

These figures include only grain
exports from elevators immediat-
ely within the port.

Members Visiting Japan

On their way back from the
Triennial Conference at New Or-
leans, representatives of the fol-
lowing Association member ports
visited Japan:

* * * *

Mr. V. G. Swanson, Chairman,
Melbourne Harbor Trust Commis-
sioners, arrived in Tokyo on May
10 and visited around the ports
of Tokyo, Yokohama, Nagoya,
Osaka and Kobe.

* * * *

Mr. Hon Sui Sen, Chairman
Singapore Harbour Board, visited
the Central Secretariat on May 25
during his sojourn in Tokyo.

* * * *

Mr. W. H. Brotherson, Vice
President, Maritime Services Board
of N.S. W., Sydney, Australia, and
Mr. J. A. Stuart, Principal Assis-
tant Engineer, of the same Board,
visited the Central Secretariat on
June 10 and exchanged views with
its staff and the Transportation
Ministry officials. During thier
stay in Japan, they visited exten-
sively the ports of Tokyo, Kawa-
saki, Yokohama, Nagoya, Osaka,
Kobe, Moji, Nagasaki, etc.

A NEW CHANNEL PROJECT IN THE RIVER PLATE

Frederico R. A. Prestien C.E.
**General Inspector of Hydrographic
Studies, Argentine**

(This article is a contribution by Mr. Prestien who has participated in this year's Port Seminar.—Editor)

The Paraná is one of the big rivers of the world.

After draining half a continent and joining the Uruguay, which is also quite a large river, it empties its waters into the Rio de la Plata or River Plate. The Plate is the broadest river in the world but also perhaps it is the shallowest in relation to its width. At no place of its full length you can see the opposite shore, and at one part of its course you can see neither one shore nor the other from any ship travelling up or down. It could be more properly be said that it is an inlet of the sea, where the salt water has been replaced by fresh.

The water levels in its main tributaries, Paraná and Uruguay, do not affect it to any appreciable degree, but as it is subject to the rise and fall of the ocean tides the current runs either up or down stream. On the other hand it is preponderantly affected by the action of the wind. When it acquires the strength of a gale it will either brow away all the water or bank it up, according to the direction in which it blows. The enormous volume of water brought down by the Paraná, also carries a large proportion of silt and clay, provided by one of its main tributaries, the Bermejo.

The Paraná is navigated by oceangoing vessels to quite a distance inland; only a few shoals present any obstruction, but when the waters broaden out in the River Plate and the current slackens, owing to the changes of tides, the material in suspension settles in accordance with the size of its grain. Subsequently the finer grades of clay will only precipitate by chemical action provides by the salts in the sea water, away down at the mouth. These deposits cause a continuous reduc-

tion in the depth of the river, and at the same time a never ending silting up of the navigable channels, which have been cut in different directions according to the trade routes.

The main channels in the River Plate carry about 90% of the total import and export trade of the country and have been located practically all along its course where the natural depths were most favorable. Their maintenance involves the employment of an important plant of dredgers, which demands a large annual expenditure. The extent in which dredging operations have to be carried out, more or less permanently, is well over 150 Km. in length.

At the beginning of the century, the officials in charge of the deepening of the channels that lead up to the Port of Buenos Aires were faced with the problem of improving the stretch between Km. 120 and Km. 200, which lies off the Uruguayan Port of Montevideo.

The depth of water was only 20' at low tide, and it was thought that to be able to operate dredgers there it would be necessary to build a dyke on either side of the whole length of the channel.

This proposition seemed altogether too expensive, so experiments were carried out with a stationary suction dredger, that was originally designed to load sand into its hopper. The outcome was that the problem could satisfactorily be solved without the building of the dykes and the Government then acquired a fleet of four suction hopper dredges, two built in Great Britain and two in Holland.

These vessels have proved to give good results at their work and cruise up and down the chan-



Mr. Frederico R. A. Prestien

nel while loading their hopper, then immediately go out and dump the material on the bank nearby.

This system of dredging was later extended to other areas, and at different times the fleet of dredges has been enlarged, but with the passage of time and the rising costs in wages and materials as well as fuel, the question has again been put before the Authorities.

Would it be more economical to build jetties or dykes along the channels, even if it be to a limited extent and in certain areas, that would contribute to reduce the volume of silt that has to be removed annually, should dredging continue on the present lines or should the system be modified using different type of dredges?

The issue involved is of great importance owing to the fact that it is necessary to deepen the channels even more than at present in order to accommodate the ever increasing draught of the more modern vessels which at the same time are more economical to operate. This deepening of the channels will entail an enormous increase in the volume of material to be removed for above the present figures.

An international call of tenders, under No. 3644, will take place, with opening date on October 1st 1963, to study by means of hydraulic model test, to prepare a project and an economical and technical comparison between the present system of channels and a

Record Year for St. Lawrence Seaway

Final statistics for the 1962 navigation season confirm reports that the St. Lawrence Seaway—Montreal to Lake Ontario—had a record year with a total tonnage of 25,593,600 cargo tons. Iron ore, wheat, corn, fuel oil, bituminous coal and barley were the leading commodities moving.

The Welland Canal, between Lake Ontario and Lake Erie also reached a record total cargo tonnage of 35,406,305, an increase of 3,951,502 tons over 1961.

These statistics and others, analyzing traffic by commodity, country of registry, direction of movement etc. are contained in the Traffic Report of the St. Lawrence Seaway for 1962, jointly issued by Canada's St. Lawrence Seaway Authority and the Saint Lawrence Seaway Development Corporation of the United States.

Cargo tonnage on the Seaway increased by 9.3% over the total for 1961, with 32% more tonnage upbound into the Great Lakes and a 3% drop in cargo downbound. Total tonnage in 1961 was 23,417,720.

Wheat tonnage was down sharply. In 1962, 4,900,000 tons were

new channel which will link the Buenos Aires Harbor with the mouth of the Paraná de los Palmas river.

This river has such natural depth to allow that big oil tankers and ore carriers reach the oil refineries in Campana, the steel mills of San Nicolas and other important areas on the banks of the before mentioned river.

This new project will reduce the sailing distance between Buenos Aires and the mentioned areas, about 150 Km.

The National Board of Harbor Constructions and Waterways (Dirección Nacional de Construcciones Portuarias y Vías Navegables) of the Argentine Republic is in charge of this call of tenders. This Board belongs to the State Secretariat of Public Works.

(Tokyo, June 18th 1963)

reported or 33% of the total downbound traffic. In 1961, wheat movements amounted to 6,500 tons or 43% of the total downbound traffic. Other grains, particularly corn and barley, more than offset the loss in wheat tonnage. In fact, total agricultural products increased to 11,333,781 tons from 10,674,325 tons in 1961.

The greatest increase in Seaway tonnage was in the movement of iron ore; 6,014,788 tons went through the Seaway locks in 1962 as compared with 4,017,254 tons in 1961. Of the total upbound movement iron ore accounted for 54%.

