

PORTS *and* HARBORS

April, 1981 Vol. 26, No. 4

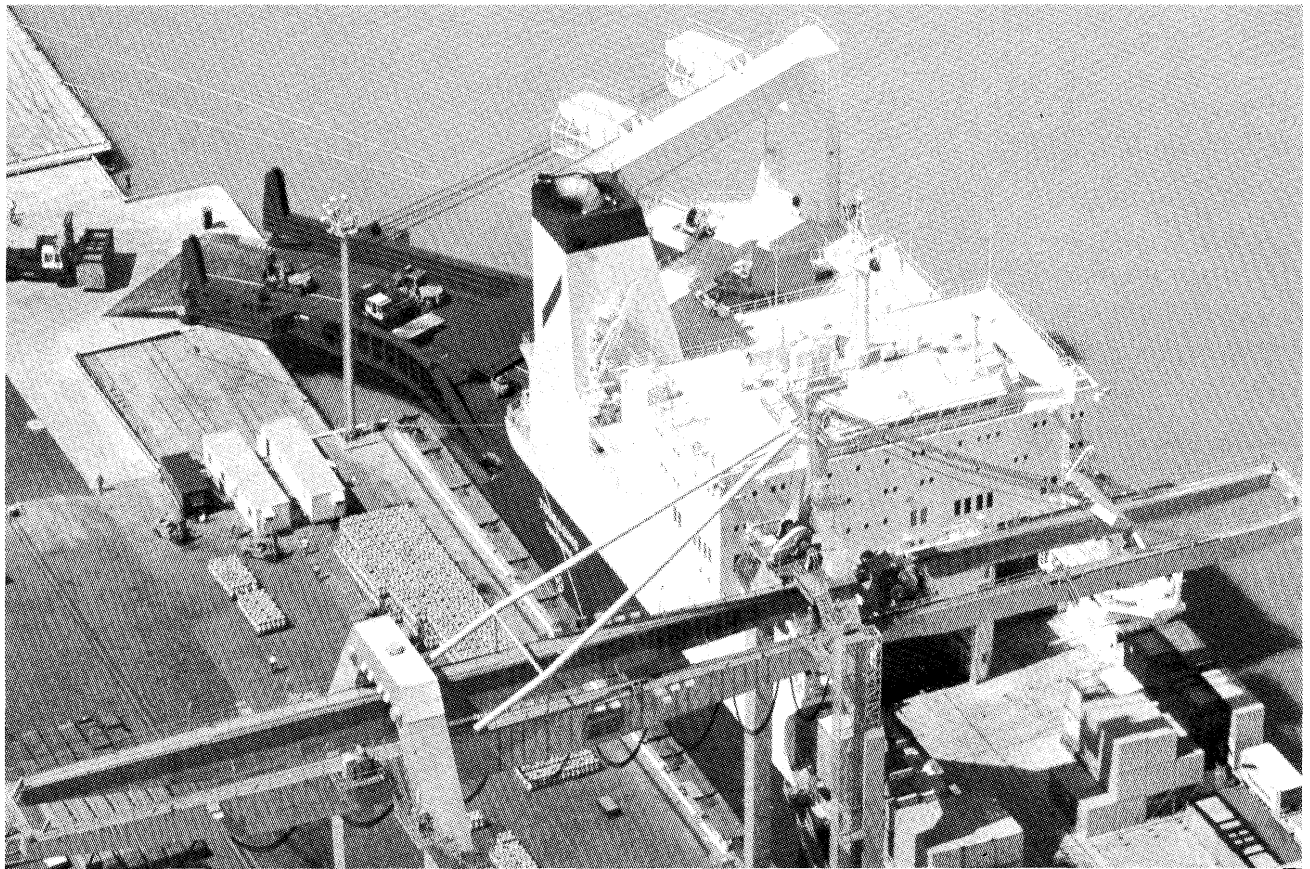
IAPH celebrates the 25th Anniversary.



IAPH Conference Nagoya May 1981

The Publisher: The International Association of Ports and Harbors

Kotohira-Kaikan Bldg. 2-8. Toranomom 1-chome. Minato-ku.
Tokyo 105, Japan



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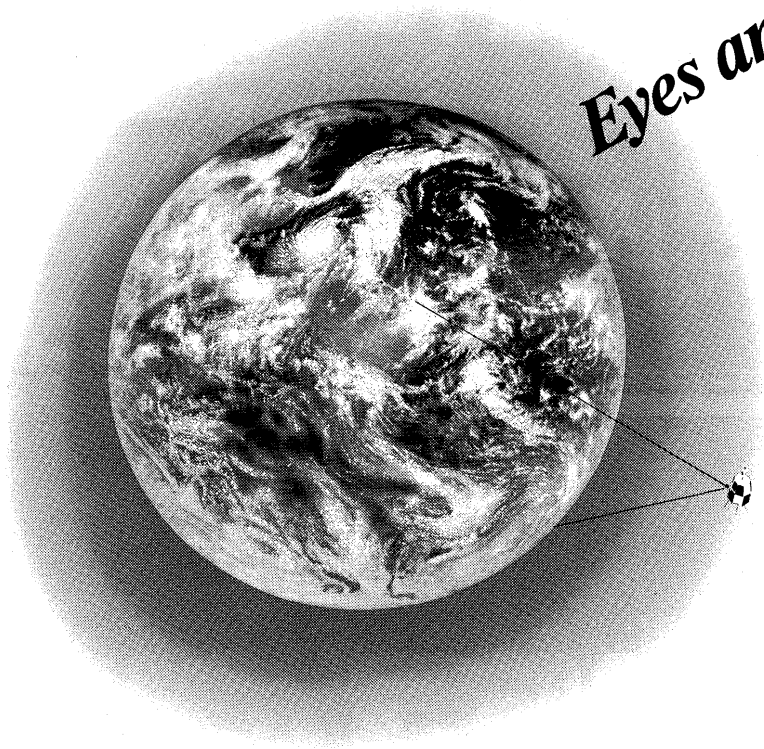
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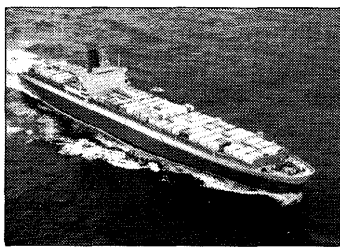
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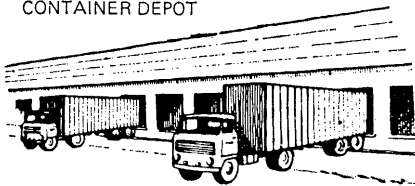
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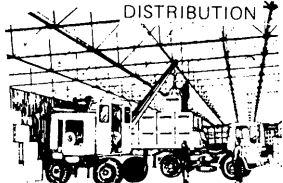
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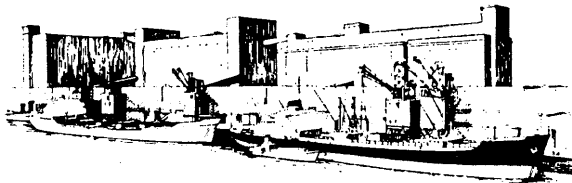


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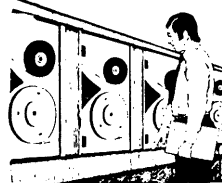
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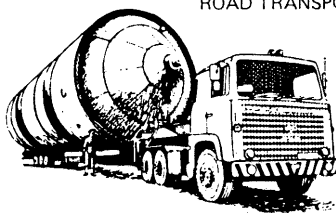
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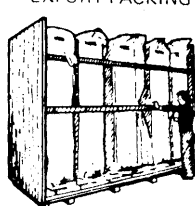
COMPUTER SERVICES



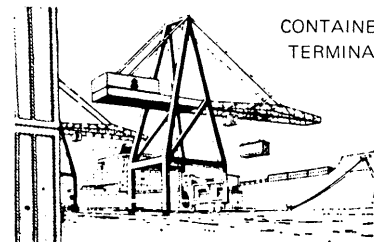
ROAD TRANSPORT



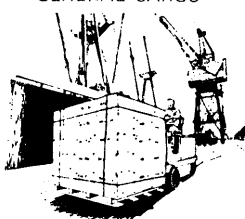
EXPORT PACKING



CONTAINER
TERMINAL



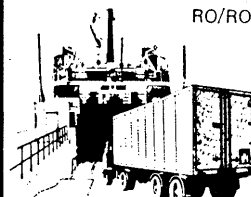
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PORTS *and* HARBORS

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The International Association of Ports and Harbors

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Non-Autonomous French Ports
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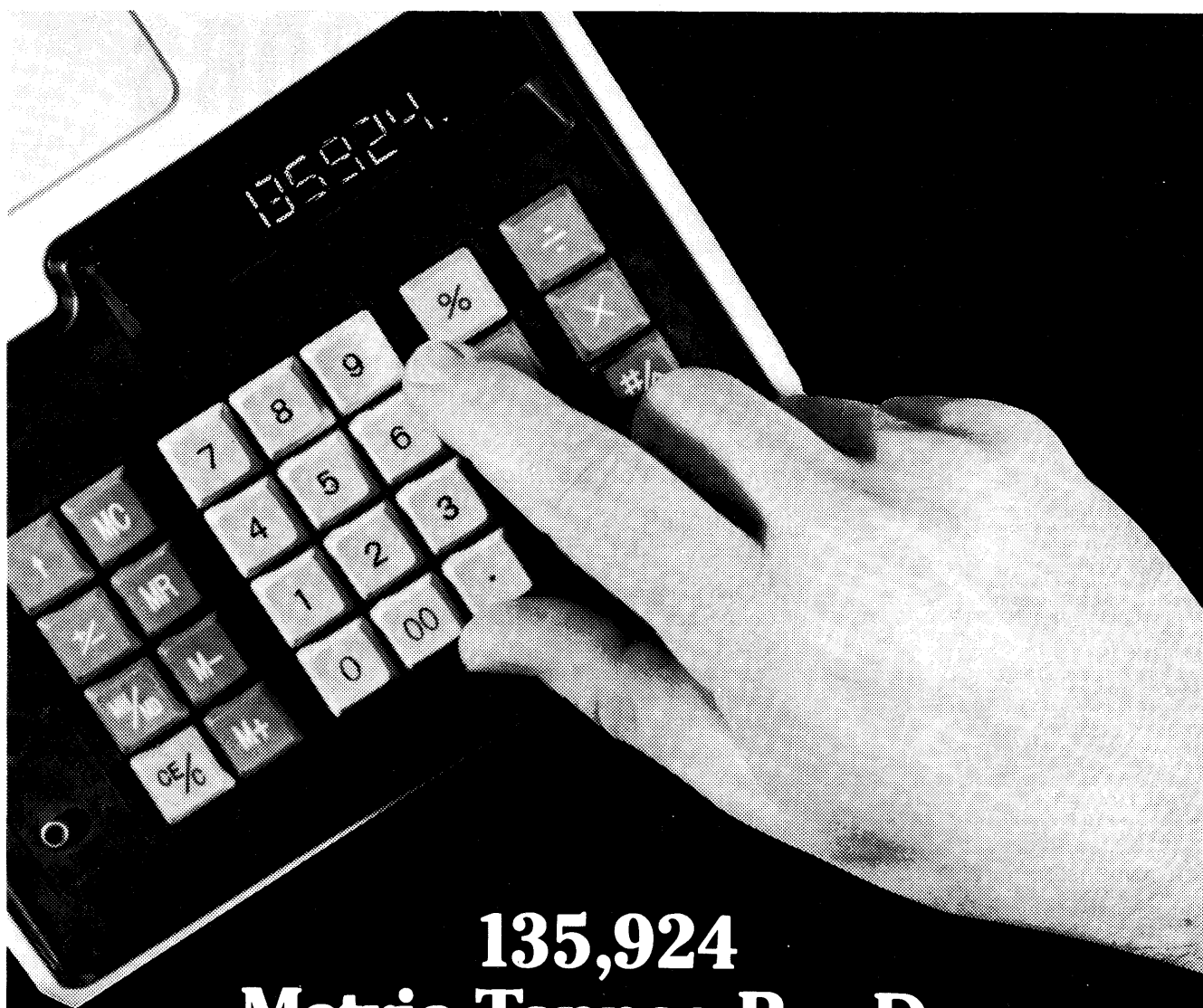
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The Cover: Busy time at Limassol port, Cyprus

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IAPH announcements and news

Conference Agenda to be finalized by the Board in April

In conformity with the By-Laws, the Board of Directors is to consider and decide the agenda of the 12th Conference and for this purpose Secretary General Hajime Sato sent a letter to Board members on March 30th requesting them to hold a meeting by correspondence which was set for April 30th, 1981.

The "provisional" agenda now being scrutinized by the Board is reproduced in this edition on page 8 for members' preliminary review.

Who will be our new Board Members ?

For the election of the Directors and Alternate Directors for the new 2-year term after the 12th Conference until the 13th Conference in 1983, Secretary General Sato circulated a letter to all members of the Board of Directors requesting them to take the necessary action and inform the Head Office by March 31st, 1981 of the result.

As of January 31, 1981, the Board of Directors is represented by 83 members including the President, four Vice-Presidents, one Director from each of 66 countries, two each from Australia and France (including one appointive member), three each from Canada (one appointive member) and Japan, and four from USA (one appointive member). The number of Directors is based on Section of the By-Laws which reads:

"... one elective Director from each country represented by not more than 10 regular members, 2 from each country represented by more than 10 and not more than 20 regular members, 3 from each country represented by more than 20 regular members ..."

Secretary General particularly urged those new member countries whose national Directors and Alternate Directors are not yet represented on the Board, to carry out their election, without fail, and send their names to the Secretariat so that their influence can be fully felt during the next term.

The Secretary General also advised that those who have been slow in informing the results of the elections should do so as soon as possible.

Credentials or Proxy are needed for the Nagoya Conference

As has been the case at previous conferences, and in conformity with the By-Laws, the Credentials Committee (a conference committee) shall have the power and duty to consider and determine the authority of a delegate to exercise his rights as a member at the Conference and also the authority of a person to act as a member of the Board of Directors. In view of this, members attending the conference are requested to complete the form of credentials from the Head Office and return it to the Head Office by April 30, 1981, or send or bring it to the Credentials Committee (c/o Organizing Committee of the 12th Conference, Nagoya Port Authority, 8-21, Irifune 1-chome,

Minato-ku, Nagoya 455, Japan, Tel. (052) 661-4111, Telex: 4463816 NPAJ), not later than the first day of the conference, May 25th.

The By-Laws also provide that regular members and members of the Board of Directors shall have the right to attend the Conference by proxy. Those applicable members are requested to complete the form of proxy and return it to the Head Office or to the Conference Organizing Committee by the above indicated deadlines.

Officers are to pay tribute to the Association Founding Fathers

The IAPH Officers when they met at Honolulu, November, 1979 to discuss the guidelines for the 12th Conference marking the 25th anniversary of the Association agreed, at the suggestion of Secretary General Emeritus Toru Akiyama, to hold memorial services for the late Mr. Gaku Matsumoto and the late Dr. Chujiro Haraguchi. These services will begin the series of commemorating events for the 25th anniversary of the Association.

The Head Office Secretariat began preparations for the event and by the time the Officers visited Tokyo for the preliminary talks on the Nagoya Conference last November, they were able to present all the details of this event which will take place as follows.

On the 21st May, President Bastard, Vice Presidents Mayne, Tozzoli, Tukur, Kohmura, Secretary General Sato, Secretary General Emeritus and the IAPH Foundation President Akiyama as well as Viscount Simon (who will deliver a commemorative address at the Silver Jubilee Ceremony at Nagoya) and their wives will visit the Gokokuji Temple in Tokyo where Mr. Matsumoto's cemetery is located. The service will follow Buddhist traditions and a stupa (Buddhist monument) will be erected with the following words engraved on the front of it.

*In Memory of
Mr. Gaku Matsumoto
Initiator and Founder
of
The International Association of Ports and Harbors
on the occasion of its Silver Jubilee Celebration,
with the highest Respect and deepest Appreciation,
we hereby dedicate this Monument*

Paul Bastard, President
*1st Vice-President A.S. Mayne, 2nd Vice-President A.J. Tozzoli,
3rd Vice-President B.M. Tukur, Honorary Vice-President F. Kohmura and
Secretary General Hajime Sato*
May 20th, 1981

After the service, the party will proceed to the Nippon Kaiun Kaikan Hall to join the memorial gathering and luncheon planned for people from maritime circles and the friends and the bereaved families of Mr. Matsumoto and Dr.

(Continued on next page bottom)

Provisional Agenda & Time Schedule of the 12th Conference

I. Agenda (Plenary Sessions)

OFFICIAL OPENING CEREMONY AND IAPH SILVER JUBILEE CEREMONY

(08:30/11:00, Monday, May 25, 1981)

- (Hall opens)
- (All delegates to take seats)
- (Dignitaries on the rostrum to take seats)
- 1: T.I.H. Prince and Princess Takamatsu arrive and take seats
- 2: National Anthem
- 3: Host President opens the Ceremony and introduces the Royal Guests
- 4: Address by H.I.H. Prince Takamatsu (Declaration of the Opening of the Conference)
- 5: Address by the Minister of Transport
- 6: Address by the Mayor of Nagoya City
- 7: Address by the Chairman of the "IAPH 12th Conference & the 25th Anniversary Promotion Council" (Mr. Yoshihiro Inayama, President, Japan Federation of Economic Organizations, Keidanren)
- 8: Introduction of Dignitaries by Conference Chairman
- 9: Introduction of Message from Friendly Organizations
- 10: Presentation of the Commemorative Stamps, by the Minister of Ports and Telecommunications
- 11: Presentation of the Commemorative Cigarettes by the President of Japan Tobacco Public Corporation
- 12: Address by the IAPH President
- 13: T.I.H. Prince and Princess Takamatsu leave (Delegates to stand-up) (Musical interlude to allow the re-arrangement of the rostrum)
(Officers and commendees take seats on the rostrum)
- 14: Address by the IAPH President to open the Silver Jubilee Ceremony

- 15: Commendation of Persons of Meritorious Service by the IAPH President
 - Introduction of the Commendees
 - Presentation of Scroll and Silver Medal of Honor
- 16: Reply of Thanks with Commemorative Address by Lord Simon
- 17: Presentation of a Donation to the IAPH Special Technical Assistance Fund from the IAPH Foundation commemorating the 25th Anniversary
 - Introduction
 - Presentation of the Donation by the President of the IAPH Foundation to the IAPH President
- 18: Expression of Thanks to the Main IAPH Foundation Fund Donors
 - Introduction by the IAPH President
 - Presentation of the Scrolls of Appreciation
- 19: Address by IAPH Secretary-General
- 20: Closing of the Silver Jubilee Ceremony (by a M.C.)
- 21: Announcement of Chairmen & Members of the Conference Committees
- 22: Closing Address by the IAPH President

FIRST PLENARY SESSION

(14:30/17:00, May 25, 1981)

- 1: Opening Address by IAPH President
- 2: Report by Chairman of Credentials Committee
- 3: Declaration of a quorum for the Conference by President
- 4: Report by Secretary-General on Association Affairs
- 5: On the Settlement of Accounts for 1979-1980
 - 1) Board Chairman's Report on the conclusion of the Joint Meeting and presentation of the approved Settlement of Accounts to the Plenary Session
 - 2) Recommendation by Chairman of Budget Committee
 - 3) Adoption
- 6: Report on the Association's finances and recommendations by Finance Committee Chairman (Ir. J. den Toom)
 - 1) Financial prospects and independence from the IAPH Foundation
 - 2) Necessary actions to be taken
- 7: Report by Board Chairman on the Board's resolution regarding the amendment of provisions pertinent to the collection of dues (Section 5)
- 8: On the IAPH/BPA Agreement on Representation
 - 1) Submission of the proposed Agreement by the Board Chairman
 - 2) Recommendation by the Resolutions & Bills Committee
 - 3) Adoption (To be signed later at a separate room)
- 9: On the Budget for 1981-1982
 - 1) Submission of the proposed budget for 1981-1982
 - 2) Explanation by Chairman of Finance Committee
 - 3) Recommendation by Chairman of Budget Committee
 - 4) Adoption
- 10: On the amendment of the Constitution and/or By-

(Continued from page 7)

Haraguchi.

Further, the Officers are to fly to Osaka Airport on the same afternoon and go on to Kobe where a similar memorial service for Dr. Haraguchi is scheduled for the following morning. The monument for Dr. Haraguchi will be erected in his cemetery and will be unveiled by Mrs. Haraguchi.

The memorial party will go to Nagoya by bullet train in the afternoon of May 22nd and commence their courtesy calls to the Governor of Aichi Prefecture, Mayor of Nagoya and President of Nagoya Chamber of Commerce and Industry before they start their tightly scheduled pre-conference affairs.

A slide presentation of the memorial services at Tokyo and Kobe is planned to be briefly introduced to the conference delegates just prior to the Silver Jubilee Ceremony.