Although the Seaway's cargo tonnage increased, 1962 continued the pattern of fewer, but larger ships using the waterway. The number of transits for the year was 541 less than in the previous season, but the figure for cargo tons per transit increased to 4,629 from 3,398 in 1961.

It is expected that this trend will continue. For this season the maximum permissible draught has been increased to 25 feet, 6 inches from the previous 25 foot limit.

Direct overseas trade by way of the Seaway involved 2,302 transits and amounted to 9,016,000 tons, up 23% over 1961 and accounted for 35% of the total tonnage through the waterway.

Inland trade vessels or lakers made 1,780 trips upbound and 1,781 transits downbound, carrying cargoes of 16,534,000 tons—64.6% of all traffic and an increase of 3.3% in the total inland shipping through the canal over 1961.

Shipments according to the origin or destination of the cargoes showed that 30% of the total traffic through the Montreal-Lake Ontario section of the Seaway was between two Canadian ports, another 37% moved between Canadian and United States ports and 32% consisted of foreign trade to and from Canada and the United States. Of the total cargo traffic, that of Canadian origin or destination accounted for 75% of the total.

Canadian ships carried 56% of the cargo through the Seaway in 1962. United Kingdom vessels, Norwegian and German ships accounted for the next major cargo tonnages in that order. United States ships carried 3.7%.

The largset ore carrier ever to sail the high seas will be named after Long Beach, California, at her launching ceremony on Sept. 10 in Japan.

The 53,000-ton super ore carrier—Long Beach Maru—will be over 700 feet in length, have a 100-foot beam and will draw 40 feet of water. Keel for the vessel was laid May 30 in the Mitsubishi Shipyard and she will be delivered to the Daido Line for service by the end of the year.

M. Doi, president of the line, said that it is his company's policy to name whenever possible, the ships after port cities where the vessels call. The Long Beach Maru will operate under a long-term charter carrying Kaiser iron ore from the Port of Long Beach to Japan.

New Memberships

Applications for membership filed with the Central Secretariat since February, 1963 are as follows:

Regular Members

Kushiro City (Port of Kushiro)	Hokkaido, Japan
Port of Rotterdam	Rotterdam, The Netherlands

Corporate Supporting Member

Japan Port Cities Council	Tokyo, Japan
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Individual Supporting Members

Masashi Tokura	Nagoya City, Japan
Fukujiro Hoshino	United States Embassy, Tokyo
F.R.A. Prestien	Argentina

THE PORT OF SYDNEY

Facilities and Future Plans

Although the scenic attractions of Sydney Harbour are world renowned and are the source of considerable pride to the two-million inhabitants of the thriving metropolis established on its foreshores, the status of the harbour as one of the world's leading commercial ports is not based on beauty alone. It is the trade and shipping handled each year which firmly establishes Sydney as Australia's leading port and also places it in a favourable position when compared with other major ports throughout the world.

Numerous factors contribute to the prosperity of the Port of Sydney. Firstly, it is situated in the heart of the most densely populated area of the continent in what is also the nation's heavy industrial centre. In fact, the coastal strip extending from Newcastle, about seventy miles north of Sydney, to Port Kembla, approximately fifty miles to the south, could well be described as the Australian equivalent of the English Midlands, Germany's Ruhr Valley, America's Pittsburgh or Japan's Osaka and Kobe. The area around Sydney is

rich in high quality coal and, with steel works established at both Newcastle and Port Kembla, is abundantly supplied with all the ingredients necessary to support a wide variety of industrial undertakings.

However, despite the rapid growth during the last twenty or thirty years in the field of secondary industry, Australia's economy is still based on its agricultural and pastoral pursuits and, here again, the Port of Sydney is ideally situated to handle the exports and imports required to sustain the primary industries carried on in the vast Australian hinterland. The extensive network of the New South Wales Railway system, covering more than 6,000 route miles, radiates outward from the Port of Sydney and, together with the rapidly expanding road transport industry, provides speedy and efficient transportation of im-



The Sydney Cove Passenger Terminal was completed in 1960 and caters for ships of up to 45,000 gross tons. The Maritime Services Board Head Office may be seen in the lower left hand corner of the illustration.

ports and exports to all parts of the State. Dairy produce and meat from the coastal plains and tablelands, wheat and other grains from the slopes on the western side of the nearby mountain ranges, wool from the inland plains, canned fruits, rice and farm produce from the area known as the Riverina in the southern portion of the State, are all numbered among the exports handled in the Port of Sydney and are, in turn, responsible for the provision of overseas funds to permit the purchase of oil, machinery, motor cars, piece goods and other general cargoes included in the imports discharged from the ships visiting the port.

The hinterland served by the Port of Sydney is bounded, in most cases, by the political borders of the State of New South Wales, but, as Sydney is the terminal port in Australia for the majority of oversea shipping lines visiting the country and, in some cases, the only Australian port of call, cargo for other Australian cities is often discharged in Sydney for transshipment by sea, road or rail to swell the volume of cargo handled in the port.

Although the geographical advantages of Sydney are considerable and are important factors, its ranking as a major world port is also derived, to some extent, from its physical characteristics.

The Port of Sydney has a total area of approximately twenty one square miles, about half of which carries 30 feet of water or more at low tide. From the Heads, it extends inland approximately thirteen miles and, all told, there are about 152 miles of foreshore. The average width of the harbour is slightly less than one mile and, because it is almost landlocked, the various arms and many sheltered bays provide excellent accommodation for shipping. In all, it could be said that nature has provided Sydney with a harbour which is as close to perfect as could be expected.

But with all its natural advantages, the hand of man has still been required to provide the facilities demanded of a modern and efficient port. Civilised man's first contact with the Port of Sydney came just a little over 175 years ago, in January, 1788, when Captain Arthur Phillip landed on the shores of Sydney Cove with a small

band of British settlers to establish the colony which has now expanded and developed into the Australian nation.

During its first 100 years of existence, the construction of wharfage facilities in the Port of Sydney was left largely in the hands of private individuals and, as a result, development was haphazard, not conforming to any particular pattern or progressing along planned lines. In many cases, the wharf structures were sub-standard and in bad state of repair but the worst features of the system of private ownership, from the point of view of both the owners and the Government, were the uncertainty of the limits for extension and the unsatisfactory financial arrangements resulting from competition between the owners. By 1890, or a little after, conditions on the Sydney waterfront reached the stage where the Government was giving consideration to the establishment of an authority to control the port but, at that stage, nothing came of the idea and it was not until 1900 when nature, in the form of an outbreak of bubonic plague, took a hand to hasten the official deliberations.



Rail facilities connected with the main railway system of the State are provided at many of the berths at the Port of Sydney.



Work is well in hand on the remodelling of wharfage in the Darling Harbour area of the Port of Sydney. One of the new structures will provide accommodation for up to five overseas vessels with wide cargo sheds and ample areas of open space for the storage of cargo not requiring coverage.

The plague found its way to Sydney on ships arriving from foreign ports and infected rats soon spread the dreaded disease. When it became apparent that the whole city was in jeopardy and that the root of the trouble was to be found on the waterfront, the Government of the day was galvanised into action and the plan for a port authority was soon revised.

The first step was to close the wharves in one section of the port and to seal off the area to the general public while a clean-up campaign was instituted but, following this, the affected areas were resumed and their control temporarily vested in a specially created Board. In the meantime, however, action was underway to establish a permanent port authority and, on 4th March, 1901, the new body,

the Sydney Harbour Trust Commissioners, held their first Board meeting.

It is not surprising that, at their first meeting, the new Commissioners framed regulations to prevent rats making their way ashore and that one of their first works should be the commencement of a rat-proof wall in the region where the death dealing rodents had been most prevalent. The new Trust, as one of its first tasks, also embarked on the demolition of the offending wharf structures and later drew up plans for new berthage facilities to replace the unco-ordinated jumble which existed under the private ownership system.

At about the same time as the Sydney Harbour Trust was formed, another Government Department connected with the maritime

affairs of the State, came into being. This was the New South Wales Department of Navigation which, apart from being the pilotage and navigation authority, also assumed the role of administrative authority for all ports of the State other than Sydney. Unlike the Sydney Harbour Trust, however, the Navigation Department was not a construction authority and all development and maintenance work carried out at the ports under its jurisdiction was the responsibility of the Department of Public Works.

This, then, was the position in respect of the control of the ports of New South Wales and this is how it remained until 1936 when, following the passing of legislation through Parliament, the Maritime Services Board of New South Wales was established to co-ordi-

nate in one single body all the maritime affairs of the State formerly handled by the Sydney Harbour Trust and the Navigation Department.

Further amendments to the Act establishing the Maritime Services Board have been passed since 1936 until the present time when the Board is the administrative and navigation authority for all ports and harbours of New South Wales including river entrances, ocean jetties and the inland navigable waters. The major ports administered by the Board are those of Sydney, Newcastle, Port Kembla and Botany Bay where more than 30 million tons of cargo and over 40 million gross tons of shipping are handled each year but, in addition, there are a further 29 smaller ports under its control handling an annual total of about 200,000 tons of cargo.

The Maritime Services Board of New South Wales is a corporate body of seven commissioners appointed by the Governor by commission under the seal of the State. Three of the seven appointed are full-time Commissioners whilst the remaining four are known as Nominated or Part-Time

Commissioners. Of the three Permanent Commissioners — The President, Vice-President and Commissioner — the Act provides that one must be a person possessing special technical knowledge or skill in navigation and matters relating thereto. Of the Nominated or Part Time Commissioners, one must be the permanent head of the New South Wales Department of Public Works, one must represent interests associated with the Port of Newcastle and the remaining two are identified with such interests as are concerned with the administration of the Maritime Services Act as the Minister thinks advisable.

The Head Office of the Maritime Services Board of New South Wales is at Sydney, on the shores of historic Sydney Cove and within a stone's throw of the site of the original landing of Captain Phillip and his band of settlers when they arrived to found the Colony in Australia. From this office the present day Commissioners of the Board have carried on the work in the Port of Sydney commenced more than sixty years ago by the first Commissioners of the Sydney Harbour Trust and, al-

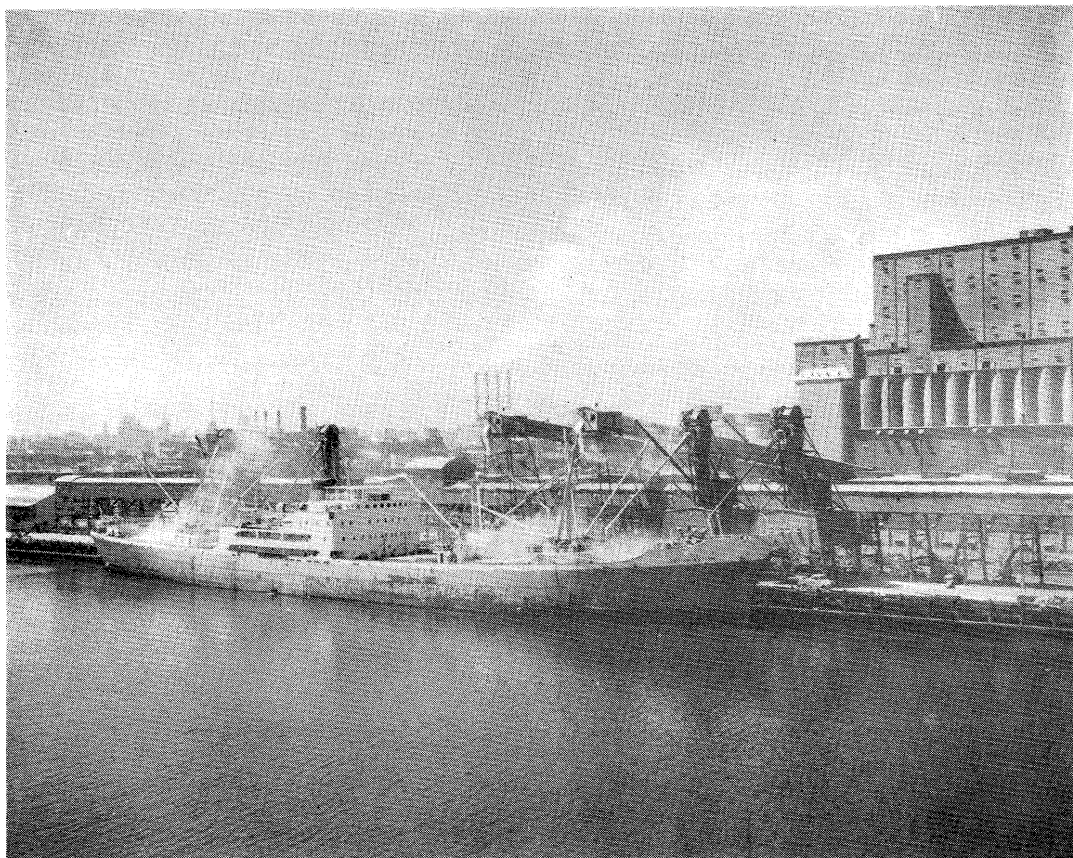
though the passage of time has brought about many changes in method and procedure, the original conception of a port authority conducted on business-like lines, raising its own revenue and meeting its own expenditure, has paid dividends and the Port of Sydney has developed into a major world port, the equal in speed and efficiency of most others throughout the world.

Cargo traffic in the Port of Sydney generally amounts to about ten to ten and a half million tons each year of which about seven million tons are inward cargoes. The principal items of inward trade are bulk oils, timber, paper, sugar and coal brought to Sydney from Newcastle, mainly for gas making purposes while the majority of the export trade consists of wheat, wool flour and other primary produce as well as bulk oil, steel and coal.