Laws

- 1) Submission of the proposed amendments by Board Chairman
 - 2) Explanation of the proposed amendments by Chairman of Constitution and By-Laws Committee
 - 3) Recommendation
 - 4) Adoption
- 11: Reports by Chairmen of Internal Committees
- 1) Membership Committee
 - 2) Constitution and By-Laws Committee (if any)
- 12: Reports by Chairmen of Technical Committees
- 1) International Port Development
 - Introduction of the 1st Prize Winner of IAPH Award Scheme 1980
 - Presentation of a silver medal to the Winner by the President
 - 2) Large Ships
 - 3) Containerization, Barge Carriers and Ro-Ro Vessels
 - 4) Legal Protection of Port Interests
 - 5) Trade Facilitation
 - 6) Community Relations
- 13: Reports by IAPH Liaison Officers
- 1) Liaison Officer with IMCO
 - 2) Liaison Officer with UNCTAD
- 14: Report by Chairman of Ad Hoc Committee on Dredging (Mr. A.J. Tozzoli)
- 15: Report on the situation of International Inter-Port Information Centre (Mr. Dubois)
(Closing address by President)

SECOND PLENARY SESSION (Closing Session)

(14:00/16:00, May-29, 1981)

- 1: Address by the President
- 2: Report on the termination of the Agreement with the IAPH Foundation
- 3: Report and Recommendation by Chairman of Resolutions and Bills Committee
 - Adoption (if any)
- 4: Report of Chairman of Honorary Membership Committee
- 5: Election of Honorary Member/s to be followed by Presentation of Scroll by the President-Designate
- 6: Presentation of Thanks Resolutions, by Chairman of Resolutions and Bills Committee
 - Adoption
- 7: Report by Chairman of Nominating Committee on the proposed nominations of Officers (President and Vice-Presidents) for the next term
- 8: Election of President and Vice-Presidents
- 9: Change of Presidency
- 10: Address by the retiring President
- 11: Address by the new President
- 12: Presentation of gold badge to retiring President by new President
- 13: Announcement of Directors & Alternate Directors by new President
- 14: Announcement of Members of Executive Committee by new President
- 15: Announcement of Members of Internal & Technical Committee (ditto)
- 16: Announcement of the Place and Proposed Date of the 13th Conference by new President
- 17: Recommendation of the proposed resolution regarding the election of Honorary Vice-President by Chairman of Resolutions and Bills Committee

- Election of the Honorary Vice-President

- 18: Invitation Address by the Host of the 13th Conference
 - Presentation of film/slides
- 19: Declaration of the Closing of the Conference by Conference Chairman

II. Working Session

Themes of Working Sessions and Keynote Speakers

- No. 1 Working Session
 - Theme: International Port Cooperation
 - Keynote Speaker:
Mr. Arthur J. Carmichael, Ports and Aviation Adviser to the World Bank
- No. 2 Working Session
 - Theme: Port's Roles in the Regional Development
 - Keynote Speaker:
Mr. Makoto Yoshimura, Director-General, Bureau of Ports and Harbors, Ministry of Transport, Japan

Organization

The Working Session will consist of No. 1 Working Session, No. 2 Working Session and the Synthesis Session.

In No. 1 and No. 2 Working Sessions, the program of each session will be composed of "Keynote Speech", "Group Discussion" and "Report of the Discussion Results". In the Synthesis Session, the results of No. 1 and No. 2 Working Sessions will be put together and examined further. The final results will be announced at the 2nd Plenary Session as will be the conclusions of the 12th IAPH Conference, and necessary recommendations for action will also be made.

- Keynote Speeches
 - 08:30–09:15, May 26 and 27
 - No. 1 and No. 2 Working Sessions will each begin with a keynote speech.
 - Copies of the texts (or summaries) of the Keynote Speeches will be sent to those whose application forms are received by March 15, 1981. These will be used as advance material for participants.
- Group Discussions
 - 09:30–11:00, May 26 and 27
 - After the Keynote Speeches, all participants will divide into five groups for discussion.
 - Notes 1. Discussion will follow the set themes.
 - 2. Grouping of participants will not be based on language.
 - 3. The names of group leaders are listed on p. 10.
 - 4. At the time of registration, participants should specify a particular group. The applicant will mark off the corresponding space on the applications will be accepted on a first-come, first-served basis, but if necessary the Organizing Committee reserves the right to adjust the numbers in each group based on the capacity of each room.
- Report of the Discussion Results by Group Leaders
 - 11:15–12:15, May 26 and 27
 - After the group discussions, all participants will gather in the Session Hall (Nago) where the group leaders will report the discussion results and if time allows, further discussion may take place chaired by the Working Session chairman. If appropriate, the keynote speaker may also be

asked for advice.

- **Synthesis Session—General Assembly**

11:00–12:00, May 29

At the Synthesis Session the chairmen of No. 1 and No. 2 Working Sessions will present summaries of their sessions, followed by discussion from the floor. Based on this the IAPH President will then give an overall summary.

- These results will be announced at the 2nd Plenary Session (Closing Session), and if necessary appropriate action will be taken.

Schedule of The Working Session

No. 1 Working Session

- Tuesday, May 26

08:30–09:15 Keynote Speech (Nago): General Assembly

09:15–09:30 Break

09:30–11:00 Group Discussion (Ibuki)
(Ontake)
(Suzuka)
(Akebono-East)
(Akebono-West)

11:00–11:15 Coffee Break (Foyer)

11:15–12:15 Report of the Discussion Results by Group Leaders (Nago): General Assembly

No. 2 Working Session

- Wednesday, May 27

08:30–09:15 Keynote Speech (Nago): General Assembly

09:15–09:30 Break

09:30–11:00 Group Discussion (Ibuki)
(Ontake)
(Suzuka)
(Akebono-East)
(Akebono-West)

11:00–11:15 Coffee Break (Foyer)

11:15–12:15 Report of the Discussion Results by Group Leaders (Nago): General Assembly

Synthesis Session—General Assembly

- Friday, May 29 (Nago)

11:00–12:00 1. Presentation of Summary of each Working Session by respective chairmen

2. Open Discussion

3. General Synthesis by President

Allocation of Times and Rooms

- Tuesday, May 26

No. 1 Working Session (08:30–12:15)

- Wednesday, May 27

No. 2 Working Session (08:30–12:15)

- Friday, May 29

Synthesis Session (11:00–12:00)

Room: (Nago)

45 min.		90 min.		60 min.	
08:30	09:15	09:30	11:00	11:15	12:15
Keynote Speech	Break	Group Discussions	Coffee Break	Report of Discussion Results by Group Leaders	
Room: Nago		Ibuki Ontake Suzuka Akebono-East Akebono-West		Nago	

Chairmen and Group Leaders

- Chairmen's duties

— Conducting the Working Sessions and presenting summaries of their results.

- Group Leaders' duties

— Conducting group discussions.

— Reporting discussion results.

- List of Chairmen and Group Leaders

No. 1 Working Session

Chairman: Mr. W. Don Welch
Executive Director, South Carolina
State Ports Authority, U.S.A.

Group Leader:

Group A: Mr. Walter A. Abernathy
Executive Director, Port of Oakland
U.S.A.

Group B: Mr. Pierre Debayles
General Director, Port Autonome de
Bordeaux, France

Group C: Mr. R.T. Lorimer
General Manager, Auckland Harbour
Board, New Zealand

Group D: Mr. Yukio Torii
Director-General, Port and Harbor
Bureau, Kobe City Government, Japan

Group E: Mr. Alhaji B.M. Tukur
General Manager, Nigerian Ports Au-
thority, Nigeria

No. 2 Working Session

Chairman: Mr. J.P. Davidson
Chairman, Clyde Port Authority, U.K.

Group Leaders:

Group A: Mr. Eigil Andersen
General Manager, Port of Copenhagen
Authority, Denmark

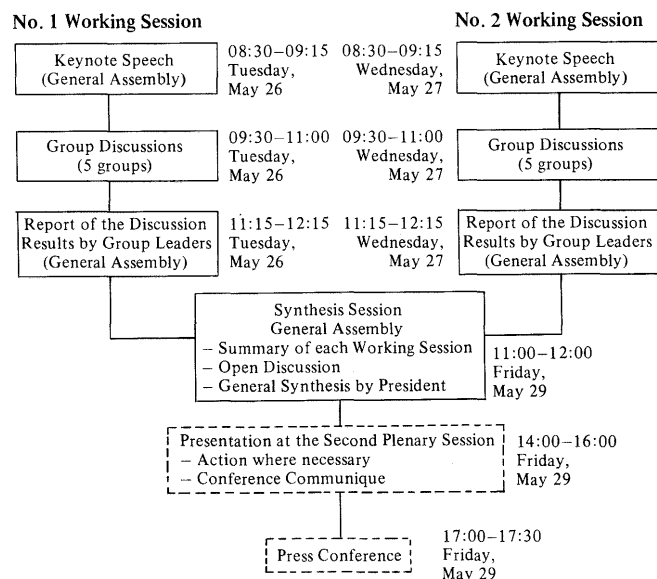
Group B: Ir. H. Molenaar
Managing Director, Rotterdam Municipal
Port Management, The Netherlands

Group C: Mr. Michel Pechere
Managing Director, Port Autonome de
Dunkerque, France

Group D: Mr. F.J.N. Spoke
General Manager, Port of Vancouver,
National Harbours Board, Canada

Group E: Mr. F.M. Wilson
General Manager, Port of Brisbane Au-
thority, Australia

Organization and Flow Chart of Working Sessions



III. Open Symposia (or Open Discussion) of Technical Committees

The work of the Technical Committees is the core of IAPH activities, and although the results of the past two years' work will be reported by the Committee Chairmen at the First Plenary Session, it seems essential to take this opportunity to invite the participation of the membership in general to discuss and give necessary guidance on the future activities of these Committees, so that they might be more productive in each Committee field in the future.

The following six meetings are scheduled:

- Tuesday, May 26, 14:15-15:45
 - Committee on International Port Development chaired by Mr. J.K. Stuart (Ibuki)
 - Committee on Large Ships chaired by Mr. J.M. Wallace (Nago-East)
 - Committee on Containerization, Barge Carriers and Ro-Ro Vessels chaired by Mr. R.T. Lorimer (Nago-West)
 - Committee on Legal Protection of Port Interests chaired by Mr. Andre Pages (Ontake)
 - Committee on Community Relations chaired by Mr. J. Bax (Suzuka)
- Wednesday, May 27, 14:00-16:00
 - Committee on Trade Facilitation chaired by Mr. Robert L.M. Vleugels (Nago-East)

IV. Bull Session—Free Talking with Experts

The Bull Session—Free talking with experts is a new departure for an IAPH Conference. The aim is to find concrete solutions to particular problems facing individual ports, and at the same time to form closer ties of friendship among member ports.

The Bull Session will be conducted in a completely free and relaxed atmosphere, with drinks provided participants may come and go freely, whether or not they wish to seek advice or discuss a particular matter. The session will thus afford an opportunity for friendly international exchange of expert knowledge.

No record will be taken of the contents of the Bull Session.

Date and Time

- Tuesday, May 26, 16:00-17:30

Place

- Akebono

Proposed Groups

- Administration and Management
- Engineering
- Operations
- Financing

Invited Experts

Administration and Management

- Mr. Edward S. Reed*
Executive Port Director, Board of Commissioners of the Port of New Orleans, U.S.A.
- Mr. R.O. Ajayi
Associate Member of IAPH, Lagos, Nigeria
- Mr. R.W. Carr
Chairman, Auckland Harbour Board, New Zealand
- Dr. Ernest L. Perry
Executive Director, Port of Los Angeles, U.S.A.
- Mr. Jean Smagghe
General Manager, Port Autonome de Nantes-St. Nazaire, France
- Mr. Wong Hung Khim
General Manager, Port of Singapore Authority, Singapore

Engineering

- Mr. J.M. Wallace*
President, The Maritime Services Board of N.S.W., Australia
- Mr. J. Dubois
General Manager, Port Autonome du Havre, France
- Mr. Kazuo Kudo
Director General, The Third District Construction Bureau, Ministry of Transport, Japan
- Mr. Richard P. Leach
Executive Director, Port of Houston, U.S.A.
- Mr. H.A. Mann
Associate Member of IAPH, Vancouver, Canada
- Mr. Gordon C. Moulard
General Manager, Port of Saint John N.B., National Harbours Board, Canada
- Mr. Th. F.M. Taen
Associate Member of IAPH, Nijmegen, The Netherlands

Operations

- Dr. Karl-Ludwig Mönkemeier*
Director, Port of Hamburg, Federal Rep. of Germany
- Mr. Richard D. Ford
Executive Director, Port of Seattle, U.S.A.
- Mr. R.N. Hayes
General Manager, Dublin Port and Docks Board, Ireland
- Mr. Hirochika Kobayashi
Director-General, Port and Harbor Bureau, City of Yokohama, Japan
- Mr. R.T. Lorimer
General Manager, Auckland Harbour Board, New Zealand
- Mr. Claude Mandray
General Manager, Port of Rouen Authority, France

Mr. Chr. van Krimpen
Deputy Managing Director, Rotterdam Municipal Port
Management, The Netherlands

Financing

Mr. F.J.N. Spoke*
General Manager, Port of Vancouver, National Harbours
Board, Canada
Mr. Arthur J. Carmichael
Ports and Aviation Adviser to the World Bank
Mr. A.G. Field
Chairman, Townsville Harbour Board, Australia
Mr. J.D. Presland
Executive Vice-Chairman, The Port of London Authori-
ty, U.K.
Mr. Nobuji Shimada
Director, Bureau of Port and Harbor, Tokyo Metropolitan
Government, Japan

* Coordinator

V. Paper Presentation

(08:45/10:45, May 29, 1981)

The following three papers were chosen by the Organiz-
ing Committee for the 12th Conference for presentation at
Nagoya by the respective authors.

1. "Legal Rights and Duties of Port Authority in relation
to the Customers"—by Kurt Grönfors, Professor of
Maritime Laws, The University of Gothenburg, Sweden
2. "A Case Study of the Need for the Establishment of a
Ports Authority"—by Loh Heng-Kee, Director-General,
Ports Authority of Fiji, Fiji
3. "A Broad-Based Impact Analysis of a Port using an Inter-
regional Input-Output System and a Logit Model of
Interregional Trade Patterns"
— by Fujio Okazaki, Professor, Meiji Gakuin University,
Japan

The session will be opened by the Conference Chairman
and each author will be allocated 20 minutes for presenta-
tion of the paper and 17 minutes for questions from the
floor. A moderator for the session will be appointed.

VI. Ceremonies

IAPH Silver Jubilee Events

The 12th Conference in Nagoya coincides with the 25th
anniversary of the founding of IAPH and the following
functions are planned.

- The 25th Anniversary Ceremony

This ceremony follows immediately after the opening
ceremony of the 12th Conference on Monday, May 25,
1981.

The program will include:

- Commendation of persons for meritorious services

The individuals who rendered meritorious services
to the Association especially at its crucial stages will
be commended.

- Address by Viscount Simon

After the commendation ceremony, Viscount
Simon, an IAPH Past President (May 1965–May
1967), will deliver a commemorative address as guest
speaker.

- The 25th Anniversary Luncheon

On Monday, May 25, 1981, right after the ceremony,
IAPH Silver Jubilee Luncheon will be held.

- The 25th Anniversary Commemorating Publication

It is planned to publish a book on "History of IAPH"

recording the major events and the course of its develop-
ment over 25 years to be distributed to all participants and
members in general.

Tree Planting in Commemoration of Nagoya Port Authority's 30th Anniversary

As the 12th IAPH Conference will coincide with the
30th anniversary of the Nagoya Port Authority, the oc-
casion will be commemorated by a tree planting ceremony.

The Nagoya Port Authority is creating Garden Pier with
various species of trees native to different harbor areas
around the world, both to give the harbor more appeal to
the general public and to give visitors an impression of
world harbors at first hand.

In commemoration of the 30th Anniversary of the
Nagoya Port Authority, we intend to ask IAPH Officers and
Executive Committee Members, on behalf of all Conference
participants, to plant trees representing different harbors of
the world.

Date and Time: Thursday, May 28, 15:00–16:00

Place: Garden Pier, Port of Nagoya

VII. Observation Tour

Date

- Thursday, May 28

Place

- Toyota Motor Plants

Toyota Motor Plants are located about 30 km away
from the Port of Nagoya. Toyota is one of the ten highest
ranking car makers in the world. Toyota cars are listed as
a major export commodity of Japan and are shipped world-
wide through Nagoya Port.

- Nagoya Port

Observation of facilities of the Nagoya Port by boat.

Schedule

- 07:30— Buses depart for TOYOTA
- 10:00–13:30 Observation of Toyota Motor Plant and
Lunch
- 13:30— Buses depart for Nagoya Port
- 15:00–16:00 Tree planting in commemoration of the
Nagoya Port Authority's 30th Anniver-
say
- 16:00–16:30 Log-rolling*
- 16:30–18:30 Port Observation
- 18:30–21:00 JAPAN NIGHT—Pier-Head Reception at
Kinjo Pier
- 21:00 Buses leave for hotels

* Log-rolling

Introduction of traditional log-rolling on timber and
lumber by raftmen. This is designated by Nagoya City as
one of its most important cultural properties.

- Ladies are also invited to participate in this tour.

VIII. Receptions

SATURDAY, MAY 23

- 17:30–18:30

* Cocktails offered by the Exhibitors (Nago-East)

SUNDAY, MAY 24

- 18:00–19:00

* Cocktail Reception by the Secretary General of
the IAPH (Nago)

MONDAY, May 25

- 11:30–14:00

- * IAPH Silver Jubilee Cocktails (Akebono) and Luncheon with Speech (Nago)

● 19:00–21:00

- * Welcome Reception by the Host (Nago)

TUESDAY, MAY 26

● 12:30–14:00

Luncheon with Speech (Akebono)

WEDNESDAY, MAY 27

● 12:30–13:30

Lunch (Akebono)

THURSDAY, MAY 28

● 12:30–13:30

- * Lunch offered by Toyota Motor Co., Ltd. in Toyota City

● 18:30–21:00

- * JAPAN NIGHT—Pier-Head Reception at Nagoya International Exhibition Hall at Kinjo Pier by the Host.

FRIDAY, MAY 29

● 12:15–13:30

Luncheon with Speech (Akebono)

● 18:30–21:00

- * Farewell Dinner-Dance (Nago)
- * Joint function of delegates and ladies

IX. Ladies' Program

All accompanying ladies are cordially invited to attend the following programs:

Noritake and Nagoya Castle

- Date: Monday, May 25
- Time: 14:00–17:30

This tour by bus will include a visit to Noritake's chinaware factory where a demonstration of drawing designs on plates will be given. Nagoya Castle, famous for its gold-sheathed rooftop "Shachi" (imaginary fabulous cetacean) will also be visited.

Pearl Island and Ise Grand Shrine Full-Day Excursion

- Date: Tuesday, May 26
- Time: 07:50–18:10

Taking the Kintetsu Railways to Toba, you can enjoy the fascinating rural scenery. In Toba, there is a visit to the well-known Mikimoto Pearl Island, the "home" of cultured pearls and women pearl divers.

The afternoon consists of a drive to Ise to visit the most sacred Ise Shinto Shrine with its collection of ancient

Japanese-style structures. Then back to Nagoya by train. Lunch is included.

Forestry Center and Ceramics Museum

- Date: Wednesday, May 27
- Time: 10:00–16:00

Drive to eastern suburb of Nagoya City. Driving along "Green Road", arrive at the Aichi Prefectural Forestry Center. At the Center, strolling on the path of beautiful flowers and trees, you will appreciate the grace of a Japanese garden with an harbour.

Drive for 20 minutes from the Center and visit the Aichi Prefectural Ceramics Museum.

The Aichi Prefectural Ceramics Museum: Aichi has been producing artistic and good quality ceramic wares since ancient times. The collection includes a wide variety of wares, new and old, extending the whole length of Japanese history, plus, Chinese and other foreign items together with ancient records related thereof.

Demonstration of 'Mock' Wedding Ceremony and Japanese Cultural Art (you can try-it-yourself)

- Date: Friday, May 29
- Time: 09:00–13:30

Passing by Atsuta Shrine, one of the oldest shrines in Japan, you drive to Nagoya Harbor Hall, a public welfare center for port related people owned by the Nagoya Port Authority. At the Harbor Hall, the following attractions will be presented.

— Demonstration of a mock wedding ceremony

The sight of the dressing up of a bride in gorgeous Japanese attire will be fascinating to all.

— Japanese cultural art (try-it-yourself)

You can appreciate it in a "try-it-yourself" manner. Traditional flower arrangement and tea ceremony are included in the program.

Flower Arrangement: Ikebana, the art of flower arrangement, was first conceived and developed by Buddhist priests in Japan during the 13th century. Today, it is employed as an effective means of beautifying the home.

Tea Ceremony: Chanoyu is one of the Japanese traditional arts that fascinates visitors from overseas. Although some may think the English are the world champion tea drinkers, the Japanese take it one step further. They make a ceremony of tea drinking.