During recent years, as a result of the planned diversion of a large section of the bulk oil trade to Botany Bay, on the southern fringe of the City's industrial area, about five million tons of Sydney's oil cargoes are handled there each year and the total tonnage of cargo for the Sydney



Provision is made for the parking of cars on the top deck of the Passenger Terminal at No. 13 Pyrmont which was the first modern spacious structure of its type to be built in Australia.



Bulk wheat is one of the major items of export from the Port of Sydney and the terminal at Glebe Island has a capacity of about 200,000 tons.

Metropolitan area handled through the two ports amounts to almost sixteen million tons per year.

As the terminal port in Australia for most of the large over-sea passenger lines trading with this country, Sydney handles well over 2,000 over-sea vessels each year. The total number of vessels visiting the port amounts to more than 4,000 annually with a total gross tonnage of approximately 22 million tons.

Included in the regular arrivals are passenger liners of up to 45,000 gross tons but much larger vessels than these may enter or leave the port in complete safety at any state of the tide. During the war years, the "Queen Mary" and "Queen Elizabeth" were frequent visitors and four vessels of this type could be accommodated comfortably in the harbour at one time as well as many other craft.

The entrance between Sydney Heads is almost a mile in width with a depth of 80 feet, whilst the mean tidal range is 3 ft. 6 in. The port is rather unique in that it has two separate entrance channels which run on either side of the well-known "Sow and Pigs" reef. Each channel is 700 feet wide and there is a minimum

depth of 42 feet at low water in the western channel and 40 feet in the eastern channel.

Pilotage is compulsory in the Port of Sydney and a pilot station has been established at Watson's Bay, just inside Sydney Heads, where a modern pilot launch and a staff of pilots are on duty twenty-four hours a day.

The greatest depth of water in the harbour is 155 feet in a position a short distance to the west of the Harbour Bridge but depths of about 36 feet are available at most of the berths used by over-sea vessels.

Comparatively little maintenance dredging is required to conserve the depths which have been provided in the channels and at the berths in the harbour but an expert technical staff is constantly employed checking the depths in the channels and on other hydrographic survey duties. Modern echo sounding equipment is used extensively in this work.

The principal wharfage in the Port of Sydney is most conveniently and centrally located from the point of view of both commerce and shipping as it is within four or five miles from the sea and within one mile from the heart

of the city. The length of commercial wharfage varies from time to time as some berths are taken out of commission for repairs or are replaced by new structures but generally it can be said to total approximately 12 miles not including berths for harbour craft which amount to approximately 5,000 feet. Apart from the general cargo berths, wharfage facilities in the port include special berths for the handling of cargoes such as oil, timber or coal, approximately 85% of all wharfage being owned by the Board.

The majority of the wharves are of timber pile construction, although the "solid fill" method of construction has been adopted for most recent work. All of the wharfage built in recent years has concrete decking and the timber decking of the older wharves and jetties is being replaced systematically with concrete when renewal of the deck becomes necessary. are equipped with roomy cargo

Most of the berths in the port sheds which have a total area of almost 3 million square feet or approximately 73 acres and this accommodation is being increased steadily by new construction. Accommodation for Customs and

Delivery Officers is provided at all principal berths.

The bulk of the general cargo at the Port of Sydney is handled by ship's gear but wharf cranes and other equipment are available at some of the berths and others have been designed to enable the installation of cranes if found necessary in the future.

Many of the wharf sheds are equipped with travelling bridge cranes but the policy of the Board, in common with modern practice in other parts of the world, is to favour the provision of mobile equipment for handling cargo inside the wharf sheds as well as to and from the ship's side.

Heavy lifts can be handled by floating cranes with capacities of up to 150 tons or by the 250-ton crane at the fitting-out wharf adjoining the Captain Cook Graving Dock.

Rail facilities connected with the main railway system of the State are provided at many berths but less than 5% of the total imports are handled direct to rail from vessels and only about 10% of exports (excluding grain and flour which are handled at specially equipped berths) are deliver-

ed to the wharves direct from rail.

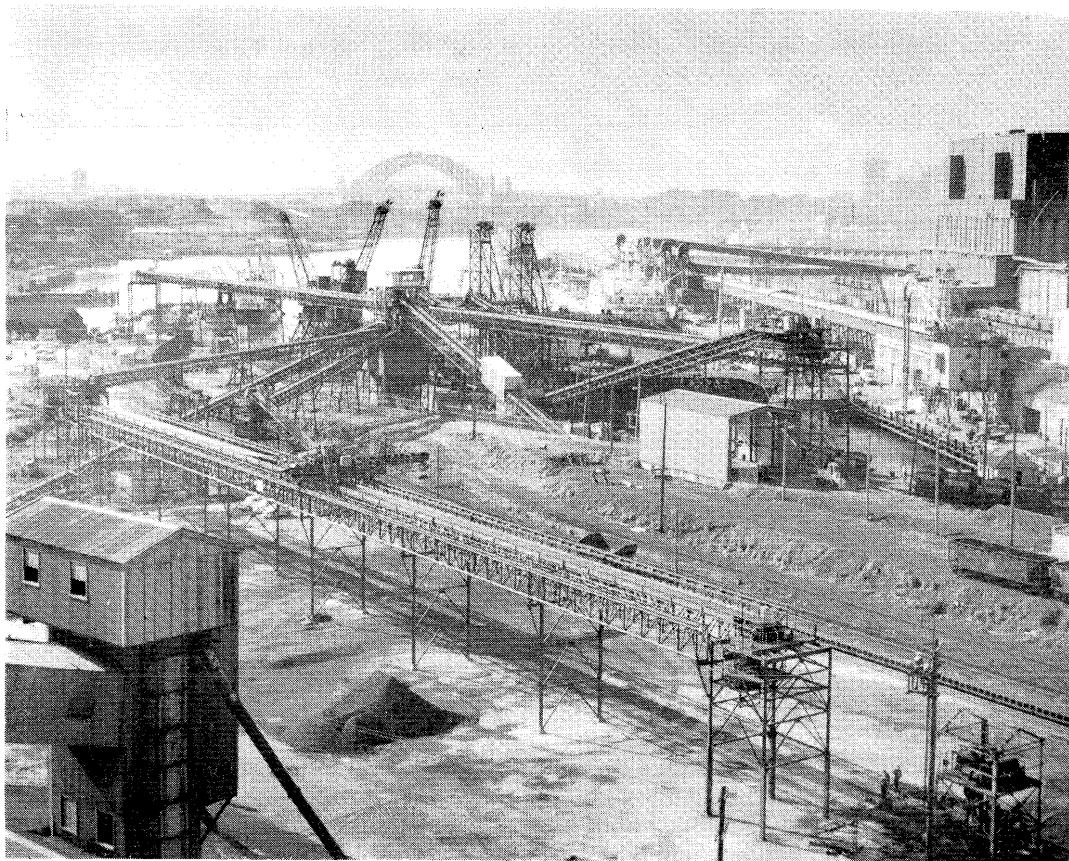
Modern facilities are available for the handling of bulk wheat and bagged grain or flour. The bulk wheat terminal at Glebe Island has a storage capacity of 7½ million bushells (about 200,000 tons) and at adjoining berths the Board has provided shed accommodation and conveyor equipment for handling bagged grain or flour.