Daily Program of the 12th Conference

FRIDAY, MAY 22

(Name of Rooms)

13:00–17:00 ● Registration

14:20–17:00 ● Courtesy Call by IAPH Officers on the Governor of Aichi Prefecture, the Mayor of Nagoya City and the President on Nagoya Chamber of Commerce and Industry

SATURDAY, MAY 23

08:00–17:00 ● Registration

- 09:00–12:00 ● Finance Committee (Suzuka)
- Committee on Legal Protection of Port Interests (Ibuki)
- Committee on Trade Facilitation (Ontake)
- 14:00–16:00 ● Constitution and By-Laws Committee (Ontake)
- Committee on Community Relations (Ibuki)
- Committee on Containerization, Barge

- 16:00–17:00 • Carriers and Ro-Ro Vessels (Suzuka)
- Nominating Committee (Ontake)
- Budget Committee (Suzuka)
- 17:00–17:30 • Opening of Exhibition (Foyer-Katsura)
- 17:00–19:00 • Exhibition (Katsura)
- 17:30–18:30 • Cocktails offered by the Exhibitors (Nago-East)

SUNDAY, MAY 24

- 08:00–18:00 • Registration
- 09:00–17:00 • Exhibition (Katsura)
- 09:00–11:00 • Membership Committee (Suzuka)
- Committee on International Port Development (Ibuki)
- Committee on Large Ships (Ontake)
- 11:00–12:00 • Resolutions and Bills Committee (Ontake)
- Credentials Committee (Suzuka)
- Ad Hoc Committee on Dredging (Tachibana)
- 14:00–16:30 • Pre-Conference Joint Meeting of Board of Directors and Executive Committee (Akebono-East)
- 18:00–19:00 • Cocktail Reception by IAPH Secretary General (Nago)

MONDAY, MAY 25

- 07:30–13:00 • Registration
- 09:00–17:00 • Exhibition (Katsura)
- 08:00–08:15 • Resolutions & Bills Committee (Ontake)
- 08:30–11:00 • Official Opening Ceremony and IAPH Silver Jubilee Ceremony (Nago)
- 11:30–12:15 • IAPH Silver Jubilee Cocktails (Akebono)
- 12:30–14:00 • IAPH Silver Jubilee Luncheon with Speech (Nago)
- 14:30–17:00 • First Plenary Session (Akebono)
- 17:00–17:30 • Signing Ceremony of the Separation of the Association from the IAPH Foundation
- 17:00–18:00 • Meeting of Chairmen and Group Leaders of Working Sessions (Ontake)
- 19:00–21:00 • Welcome Reception (Nago)

TUESDAY, MAY 26

- 09:00–17:00 • Exhibition (Katsura)
- 08:30–12:15 • No. 1 Working Session
 - 08:30–09:15 Keynote Speech (Nago)
 - 09:15–09:30 Break
 - 09:30–11:00 Group Discussion (Ibuki) (Ontake) (Suzuka) (Akebono-East) (Akebono-West)
 - 11:00–11:15 Coffee Break (Foyer)
 - 11:15–12:15 Report of the Discussion Results by Group Leaders (Nago)
- 12:30–14:00 • Luncheon with Speech (Akebono)
- 14:15–15:45 • Open Symposia of Technical Committees
 - Committee on International Port Development (Ibuki)
 - Committee on Large Ships (Nago-East)
 - Committee on Containerization, Barge

- Carriers and Ro-Ro Vessels (Nago-West)
- Committee on Legal Protection of Port Interests (Ontake)
- Committee on Community Relations (Suzuka)
- 16:00–17:30 • Bull Session—Free Talking with Experts (Akebono)

WEDNESDAY, MAY 27

- 09:00–17:00 • Exhibition (Katsura)
- 08:30–12:15 • No. 2 Working Session
 - 08:30–09:15 Keynote Speech (Nago)
 - 09:15–09:30 Break
 - 09:30–11:00 Group Discussion (Ibuki) (Ontake) (Suzuka) (Akebono-East) (Akebono-West)
 - 11:00–11:15 Coffee Break (Foyer)
 - 11:15–12:15 Report of the Discussion Results by Group Leaders (Nago)
- 12:30–13:30 • Lunch (Akebono)
- 14:00–16:00 • Open Symposium of Technical Committee
 - Committee on Trade Facilitation (Nago-East)
- 16:00–16:30 • Resolutions and Bills Committee (Ontake)
- Honorary Membership Committee (Suzuka)
- 16:30–17:30 • Meeting by Chairmen and Group Leaders of Working Sessions to prepare for the Synthesis Session (at 11:00, May 29th) (Ontake)

THURSDAY, MAY 28

- 09:00–17:00 • Exhibition (Katsura)
- 07:30– • Departure by bus for a visit to Toyota Motor Co., Ltd.
- 10:00–13:30 • At Toyota
 - Observation of Assembly Plants
 - Film Presentation
 - Lunch offered by Toyota Motor Co., Ltd.
- 13:30– • Departure for the Port of Nagoya
- 15:00–16:00 • Tree Planting in Commemoration of Nagoya Port Authority's 30th Anniversary at Garden Pier
- 16:00–16:30 • "Log-Rolling"
- 16:30–18:30 • Observation of the Port
- 18:30–21:00 • JAPAN NIGHT—Pier-Head Reception at Kinjo Pier (Nagoya International Exhibition Hall)
- 21:00– • Departure by bus for hotels

FRIDAY, MAY 29

- 09:00–14:00 • Exhibition (Katsura)
- 08:00–08:45 • Resolutions and Bills Committee (Ontake)
- 08:45–10:45 • Paper Presentation (Nago)
- 11:00–12:00 • Synthesis Session—General Assembly (Nago)

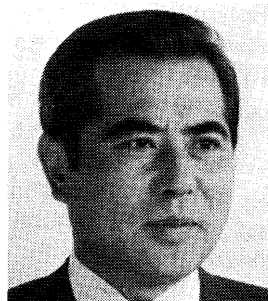
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We look forward to seeing you in Nagoya

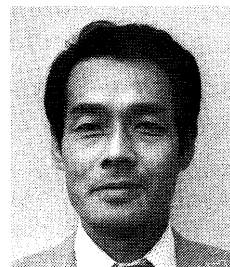
This page is particularly dedicated to introduce to you the Staff Members of the Organizing Committee so that all delegates will get acquainted with these lady and gentlemen who will serve you while you are in Nagoya.
(Head Office)



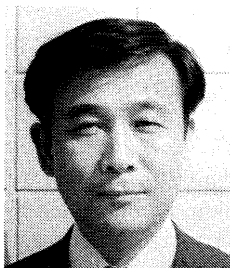
Mr. Kiyoshi Ito
Chief



Mr. Toyoaki Hirayama
Deputy Chief



Mr. Matsuo Ito
General Coordination



Mr. Masahiko Kato
Conference
Coordination



Mr. Hideo Tomita
Conference
Coordination



Mr. Mitsunobu Hibino
Program and
Management



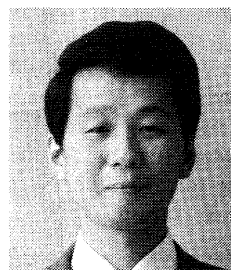
Mr. Toshio Kondo
Accounting and
General Affairs



Mr. Shizuho Iyoda
Registration,
Accommodation and
Transportation



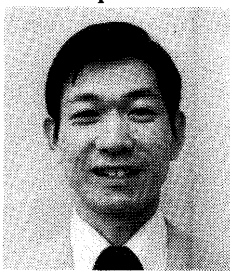
Mr. Toshio Matsunami
Accounting and
General Affairs



Mr. Fusao Ohe
Program and
Arrangement



Mr. Tsuneyoshi Nakamura
Registration, Accommoda-
tion and Transportation



Mr. Atsushi Uwai
Equipment and
Exhibition



Mr. Shigeo Toba
Registration-Electronic
Data Processing



Mrs. Wakana Osawa
Ladies' Program



Mr. Shigeo Ogura
Translation

- Presentation of Synthesis by Chairman of each Working Session
- Open Discussion
- General Synthesis by President
- 12:15—13:30 • Luncheon with Speech (Akebono)
- 14:00—16:00 • Second Plenary Session (Closing Session) (Nago)
- 17:00—17:30 • Press Conference (Akebono-East)
- 18:30—21:00 • Farewell Dinner-Dance (Nago)

SATURDAY, MAY 30

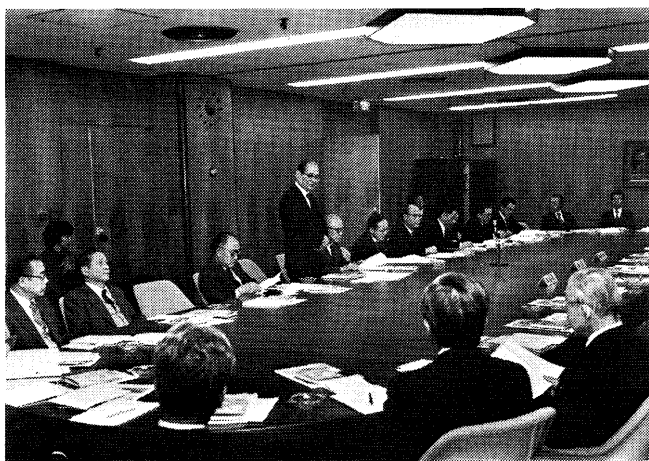
- 09:00—12:00 • Post Conference Joint Meeting of the Board of Directors and Executive Committee to be followed by Executive Committee Meeting (Akebono-East)
- 14:30— • Departure for Post Conference Tour

The Promotion Council for Nagoya Conference met in Tokyo

On February 26, 1981, at Keidanren Building, Tokyo, the second meeting of the "IAPH 12th Conference & 25th Anniversary Promotion Council" was held, under the chairmanship of Mr. Yoshihiro Inayama, President of the Federation of Economic Organizations, Japan, and was attended by the representatives of the various interested business societies.

Mr. Yoshiaki Nakaya, Governor of Aichi Prefecture, President of Nagoya Port Authority & Conference Organizing Committee, reported that thanks to the good cooperation of all concerned, governmental, public and commercial, the preparatory works for the Conference were advancing step by step, and that the Japanese Government's Cabinet confirmed that the relevant ministries would render necessary facilitation to the Conference in the light of significance of the 12th IAPH Conference, at its meeting held on February 17, 1981. He further reported that some 215 delegates had already registered with the Nagoya Conference.

Mr. Toru Akiyama, IAPH Secretary-General Emeritus and President of IAPH Foundation, expressed his thanks to the Council for all the facilitation and cooperation given so far to the holding of the Conference. He further pointed out the importance and significance of the roles to be played by the Association and asked for the Council's continued support and cooperation towards the Nagoya Conference, and the activity of the Association.



Mr. Toru Akiyama, standing, asks for the Council's continued support and cooperation.



The Council Officers, from left, Messrs. Nishida (for Advisor Yoshimura), Chairman Inayama, Vice-Chairmen Hanamura and Arita.

IAPH co-sponsors Marintec Asia 81 Seminars

IAPH jointly with UNESCAP, ICHICA, FASA (Federation of ASEAN Shipowners) and SASAR (Singapore Association of Shipbuilders and Repairs) sponsored 3 seminars organized by "Dredging & Port Construction" magazine, UK.

The 3 seminars conducted in the Conference Rooms of Hyatte Hotel from March 2nd through 6th consisted of "Shipcare", "Regional Shipping" and "Seatec" and Marine Exhibition which was held at World Trade Center, Singapore.

IAPH was represented by Mr. Rinnosuke Kondoh, Under

(Continued on page 20)

Visitors

— On February 5, Mr. Fernando Manfredo, Jr., Dy. Administrator of Panama Canal Commission, accompanied by Mr. Richard O. Burgoon, Dy. Chief Financial Officer, and Mr. Ronald E. Angermuller, Director of Admeasurement of the Commission, and Mr. Leonard J. Kujawa of Arthur Andersen & Company, visited the Head Office and met Dr. Sato and his staff members. The party, for the purposes of discussing matters relative to the application of the Int'l Convention of Tonnage Measurement of Ships (1969) and the toll system of the Canal met with the various shipping interests of Japan and other maritime countries in the region. Mr. Manfredo, during his stay in Japan, visited the Ministry of Transport, the Japanese Shipowners' Association.

(Continued on page 20 left bottom)

Membership Notes

New Members

Associate Member

Pacific Consultants International (Class A)

8-2, Jingumae 2-chome, Shibuya-ku, Tokyo 150, Japan
Office Phone: 03 (404) -1111
Telex: J26832
Cable: CONSPAC TOKYO
(Mr. Yasuo Kawano, President)

Temporary Member

Marine Transport Authority

P.O. Box 1861, Addis Ababa, Ethiopia
Office Phone: 15 90 66
Telex: MARTRANS ADDIS 21280
Cable: MARINE - ADDIS
(Commander Zeleke Bogale, General)

Open forum: Port releases:

Panama Canal: Future Outlook and Toll Systems

by **Fernando Manfredo, Jr.,**
Deputy Administrator, Panama Canal
Commission

New Commission

On October 1, 1979, a new organization called the Panama Canal Commission was established. This organization replaced the so-called Panama Canal Company and Canal Zone Government which were dissolved as a result of the treaties negotiated between the United States and the Republic of Panama.

The Canal Zone Government performed many governmental functions which under the treaty, the Commission cannot perform. For example, the major Health Bureau function—the hospitals and veterinary clinics—were transferred to the military forces. Some Civil Affairs Bureau functions—the school system and the postal system—also went to the military. On the Company side, the commissary and retail store functions for U.S. citizens were transferred from the Supply and Community Service Bureau to the military. Some of the functions which were transferred to the military, such as education and health services, will remain available to U.S. citizen employees of the Commission for the life of the Treaty. Others, such as commissary and retail sales and postal services, will cease on September 30, 1984.

A number of Canal Zone Government functions were assumed by Panama—either totally, such as customs, immigration, and responsibility for licensing—or on a shared basis with the Commission, such as the police and court functions until March 31, 1982, and the fire protection function for the duration of the Treaty. On the Company side, the major functions of the Transportation and Terminals Bureau were transferred to Panama. This included the Panama Railroad, the terminals and ports activities, and the marine bunkering function. Other functions assumed by Panama on October 1 included public services in Canal areas, specifically street maintenance and lighting, street cleaning, traffic management, and garbage collection.

This major reassignment of functions naturally brought about a requirement for a new organizational structure for the new Agency. Ongoing functions had to be grouped logically, but at the same time it was desirable that the adverse impact of treaty implementation on people should be kept as low as possible.

The full-time permanent work force in the Panama Canal Company and Canal Zone Government in January 1979 was approximately 13,000. Between that time and October 1, the number of employees separated by reduction in force was 460, and about 2,300 other employees were transferred with their functions to the military forces. About 960 employees resigned their employment and another 1,280



Mr. Fernando Manfredo, Jr.

retired. Of those who resigned or were separated, at least 760 were hired by the Government of Panama to work in transferred activities, such as ports and railroad. All of these actions reduced the Panama Canal full-time permanent work force on October 1, 1979, to about 8,000 employees, of which approximately 2,100 were U.S. citizens and 5,900 were Panamanians and third country nationals.

First Year of Operations

During the Commission's first year of existence, the cooperation between the two nations was put to a test as there was need to resolve many difficult issues, the most important of which was a significant increase in traffic.

Transits by oceangoing vessels during fiscal year 1980 rose 4.3 percent from prior year levels, reaching 13,614. More importantly, the average size of these vessels was a record 13,450 P.C. net tons, a gain of 4.3 percent from the average 12,898 P.C. net tons per oceangoing transit in fiscal year 1979. As a result of the sharp increases in both the number and size of transiting vessels, total Panama Canal net tons and the corresponding tolls revenue reached record levels. P.C. net tonnage at 183.2 million tons was 8.7 percent above 1979 levels and tolls revenue, including the 29.3 percent toll rate increase effective October 1, 1979, rose 40 percent.

The high number of vessels arriving for transit and the record number of large ships since mid-FY 1980 strained the capacity of the Canal. The problem became particularly acute during September and at the outset of fiscal year 1981 (October 1, 1980), 98 vessels were in Canal waters awaiting transit. Typically, a backlog of about 25 vessels is considered normal for Canal operations.

This situation clearly pointed out for the need to do something to increase capacity not only for the short run but to be prepared for the far future.

Current and Short-term Improvements

The Commission mobilized its resources to improve capacity via operational and capital improvements. The operational improvements could be implemented immediately and require little or no capital outlays. They, how-

ver, could increase capacity by small increments. The capital improvements would require large capital outlays and by their very nature a large lead time would be required but capacity could be increased significantly.

The Commission began work and identified five operational improvements that could be implemented immediately to face the large traffic. These were a) improve locomotive operation and track maintenance, b) reach agreement with pilots to increase availability, c) test and evaluate a reservation system, d) study relaxation of transit rules and e) study alternative scheduling modes.

Locomotives is what makes the transit possible. The Panama Canal Company had a total of 65 locomotives spread between the Miraflores, Pedro Miguel and Gatun Locks. But it became apparent that this number was insufficient to provide for an adequate maintenance program and that frequent breakdowns were reducing capacity. A series of operational measures were undertaken to alleviate the problem. The locomotive return speed was reduced from 9 to 6 mph to decrease deterioration of locomotive and track; the maintenance capability was augmented by adding a night shift, by accelerating overhaul program, by creating two temporary foreman positions to improve supervision of maintenance activities, and by converting temporary track maintenance gang to permanent. Finally, a maintenance and replacement program for all elements of the locomotive track system was established.

On December 5, 1980, an agreement was signed with the pilot association that would go into effect January 4, 1981. The essence of the agreement was to increase compensation to pilots in return for increase availability and productivity. Bonuses were provided for pilots performing more assignments, for those performing harbor piloting jobs, and for those piloting large vessels during darkness. The latter was made possible by the installation of high mast lighting. It is estimated that the additional compensation to pilots will amount somewhere between \$3 to \$4 million per year but the additional capacity that will be generated is well worth it.

A test of a reservation system began December 29, 1980, with the purpose of improving Canal efficiency while giving preference to vessels making regular and frequent use of the Canal on fixed schedules but without discriminating against any class of vessel. Hopefully, some degree of leveling will be achieved in the, up to now, random levels of arrivals that will permit the Commission to improve the quality of service provided to shippers. Whether the expected savings in fuel consumption and reductions in the time spent in Canal waters time will materialize will be determined at the end of the 9-week test currently underway.

As a final measure to increase capacity, the newly created Commission considered the impact that relaxation of transit rules and modification of scheduling modes would have on capacity. The transit rules which are designed to minimize the risk of accidents were critically examined. Slight and drastic relaxation of these rules were correlated with capacity. No doubt capacity can be increased as much as six vessels per day if the Commission is willing to assume higher risks. This tool remains in the arsenal of possibilities to be applied in emergencies or unusual circumstances. The same applies to alternate scheduling modes. Convoy and one-way traffic, as opposed to the current two-way traffic, may increase capacity and safety but offer possibilities only in those cases where large and sustained unbalances of northbound traffic or south-

bound traffic exists.

In addition to the aforementioned operational improvements undertaken by the Commission during its first year, the Commission took a critical and analytical view to the capital improvement program. In this respect, a decision was made to accelerate short-term capital improvement program, and to update the Canal Improvement Steering Committee (CISC) program for long and short-range capital investments.

A short-term capital improvement program was designed to increase capacity from the current 37 vessels per day to 42 vessels per day. During the first phase which would raise capacity by two vessels, there would be a need to procure 10 additional locomotives, one additional tugboat, and improve lighting at Gatun. Capacity would be increased by one more vessel per day during the second phase by improving the lighting in Pedro Miguel and procuring two additional tugboats. The short-range improvement program would conclude in Phase III with the installation of a tie-up station north of Pedro Miguel Locks and with the procurement of one more tugboat. Two more vessels will be able to transit each day after Phase III is completed.

The total short-run Canal improvement program amounts to \$57.1 million. To obtain the finances required the Commission requested and obtained a supplemental appropriation of \$10.2 million and also redistributed some of the funds programmed to non-capacity related projects to the procurement of three of the locomotives scheduled for Phase I.

With the aforementioned short-range capital improvement program, the Commission is certain to meet traffic projected up to the year 1983. There are however lots of uncertainties as to what to expect beyond that date in way of traffic. Traffic could continue to escalate not only in number but in size. Or traffic could be reduced by the implementation of alternatives to the Canal.

Future Outlook

The Commission is continuously monitoring the development of alternatives to the Panama Canal and their potential impact on traffic levels at the waterway. Recently, we have received information regarding the development of three potential alternatives to the Canal for certain trades: the Mexican Transisthmian Multimodal Container Service or Mexican Landbridge, a proposed trans-Panama oil pipeline, and the possibility that increasing amounts of Alaska crude oil (ANS) may bypass via the Straits of Magellan in very large crude carriers (VLCC's).

Of these alternatives the proposed trans-Panama oil pipeline is the one most likely to affect future traffic. Nevertheless, future traffic still requires planning as though size and number of vessels will increase.

In that respect, the Commission has developed a two phase long-range capacity improvement program designed to increase capacity to 48 vessels per day. The long-range program in its first stage calls for the acquisition of seven locomotives and one tug, improvement to the locks control machinery and installation of valves in the miter gate. The second phase would include widening Gaillard Cut, widening Pacific and Atlantic entrances, and providing one-way navigation in Gaillard Cut during fog.

Many of the projects in the long-range program are conceptual in nature and only ballpark estimates are available. Efforts are currently underway to design models to test the adequacy of the projects and to develop refined

estimates for some of these long-range projects.

Canal improvements to increase capacity, and improve security and quality of service continue to be the Commission's primary objectives. Compatible with the current improvement program is the building of additional facilities or the construction of a sea level Canal.

The current Canal improvement program demonstrates that the present lock Canal can economically handle approximately 17,500 ships per year (approximately 48 ships per day with 70% ships of 80' beam) capable of carrying more than twice the amount of cargo carried today. According to the latest traffic projections, this level of traffic will not be reached before the year 2000.

Change is a normal occurrence in the everyday operations of the Canal. Our task is basically to anticipate the direction and intensity of change and thus plan for the future.

Toll Rates

I should now like to say a few words concerning Canal toll rates. With regard to these rates, the law requires that they be set at levels to produce revenues sufficient to cover all costs of operating and maintaining the Canal, including capital for plant replacement, expansion, and improvement. In other words, the Panama Canal is required to operate on a self-sustaining basis. As such, toll rates for use of the Canal must be increased whenever costs exceed revenues.

I should clarify that Canal tolls, and hence the users of the Canal, are not required to bear the cost of the U.S. military defense presence in Panama, nor any other cost not directly related to the operation of the waterway.

It is worthy to note that the toll rates which went into effect when the Canal first opened in 1914 remained unchanged until 1974—a period of 60 years. This was possible because traffic growth over that period was at a rate sufficient to outpace inflationary increases in costs.

Starting in 1974, however, the Canal, like everyone else, was hit with double-digit inflation, which has continued to the present. Although Canal costs are essentially fixed in nature, the result of this high level of inflation was to increase costs beyond the point of being compensated by added revenue from traffic growth. Despite the best efforts of management to minimize costs, an effort which continues today, it became necessary that year to raise tolls by 19.7%—the first toll rate increase in the Canal's history.

The increase imposed in 1974 quickly proved to be inadequate. Not only did inflation continue at a high level, but traffic was down due to a recession in the economies of the various countries involved in Canal traffic and the loss of traffic to routes using the Suez Canal after it was reopened in June 1975. In the face of this, toll rates had to be increased by another 19.5% in late 1976.