Passenger arrivals and departures in the Port of Sydney have reached a total of almost 160,000 each year, about eighty to eighty five percent of these being to or from overseas ports. To cater for the growing needs of this traffic, a specially designed two storey brick building was erected at No. 13 Berth Pyrmont, with facilities for passengers, visitors and baggage on the upper level separated from cargo handling operations on the lower deck. Following the success of the Pyrmont terminal, which was the first modern, spacious structure of such type to be built in Australia, the upper floor of the two storey cargo shed at No. 7 Berth Woolloomooloo was converted for use by passengers and a third terminal, completed in December, 1960, was constructed

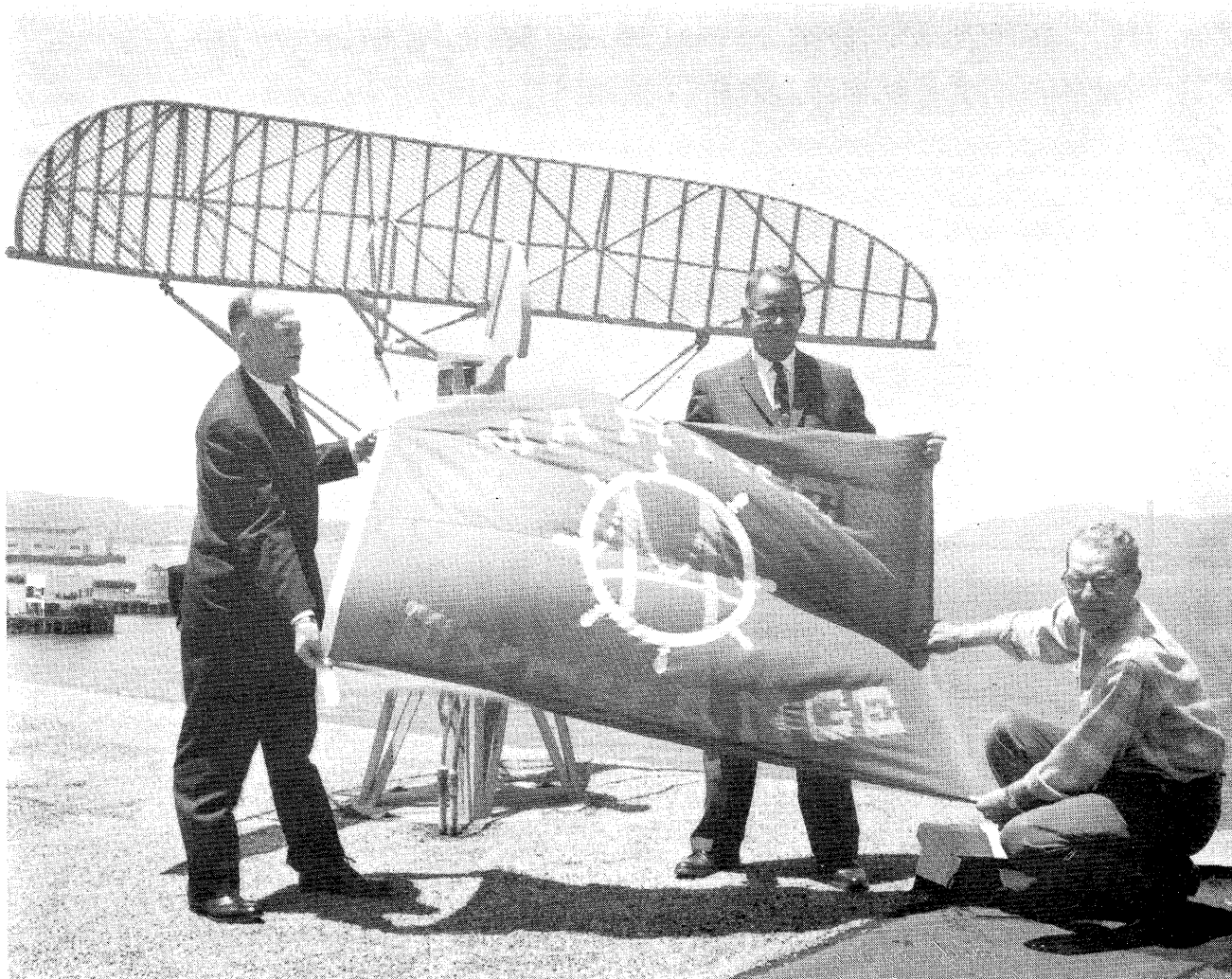
in Sydney Cove. The Sydney Cove Terminal is one of the most modern in the world, regularly catering for visiting ships of 45,000 tons and providing passenger handling facilities in what might be regarded as the heart of the city within 100 yards of all types of public transport, including buses, trains and ferries.

To meet present and anticipated accommodation needs for shipping and commerce at the Port of Sydney, the Maritime Services Board has adopted development plans for the extension and reconstruction of existing wharfage and for the expansion of facilities for the overseas trade in areas not previously used for that purpose.

Under the first portion of this plan, considerable work has already been undertaken and extensive remodelling of the wharfage in the Pyrmont area has been carried out in recent years. Work is also well in hand on the remodelling of wharfage in the Darling Harbour area and, at the present time, some of the older wharf structures north of Pyrmont Bridge are being removed and replaced with new modern berthage which will accommodate up to five



A new coal loader with a designed loading rate of 1,000 tons per hour was completed recently at Balmain.



SILHOUETTED against the Golden Gate Bridge (background) and the Marine Exchange's harbor radar scanner, the new "house" flag which will fly henceforth from atop pier 45, San Francisco, was unfurled June 7 for the first time. Inspecting the new flag to be used at the Exchange's main ship lookout station are RADM. Gill Richardson, USN (Ret.), (left), chairman of the flag design contest, Capt. John D. Knox, Exchange president, and Robert Nordell, lookout service manager. Edward Mitsunaga of Mill Valley submitted the winning design, selected from 180 entries.

oversea vessels. Wide cargo sheds are being provided at the berths and ample areas of open space for the storage of cargo not requiring covered storage will be a feature of the new wharfage. Work is also under way for the extension of the existing port roadway to provide a modern traffic link around the full extent of the Darling Harbour and Pyrmont Wharfage.