The last increase in Panama Canal toll rates took place on October 1, 1979. This increase, which approximated 29.3%, was attributable to the added cost imposed on the Canal as a result of the new Treaty arrangement between Panama and the United States, which I mentioned earlier. Although the Treaty effected some savings in Canal operating costs resulting from the shedding of certain activities, these were more than offset by higher payments to Panama in recognition of its right as a partner for economic participation in Canal revenues. These payments consist of: (1) A fixed annuity of \$10 million; (2) thirty cents per net Panama Canal ton transiting, to be adjusted biennially after five years for inflation; and (3) a \$10 million annual

reimbursement for public services furnished the Canal. In fiscal year 1980, these payments to Panama amounted to \$75.0 million.

With respect to the prospect for future toll rate increases, we are fairly confident that a rate increase will not be required throughout the remainder of this year. We are less sure concerning 1982, but I can assure you we will be doing everything possible to avoid the need for an increase in that year also. Going beyond that becomes highly speculative. Both traffic and inflation come into play, and it is difficult to predict these events with any assurance of accuracy. However, in the normal course of events, I would look for Canal tolls to increase only modestly over time in line with inflation.

Toll Systems

I would now like to turn to the subject of the International Convention on Tonnage Measurement of Ships, 1969 and its implications to the Panama Canal.

Except for warships and certain other specialized craft, tolls are assessed at the Panama Canal on the basis of a vessel's net tonnage determined in accordance with the rules of measurement for the Panama Canal. The Canal has applied its own rules of measurement to determine tonnage since it opened in 1914. A separate set of rules was adopted in order to provide for the uniform treatment of ships using the Canal as tonnage determined under national rules produces different tonnages for identical ships, depending on the ship's country of register.

With the objective of eliminating these differences in measurement rules, an agency of the United Nations, the Inter-Governmental Maritime Consultative Organization (IMCO), has been working on the development of a universal system since 1959. These efforts were culminated in the signing of the International Convention on Tonnage Measurement of Ships, 1969, by all the principal maritime nations of the world.

The Convention provides for a uniform method of measuring ships with the intent that it be adopted by all the nations of the world so that, regardless of ship ownership and registry, ship tonnage would be uniformly determined throughout the world. Similar to existing tonnage systems, the new system provides for both gross and net tonnage. The Convention also provides for a transition period of 12 years during which existing ships would have the option of retaining their existing tonnage or being remeasured under the universal system. However, all new ship construction would be required to be measured in accordance with the new system.

Although the Panama Canal has its own tonnage system, its values are based and derived from existing systems of national tonnage. Thus, it is in effect a by-product of the measurements taken for development of national tonnages. When the universal measurement system replaces existing national tonnage systems, the determinations of Panama Canal tonnage will no longer be a by-product of national tonnage calculations since the new system applies an entirely different methodology to tonnage calculation. As a result, continued application of the Panama Canal system after the new system comes into force would impose an additional workload on the tonnage authorities throughout the world.

In view of this, the Panama Canal initiated studies in 1970 and 1974 to estimate the effect on the tolls paid by the users of the Canal if the universal measurement system

were to be applied by the Panama Canal. The studies showed that use of either universal Gross or universal Net would result in tolls against individual ships significantly different from current tolls even after an adjustment in rates to equalize Canal revenue. This impact, or a shift in burden among ships, would be substantially greater if universal Net were used as an assessment base than if universal Gross were used. Because of the delay in ratification of the Convention by the world community, no decision was required on the part of the Canal regarding application of the proposed new system.

With the acceptance of Japan of the Convention on July 18, 1980, the criteria for bringing the new system into force were met. As a result, the Panama Canal is now faced with the reality of the universal system and must make a decision as to its future course of action. For this purpose, an extensive new study is being made of which these consultations will play an important role.

Essentially, there are three options under consideration:

- (1) Retain the existing Panama Canal tonnage system;
- (2) Adopt the universal measurement system, using either gross or net tonnage for assessment of tolls; and
- (3) Develop a modified Panama Canal tonnage system utilizing the universal system measurements as the starting point.

The purpose of these discussions today is to obtain your views relative to the three options under consideration and to determine the availability of measurement data required for the study. It is our intention to complete the study and reach a decision at the earliest possible date so as to be able to apprise the maritime community of our position in advance of entry into force of the Convention.

Visitors — (Continued from page 16)

tion, Japanese Shipbuilders' Association, Classification Society of Japan and Japanese Fisheries Association.

In view of the universal implications of his Commission's function, he contributed, to the journal, a paper describing the Canal's future outlook and tariff system (see page 00 of this issue), while he assured Head Office that his Commission would be prepared to revive their IAPH membership which has been temporarily terminated since February last year.

— On February 10, Mr. L.J.R. Tucker, Chairman, and Mr. J.R. Joyce, Member of Hawke's Bay Harbour Board, New Zealand, accompanied by Mr. N de V. Lawrence, General Manager and Mr. G.J. Marshall, Trade Promotion Manager, visited the Head Office and met Dr. Sato and his staff members. The group was visiting Japan, China and Hong Kong on a trade promotion mission for Napier Port.

(Continued from page 16) Marintec Asia 81—

Secretary who delivered the following message to the seminar participants on behalf of Secretary General Hajime Sato at the opening ceremony.

Message from Dr. Hajime Sato, IAPH Secretary General

It is my great pleasure to address the delegates of Marintec Asia 1981 and Seatec III, on behalf of the International Association of Ports and Harbors, one of the co-sponsors of this event.

First of all, I would like to extend my appreciation to the organizer and co-sponsors of this gathering, which is intended to give a good opportunity to the port people in South East Asia, of communicating with each other and sharing useful modern technical information on ports and harbors, at a time when the need for cooperation among the port people who are actually engaged in their daily operation, has never been greater.

Ports indeed play a very important role in the transport chain, linking every mode of transport, air, sea and land. At the same time, more importantly, ports play a leading role in the development of any community and region, as ports provide very essential infrastructure. Ports really contribute to a better life for people and thus very important responsibilities are bestowed on ports. Thus, it is a universally common wish of the people of world ports that ports will continuously and increasingly contribute to a better understanding among world people and to world friendship.

This wish of world ports is the theme of the 12th Biennial Conference of IAPH, namely "Port Contribution to Human Prosperity". As you may know, our conference is scheduled to be held this May at Nagoya, Japan.

Among the varied subject areas which our Association concerned with today, we are particularly looking at the following items, namely.

- International Port Cooperation
- Safety in ports
- Application of new technologies
- Simplification of trade procedures
- Community relations, and
- Protection of ports' interests in the international maritime affairs

One of the most imminent issues is the position of ports with regard to the "International London Convention on the Dumping of Wastes at Sea", which is commonly known as the "London Dumping Convention 1975".

To cope with those numerous problems, ports must concentrate their expertise and experience. To this end, IAPH, through its committee activities, has been keeping very close contact and coordination work with IMCO, UNCTAD, ESCAP and many other international organizations engaged in the maritime affairs.

It is a sincere hope of IAPH that those delegates, portmen, shipping-men, manufacturers or dredgers or contractors alike, who are gathering at this Marintec Asia 1981 and Seatec III, if they are not already associated with IAPH, the chance of working together toward our mutual goals through IAPH and its activities.

Before concluding, I wholeheartedly wish you all a very successful Marintec Asia 1981 and Seatec III and hope that we will meet again in Nagoya this May at our Conference.

Thank you.

Japanese Technical Cooperation with Developing Countries in the Field of Port Development

by the Bureau of Ports and Harbours,
Ministry of Transport, Japan

Introduction

Almost all of Japan's technical cooperation with the developing countries on a government basis are provided through the Japan International Cooperation Agency (JICA), formerly known as the Overseas Technical Cooperation Agency (OTCA) established in June 1962 to enhance the functions of international technical cooperation.

1. Receiving Trainees

Training is provided in Japan, for those who are engaged in work related to ports and harbours in developing countries, to help them acquire the knowledge and technology necessary for development of ports and harbours in their own countries.

Training takes two forms, namely group training and individual training, and in the former there are three courses, namely of "Ports and Harbours Seminar", the "Ports and Harbours Engineering Course", and the "Senior Course on Ports and Harbours Engineering".

In addition to the above three groups courses, the course "Training in the Development of Industrial Ports" is being held from the beginning of February to the end of March, from this year.

The Government of Japan provides allowances and expenses for trainees in accordance with JICA rules.

1) The Ports and Harbours Seminar

The purpose of this seminar is to introduce the administrative, operational and technical aspects of the development of ports and harbours in Japan to the participants from developing countries who hold relatively senior positions in port and harbour related organizations and to help them develop their knowledge and skills through lectures, discussions and study tours so that they can contribute to the development of ports and harbours in their own countries.

Started in 1961, the seminar has been held every year since then with favorable comments from the participating countries and it has the longest history in the training courses provided by the Bureau of Ports and Harbours.

The outline of this seminar is as follows:—

- i. Duration: About two months
- ii. Number of trainees accepted: About twenty persons
- iii. Contents of program
 - a. Orientation
 - b. Lectures on
 - Administration and management of ports and harbours
 - Port development
 - Cargo handling equipment and operation
 - Port labour
 - Port transportation and warehousing
 - c. Intensive study on actual port activities
 - d. Discussion on the present situation and problems

- e. Observation tours to several major ports

2) The Ports and Harbours Engineering Course

The purpose of this Course is to introduce modern techniques of port and harbour engineering in Japan to the engineers engaged in civil engineering work at ports and harbours in developing countries through lectures, exercises, a case study, discussions and observation tours.

This Course was commenced in 1953 to meet a growing demand for training for key personnel in the field of ports and harbours civil engineering, following the establishment of the Ports and Harbours Seminar.

One of the major changes in the Course has been the introduction of a case study as a training subject since the 11th course held in 1974. The case study is intended to help the participants understand how the knowledge acquired through lectures, exercises and discussions is applied to actual cases so that they can apply the results of their study to the development of ports and harbours in their own countries.

As a typical case study, which has been favorably commented on by trainees, Onahama (located on the Pacific coast 200 km. north of Tokyo) has been selected in view of the size of its port (the volume of cargo handled is 11 million tons/year) and the kind and volume of construction works in progress in the Port.

Participants are to stay at the site for about 10 days. After becoming familiar with the social condition, economic situation, and natural conditions of the site, the participants are introduced to how the planning (including the status of port and harbour planning in the overall regional development plan). And, the engineering and construction of ports and harbours and restoration of port facilities (after major damage) has been and is being implemented and what sorts of plans are being considered for the future through such means as orientation, movies and site investigation, in order to understand on a practical basis thus giving knowledge which can be easily applied to actual cases.

In preparing programs, due consideration is given so that they can be easily related to the appropriate time scale themes or requirements.

The outline of this Course is as follows:—

- i. Duration: About four months
- ii. Number of trainees accepted: Eighteen persons
- iii. Contents of program
 - a. Orientation
 - b. Lectures on
 - Outline of ports and harbours in Japan
 - Planning techniques of ports and harbours
 - Design techniques of ports and harbours
 - Execution techniques of harbour works
 - Basic theory of ports and harbours engineering
 - c. Exercise on design of port facilities
 - d. Intensive study of harbour works at Onahama Port

(Continued on page 23)

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(Continued from page 21)

e. Observation tour to major ports

3) Senior Course in Ports and Harbours Engineering

The purpose of this course is to renew the knowledge of harbour engineers, who have already participated in the "Ports and Harbours Seminar" or "Group Training Course on Ports and Harbours Engineering", under the JICA program, by introducing up-to-date knowledge and the experience of harbour engineering in Japan, and thus contributing to the solution of the technical problems they are encountering in their respective countries, through lectures, discussions, observation tours, specialised studies and so on. In addition, the Course is also aimed at providing senior harbour engineers, who have not had a chance to attend the above mentioned courses with an opportunity to participate in this course, and to render some assistance for the solution of their technical problems by introducing modern Japanese techniques in the field of harbour engineering.

The outline of this course is as follows:—

- i. Duration: About one month
- ii. Number of trainees accepted: Eight persons
- iii. Contents of program
 - a. Lectures on
 - Latest situation of ports and harbours in Japan
 - International cooperation for ports and harbours in developing countries
 - Planning, design and operation of container terminal
- iv. Discussion on port and harbour problems in participating countries
- v. Individual study at various organizations
- vi. Observation tour to several major ports

4) Training in the Development of Industrial Ports

In developing countries, industrial development is based mainly on the resources which are produced in those countries, and the role of this development is becoming increasingly planned and more important in their overall economic progress. Accordingly the construction of industrial ports is becoming more and more important. Every stage of the development of an industrial port such as planning, construction and operation is, for different from that of commercial ports and therefore, special techniques are needed for industrial ports.

In consideration of these factors, training course in the development of industrial ports is newly established in order to transfer the special techniques for industrial ports to those who are presently engaged or intend to be engaged in their development.

The outline of this Training is as follows:—

- i. Duration: About one and half month
- ii. Number of trainees accepted: Ten persons
- iii. Contents of program
 - a. Orientation
 - b. Lectures on
 - Theory of economic and regional planning
 - Planning theory, methods and techniques
 - Engineering considerations
- iv. On-the-job training at Kashima Port
- v. Presentation of a report and discussion
- vi. Observation tour to major industrial ports

Table 1: Number of Participants in the Course(1961-1979)

Year	Ports & Harbours Seminar	Ports & Harbours Eng. Course	Senior Engineering Course	Individual Course	Total
1961	20	—	—	6	26
1962	30	—	—	7	37
1963	17	10	—	1	28
1964	13	9	—	9	31
1965	18	9	—	3	30
1966	15	13	—	4	32
1967	11	—	—	7	18
1968	18	10	—	3	31
1969	20	16	—	2	38
1970	19	15	—	16	50
1971	17	13	—	8	38
1972	17	11	—	13	41
1973	18	15	—	13	46
1974	15	17	—	3	35
1975	15	15	—	2	32
1976	17	15	—	9	41
1977	20	13	8	9	50
1978	16	13	9	19	57
1979	17	15	8	23	63
Total	333	209	25	157	724

2. Dispatch of Experts

The Bureau of Ports and Harbours of the Ministry of Transport is also extending assistance to developing countries for the development of ports and harbours through the training of key-personnel engaged in port and harbour affairs to the related organizations of the central governments or semi-government bodies of developing countries or to international organizations including ADB. The experts dispatched from Japan are either assigned to a specific port and harbour project or given the role of providing guidance and instruction on ports and harbours in the country concerned.

In either case, the experts, on the basis of technology, theoretical knowledge and experience of their own take part in planning, investigation and survey and give necessary advice and recommendations and at the same time provide guidance and instruction to counterpart engineers to train them as qualified engineers.

The dispatch of experts by the Bureau of Ports and Harbours was started in 1958. At the initial stage of the program, the duration was very limited. However, the duration and the number have been increasing gradually. As of January 1981, a total of twelve experts are now dispatched to four countries and international organizations for a period of two or three years.

3. Project Survey Missions

The Bureau of Ports and Harbours of the Ministry of Transport has also sent out survey missions comprising port experts for specific port and harbour development projects when a request is made by a developing country. The mission, through field surveys of the project site and home-office work in Japan, prepares a feasibility study report and engineering drawings and specifications for that project.

Surveys to be conducted by the mission include the following kinds of surveys depending on the stage and nature of the project.

1) Project finding survey

This is a survey aimed at exploring projects in related fields and selecting specific projects for technical assistance.

(Continued on next page bottom)

PORT DEVELOPMENT: How Some Countries Finance Port Operations

by **Maurice D. Atkin,**
Senior Vice President and
Lili Bermant, Research Associate

Robert R. Nathan Associates, Inc.
Washington, D.C.

Social, political, and technological developments have greatly affected the shipping industry and international trade. As a result, the last half century has witnessed dramatic changes in port facilities around the world.

The increase in size and capacity of seagoing ships as well as fundamental changes in design have exercised a powerful influence on port development. For example, the relatively recent growth of container service has created unprecedented demands for sophisticated, capital-intensive seagoing and shoreside facilities. To respond to these changes effectively requires that port planners have a sound knowledge of general economic conditions, an unquestionable talent for visualizing the future, a good deal of common sense—and large sums of money.

While there are few problems created by these developments for which there is no precedent, different countries must select solutions most compatible with the diversities in geography, climate, population and historical backgrounds which best characterize them. Similarly, financing port development differs substantially from country to country and is governed by many different considerations.

Further, the economic health of ports has a significant effect on a variety of community problems such as land allocation, regeneration of obsolete structures, and the

satisfactory resolution of conflict among often incompatible residential, recreational, and economic interests.

In the final analysis, however, whether a country regards ports as public assets that may be subsidized as part of the social and economic infrastructure of a whole region, or as commercial enterprises which are expected to render a return on the public investment, the ultimate motivation for all port policy is still the promotion of the national interest.

This article presents an overview of the approaches some countries have pursued in financing port improvement, development, and operation.

Port Structures

Port organizations vary widely, but there are four principal types of port administration (12, p. 98):

1. **The Municipal Port** is controlled by a council or municipal corporation; it has political influence as well as excellent borrowing powers.
2. **Autonomous Port Authorities** have found more and more acceptance in recent years, especially in the U.S. They are managed by elected and/or appointed members; user representation is a general rule. Although non-profit-making, they function on an entrepreneurial basis in all other respects. They are independent from the government and thus fairly free from political pressure.
3. **Nationalized Ports** provide uniformity of port charges and conditions. They have centralized control; they enjoy substantial financial strength; they do not have user representation and do not require rationalization of activities.

(Continued from page 23)

2) Preliminary survey

This is a survey aimed at determining the objectives and scope of possible projects and obtaining the data necessary for making the fundamental decisions on whether the project is worthy of a feasibility study or not and making necessary preparations for implementation of the feasibility study (land surveying and boring tests included).

3) Feasibility study

This is a survey aimed at studying the technical and economic feasibility of the project and making necessary recommendations.

4) Detailed engineering survey

Detailed engineering drawings and specifications are prepared after making a preliminary plan of the project. The detailed engineering survey is carried out mainly by consulting firms under supervision of the government. In some cases, a request is made only for the first stage survey and in other cases, requests are made for the full sequence of survey work as described above.

It is not uncommon for credit to be extended by the

Japanese Government on the basis of the findings of a feasibility study.

**Table 2: Number of Port Development Survey Mission
(1957-1979)**

Year	Nos. of Survey Missions	Nos. of Mission Members	Year	Nos. of Survey Missions	Nos. of Mission Members
1957	2	8	1969	5	37
1958	1	1	1970	11	71
1959	2	3	1971	7	52
1960	2	8	1972	13	80
1961	2	11	1973	7	38
1962	3	14	1974	10	53
1963	2	11	1975	10	24
1964	4	17	1976	10	49
1965	2	15	1977	13	50
1966	4	15	1978	13	43
1967	4	35	1979	15	39
1968	5	50			
Total				147	674

(Notes: Enquiry on the article should be addressed to:
Bureau of Ports and Harbours
Ministry of Transport
Kasumigaseki, Chiyoda-ku
Tokyo 100, Japan)

4. **Private Ports** have the advantages inherent in private enterprise but they must be operated economically and efficiently to survive. They engage in equity financing, will generally try to maximize profits, and will be under commercial management, even though their rules and regulations are usually subject to government oversight.

Kinds of Subsidies

Ports are the catalysts for stimulating national and international maritime trade. Accordingly, most governments, especially in Europe and in the United States, subsidize port operations in one way or another. **Indirect subsidies** can consist of such diverse actions as building a new railway system connecting a port to a wider hinterland or rebuilding a network of roads so as to improve the efficiency of land movement to and from ports. **Direct subsidies** may provide capital or revenues to cover the operations of facilities and services provided by port authorities. These subsidies often include direct state investment in port infrastructure and superstructure; interest-free or low-interest loans with easy repayment conditions; maintenance of maritime infrastructure at government expense; and compensation for operation deficits.

Nations differ in the degree of federal involvement in such port management functions as planning, financing, marketing operations, and control. Nevertheless, while political and economic variations among nations make comparisons difficult, differences are sometimes less than they appear.

It is significant that "many countries which have recently established statutory autonomous Authorities to develop their ports stipulate in their enabling legislation that it is the intention that the enterprise shall be self-supporting" (5, p. 49). This self-support concept is comparatively recent. It originated in the more developed countries when large-scale financing of modern port installations convinced governmental units that ports could and should be regarded as self-sufficient enterprises and that self-support would promote full exploitation of resources and encourage rigorous control of operations.

It must be noted, however, that most governments extend to their public port agencies financial assistance or exemptions not usually afforded to private enterprises (5). In some cases, this help consists of exempting taxes on income and import duties on equipment; setting ceilings on taxes levied on real estate holdings; or allotting proceeds from special taxes on commerce or shipping to port agencies. In other cases, central governments finance the basic harbor and channel improvements and contribute to the maintenance of these works and other navigational aids.

Following is a look at ways in which some countries help their ports finance their operations.

United States and Europe

For nearly 200 years, the **United States** government has "consistently supported port development, particularly in the case of public terminals, and has provided various ancillary services to the ports without charge" (8, p. 215). This port policy did not disturb the competitive relationship among ports. In recent years, however, modern technology, combined with such factors as environmental regulations and inflationary pressures, has disrupted this policy approach. As outlined in a Department of Trans-

portation report dated 1977 (8), the traditional port scenario is changing rapidly. "Governmental policy-making institutions, actors, and procedures are different. Ports themselves are different; new maritime technologies, changing hinterland potentials and impacts, and new concepts and intermodal transportation will serve to complicate the contemporary world of port planning and operations. The compressed timing of environmental changes has also been problematic; ten years ago, few would have thought the historical patterns of port development would rapidly be required to change" (8, p. 73). To respond to the changes, the authors of the report suggest that the federal government establish a unified governmental approach to port planning and operations, and take steps to evaluate the competitive impacts of its action on the future of port development.

Unlike conditions prevailing in other nations, ports in the United States are characterized by a fragmentation of responsibility (9). Harbor improvement, for example, is a federal responsibility. On the other hand, the provision and operation of port terminals and associated infrastructure are the responsibility of state, regional, county, or local agencies, as well as of private industries.

U.S. ports have traditionally resisted any federal assistance except for federal funding of channel and harbor improvements. This reluctance partly stems from the lack of a cohesive national policy regarding the role and status of ports, and partly "from a fear by the ports that Federal aid might result in federal control" (9, p. 130). In spite of these fears, the port industry, as a matter of record, has accepted financial assistance from the government. The Economic Development Administration (EDA) has provided more than \$100 million in financial aid to U.S. ports since 1965 (9, p. 136). Today more than two dozen government entities have an impact on the policy-making system and the management of U.S. ports. Moreover, the federal government, under the auspices of the Maritime Administration, the Corps of Engineers, and the Coast Guard, contributes significantly to U.S. ports through their dredging operations, maintenance of pier-head lines, and provision of navigational aids. These agencies do not assess user charges on the beneficiaries.

Because of growing public interest in land use, coastal zone management, and environmental and safety considerations, port managers often find themselves in difficult and conflicting positions. At present, the effect of resource allocations, environmental concerns, inflation, and federal legislation and regulations is to increase the costs and decrease the sources of funds of almost every U.S. port. While answers intended to resolve some of the resulting conflicts are being sought—and found—new problems emerge to create new sets of questions which present an ongoing challenge to the skills and resources of port planning boards.

In his 1978 paper discussing the impact of national policy on world port development (4), Dr. John L. Hazard of Michigan State University wrote that despite possible advantages to Western European nations in formulating a comprehensive European port policy, the countries in question have continued to pursue very different port development tactics. In **France**, for example, ports are budgeted as part of a five-year plan and operate under what is known as the "regime of autonomy" (4, p. 276). This system accords to certain public establishments a high degree of autonomy but does not require them to be

financially self-sufficient.

France finances up to 80 percent of the cost of external channel dredging, sea locks and breakwaters, and the major port communities put up the remainder. Federal authorities also maintain and operate the channels and locks without charge. Fifty percent of the terminal infrastructures (quays and dry-docks) are financed by the nation, but superstructure (cranes, sheds, warehouses) are financed by the ports alone. Terminal facilities are operated by private stevedoring companies.

In the **Netherlands**, according to Dr. Hazard's study, the government has had less of a role in port development than has been the case in other European nations. In spite of this, the Port of Rotterdam, capable of handling vessels of up to 250,000 dwt. tons (7, p. 113), has emerged as the premier port in the world, and accommodates approximately 290 million tons of cargo annually.

The Netherlands provides two-thirds of the cost of channels and maritime access; port cities absorb the balance.¹ Municipalities finance port infrastructures and are able to absorb deficits without major federal assistance. The functions of handling cargo and employing dock labor are performed by private companies.

There is no federal control or participation in the administration of The Netherlands' ports.

As a maritime nation, the **United Kingdom** has been heavily dependent on foreign trade. To move about 367 million tons of cargo annually, the U.K. has at least 300 ports, of which 90 handle foreign trade (7).

Unlike ports in other nations, U.K. ports provide their own channel dredging, maintenance, oil pollution control, and navigational aids and charge conservancy duties for their services. The ports provide their own terminal and port infrastructure financing and receive no operating subsidies. All U.K. ports are expected to meet full operating costs and to provide a return on invested capital. Some ports require user participation in financing, income guarantees, and government loans (4).

While there is no long-range plan for port development in the U.K., the country pursues a general strategy of competitive port operation, subject to investment control, with a goal of self-sufficiency.

Because **Sweden** is connected by land only to Norway and Finland, 90 percent of the country's foreign trade is sea borne. Sweden has more than 200 ports and harbors, but it is through the nine largest ports that 60 percent of the country's seaborne trade is handled (12, p. 126).

Almost all Swedish ports are owned by municipalities which believe that efficient port management contributes to the development of industry and trade and affects employment and other economic factors in the region. The philosophy which governs the operation of municipal ports rests on the concept that since a considerable part of port traffic derives from the hinterland, which is many times larger than the municipality, a port must primarily serve trade and not earn money for the municipality by which it is administered.

Until recently the central Swedish government has had limited involvement in port affairs; there are just a few national laws which relate directly to ports. One law states

that all port tariffs must be approved by the National Administration of shipping and navigation. According to this same law, operating revenues, including depreciation and interest, are not allowed to exceed the total operating costs of the port by more than 12 percent (12, p. 126). All income is allocated to port business. The main reason for this is to ensure that a municipality does not accumulate excessive profits from its port operation, while still permitting it to maintain a small profit to cover the costs of improving port installations or making it possible to cover losses.

Stevedoring, by far the largest part of the total operating costs, is handled by private companies and not by the municipality.

Japan

In spite of the enormous importance of ports to the economic welfare of the country, **Japan** has thus far not felt a compelling need to establish elaborate federal government controls of ports.

Of the ten cities in Japan with a population of over one million, only two—Sapporo in Hokkaido Island and Kyoto in West Japan—do not have their own ports (6). All Japanese ports are under the auspices of local port-management boards. The mayor of the port city or the governor of the prefecture to which the city belongs is usually the port manager. Planning development programs, constructing harbor facilities, and operating each port area are the responsibilities of the port management board.

Central government grants are made on a very large scale for approved seaport projects. This stems partly from the need to expand ports and partly from the lack of taxable capacity in the municipalities which own the ports. While these grants might provide the central government with powerful leverage through its national port and harbour council, the principal basis for port planning nevertheless lies in the achievement of a consensus among the central government, the municipality, and the business interest concerned with the development of the port.

Onshore deepwater ports have long been recognized in Japan as significant economic development resources. A wide range of national port subsidies has tended to stimulate rapid development of sophisticated ports and has fostered a sharp public perception of the importance of maritime facilities. The attitude of "what's good for the port is good for the nation" (10, p. 229) is understandably prevalent in Japan and has resulted in lesser requirements for detailed economic and environmental impact studies.

Still, despite heavy emphasis on continuing port development, there are built-in constraints to uncontrolled growth such as leasing tracts to industrial users rather than selling to them, and establishing better protection for private citizen interests. A growing recognition of the need for improved planning, effective controls and sanctions, and better communications among concerned organizations has emerged in Japan and in Western Europe is acknowledged as important in the achievement of successful port development.

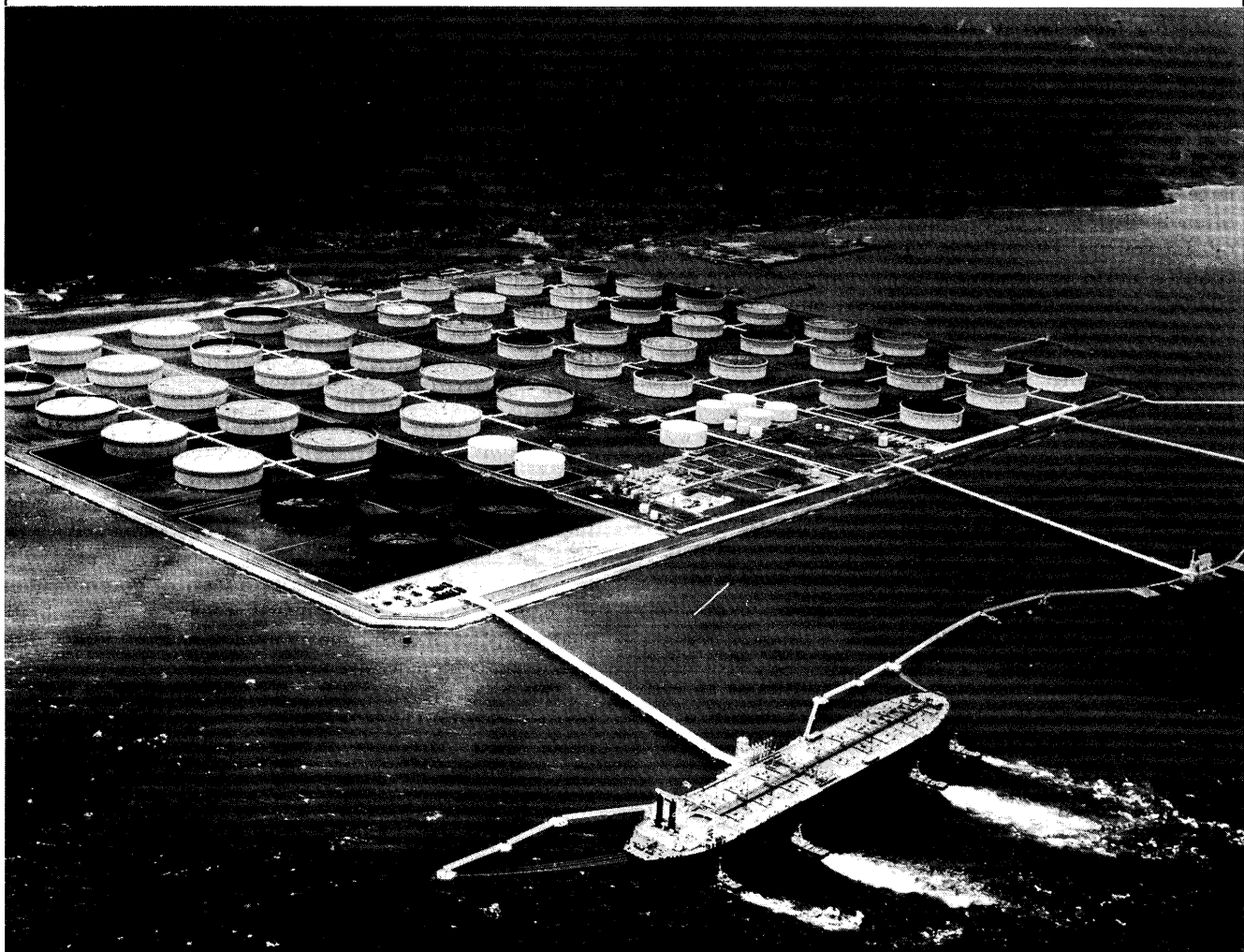
Developing Countries

International trade is both one of the main generators of economic growth and one of its major consequences. It is not surprising, then, that developing countries consider creation of an integrated transport system an essential

(Continued on page 28)

1. In his study "A comparative Study of Seaport Management and Administration" published in 1979, R.O. Goss states that in The Netherlands, "The central government covers all, or a substantial part of, access channel dredging and certain other conservancy functions." (p. 23).

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element of the development process. The drive to secure a higher domestic standard of living, more abundant crop production, adequate internal transportation, and opportunities for industrialization would be thwarted without seaports to import the necessary foodstuffs, fuel, fertilizers, railway and automotive equipment, and the machinery for agriculture, power generation, and industry. Exports make it possible for developing countries to earn the foreign exchange necessary to finance development goals, and exports move mostly by vessel. A developing country's attention is therefore bound to focus on port development. Also, the mere fact of the multiplication of nations has caused old trade routes to be reshaped to meet new national boundaries, and has brought about a need for the creation of new ports to serve newly created countries.

Port construction and improvement, a vital element in advancing the economies of developing countries, requires large sums of money. Because internal resources are so often limited, such capital must usually be obtained from outside sources. These funds, when they are secured from a country, might be tied to a policy requiring that the debtor country import products, machinery, and technical personnel exclusively from the lending country or countries. International lending agencies, another important source of funds, make no such stipulations. Over the past decade, the International Bank for Reconstruction and Development (World Bank) has made numerous loans to third world countries for port development and navigational improvements. The International Development Association, the Inter-American Development Bank, the Asian Development Bank, and other regional banks have also taken part in assisting port projects in their areas. Terms, such as interest rates, amortization schedules, and carrying charges, vary with the policies of the lending agency.

In many instances, international financial institutions require countries to establish port authorities as an early condition of lending so as to ensure the capacity of the borrowing organization to carry out its functions under separate accounts and with appropriate powers.

In 1978, a detailed handbook for port planners in developing countries was published by the United Nations Conference on Trade and Development (13). In this book, the basic principles of modern port planning are summarized in a readily understood form to guide port planners in the difficult task of formulating a national port development policy.

Among other things, the report emphasizes the importance of a far-sighted, comprehensive port development policy, with the required funds provided through joint action by the central government, local municipalities and, where appropriate, international financing organizations. All the important aspects of port development, including planning principles, traffic and productivity forecasting, master planning and port zoning, inland transport, maintenance and equipment policy, are discussed.

Summary

Consistent with differing constitutions, powers and activities, the amount of capital that countries allocate to port development and the sources from which it is drawn vary considerably from country to country. Summarized with some examples below, they include:

- The central government covers all, or a substantial

part of, access channel dredging and provides other conservancy functions. (Belgium; Germany; the Netherlands; U.S.A.)

- The federal government lends money to ports without expecting capital or interest to be repaid. (Canada)
- Central government grants are made on a large scale for approved seaport projects. (Japan)
- The central government makes grants available for port works intended to generate employment. (Sweden; U.S.A.)
- The central government finances part of the infrastructure. (France)
- The municipality borrows money and uses it for ports without the ports' financial needs being separately identified. (Antwerp, Belgium; Hamburg, Germany; Kobe and Osaka, Japan; Amsterdam and Rotterdam, Netherlands).

In his "Comparative Study of Seaport Management and Administration" (3), R.O. Goss, a civil service Travelling Fellow of the U.K. Government Economic Service, reports on visits he made to 39 major seaports in 15 countries during 1977-78. The purpose of the visits was to study national and individual port practices, examine forms of organization and management, and evaluate port policies and objectives. Some of his findings were incorporated in this report, but his overall analysis could not, for lack of space, be included herein. Goss stated that it would be very tempting to examine seaports and their practices "as if they were wholly generic, so that the good practices of any one could simply be transferred to others" (3, p. 155). He emphasizes two important elements in port planning: (1) the importance of efficiency in port operation, and (2) the need for the organization and management of a seaport to be compatible with the general system of government of the country. There is little question that the idiosyncratic characteristics of each country need to be incorporated into an overall, comprehensive plan.

This brief overview will serve only to confirm the fact that there cannot be a "Bestport" because there is really no single "best" structure of organization and management that is suitable for all seaports. There are, we have seen, many ways of financing port operation and development and of improving port efficiency. And some of these, says Goss, may involve learning from elsewhere.

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(Continued on next page bottom)

Annual Report 1979: Port of Houston Authority (Extracts)

1. Executive Director's Report (excerpt)

The Port of Houston continued its record-setting ways during 1979, achieving new highs in total tonnage and for the first time leading the nation in foreign commerce tonnage.

The public and private wharves at the Port of Houston handled a total of 122,383,558 tons, up by a substantial 12 per cent from the 1978 total tonnage of 109,246,422.

According to the Department of Commerce, the Port of Houston jumped ahead of the traditional leader in foreign trade, the Port of New York. The Port of Houston showed a 3.9 per cent increase to boost the total to 64,899,500 tons for the year.

In dollar value, however, the Port of New York remained first with \$39.8 billion, while the Port of Houston held to its second position with \$18.5 billion. New York's dollar value increased by 10.9 per cent while Houston's moved up by 31.7 per cent.

The remarkable fact about the new records is that they were established in the face of a decrease in the importation of crude petroleum, the major commodity shipped through the Port of Houston. Indicating the U.S. appetite for gasoline and other refined petroleum products may be leveling off or diminishing, imports of crude oil to Houston

refiners and processors declined 6 per cent from 33,042,018 tons in 1978 to 31,027,265 tons in 1979.

Container traffic continued to increase dramatically. During 1979, some 266,250 twenty-foot equivalent units (TEUs) were handled, an increase of 45 per cent over the 1978 total of 183,680. Container tonnage increased from 1,587,742 tons during 1978 to 2,068,046 tons last year, reflecting the increasing popularity of this modern method of shipping.

In spite of the decrease in crude oil imports, tonnage of bulk cargo, excluding grain and sand-shell-clay, showed the greatest increase, moving from 86,942,401 tons in 1978 to 100,810,006 tons in 1979. This category includes crude oil, other liquids moved in bulk, and such important commodities as organic chemicals and fertilizers, both among Houston's major exports. Crude minerals and iron ore also are shipped in bulk.

More than 200,000 foreign autos—200,441 to be exact—were again imported through Houston during 1979. Grain exports were about the same as in 1978, at 10,523,255 tons, as was general cargo at 8,743,046 tons.

Flying the flags of 66 countries, 5,521 ships called at the Port of Houston during the year compared to 5,527 in 1978. They included 4,377 foreign vessels and 1,144 of American registry.

Port of Houston Facilities Activity

Barbours Cut Terminal was again the big story for the Port of Houston Authority during 1979. Tonnage almost doubled, expansion projects continued, and additional bond funds were voted for continuing development of the intermodal terminal, one of the most modern in the world.

Tonnage at Barbours Cut increased 97 per cent, from 864,362 tons during 1978 to 1,701,586 tons last year, including container, LASH/Seabee and roll-on/roll-off (ro/ro) cargoes. The increase came on top of a 153 per cent boost in cargoes from 1977 to 1978.

Container Wharf No. 3 was nearing completion as the year ended and associated paving, utilities and building projects were being planned or under way. Early in 1979, a contract was awarded for construction of a 100,000 square-foot transit shed for ro/ro cargoes.

During the spring, Harris County voters authorized the issuance of \$50 million in general obligation bonds, with most of the proceeds earmarked for further development of the Barbours Cut Terminal.

Two shipping lines added new services through Barbours Cut during the year, and the Port Authority extended a special computer service to any line using the Terminal for container movement.

By leasing a video display terminal and printing unit, line representatives are able to access the Port Authority's Computer Information Control System (CONICS) and obtain information on the status of any container for which the line is responsible.

Revenue Cargo

Overall, revenue cargoes at Port of Houston Authority wharves declined about 3 per cent during 1979 to 13.8

(Continued from page 28)

Waterfront Redevelopment in Japan. Tokyo, Japan, October 1979.

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million tons as against the 14.3 million tons handled during 1978. The decline is largely attributable to the fact that productive capacity of the Houston Public Grain Elevator was limited by extensive modernization of the facilities.

The Grain Elevator moved 547,292 tons less grain in 1979 than in 1978, an amount which more than accounts for the decline in overall revenue tonnage.

A new tonnage record was again set by the Authority's Bulk Materials Handling Plant, which moved 2,292,276 short tons during the year, 3.2 per cent more than in 1978.

Movement of bulk cargoes at Port Authority facilities other than the Grain Elevator and the Bulk Plant increased by 10 per cent during 1979, from 3,143,868 tons to 3,454,924 tons.

2. Balance Sheets December 31, 1979 and 1978

<u>ASSETS</u>	<u>1979</u>	<u>1978</u>
CURRENT ASSETS:		
Cash on Hand and on Deposit	\$ 10,947,931	\$ 13,498,549
Accounts Receivable—Trade (Less Allowance for Doubtful Accounts: 1979, \$566,028; 1978, \$258,000)	6,826,752	4,312,671
Inventory of Materials and Supplies	135,658	141,513
Prepaid Expenses and Deposits	842,918	598,460
Total Current Assets	<u>\$18,753,259</u>	<u>\$18,551,193</u>
RESTRICTED ASSETS		
Revenue Bond Debt Service Fund:		
Cash on Deposit and With Fiscal Agent	1,455,747	1,597,965
Accrued Interest Receivable	197,186	216,341
Total	<u>1,652,933</u>	<u>1,814,306</u>
Revenue Bond Debt Reserve and Contingency Fund:		
Cash on Deposit	2,977,193	2,720,288
Investments	5,203,933	5,218,984
Total	<u>8,181,126</u>	<u>7,939,272</u>
Revenue Bond Construction Fund	<u>7,139,637</u>	<u>17,333,337</u>
General Obligation Bond Debt Service Fund:		
Cash on Deposit and With Fiscal Agent	3,894,027	2,822,116
Taxes and Accrued Interest and Penalties Thereon Receivable	3,814,103	3,620,846
Total	<u>7,708,130</u>	<u>6,442,962</u>
General Obligation Bond Construction Fund:		
Cash on Deposit	18,085,085	6,595,448
Accrued Interest Receivable	76,492	32,889
Total	<u>18,161,577</u>	<u>6,628,337</u>
Total Restricted Assets	<u>42,843,403</u>	<u>40,158,214</u>
PROPERTY		
Land, Facilities, and Equipment	218,374,320	196,008,068
Less Accumulated Depreciation	<u>42,305,190</u>	<u>39,039,220</u>
Property—Net	<u>176,069,130</u>	<u>156,968,848</u>
DEFERRED CHARGES	<u>1,369,751</u>	<u>1,528,137</u>
TOTAL	<u><u>\$239,035,543</u></u>	<u><u>\$217,206,392</u></u>
 LIABILITIES AND EQUITY	 <u>1979</u>	 <u>1978</u>
CURRENT LIABILITIES		
(Payable from Current Assets):		
Accounts Payable and Accrued Liabilities	\$ 2,006,883	\$ 1,440,065
Contracts Payable	928,209	123,861
Current Maturities of Mortgage Note Payable	94,883	90,784
Total Current Liabilities (Payable from Current Assets)	<u>\$ 3,029,975</u>	<u>\$ 1,654,710</u>

CURRENT LIABILITIES (Payable from Restricted Assets):		
Current Maturities of Bonds Payable:		
Revenue Bonds	1,390,000	1,260,000
General Obligation Bonds	3,784,000	3,034,000
Accrued Interest Payable:		
Revenue Bonds	471,830	481,510
General Obligation Bonds	621,143	378,851
Matured Interest Coupons Not Presented for Payment	131,333	116,743
Contracts Payable and Accrued Liabilities	2,767,368	1,482,445
Total Current Liabilities (Payable from Restricted Assets)	<u>9,165,674</u>	<u>6,753,549</u>
LONG-TERM DEBT—Less Current Maturities	<u>108,135,677</u>	<u>98,404,560</u>
ADVANCES FROM DEVELOPER	<u>20,425,000</u>	<u>20,425,000</u>
Total Liabilities	<u>140,756,326</u>	<u>127,237,819</u>
EQUITY:		
Contributed Capital	<u>9,352,851</u>	<u>9,352,851</u>
Retained Earnings:		
Reserved for Debt Service:		
Revenue Bonds	1,155,331	1,320,521
General Obligation Bonds	6,981,426	5,959,643
Reserved for Revenue Bond Debt Retirement and Contingency	8,181,126	7,939,272
Unreserved	72,608,483	65,396,286
Total Retained Earnings	<u>88,926,366</u>	<u>80,615,722</u>
Total Equity	<u>98,279,217</u>	<u>89,968,573</u>
TOTAL	<u><u>\$239,035,543</u></u>	<u><u>\$217,206,392</u></u>

3. Statements of Revenues and Expenses and Retained Earnings for the Years ended December 31, 1979 and 1978

	<u>1979</u>	<u>1978</u>
Operating Revenues:		
Vessel and Cargo Services	\$ 21,440,314	\$ 16,300,334
Rental of Facilities	5,044,256	4,530,893
Grain Elevator	2,648,245	3,553,835
Other	6,235,806	5,380,716
Total Operating Revenues	<u>35,368,621</u>	<u>29,765,778</u>
Operating Expenses:		
Maintenance and Operation of Facilities	24,475,421	19,367,099
General and Administrative Expenses	4,521,552	3,485,089
Depreciation	3,486,920	3,336,020
Total Operating Expenses	<u>32,483,893</u>	<u>26,188,208</u>
Operating Income	<u>2,884,728</u>	<u>3,577,570</u>
Nonoperating Revenues:		
Property Taxes	6,524,741	5,553,308
Interest on Investments	3,718,997	3,637,152
Other	987,317	357,606
Total Nonoperating Revenues	<u>11,231,055</u>	<u>9,548,066</u>
Nonoperating Expenses:		
Interest on General Obligation Bonds	2,364,312	2,285,349
Interest on Revenue Bonds	2,888,091	2,806,751
Other	552,736	709,187
Total Nonoperating Expenses	<u>5,805,139</u>	<u>5,801,287</u>
NET INCOME	<u>8,310,644</u>	<u>7,324,349</u>
Retained Earnings, January 1—As Previously	80,615,722	74,146,439
Less Restatement for Certain Bayport Developer Advances	—	855,066
Retained Earnings, January 1—As Restated	80,615,722	73,291,373
Retained Earnings, December 31	<u>\$ 88,926,366</u>	<u>\$ 80,615,722</u>



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Annual Report 1979 : Papua New Guinea Harbours Board (Extracts)

1. Chairman's Report (extracts)

General Operations & Developments

Details of dry cargo throughput are shown in Table A. There has been a satisfactory growth overall and Lae has increased remarkably with dry cargo 10.8% up on the previous year despite a decline in coastal traffic; Rabaul, Madang, Kimbe & Wewak have marked increases; Kieta traffic remained at the same level as last year which itself was a spectacular increase on previous years.