At Balmain, considerable work is being undertaken in connection with the improvement of facilities for the handling of export coal. The first stage of this work, the provision of a coal loader of the conveyor type with a designed loading rate of 1,000 tons per hour has only recently been completed but a new berth in the same line

as the coal loading wharf is in the course of construction. The three 20-ton cranes formerly used for the loading of coal will be transferred to this new berth but will be mounted on rail tracks so that they will be capable of serving both wharves. The cranes will then be used for the handling of all types of bulk and general cargo, both import and export.

The second phase of planning, based on the indication that future needs will require the expansion of facilities beyond the present developed areas of the port, is part of a long range programme which will not be implemented until the need arises. It will also have to await the projected removal by another Government authority of a bridge

spanning one section of the port but, once this work has been carried out, the way will be clear for the Board to extend the commercial wharfage into the Rozelle Bay at present only used by the smaller type of coastal ship serving the timber and coal trade.

New Flag for S. F. Marine Exchange

A blue-and-gold flag symbolizing the around-the-clock watch on the Golden Gate will henceforth fly during daylight hours from the Marine Exchange's pier 45 ship lookout station.

The award-winning design was submitted by Edward Mitsunaga of Mill Valley as one of 180 entries received in the Exchange's flag design contest.

INTERNATIONAL TRAFFIC IN RADIOACTIVE MATERIALS

A. A. Wells

Acting Assistant General Manager for International Activities, U.S. Atomic Energy Commission



A. A. Wells, director of the Division of International Affairs of the Atomic Energy Commission, addresses delegates to the Third Triennial Conference of the IAPH during their recent New Orleans meeting. Wells spoke on the aspects of international traffic controls to be applied in the shipment and handling of radioactive materials.

I am privileged to be with this distinguished group this morning to discuss briefly the present status and the prospects for international traffic in radioactive materials. As experienced executives of ports around the world, accustomed to handling exotic cargoes, harmless as well as dangerous, you will not be startled by anything I have to say. On the contrary, I would undoubtedly be amazed by some of the experiences you consider routine.

Introduction

Nevertheless I want to tell you something of what we foresee concerning the shipment of radioactive materials which are labelled properly as "dangerous cargoes" but which can no longer be called exotic. For several years now you have become increasingly

familiar with shipments of radioisotopes for use in various medical, agricultural, and industrial applications. More recently you may have noticed an increase in the shipments of special nuclear materials destined for installation as fuel elements in all kinds of nuclear reactors, and soon you will be seeing irradiated or "hot" fuel elements from these reactors in transit to processing plants after a period of use. Shipment of radioactive materials is rapidly becoming one of the everyday facts of life in international transportation.

I want to stress that this trend is not a short-term event. We are approaching an era of accelerating expansion in the use of nuclear power for propulsion and the production of electrical energy—applications that inevitably require the transportation of large quanti-

ties of special nuclear materials. If desalination of water should prove to be economically feasible through the use of heat from very large scale reactors, the trend may be even further accelerated.

In the United States we are nearing a production of 1000 megawatt electrical (MWE) from nuclear power plants, as are the United Kingdom and the Euratom countries. And—ignoring the prospects for desalination reactors—we expect a fortyfold increase of these figures for ourselves and for Euratom and a twentyfold increase for the United Kingdom by 1980. By that time as much as 10,000 MWE may also be produced in both India and Japan. Since we are already shipping special nuclear materials at the rate of 250 shipments a year (exclusive of radioisotopes), you will get some idea of the possible increase in the number of shipments and the quantities of materials these shipments may involve by the year 1980.

Radiation Hazards and Safety Measures

What steps are being taken to prepare for this anticipated growth in nuclear shipping? Uppermost in all our minds of course is the question of the radiation hazards involved. Will we be able to ship such quantities of materials safely?

Before we try to answer these questions, however, we ought to examine the nature of the hazards. They are fundamentally of two kinds: the danger that special nuclear materials in transportation will become critical, that is, undergo a chain reaction, and the danger from exposure to toxic radiation from such materials.

I should not want to minimize either of them. Rather, I want to point out that both are very real. At the same time the point should be made and stressed that we have accumulated a great deal of successful experience in handling these dangers. This is true at both the national and international levels.

There has been international traffic in radioactive materials for

so long as peoples of the earth have exchanged goods across jurisdictional borders, for all things are radioactive—even you and I. Sensitive instruments can detect such slight degrees of radiation and it seems likely that this radiation has been a factor in the evolutionary process. High levels of radiation has been a factor in the evolutionary process.. High levels of radiation—such as those from X-ray and radioisotope sources—are used beneficially in medicine and industry. The danger from radiation lies in the possibility of uncontrolled exposure, either to high levels of radiation or to lower levels for long periods of time.

This then is one danger. The other is concern for prevention of accidental criticality.

Whenever criticality occurs radiation is produced; only in the case of nuclear weapons does criticality cause a nuclear explosion. The danger of nuclear explosion from fissionable materials shipped in commerce is non-existent.

In their studies of fissioning or criticality, nuclear scientists and engineers have developed the most precise and reliable guides for determining what can cause criticality. The two factors are the quantity of material and the geometrical configuration in which this material is arranged. Thus the effective safety measure is to avoid accumulating the critical quantity of material in the critical spatial arrangement. Protection from harmful radiation is provided either by shielding with an impervious material such as lead or by keeping the radioactive material at a safe distance.

Regulations governing the shipment of radioactive materials have been developed to provide effective and reliable safety measures against the hazards I have described. They take into account the vast accumulation of knowledge and experience in this field, and allow of course for broad margins of safety.

Infinite attention to detail in the design, fabrication and use of containers for the transport of radioactive materials has resulted in a safety record unique in the history of the movement of dangerous

cargoes. In the United States no accident has occurred during either military or civil transportation of radioactive materials resulting in injury to a human being from radiation. Since we have been transporting substantial quantities of such materials for almost a quarter of a century, this record is one we are proud of. We are continuously vigilant to sustain it.

Planning for the Increase in Radioactive Materials Shipments

Anticipating the need for advance planning to accommodate the flow of highly radioactive materials, into and out of the United States, mostly in the form of spent fuel elements, there has been a series of meetings with port and community authorities to gain acceptance for the receipt in transit of these materials into, and through, their facilities.

Already fourteen ports, including the port of New Orleans, have filed resolutions with the United States Coast Guard welcoming this traffic, when moving in compliance with applicable regulations of the Atomic Energy Commission, the United States Coast Guard, and the Federal Aviation Agency. An interagency committee coordinates the requirements of these agencies.

The Coast Guard, the U.S. Agency having prime responsibility for the acceptance of radioactive materials into the United States has stated that it does not believe that radioactive cargoes are inherently more hazardous than other types of dangerous cargoes. In fact, when properly packaged, nuclear cargoes are in most respects far safer.

Experience has shown that it is nevertheless prudent (just as with other hazardous cargoes) to require that the shipper first obtain approval from the port before off-loading large amounts of radioactive materials, such as highly irradiated fuel elements. Once such clearance is obtained, future shipments would not need a new port approval. For smaller shipments a port clearance is not required by the Coast Guard.

Development and Application of Shipping Regulations

Much has been done to develop and secure the adoption of the uniform regulations so necessary to assure the safe, orderly, and expeditious transportation of radioactive materials. The International Atomic Energy Agency has taken the lead in outlining regulations that will be acceptable to all nations, and the principles of these regulations have now been incorporated in the regulations of the United States and are being adopted by other nations.

Regulations of the Federal transportation regulatory agencies, as well as those of the AEC, provide assurance that an appropriate degree of attention is given to packaging, labeling, and handling procedures so that materials in each of the groupings may be handled and transported without endangering public health and safety any more than do other dangerous articles.

U.S. regulations set forth packaging specifications requiring that five special safety requirements be met which will:

1. Control contamination by containment;
2. Limit radiation to acceptable levels by shielding;
3. Provide for adequate dissipation of heat;
4. Protect against criticality of fissionable materials; and
5. Provide structural integrity sufficient to withstand the extreme conditions of handling likely to be encountered in transport.

Further, the regulations require that a unique and distinctive label be used to identify radioactive materials. Presently, the label portrays a cloud with four lightning bolts crackling from it and employs a color code of red or blue to mark the type of radiation.

Real progress has been made in preparing for the anticipated growth in volume and variety of radioactive materials shipments. The interagency coordinating committee has recommended revised regulations to the Interstate Com-

merce Commission, based upon technical standards previously developed. Quantity limitations on packaging for the first time are related to a radio-toxicity classification of some 240 radioactive materials.

Expecting shipments of irradiated fuel that will contain hundreds of thousands of curies of fission products from domestic and foreign reactors to U.S. chemical processing plants, the AEC has issued proposed Part 72, Title 10 of the Code of Federal Regulations, detailing the performance standards to be met on cask design and shipping procedures for transport of irradiated fuel elements. The proposed standard establishes safety criteria on criticality, heat transfer, structural integrity and radiation levels for these shipments of spent elements. It provides reasonable assurance that the cask will maintain its integrity and will prevent release of the fuel elements or hazardous quantities of fission products under the most severe credible accident, including such events as petroleum fires, whatever mode of transport is used.

I want to say again that our record of safety in transporting materials has been extremely good. An indication of the efficacy of packaging standards may be gained from the fact that during a recent two year period (1956-57) 485 unescorted packages were shipped to Idaho Falls and only two of these arrived in a damaged condition, these two not seriously so.

We believe that such a record can only be accounted for by the fact of close cooperation among all the U.S. Agencies and the private industrial concerns involved in these activities. We believe further that such records can and should become the expected forms of international shipments of radioactive materials.

Economic Aspects of Radioactive Shipments, Including Liability

Necessarily we have considered at some length the question of safety. There are other vital concerns of the transportation people who deal with international ship-

ments of radioactive materials. You are justifiably interested in the type, amount and cost of insurance and indemnification required for your protection. In a still broader context, you are interested in the overall economic aspects of this segment of the transportation business.

Indemnification and insurance against nuclear risks in the United States have been dealt with effectively by the Price-Anderson Act. The guarantees of this law, coupled with loss of use and first party liability insurance commercially available here, are adequate to meet the present needs.

You may be aware also of the extension of the Price-Anderson Act with respect to the operations internationally of the N. S. Savannah and of the agreements being negotiated with the nations whose ports she is scheduled to visit. We see in the willingness of several nations to admit the Savannah to their ports increasing evidence of the interest of these nations in the future of marine nuclear propulsion.

Conventions on third party liability at the international level are of course being drafted within Europe and elsewhere to establish the ways, means and amounts of indemnification required. Continuing favorable transport experience will undoubtedly contribute to the timely availability of adequate indemnification on a world wide basis. The most important factor for encouraging this favorable experience is the increasing acceptance of radioactive materials due to effective education concerning the nature of radioactive materials as cargo.

I cannot hope to treat in depth the economic aspects of international transport of radioactive materials. An especially significant question, however, and one that is sure to affect management decisions as to whether or not spent fuels will move internationally in large quantities is the assessment of real-

istic rates by transport and related toll facility companies.

The cost of processing spent fuel elements to recover the unburned fuel is considerable, on the order of \$25 to 30 thousand for a small research reactor.

Add to this the cost of refabricating the recovered material into new fuel elements and compare the overall figure with an initial fuel cost of about \$100 thousand. You will see that the cost of round trip transportation including insurance and other charges must fit comfortably is likely to be the result. Nevertheless, it appears that transport costs can be brought within the realm of economic feasibility. And again education as to the physical and economic risks and the effective measures available for reducing them can be a decisive element for the future growth of your industry.

Conclusion

Three elements in brief are most essential to assuring the normal flow of radioactive materials. I would list them as:

1. Reasonable transport rates, including cost of use of related facilities and insurance;
2. Preclearance of ports and communities for the acceptance of radioactive materials in transit; and
3. Compatibility of regulations.