Container movements throughout the system increased from 43,639 TEU's in 1978 to 48,228 in 1979. There was a marked increase in the proportion of FCL's; this means that fewer containers are being unstuffed into the port sheds and this trend will continue as warehousing developments by the major importers, particularly at Lae and Port Moresby, become operational. The Bank Line is making increasing use of containers and the Pacific Forum Line, now equipped with first class ships, is doing the same; PFL intend to introduce a RO-RO vessel early in 1980.

The main coastal shipowners are continuing to introduce new and larger ships including bow-door barges. In order to improve coastal services the Board has extended the berth reservation system, previously applicable to overseas vessels, to coastal vessels. As the size of ships increases they are having to make increasing use of the Board's facilities despite rehabilitation of private wharves at Port Moresby, Madang & Rabaul, and increasing revenue from this source is expected. The Government has on order some new cargo carrying vessels and it is believed that these will be chartered to Provincial Governments and it remains to be seen how this may affect coastal shipping patterns.

Major development projects shortly to be got under way will have a significant impact on port traffic. The Ok Tedi copper and gold mine appears to be going ahead and Port Moresby will be required to handle large quantities of construction material in the initial years and special facilities will have to be provided to handle bulk materials when mining of copper commences. The Ramu Sugar project, a cement factory and possibly a chrome mining venture will affect Lae. The Vanimo & Kamusi Timber projects appear to be getting off the ground at last and the Kavieng fish processing factory will hopefully get started soon.

Kimbe continues to be one of our fastest growing ports; apart from the steady growth of oil palm products from Kimbe area itself, Bialla production is now being transhipped at Kimbe. Timber from Stettin Bay is now moving in regular shipments and copra is reaching significant quantities; this is stored outside the port. Palm kernels previously causing space problems are now handled through the shipper's own bulk facility. A coastal wharf is shortly to be constructed to improve services to small ships and the extension of shed space is being kept under review.

Oro Bay is gaining in importance as Higaturu Oil Palm project nears the production stage about mid 1980. Construction of tanks and storage sheds in the port area has

been completed.

Manus Island continues to be fraught with uncertainties; the Starkist fish processing scheme will not be established on Manus and we are informed that Lombrum will shortly be closed to overseas shipping; this will cause problems for copra exporting and the 2,000 tonnes per annum of general imports. The Board, in conjunction with the Provincial Government is to conduct a study into the port requirements of the area.

Amongst other small ports the new coastal wharf at Samarai will be commissioned shortly. With improvements to the Wewak-Aitape road coastal cargo into Aitape has dropped severely and it is for consideration whether it is economic to continue with formal management there. A transit shed and a residence will shortly be completed at Buka Passage and management will be put on a proper basis.

Revenue, Expenditure & Finance

No changes to the Charges & Dues By-Laws have been made for the past two years so 1978 and 1979 are directly comparable and the increase in revenue from this source is roughly proportionate to the increased traffic.

Depreciation on assets now running at nearly K2 m. is the largest item under expenditure; interest on loans stands at K662,000. Staff costs at K1,535,000 were only K27,000 above last year.

The accounts show a satisfactory degree of control over revenue and expenditure and the effectiveness of budgetary supervision. Inevitably there must be some weakness in the revenue collection system and it has recently become apparent that underdeclarations of cargo, particularly coastal, are all too frequent and tighter control is being exercised in this area.

With regard to insurance, the Board covers its fixed assets up to K8 m. with a combination of commercial insurance and its own fund which now stands at K1 m. Considerable reductions in commercial insurance premiums now at K115,000 were obtained in 1979.

The Government has had under consideration for two years the question of how statutory bodies could make a greater contribution to Government revenue; the necessary legislative changes have now been made to make the Harbours Board liable to Corporation Tax.

The World Bank has again drawn attention to the Board's obligation under two agreements to produce a return of 4% on operational assets during 1979 and 7% per annum thereafter. This will be rectified when amendments to the tariffs are introduced early in 1980.

Capital Works & Maintenance

The largest capital project in 1979 was the continuing construction of the Port Moresby Container Terminal which has proceeded smoothly and visiting Kuwait Fund and World Bank Missions have expressed satisfaction with progress. It will be completed in May well ahead of the contract period. There has been very little overrun on costs.

The new coastal wharf at Samarai will be completed also about May. Improvements for container handling at Wewak were hampered by severe storm damage and a number of accidents causing damage to the fender system. The programme for 1980 includes a coastal wharf for Kimbe, barge ramps for Oro Bay, Daru, Vanimo and Kavieng; the old section of Kieta wharf is to be re-decked. Reefer container power points are being provided at some ports as well as container washing facilities.

The next major development is the Lae Tidal Basin Project which should get under way in 1981. The Asian Development Bank are interested in financing this project and a feasibility study has recently been completed. This project entails the dredging of a basin between the present port area and the Markham River; this land is presently swamp and in the long term provides almost unlimited space for future port and marine and orientated industrial development which will be so important if Lae is to continue its impressive growth rate. Every effort is being made to speed this project up as all indications are that existing facilities will be inadequate to cater for the increasing traffic in the next 2-3 years.

The Board's assets continue to be maintained to a high standard. Some K368,000 was spent in 1979 but this figure is somewhat understated as a substantial proportion was recoverable, being damage to assets caused during ships' berthing or other accidents. It also includes heavy expenditure on Madang fendering. As mentioned in last year's report it is becoming increasingly difficult to get maintenance and minor works done at the outports and, surprisingly, obtaining suitable timber is a frequent problem.

The Board is becoming increasingly concerned that pressures are being exerted to compel it to give up vital sections of port areas which have prudently been put aside for future port development. Land suitable for development is extremely scarce in Papua New Guinea and much of it only obtained by costly reclamation. To give away parcels of land in the reserved areas can only lead to costly problems in the future. Another cause of concern is the standards of engineering which developers of foreshore sites expect to be accepted.

In addition to the Board's own capital development programme the Copra Marketing Board is proceeding with the replacement of its sheds and other facilities at Madang, Kavieng and Rabaul.

Conclusion

Shipping is a volatile industry and 1979 certainly had its crises and problems and disappointments but on the whole it was a year of progress. Our main purpose of providing adequate facilities and services for ships to load and discharge cargo was achieved and planning of future port development went ahead vigorously.

2. Balance Sheet as at 31 December, 1979

31 December, 1978		31 December, 1979
K		K
	FIXED ASSETS	
4,855,688	Leasehold Land	4,872,363
21,365,311	Wharves Facilities & Buildings	55,785,580
	Residences & Residential	
567,023	Leasehold & Fittings	638,287
203,305	Plant & Machinery	240,794
109,203	Office Furniture & Equipment	121,340
27,100,530		61,658,364

(3,833,188)	Less: Provision for Depreciation . . .	(22,330,825)
23,267,342		39,327,539
3,692,642	WORK IN PROGRESS	5,613,207
	INVESTMENTS	
373,640	Sinking Fund	423,640
500,000	Asset Insurance	1,000,000
—	Long Term Deposits	2,000,000
1,100,000	Short Term Deposits	200,000
805,919	CURRENT ASSETS	1,380,253
29,739,543		49,944,639
7,830,000	Equity Capital.	7,830,000
6,310,140	Profit & Loss Account	6,264,448
	RESERVES & PROVISIONS	
373,640	Loan Redemption Sinking Fund . . .	423,640
750,000	Asset Insurance Reserve	1,000,000
5,448	R.B.F. Provision.	—
293,000	Asset Revaluation Reserve	293,000
5,460,140	Surplus on Revaluation of	
	Fixed Assets.	23,285,748
	LONG TERM LIABILITIES	
1,457,000	Government Loans	1,457,000
6,047,542	International Agency Loans	9,029,443
1,212,633	CURRENT LIABILITIES	361,360
29,739,543		49,944,639

3. Profit & Loss Statement for the Year ended 31 December, 1979

1978		1979
K		K
	Revenue of the Board under the Act	
2,240,797	Wharfage.	2,397,417
1,207,624	Berthage	1,258,772
489,747	Storage.	500,665
152,436	Port Dues	165,643
39,945	Berth Reservations	53,510
63,064	Licences	59,782
458,422	Pilotage	492,872
343,317	Sundry	317,759
4,995,352		5,246,420
	Expenditure of the Board under the Act	
1,508,832	Staff Costs.	1,535,758
73,798	Office Costs	123,317
240,155	Maintenance.	368,146
168,263	Public Utilities	147,522
306,565	Other.	204,112
(803,998)	(Depreciation Fixed Assets)	(1,963,560)
142,372	Insurance	115,687
19,359	Provision for Doubtful Debts	25,153
533,478	Interest—Loans	661,925
—	Wreck Removal	5,041
3,796,820		5,150,221
1,198,532	Operating Profit.	96,199
327,306	Non Operating Income.	230,443
1,525,838	Net Profit for the Year.	326,642
(250,000)	Less: Transfer to Asset Insurance Reserve	(250,000)
	Transfer to Sinking Fund	
(47,240)	Loan Redemption Reserve . . .	(50,000)
(297,240)		(300,000)
1,228,598	Retained Profits for the Year	26,642
	Plus: Retained Profits Brought Forward.	6,310,140
4,912,649	Transfer from Asset Insurance Reserve	—
	Transfer from R.B.F. Provision	5,448
168,893	Less: Income Written Back in 1978.	(77,782)
—		6,264,448
6,310,140		

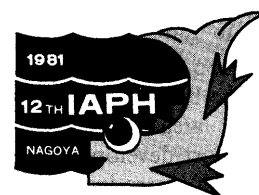
Table A. Revenue tonnes ('000)Tonnes handled over Harbours Board Wharves
Dry general cargo 1978–Dec. 1979

Port	Year	OVERSEAS CARGO			COASTAL CARGO		
		Discharge	Load	Total	Discharge	Load	Total
Port Moresby	74/75	268	46	314	43	51	94
	75/76	207	37	244	42	41	83
	76/77	199	34	233	46	50	96
	1977(½)	124	14	138	23	27	50
	1978	254	41	295	56	63	119
	1979	267	35	302	56	60	116
Lae	74/75	323	108	431	23	75	529
	75/76	247	108	355	26	66	92
	76/77	341	126	467	33	79	112
	1977(½)	189	63	252	15	43	58
	1978	375	116	491	40	94	143
	1979	408	141	549	28	85	113
Rabaul	74/75	108	54	162	19	9	28
	75/76	72	41	113	12	4	16
	76/77	84	37	121	12	5	17
	1977(½)	50	19	69	6	3	9
	1978	98	38	136	5	4	9
	1979	111	48	159	11	6	17
Madang	74/75	49	32	81	14	4	18
	75/76	39	30	69	12	2	14
	76/77	37	30	67	12	1	13
	1977(½)	20	16	36	7	2	9
	1978	39	32	71	12	2	13
	1979	46	32	78	15	3	18
Kavieng	74/75	10	19	29	10		10
	75/76	7	13	20	10	1	11
	76/77	8	17	25	11	1	12
	1977(½)	3	10	13	5		5
	1978	10	19	29	12	1	13
	1979	9	22	31	13	2	15
Samarai	74/75	6	8	14	7	4	11
	75/76	5	6	11	7	4	11
	76/77	5		5	4	5	9
	1977(½)	2		2	3	2	5
	1978				6	3	9
	1979				6	2	8
Kieta	74/75	50	25	75	43	15	58
	75/76	48	24	72	40	17	57
	76/77	44	20	64	31	15	46
	1977(½)	28	2	30	18	7	25
	1978	72	28	100	35	19	54
	1979	77	29	106	35	17	52
Wewak	74/75	24	2	26	19	12	31
	75/76	23	4	27	16	10	26
	76/77	24	3	27	18	12	30
	1977(½)	13	2	15	12	6	18
	1978	28	4	32	21	10	31
	1979	32	4	36	24	12	36
Kimbe	74/75	10	7	17	17	3	20
	75/76	7	14	21	14	3	17
	76/77	7	13	20	13	4	17
	1977(½)	5	6	11	8	2	10
	1978	12	14	26	15	6	21
	1979	21	20	41	16	9	25
Oro Bay	74/75				15	3	18
	75/76				13	4	17
	76/77				16	7	23
	1977(½)				8	3	11
	1978	3		3	22	5	27
	1979	10		10	20	6	26
Aitape	74/75				3	1	4
	75/76				5	1	6
	76/77				4	1	5
	1977(½)				3		3
	1978				4	1	5
	1979				3	1	4

Port	Year	OVERSEAS CARGO			COASTAL CARGO		
		Discharge	Load	Total	Discharge	Load	Total
Lorengau	74/75	1	1	2	4	1	5
	75/76				5	4	9
	76/77				5	2	7
	1977(½)				3	1	4
	1978				5	1	6
	1979				8	1	9
Vanimo	75/76		1	1	5	2	7
	76/77				5	2	7
	1977(½)				3	1	4
	1978				6	1	7
Alotau	76/77		6	6	12	3	15
	1977(½)	1	2	3	6	2	8
	1978	5	7	12	14	4	18
	1979	6	7	13	14	2	16
Daru	75/76				1		1
	76/77				9	2	11
	1977(½)				5	1	6
	1978				13	3	16
	1979				12	3	15
All Ports	74/75	849	302	1151	222	180	402
	75/76	655	279	934	214	160	374
	76/77	749	286	1035	231	189	420
	1977(½)	435	134	569	125	100	255
	1978	896	299	1195	265	217	482
	1979	987	338	1325	269	212	481

Symbol Mark

of

The Nagoya Conference

Nagoya has been prosperous for many years as a large castle town. Mounted on the roof top of its castle are a pair of fabulous golden sea animals "Shachi", which glitter brightly in the sunlight. The citizens hold a strong sense of loving attachment to them. The symbol for the 12th IAPH Conference on Nagoya expresses a warm welcome to port related people with a golden "Shachi" cresting the seas joining North & South America, Europe & Africa and Asia & Oceania.

International maritime information: World port news:

All-time cargo tonnage record: Port of Montréal, National Harbours Board

Total cargo tonnage at the Port of Montreal during 1980 reached an all-time record of 25 million metric tonnes, for an increase of 24% over 1979.

In making this announcement recently, Port of Montreal General Manager, Mr. N. Beshwaty, stated that this exceptional performance has been achieved despite particularly weak economic conditions both in Canada and abroad.

In his comments on the evolution of Port activity during the last twelve months, the General Manager, indicated that grain traffic was the category that experienced the highest increase at 7.4 million metric tonnes, or the largest volume recorded since 1966.

General cargo traffic totalled an historical record of 4.8 million tonnes, with imports accounting for a lower volume due to the weakness of the Canadian dollar, and exports recording a substantial increase as a result of our added capacity to compete with foreign products.

Petroleum products accounted for 6.9 million tonnes, and other dry and liquid bulk cargo, excluding grain and petroleum products totalled 5.8 million tonnes.

During 1980, containerized traffic continued its upward trend of previous years to reach an all-time high of 300,637 TEU's as opposed to 268,000 TEU's in 1979. As a result, Montreal remains by far the most important container port in Canada. It controls about 45% of the Canadian market and handles as many containers as the Ports of Halifax and St. John combined.

In conclusion, Mr. N. Beshwaty stated that despite gloomy prospects for the Canadian economy and that of our main trading partners, moderate optimism prevails for the Port of Montreal as it is expected that it will continue to increase its share of the market.

Port sets big new record: Nanaimo Harbour

With two record years in a row and a rise of 34 per cent in business, for 1980, there's reason for smiles at year end at the Nanaimo Harbour Commission.

Final figures for the year's business, released Dec. 30, show total cargo shipped out of Nanaimo in 1980 was up to 782,212 metric tons, an increase of 201,262 MT over 1979, the port's previous record year.

The final figure means an increase of 34 per cent over the previous record.

Bob Chase, manager of marketing for the Nanaimo Harbour Commission was naturally jubilant as he made the announcement, and commented that at year end there was no indication of the upward trend slacking off.

"We're very optimistic for the first quarter of the year, which has traditionally been a low time. We'll be starting off with four ships held over from the end of December and

things look good beyond that too."

Chase said that 656,229 metric tons of lumber were shipped out of Nanaimo in 1980, compared to 478,000 MT the year before. Pulp shipments were also up, climbing from 77,283 MT in 1979 to 91,111 MT in 1980. Miscellaneous shipments, including plywood, kraft paper and shingles jumped from the last record of 25,389 MT in 1979 to 34,872 MT in 1980.

Chase predicted that by the end of the decade the 1980 figures will have doubled.

Port of Saint John, N.B., sets all-time cargo handling record

The Port of Saint John attained its highest recorded tonnage in 1980 with total waterborne cargo handled within the port totalling some 16,285,051 metric tonnes (16,543,544 long tons), an increase of 1,245,560 metric tonnes (1,265,330) or 8.3 per cent over 1979.

At facilities operated by the National Harbours Board alone, the increase was more than a half-million metric tonnes for a total of 3,319,334 (3,372,022) tonnes for 1980, a 21 per cent increase over the previous year.

The steady growth of container traffic, included in the National Harbours Board figures, is reflected in the 965,320 (980,642.5) tonnes handled, which is 67,587 (68,659.8) tonnes over the 1979 total of 897,733 (911,982.7) tonnes up by 7.5 per cent. Full container numbers handled at all Board facilities amounted to 79,862 TEU's up by 918 over 1979.

New Brunswick products made significant contributions to the gains in commodity tonnage, particularly the various forest products which totalled 825,000 (838,095.2) tonnes, an increase of 208,000 (211,301.6) tonnes over 1979. Also assisting were the initial movements of salt and potash, with salt providing 102,000 (103,619.0) tonnes and potash 55,093 (55,967.5) tonnes. Another new commodity from the province was the shipment of 23,085 (23,451.4) tonnes of bulk cement.

Although petroleum products again represented the greater share of the overall tonnage of commodities handled, other items such as grain increased by 125,000 (126,984.1) tonnes with a total of 447,130 (454,227.3) tonnes, motor vehicle parts up 5,000 (5,079.4) tonnes for 74,500 (75,682.6) tonnes total. Other general cargo was up 34,000 (34,539.7) tonnes for a total of 408,276 (414,756.6) tonnes.

Major developments to the port facilities were accomplished during 1980. These included the 20 acre Lower Cove Terminal which has a built in ramp landing platform to accommodate roll on-roll off traffic, a six acre expansion to Long Wharf and the strengthening of the deck of an extension to the container terminal. This extension will give the container terminal a total area of 44 acres and has increased the length of the marginal wharf to 2,100 feet.

Since entering the container business in 1971, some

\$100 million in improvements have been invested in upgrading harbour facilities in Saint John.

Toronto lawyer re-elected chairman of the Toronto Harbour Commission

A Toronto lawyer, Karl D. Jaffary Q.C., has been re-elected chairman of the Toronto Harbour Commissioners for 1981.

Mr. Jaffary, 44, a City of Toronto appointee, was first named to the five-man Board in June, 1975 and reappointed to a second three-year term in June, 1978.

Port of Vancouver handles a record 50 million tonnes

The Port of Vancouver's cargo tonnage total for 1980 was just under 50 million metric tonnes according to figures released recently.