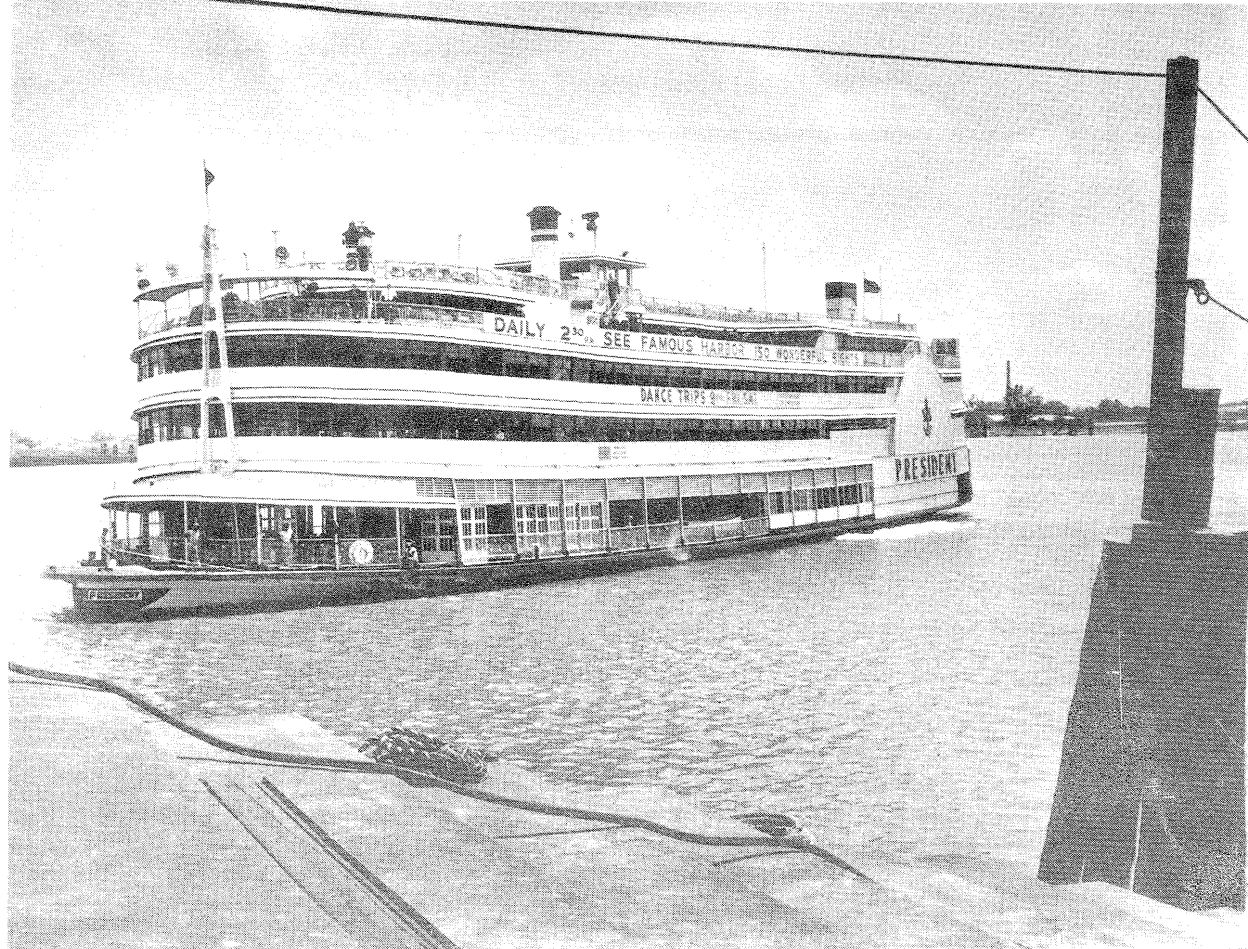
The use of special nuclear materials to produce power is destined to become greater year by year throughout the world. Every sign points toward the time, maybe in 50 years, when a substantial portion of the world's electrical energy will come from nuclear reactors.

The shipment of radioactive materials through the busy ports of the world, is, therefore, inevitable. Sound measures have been developed for the purpose of assuring these materials can be moved safely.

Man has never rejected progress because of its hazards. He has faced them and protected himself against them.

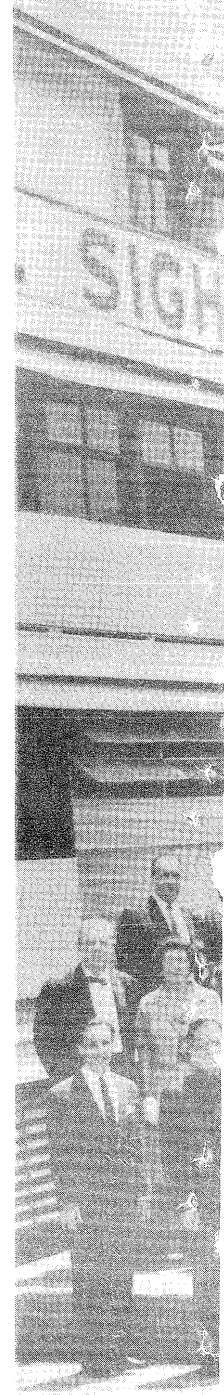
(Continued from page 2)

Liberia	Mr. Edward Julius Wesley Assistant to Port Director Monrovia Port Management Co., Ltd.	Mr. Raymond J. Weir Consul, Consulate of Liberia Los Angeles, U.S.A.
Malaya	Dato Laksmana Haji Mohamed Razalli bin Haji Mohamed Ali Wasi, J.M.N., P.J.K., J.P. Chairman Penang Port Commission	Mr. Inche Ismail bin Ngah Marzuki General Manager Penang Port Commission
Mexico	Ing. Daniel Ocampo Sigüenza Residential Engineer of Port Construction Villahermosa, Tabasco	Ing. Mario E. Villaneuva Reyes Residential Engineer of Port Construction Coatzacoalcas, Ver.
Netherlands	Ir. F. Posthuma Managing Director Port of Rotterdam	Ir. H. P. Meijer Deputy Managing Director Port of Rotterdam
Pakistan	Mr. I. A. Abbasi, S.Q.A., Chairman, Karachi Port Trust	
Peru	Mr. Mateo Kalafatovich Director Administration of Ports Peruvian Government, Lima	Mr. Rene Guevara Engineer Administration of Ports Peruvian Government, Lima
Philippines	Mr. Florencio Moreno Secretary, Department of Public Works & Communications	Col. Julian C. Chaves General Manager Manila Port Service
Singapore	Mr. Hon Sui Sen Chairman Singapore Harbour Board	Mr. Loh Heng Kee Acting Operations Manager Singapore Harbour Board
Sweden	Mr. John-Iwar Dahlin General Manager Port of Helsingborg	
Thailand	Major General Prachuab Suntrangkoon Director Port Authority of Thailand	Capt. Lapo Israngkura, R.T.N. Deputy Director (Operations) Port Authority of Thailand
United Kingdom	The Rt. Hon. Viscount Simon, C.M.G. Chairman Port of London Authority	Mr. G. D. G. Perkins Deputy General Manager Port of London Authority
U.S.A.	Dr. Joseph D. Carrabino Commissioner Board of Harbor Commissioners City of Los Angeles Mr. Albert Lyle King Director of Marine Terminals The Port of New York Authority	Mr. Rae F. Watts Port Director San Francisco Port Authority Mr. W. J. Amoss Director of the Port Board of Commissioners of the Port of New Orleans
Venezuela	Mr. Andres German Otero Ministerio de Hacienda Ministro de Hacienda, Caracas	Mr. Cesar Bustamante Ministerio de Hacienda Encargado de la Administracion General de los Servicios Portuarios Nacionales, Caracas
Viet-Nam	Mr. Nguyen Van Chieu Director, Saigon Port	Mr. Nguyen Ngoc Du Director Port of Da-Nang



Steamer President departs from dock for a half-day tour of The Port of New Orleans. All IAPH delegates and guests were aboard. Narrator was Verdun Daste, publicity manager for the Port of New Orleans.

A non-registered delegate (at upper left on steamer railing) looks on as the delegates to the Third Triennial conference of the International Association of Ports and Harbors and their ladies pose for the photographer after completing a harbor inspection tour on board the steamer President during the organization's early May conference at New Orleans' Royal Orleans Hotel. The group, on their May 3rd river tour, was able to observe first-hand the facilities that have made New Orleans the nation's busiest export port and one of the ten largest in the world.



Central Secretariat of the International
Association of Ports and Harbors

Rm. 715-A, N.Y.K. Bldg., 20, Marunouchi 2,
Chiyoda-ku, Tokyo, Japan