Led by substantial increases in the export of coal, pulp chips, petrochemicals, sulphur and grain, the Port handled a record 49.2 million tonnes, approximately 9.5 percent more cargo than the 44,982,000 metric tonnes in 1979.

F.J.N. Spoke, the Port's General Manager, called it a remarkable achievement in light of several negative factors bearing on the Port's operations during 1980. He referred specifically to the Second Narrows Bridge being out of service for a considerable period of the year, a lengthy strike at B.C. Rail and at the Kaiser Resources mine site, and rail line washouts in late December.

"There can be no truer measurement of the buoyancy of the economy in Western Canada," he said. "The momentum of growth over the past 20 years is clearly reflected in the steady increase of cargo through the Port of Vancouver."

Mr. Spoke predicts continued strong growth.

"In the second half of the 1980's, the 50 million tonnes will have grown to 80 million," he said. "I can see the Port continuing in a dynamic growth pattern right through the 1980s and beyond." Several factors combine to paint the future rosy for the Western Canadian economy and the Port of Vancouver. The lower Canadian dollar makes Canadian exports increasingly competitive. At Vancouver, the flow of export cargo far exceeds that of imports.

He predicted a continued increase in export tonnage figures in all these products, barring any serious and unexpected world market disruption.

"Our coal and coke exports for the next two years will remain more or less static, because our handling facilities are at or near capacity now," he said. "But after the Roberts Bank expansion, coal volume should jump sharply from 1983 on."

Mr. Spoke said world markets for sulphur and potash also look strong for the next 10 years or more. China is emerging as a significant market for both sulphur and potash, as it may be for forest products, while grain sales are expected to continue to be strong.

Optimism with respect to grain exports generally comes from several quarters. The Canadian Wheat Board predicts that by 1985, grain tonnage from Canada may well increase to 30 million tonnes annually which represents a 50% increase from 1979 exports. The Port of Vancouver's tonnage for grain is expected to show a proportionate increase.

"The grain handling situation has been measurably streamlined, more rail hopper cars for one thing. And with

the greatly increased storage capacity at the Port, we are able to smooth out many of the rough spots in the rail transportation system."

Mr. Spoke cited the development of Fibreco for the export of wood chips as an important factor in the Port's markedly improved tonnage figures in 1980. Export of wood chips through the Port increased by more than 50 percent over 1979.

The new Dow Chemical liquid bulk facility on the North Shore is another most significant addition to the Port, reflecting an increasing tonnage of the products from, amongst others, Alberta's growing petrochemical industry.

The Province of Saskatchewan is developing rapidly a diversified industrial base and this fact is also expected to be reflected in the Port's tonnages in the years to come.

General cargo is less predictable, though Mr. Spoke expects a continued volume increase. This depends on many factors beyond our control, such as government policies, for example," he said. Nevertheless this year has shown a healthy increase above the 10% range for containerized cargo and almost 7% for break bulk general cargo.

U.S. Coal Export Task Force report

The limited storage and loading of U.S. coal ports is "the immediate hinderance" to the expansion of U.S. steam coal exports, according to the preliminary report of the Interagency Coal Export Task Force. During 1980, the loading capacity of these ports was stretched to its "practical limit," meaning that America's ability to capitalize on the rapidly-expanding international steam coal market is effectively constrained by deficiencies in its coal port system.

Overseas demand for steam coal, according to the Task Force's projection, should rise to between 236 and 280 million tons in 1990 and 475 and 565 million tons by the year 2000. For the remainder of this decade, that growth will be concentrated largely in Europe. Demand on the Pacific rim will accelerate after 1990. The U.S. share of that market could rise to 18 percent by 1985, 25 percent by 1990, and 38 percent by the year 2000. The Task Force's failure to incorporate metallurgical coal demand into its projections necessarily understates the overall impact coal exports are likely to have on U.S. ports particularly as they affect channel requirements.

The report blames the vessel congestion problems that have plagued the eastern coal ports for the last year on loading facilities designed to handle metallurgical rather than steam coal, and on the fragmented nature of the coal market itself. Interestingly, it concludes that "channel depths at the ports did not in itself, play a primary role in the problem."

The Task Force makes note of planned coal terminal projects and sees no need for federal financial assistance for the development of piers and "associated coal-loading equipment." That need is properly met by private industry and local and state governments, the report notes. The Task Force agrees that deepening coal port channels would make American coal more competitive overseas but deliberately refrains from deciding which, if any, ports should be dredged. "Budgeting constraints" make it unlikely that all ports now seeking 55-foot channels to accommodate colliers can in fact, be dredged to that depth. Instead, the Task Force suggests such projects should be carried out in

stages, going first to 50 feet, then deeper should future needs warrant. Inter-port competition for funding, the report notes, will likely be one of "the more important issues facing harbor improvement in the Congress." The Task Force agrees that there is a need for accelerating the project implementation process. (AAPA ADVISORY)

Locust Point Marine Terminal records high volume for year: Maryland Port Administration

The Port of Baltimore's North Locust Point Marine Terminal handled 934,153 tons of cargo in 1980, breaking a previous all-time high set two years ago.

Operated by the Maryland Port Administration since 1964, North Locust Point increased its gross tonnage by more than 30 per cent over 1979's total of 716,241 tons.

The cargo record for the terminal, owned by the Baltimore and Ohio Railroad and leased to the MPA under a 40-year contract, was set in 1978 at 843,639 tons.

A whopping increase in general cargo from 293,619 tons in 1979 to 489,081 tons in 1980 helped the terminal to keep pace with overall general cargo growth in the port of Baltimore.

Other commodity increases were noted in steel, which jumped from 100,788 tons to 136,122 tons last year, and container cargo, up from 188,975 tons to 190,618 tons in 1980.

North Locust Point also increased its grain totals at Pier 7 from 1979's 1,727,474 tons loaded to 1,936,470 tons, a jump of about 12 per cent.

Super berth: Port of Baltimore

Dundalk Marine Terminal heading for a record tonnage year at three of its 12 cargo berths, is adding a 13th "super berth" to help meet the needs of shippers during the 1980s.

Construction is now underway and the new berth is expected to be operational during the latter part of 1982.

Work to be done under the McLean contract consists of the furnishing of all materials and equipment and the performing of all necessary labor to complete construction of 963 feet of marginal wharf and a RO/RO platform, including 150,000 cubic yards of excavation and embankments of various types.

Also, 135,000 cubic yards of dredging and the installation of a turbidity control curtain, erosion controls, storm drains, underground utilities, lighting, railroad tracks, a gantry crane railway and 2,600 square yards of reinforced concrete pavement and 32,000 square yards of bituminous concrete pavement.

In addition, a diked dredge disposal facility will be built and the work will include the hauling and placement of dredge material at Hawkins Point.

The new berth will add 30 acres at Dundalk Marine Terminal for container storage and permit the export and import of 750,000 tons of cargo annually.

Berth 12 at Dundalk Marine Terminal set a record in the port of Baltimore in 1979 by moving a million tons of cargo. It is expected to repeat that performance in 1980, along with Berths 8 and 11.

MASSPORT wins \$2 million Federal Grant

Congressman J. Joseph Moakley recently announced a federal grant of \$2 million from the U.S. Department of Commerce's Economic Development Administration to Massport to complete renovation of Boston's historic Fish Pier.

Under the three-year modernization program, the 65-year old waterfront landmark property will undergo a major facelift that will lead, according to Congressman Moakley, "to a 50 percent increase in jobs at the Fish Pier."

David W. Davis, Massport Executive Director, called the \$12.5 million Massport Fish Pier Project "the anchor in Boston's resurgent fish processing industry."

"This project will make the Boston Fish Pier the number one fish processing center on the East Coast," Davis added.

Phase One of the restoration project, completed in the Fall of 1980, provided for exterior rehabilitation of the three buildings on the Pier, while Phase Two, which will begin this year, will finance improvements to the Pier itself, a new utilities and road surface as well as interior improvements to the buildings.

The overall three year, \$12.5 million project will be completed by April, 1982.

The main activity that takes place at the Pier is fresh fish processing, with twenty-three fish dealers and 1000 employees presently working on the Pier.

Since Massport began the modernization project, there has been a 36 percent increase in the volume of fish landed at the Pier. In addition, several new boats have been working from the Pier.

According to Davis, Massport's renovation project has led to \$12 million in private investment at or near the Pier.

The \$12.5 million Fish Pier modernization project is part of Massport's \$100 million development program for the Port of Boston.

The development program includes redevelopment of the Castle Island Terminal in South Boston, development of a 48-acre facility at the South Boston Naval Annex, and facility improvements at Moran Terminal.

Davis said that, "Massport's comprehensive maritime development program should generate 250 construction jobs a year, lead to 2,000 new industry jobs, and contribute \$18 million annually to the Massachusetts economy."

General cargo up by 21%: Port of Houston

Declining crude oil imports and petroleum product shipments held down the Port of Houston's overall tonnage during 1980, but movement of general cargo increased by 21%, showing that the city's importance in world trade continued to increase.

The PHA preliminary figures show total port tonnage for 1980 was 106,211,448 tons, a 13% decrease from the 1979 total of 122,383,558.

However, general cargo handled in the Port of Houston during 1980 increased by almost 2 million tons over the previous year, from 8,743,046 to 10,618,184. Port Authority wharves handled 9,174,494 tons of that general cargo, for an increase of 23%.

General cargo is considered much more important to a port city economically than bulk cargo since the handling

of general cargo and the administrative work involved with it generates many more jobs than does the processing bulk cargo.

Overall, the Port Authority's various facilities handled 19% more revenue tonnage in 1980 than during 1979, with the total moving from 13,819,621 tons to 16,399,004.

The greatest growth in volume at the public facilities occurred at Barbours Cut, location of the Port Authority's advanced intermodal terminal. Tonnage at the new facility increased by 35%, from 1,701,586 tons during 1979 to 2,294,727 tons last year. The number of ship-carried barges handled at the terminal increased from 1,294 to 1,563.

The number of containers handled in the Port climbed 13%, from 266,250 to 300,395 TEU (twenty-foot Equivalent Unit).

Grain shipment through the entire Port increased by 11%, from 10,493,721 to 11,557,813 tons, and through the Public Elevator by 25%, from 591,170 to 740,082 tons.

Total auto imports declined from 179,047 units in 1979 to 157,316 last year. Tonnage handled at the Port Authority's (Dry) Bulk Materials Handling Plant declined by 7%, from 2,292,276 to 2,135,441, which was still considered to be in excess of capacity.

The Port Authority's preliminary figures showed 16,351,961 tons of crude oil imported last year compared to 20,359,596 tons a year ago, for a decrease of 20%. At the same time, coastwise barge shipments of petroleum products decreased from 23,994,852 to 15,915,934 tons.

Second quarter interim report: Port of Los Angeles

An increase in general cargo during the second quarter of fiscal year 1980-81 lead to a total of 18.5 million revenue tons billed for the period, according to a second quarter interim financial report released recently by the Los Angeles Board of Harbor Commissioners.

For the July-December period, general cargo increased to almost 7.8 million tons from some 7.0 million tons for the same two quarters last year. Bulk petroleum, however, decreased 2.1 million tons for the two quarters, resulting in an overall 1.3 million revenue ton decrease compared to 1979-80 fiscal year figures.

Net income for the two quarters covered in the interim report increased \$4.0 million over last year, to \$19.5 million. Operating revenue for the two-quarter period increased \$4.0 million to \$29.7 million, an increase of 16% over a comparable period in 1979.

Total operating and administrative expenses decreased \$.8 million, or 7.8%, to \$10.3 million in 1980.

Some \$9.9 million was spent during the two quarters for capital projects, including \$3.5 million for dredging, \$2.4 million for the container yard at Berths 207-209, and \$2.0 million for the administration building. Major maintenance projects including pile replacement, drydock for the Angels Gate tug and re-roofing of sheds accounted for a total \$1.5 million expenditure for the first two quarters of fiscal year 1980-81.

Plan announced for expediting dredging of 55-foot Channel

In New Orleans a few days before the election Sen. J. Bennett Johnston and Charles Duncan, Secretary of Energy, announced that legislation would be submitted by the administration to Congress in January to permit the dredging on an accelerated schedule of the long-awaited 55-foot channel at the mouth of the Mississippi River. Although the election has resulted in a new administration coming into office, it is generally believed that the legislation will be supported by the new Congress and administration.

Planned to include deepening of channels at the ports of Mobile, Hampton Roads, and Norfolk, as well as New Orleans, the proposed legislation was designed to allow ports involved in coal exports to handle the large, deep-draft bulk carriers generally used to carry coal. In the case of New Orleans, only 21 miles at the Southwest Pass of the river needs to be deepened since the remainder of the river to the Port of New Orleans has a minimum depth of 100 feet. The bill would also include the dredging of nine crossings between New Orleans and Baton Rouge to provide a 55-foot channel all the way to that port.

If authorized legislation and necessary appropriations are approved by mid-1981, a depth of 50 feet could be achieved as early as 1983, Sen. Johnston estimated. The legislative process and the preparations to conduct the dredging would normally require eight years, but Duncan stated that this time could be reduced to four years or less with the cooperation of the administration. The Army Corps of Engineers would be instructed to speed up their usual procedures for conducting dredging operations and proceed concurrently rather than sequentially on the various steps the Corps must take, Secretary Duncan stated.

Completion of the 55-foot channel could make the Port of New Orleans one of the largest coal exporters in the world, Sen. Johnston predicted. This was echoed by Duncan, who pointed out that the Port would receive coal from the Appalachian mines via the Ohio and Mississippi rivers, coal from southern Illinois, and western coal via the Missouri-Mississippi river route. Port statistics indicate that by 1990 terminals on the lower Mississippi River could be exporting up to 100 million tons a year, with double that amount by the year 2000. Noting that the U.S. has one-quarter of the world's coal, Duncan stated that foreign leaders say they would like to purchase more coal from the U.S. He said that the benefit-cost ratio of the 55-foot channel was about 8.5.

Mayor Ernest Morial, who also attended the news conference, said a possible additional benefit would be the creation of a coal gasification industry in close proximity to the city. He also reported that during recent trade mission visit to Europe he was told by business leaders that they can buy coal from the U.S. at a cheaper price than it costs to mine and process coal in Europe. Congresswoman Lindy Boggs added that the availability of a large supply of coal could lead to synthetic industries in this area.

Edward S. Reed, executive port director/general manager, pointed out that the deeper channel would also mean a significant increase in grain tonnage and noted that

the Port now handles 42% of U.S. grain exports. By 1990, grain exports loaded from terminals on the lower Mississippi River could reach 165 million tons with a value of over \$27 billion. Ships would no longer have to light load but could load to the limit of their capacity. In the case of soybeans, each foot over the 40-foot draft could allow an additional 3,000 tons. The 30,000 extra tons permitted by a 50-foot draft would have a value of \$7 million. A transportation savings of more than \$1 billion annually on the shipping of both coal and grain would result.

Port of Tokyo mission seeks increased NY-NJ trade

The Tokyo Metropolitan Port Trade Mission recently made a five-day visit to the New York-New Jersey Port as part of a national tour to promote the Port of Tokyo. The 40-member port delegation comprised public officials and trade association and private company representatives from Tokyo.

At The Port Authority of New York and New Jersey, old friendships were renewed during a reception and film showing and future joint projects were discussed.

The occasion also commemorated the signing of a proclamation in May that made sister ports of the New York-New Jersey Port and the Port of Tokyo.

Oakland, Manila become Sister Ports

The sister-port relationship recently established between Oakland and Manila should provide an opportunity for developing closer economic and trade ties between the United States and the Philippines, according to Mrs. Imelda R. Marcos, Metro Manila Governor and wife of President Marcos of the Philippines.

Mrs. Marcos was speaking at ceremonies held recently in Manila at which Oakland and Manila became Sister Ports.

She said: "Through such a partnership, a blending of management skills, technology and resources can be worked out to the mutual benefit of the Philippines and the United States.

"It should be noted that even before the conclusion of this sister-port agreement, the Port of Oakland has already offered to train Filipino port personnel in various aspects of port management and operation. This laudable gesture will enable our own port personnel to learn new methods in the efficient management of local ports.

"The importance of such training cannot be overemphasized, because the Philippines, being an archipelagic country, has numerous natural harbors that can be fully developed to serve the needs of maritime trade. Therefore, the development of Philippine maritime trade is a priority in our national development plans."

Ted Connolly, President of the Oakland Board of Port Commissioners, said that Oakland was pleased and honored to be selected by the Port of Manila as its first foreign Sister Port. "We have many ties with Manila, through history and trade, and we know this association will lead to expanded trade and commerce between our two ports, as well as understanding and friendship through programs of exchange," he said.

Connolly led an Oakland delegation to Manila for the ceremonies. Other members of the delegation were Herbert Eng, Chairman of the Board's Maritime Committee; Port Commissioner David Creque; Walter A. Abernathy, Ex-

ecutive Director of the Port of Oakland; and Charles Seifert, the Port's Director of Public Relations and Advertising.

Richard W. Murphy, U.S. Ambassador to the Philippines, also participated in the Manila ceremonies.

COBETRA: constant attention paid to incoming port traffic in Antwerp

In order to make Antwerp's tariffs for incoming traffic competitive with those in neighbouring ports, new regulations and tariff rates of cargo reception costs came into force in early 1967.

Close cooperation between FASNAG (Federation of Antwerp Master Stevedores' Wharfingers and Similar Associations) and the Antwerp Shipping Federation made a change-over possible to a system with well worked out regulations, special tariffs for numerous types of cargo and a guarantee of direct transfer for all consignments presented on block at the time of loading.

To serve all interested parties of the new regulation these organizations jointly set up a permanent commission with the task of examining all protests received and to take the necessary steps to avoid traffic being diverted elsewhere and as far as possible to attract new traffic.

Since then the "Committee for Disputed Traffic", better known under the name COBETRA, has become a well known concept both inside and outside Antwerp.

On request of interested parties in business circles COBETRA systematically studies individual cases and ensures that Antwerp's tariff rates for the reception of cargo in all circumstances meet as far as possible the specific requirements of each type of traffic. COBETRA has various means at its disposal to carry out its task. The most obvious one is clearly a reduction in the official tariff rate for the reception of cargo. But COBETRA has other remedies at its disposal: an alteration in packaging, the use of greater units, different administrative procedures, a change in handling techniques, etc.

Anyway, the data taken from an article by R. Restiau which appeared in the latest edition of the review "Hinterland", show that in the vast majority of cases it can supply effective assistance. In the last two years 45 cases have been examined, 70% of which were dealt with positively in one way or another.

Although a detailed evaluation may be difficult, statistics show that specific incoming liner traffic in the port grew from 5.7 million tons to 10.2 million tons over the period 1968 to 1978. As a result, Antwerp has been able to increase its share in the overall traffic of the Le Havre-Hamburg range from 17.6% to 18.9%.

Thus, in a general sense there can be no doubt that COBETRA has made a significant contribution to the maintenance of Antwerp's competitive position with regard to incoming traffic.

King's Lynn fights recession with grain export boom

Booming grain export shipments provided a welcome lift to the British Transport Docks Board's port of King's Lynn last year as it fought to stem the effects of the UK's economic recession.

Despite a lack of growth in tonnages of most types of cargo passing through the East Anglian port, export ship-

ments of cereals and grain shot up by no less than 68% in comparison with figures recorded in 1979. At 160,400 tonnes, this export commodity alone accounted for almost 21% of the total tonnage of cargo handled.

A significant and continuing contribution has been made by a new portable grain elevator operated by Anglian Agricultural Merchants Ltd. Through its ability to handle up to 200 tonnes per hour, the new-style machine boosts the Bentinck Dock's existing 6,000-tonne silo owned by Bunge & Co. Ltd.

"This new equipment is yet another string to our bow and is the latest addition to a number of improvements made to our cargo handling systems in recent times," says Docks Manager, Mr. Bob Owen. In his opinion, King's Lynn is among the most comprehensively equipped ports on the east coast with the capability to handle virtually any cargo and any type of vessel up 2,000 tonnes dwt.

Steel scrap record at Swansea: BTDB

The port of Swansea in South Wales recently loaded a large cargo of 24,191 tonnes of steel scrap onto the Greek-registered vessel "Atholl Forest".

Bound for Japan, the vessel was loaded in ten working days. This was the largest single consignment of scrap to be shipped from any port in the UK.

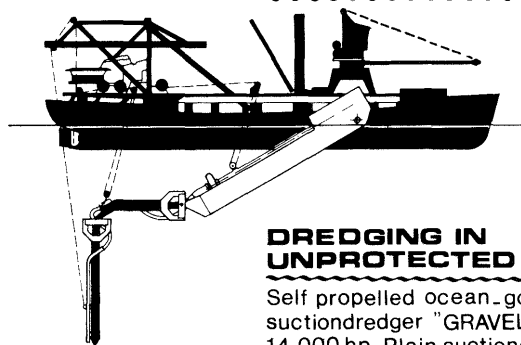
Swansea is among the British Transport Docks Board's five South Wales ports, all of which, with the exception of Port Talbot, have been busy handling large quantities of scrap during the last six months.

PLACON Training Courses 1981

Mr. R.J.G. Nation, General Manager of PLACON Ltd. (A subsidiary of the Port of London Authority) in his recent letter announced the programme of PLACON Training Courses 1981, as follows:

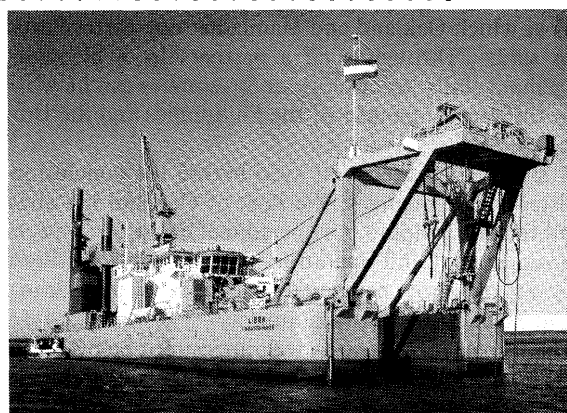
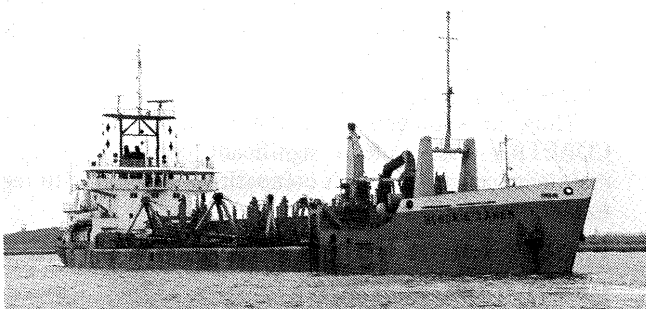
Course	Duration	Level	Dates
A. Port Policing & Security (Senior)	2 weeks	Officers of middle and senior rank	21.09.81/ 02.10.81
B. Port Policing & Security (Containers and Unit Loads)	2 weeks	Officers of all ranks	05.10.81/ 16.10.81
C. Port Policing & Security (Intermediate)	8 weeks	Officers of junior and middle rank	19.10.81/ 11.12.81
D. Port Policing & Security (Induction)	12 weeks	Junior officers	21.09.81
E. Command Management	2 weeks	Senior officers	October/ November
F. Seamanship	2 weeks	Junior rank (1) (2) (3) (4) (5)	27.04.81/ 08.05.81 01.06.81/ 12.06.81 22.09.81/ 30.09.81 02.11.81/ 13.11.81 08.12.81/ 18.12.81

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Course	Duration	Level	Dates
G. Chartwork & Radar	3 weeks	Junior rank (1) (2) (3) (4) (5)	11.05.81/ 29.05.81 23.06.81/ 10.07.81 01.09.81/ 18.09.81 12.10.81/ 30.10.81 16.11.81/ 04.12.81
H. Port Management & Operations	2 weeks	Junior and middle management	15.06.81/ 26.06.81
J. Instructor	1 week	All levels (1) (2)	12.10.81/ 16.10.81 09.11.81/ 13.11.81
K. First Aid	1 week	All levels	26.10.81/ 30.10.81
L. Plant Operation (Appreciation)	1 week	Junior operating managers, supervisors and Foremen	Note 6
M. Safety	1 week	All levels	Note 6
Practical Attachments	1 -2 weeks	All levels	By prior arrangement

Notes:

- (1) Courses are non-residential unless otherwise shown. For ease of travel, participants are recommended to reside near the centre of London or at accommodation in the vicinity of the appropriate Dock or Training Centre. National High Commissions or Embassies in London may be able to assist with bookings. Alternatively, on request, hotel reservations may be arranged through Placon Ltd. However, it should be noted that all accommodation costs are the responsibility of the client and must be settled personally by course participants or their sponsoring organisation.
- (2) Course fees are inclusive of lunch and light refreshments on all working days (Monday to Friday, excluding Public Holidays).
- (3) Course fees may be subject to the addition of Value Added Tax at the appropriate prevailing rate. At the time of publication this was 15%.
- (4) Course places should be reserved as early as possible and, in any event, at least four weeks prior to the start of the course. All reservations will be acknowledged in writing and booking confirmation and joining instructions will be sent in good time for the course. It is regretted that reservations cannot normally be accepted at less than four weeks notice.
- (5) Cancellations of reservations will be accepted, without fee, up to four weeks prior to the start of the course. In the case of cancellations received at less than four weeks notice, fees will be charged in full.
- (6) At the time of publication of this booklet, dates for certain courses were undecided. Dates for these courses will be supplied on application to Placon Ltd.
- (7) Whilst every effort will be made to present courses in the form and on the dates indicated, the right is reserved to make any changes deemed necessary.

All enquiries and course reservations should be addressed to:

The General Manager,
Placon Limited
Main Dock Office
Tilbury Docks
Tilbury
Essex RM18 7EH
Telex No. 995319
Tel. Tilbury. 3444

New bulk terminal: Port of Dunkerque

Bulk cargo traffic has shown a dramatic increase in the course of the last 20 years. In 1961 traffic stood at 50 000 T but in 1979 figures were 19 MT, of which 10 MT of ore for Usinor alone and the remainder made up of ore and coal were intended for Usinor's coke plant or steelworks in Lorraine and Saarland or French Electricity Board power plants and French Coal Board power and coke plants.

Faced with fierce competition the port which has reached full capacity as regards transit facilities and which is limited to 110 000 DWCT ore carriers, must enter a new phase in its development.

Dunkerque Eastern Harbour, with its present facilities, can no longer hold its own against Rotterdam.

The agreed 290 acres terminal at Dunkerque West will in the first phase be able to receive ships of 175 000 DWCT and 250 000 DWCT in the final phase. It is designed with 50 T gantry cranes for unloading which can handle ore up to 2 000 T an hour per unit and coal at a rate of 1 700 T an hour, it will have a storage yard with a capacity of 1 million T. The storage yard will be linked by means of a conveyor belt which runs alongside the quay and can handle 7 000 T of ore per hour or 4 000 T of coal. In the first phase the storage yard will have two strips of back-up areas 1 000 m long and 35 m wide. (70 000 m²) The stacking and reclaiming of goods will be achieved by means of a 1 250 m conveyor belt, a stacker and a bucket wheel. A loading tower for trains completes the terminal.

Thanks to this new equipment the Port of Dunkerque will be able to take up the challenge of increased coal traffic for power plants and coke plants as well as for industry. The competitiveness of the port will be reinforced thereby enabling Dunkerque to claim a larger share of the North West European heavy bulk cargo.

Port of Dunkerque Authority news

• Total figures in 1980

Inward traffic	33,368,631 T (+2%)
Outward traffic	7,848,825 T (-3%)
Total :	41,217,456 T (+1%)

After a promising initial 6 months, the drop in incoming traffic, mainly hydrocarbons, minerals and cross-channel traffic (1,320,089 tons i.e. -7%) towards the end of the year has meant a very slight increase compared with the 1979 results. The most significant increases for inward traffic have been for phosphates, refined products and

(Continued on page 43)

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(Continued from page 41)

coal whereas timber oil seeds and crude oil have experienced large drops.

Outgoing traffic such as sugar fertilizers, cereals, metallurgical products which fell in 1979, are now picking up. The poor export figures are due to a drop in coke, cement and refined products.

Container traffic : details (estimates in T.E.U.S)

Eastern harbour : 14,700 (+4%)

Western harbour : 50,800 (+23%) of which 17,800 were cross channel

in tons :

Eastern harbour : 180,000 T (+4%)

Western harbour : (ocean-going traffic) 280,000 T (+9%)

Western harbour : (cross-channel traffic)

320,000 T (+26%)

In that somewhat mediocre climate, Dunkerque is the only French port with Rouen, to have increased its total traffic.

• Cross channel traffic via Dunkerque

Sealink's freight and passenger service has been badly hit by the present gloomy economic conditions as well as by the French fishermen's strike and the abandoning of the night train on the Paris-London line although Dunkerque has suffered less than other French ports.

So would an eventual re-opening of the Dunkerque-Ramsgate line in 1981, a line which carried 110 000 extra passengers in just a few months, thus proving the port's potential this field.

(SEALINK only):

	Train-Ferry Dover	Car-Ferry Dover	Harwich	Felixstowe	TOTAL	% 79/80
Cars	46 417		4 588		51 005	- 21%
Vehicles	36 041	12 381	227	2 759	51 408	- 20%
Freight	8 699	7 618	32	1 931	18 280	- 23%
Gross tonnage	799 497	164 355	51 538	306 073	1 321 463	- 7%
Passengers	325 124	2 947	17	1 640	329 278	- 21%
Containers				15 463	15 463	+ 3%

EEC now world's largest shipping combination

Formed in Rome in 1957 by Belgium, France, the Federal Republic of Germany, Italy, Luxemburg and the Netherlands, the European Economic Community was extended in a second phase in 1973 with England, Ireland and Denmark and has begun the 3rd phase on 1.1.1981 by initially admitting Greece. Spain and Portugal are to follow. One hears in Brussels that the EEC hereby gains in territorial size, but not in strength; for the 'poor south' Europeans bring with them more burden than output. Thus the some DM 5,000 milliards in economic efficiency of the nine for 1980 experiences, with the DM 75 milliard Greek output, only a nominal increase whilst making, at the same time, the EEC decision-process and financial situation more difficult and problematical. As against this, one, in shipping circles, points to the excellent 'maritime dowry' of the Greeks. Currently Greece has nearly 10% of the whole world merchant shipping tonnage under her flag; and is ranked 3rd among the 140 shipping nations. With 26,435 million GRT, dry-cargo freighters constitute the major portion of the Greek merchant fleet. 'Statistik der Schiff-

fahrt', of the German Institute of Shipping Economics, Bremen, advises the tanker tonnage share to be 10,406 million GRT. Thus Europe gains considerably in importance as the largest shipping combine in the world. The EEC's share of the world's total merchant tonnage, prior to Greece's entry was, with 5,585 ships (over 300 GRT) having 67.7 million GRT: -17.7%, and this now increases to 27.3%. For, sailing under the Hellenic flag at present are 3,122 ships with 36.8 million GRT—which alone represents 9.6% of the international merchant fleet (33,855 ships with 383.5 million GRT). The EEC now commands 8,707 ships with 104,508 million GRT. ('Bremen International') (For more information: Institut für Seeverkehrswirtschaft, D-2800 Bremen. Telephone: 0421/500 233).

Port of Hamburg news

• Positive statistics for 1980: Container port number one

The name of the Federal Republic of Germany's leading container port continues to be Hamburg. This has been confirmed by the statistics for the first nine months of 1980.

At 581,700 TEU the transshipment total was a good 24 per cent over that of the comparable period of the preceding year. Accordingly the containerisation degree in general cargo traffic rose from 32 per cent (1979) to 37.8 per cent.

An interesting point is that general cargo, seen as a whole, scored a growth rate of 4.8 per cent (to 13.7 million tons), but this rise was accounted for solely by containerised goods.

Hamburg's strong position in container traffic is due not least of all to its high service rate facilities. Two million square metres of built-up surfaces (also in sheds) are available for the handling and storage of containers. Actual handling is carried out by 20 container cranes and over 60 portal lift trucks. Nearly all operational processes are controlled by EDP systems.

• Compulsory pilotage

For the purpose of increasing still further the safety of maritime traffic in the German coastal region, the Federal Transport Minister has decided that in future all ships above 1,000 GRT must use the advice of a sea pilot on voyages from and to German seaports. The new regulation is to become effective on 1st April, 1981.

At present ships are obliged to use a sea pilot's services only in the Kiel Canal, the Ems and the Trave; tankers have to take on a pilot also in the other German estuaries.

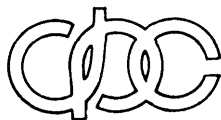
Mindful of the fact that traffic safety can also be endangered by other ships, the Federal Government considers it necessary to oblige all shipping in all the estuaries to accept sea pilots. Exceptions to the rule exist for ships masters frequently using the estuary in question.

Sharjah's record breakers do it again!

Sharjah's Port Khalid in the U.A.E. has again broken its record for cargo discharge at the port.

Until now the record involved the m.v. Falcon, chartered to M.T.O. Lines of West Germany from which Port Khalid's specialist stevedoring crews unloaded 12,220 tons of steel in 57 hours.

This has been smashed with the discharging of 12,800 tons of steel from another M.T.O. vessel, the Marcalan, in



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only 42 hours.

The record performance included a 24-hour period discharge of 8,000 tons, again an all-time best performance for the port.

A Sharjah Port Authority spokesman commented: "The speed and efficiency of Port Khalid's stevedores greatly reduces the turnaround time of large bulk carrying vessels. Consequent vessel economies have boosted interest in our facilities from many international shipping lines."

Port of Brisbane now has a consultative Committee; Port users to assist Board

A private enterprise consultative committee has been established under the auspices of the Port of Brisbane Authority.

The chairman is the Authority's General Manager (Mr. F.M. Wilson).

Represented on the committee are the Customs Agents' Association of Queensland; Queensland Confederation of Industry Ltd; Australian Chamber of Shipping; Brisbane Chamber of Commerce.

The committee has a basic "charter" to promote trade and industrial development.

The decision to form the consultative committee—the first of its kind in the Port of Brisbane—was taken at the October meeting of the Authority's Board.

The committee held an informal meeting in late December when the participants discussed general aims and functions.

Mr. Wilson said the delegates agreed that the committee should not be merely a forum for airing complaints but should aspire to considerations affecting the short and long term needs of the port and commerce over which the Authority could take direct or indirect action.

He visualised the committee making "invaluable contributions" in terms of expert advice that would assist the decision processes of the Authority's Board.

"As far as it is possible, the Board wants to involve port users in the total development of the port and its associated industries," he said.

"This does not mean that the committee will take over from the Board.

"However, the Authority's Board Members realise that the greater the expert input to development and promotion, the better the chance is of the correct decision being made.

"There is a tremendous amount of unused and untapped talent in the Port of Brisbane.

"This committee will tap the talent for the benefit of all."

The idea for the committee was first advanced about 5 years ago in the port's Master Plan study.

It was gratifying to see the proposal come to fruition, he added.

Success depends on SA traders' support: Port of Adelaide

South Australian importers and exporters must specify direct sailings to and from the Port of Adelaide to fully use the new direct UK-Europe containership service. If the new service is not specified and not used to the full, it is a fact of life that it will not continue.

Previously, all UK-Europe imports and exports have been shipped through Melbourne, with the added delay costs of transit interstate being borne by SA traders.

This concept has also meant documentation difficulties, transit damage and additional delays through interstate industrial problems.

The result has been that SA business finds it increasingly difficult to be competitive on both national and international markets.

Introduction of the new UK-Europe containership service to the Port of Adelaide will mean a far larger percentage of SA's trade can now be shipped through SA ports.

Previously, SA traders with UK-Europe have had no alternative but to ship through Melbourne, with the result that many of SA's major export commodities have made a large contribution to Victoria's maritime revenue.

In 1979-80 SA exported wool worth \$183.8 m. Of this total \$103.2 m was shipped through Melbourne. Non-ferrous metal \$65.2 m was shipped interstate. \$64.7 m of the \$107.3 m of SA's meat and meat preparations were shipped through Victoria. Almost all of SA's fish and fish preparations, \$34.6 m of the \$36.5 m exported, were shipped through Melbourne.

Now, with direct shipping through the Port of Adelaide, not only the business community, but the entire community will benefit through additional revenue circulated within the State.

FUTURE SUCCESS

South Australia is poised on the brink of its greatest decade, particularly in the mineral development field.

Roxby Downs, Lake Phillipson and the Cooper Basin will help provide the industrial base which can be a springboard for wider general development to broaden the State's economic base.

Shipping has a major role to play in this development.

Introduction of the UK-Europe container service is a major step forward in this on-going campaign for direct shipping with SA's major trading partners through the Port of Adelaide.

Hopefully, the new service will have a similar effect to that of the introduction of direct Asian shipping services, which resulted in increased cargoes upon the route as more SA manufacturers found themselves competitive in the markets through the direct links.

If SA is not to become a defacto inland State and is to progress into the 1990's, South Australian business must assist its own and the State's future by shipping direct through the Port of Adelaide.

An Investment towards Prosperity: Port of Melbourne (Port of Melbourne "Quarterly")

International trade is the lifeblood of a nation. To survive in the world's markets the cost of goods exported—agricultural, manufactured and bulk raw materials—must be competitive.

In addition to internal costs, transport and handling charges have a major bearing on the pricing of a country's commodities being offered for sale on overseas markets.

Efficient handling of cargoes by ports and the ancillary services associated with them have a key role in the chain of overseas trading and pricing procedures.

Capital expenditure on shipping and port facilities runs into millions of dollars. Shipowners, to obtain a reasonable return on their investments, require quick turn-round of their ships, ready access to cargoes, reasonable port charges, certainly of berthage availability and reliable cargo handling equipment with the capacity to service a variety of cargoes. These are the essential ingredients for keeping freight rates to an economic minimum.

A port centrally located to markets and manufacturing centres, having access to efficient rail and road networks, with sufficient modern and specialised berths and a record of service will attract shipping.

Apart from geographic advantages, forward planning, entailing the assessment of trading trends and new developments in shipping, is essential for a port to provide shippers and shipowners with efficient service as and when needed.

The Port of Melbourne, in the one hundred years and more it has been servicing the State of Victoria has been administered with an understanding of the services required of a port. As a result, today it is Australia's main general cargo port and one of the world's great container ports.

During the financial year 1979/80 a record 18.8 million tonnes of cargo passed across the wharves and for the first time since the advent of containerisation just over twenty years ago, in excess of half a million containers were handled in one year—a figure which is bettered by only a few other ports in the world. Revenue exceeded \$39 million and expenditure on capital works, including the World Trade Centre now under construction, was more than \$32 million.

In the year ahead capital works exceeding \$54 million will be in progress. These include construction of a fifth berth for the Australian National Line at Webb Dock; the purchase at a total cost in excess of \$11 million of three 45-tonne single lift container cranes, two for East Swanson Dock and a third at the reconstructed 16 Victoria Dock; the installation of a computerised Port radar system; completion of the extension of East Swanson Dock, the Port's overseas container complex; commissioning of the 16 Victoria Dock complex at a cost of \$20 million and the commencement of a Port landscaping and public access scheme to be implemented over the next ten years at a cost of approximately \$1 million a year.

Looking further ahead into the future the Port Authority early in September released details of a revised Forward Development Plan which provides for the construction of additional berths and facilities to handle anticipated trade

through the Port well into the next century.

The plan provides for the construction of five additional overseas container berths at Webb Dock over the next twenty years. In addition three container berths at Fishermens Bend are proposed on land currently occupied by the Commonwealth Government Aircraft Factory and Commonwealth Aircraft Corporation. Assuming the growth in trade maintains its current rate it is anticipated these three berths will not be required before the year 2000.

The revised Forward Development plan incorporates changes to development plans previously published. Major amendments include the limiting of reclamation into Hobsons Bay to that required for the construction of the proposed Berth 6 at Webb Dock; the realignment of Webb Dock to allow the building of three overseas berths on the west side of the Dock and reconstruction of the coastal roll-on roll-off berths on the east side of Webb Dock.

Provision for internal rail facilities in the Webb Dock and Fishermens Bend complex has been incorporated in the plan in anticipation of a future rail link being provided to the existing railway network.

Over the past two decades many changes have taken place in ship types and the techniques of handling cargoes. Roll-on Roll-off systems and containerisation have revolutionised the industry. Turn-around of ships is faster, tonnages of cargo carried per ship have increased and the provision of land in close proximity to berths for container storage has taken over the role of the traditional wharf cargo transit shed. Existing berths have been upgraded to carry 35 tonne slewing cranes which are handling containers on non-cellular ships. Giant mobile container handling equipment has required the construction of massive new wharves, roads and terminal pavements to carry the enormous wheel loads imposed by these machines. All this has involved the Authority in a capital expenditure of many millions of dollars.

The Port of Melbourne has indeed been fortunate in having available the land for the development of these specialised facilities.

Traditionally the role of ports has been to provide the facilities and services to load and unload commodities being transported by ships on the world's sea lanes. That role, too, is changing as ports are becoming more and more involved in the promotion of trade and in providing assistance to traders to find new markets for their goods.

Construction of the Melbourne World Trade Centre is tangible proof of the Port Authority's acceptance of its role in the nation's trading community. When completed in November 1982, the World Trade Centre will be a self-contained community of organisations and businesses all working with the common goal of making trade easier and expanding Australia's markets.

As already stated "International trade is the lifeblood of a nation". The Port of Melbourne, through its current capital works programme and its forward planning, is ensuring it will have the facilities and services available to meet the trading needs of Australia and the community it serves.

Opening of 16 Victoria Dock provides new ro-ro capacity:

A valuable addition to the Port of Melbourne's facilities came into operation on 21 December 1980 when the Xiao Shi Kou had the distinction of being the first ship to berth at the reconstructed 16 Victoria Dock.

The commissioning of this berth and its associated back-up facilities, designed for the use of general purpose container and roll-on roll-off shipping, opens up a new area which will be a valuable asset to the Port in the 1980's and beyond.

The 230 metre wharf and its facilities, including a 34,000 square metre back-up area designed to handle wheel loads of up to 50 tonnes, were developed at a cost of \$12 million. In addition a 45-tonne single lift container crane, now under construction, is scheduled to come into service in early 1982.

One innovation at the berth is a fixed low-load roll-on roll-off ramp designed to handle ships equipped with their own stern ramps. It is the first ramp of its type in the Port and will allow these specialised roll-on roll-off ships to be accommodated for the first time.

Truck loading facilities have also received attention. Five loading bays have been provided for incoming trucks. Fork lifts or straddle carriers will travel between the stacking area and the truck bays. This system will increase the efficiency and safety of cargo handling.

Another innovation to the Port is the lighting system for the wharf. Hinged lighting masts, each 30 metres in height, have been installed. The top sections can be lowered to ground level making maintenance and servicing easier and eliminating the need for mobile overhead equipment.

Work starts on first public access area: Port of Melbourne

The first phase implementation of the Port of Melbourne Authority's landscaping and public access plans has commenced in the North Wharf area.

The Authority intends to spend \$900,000 during the current financial year on projects adopted in the Landscape Study and Public Access Strategy approved earlier last year.

The beautification programme between 15 North Wharf and the Control Tower located at the entrance to Victoria Dock allows for landscaping including shade trees and seating for visitors. It is proposed that an observation tower will be constructed on the site of the old crane base and the surrounding area paved.

Tenders are to be called for the demolition of North Wharf sheds 13,14 and 15 and it is anticipated that this work will start in the New Year. Parking will be provided for Port users on these reclaimed areas.

A public car parking area will be located on the site of Number 11 North wharf shed. A low-level fence will run between the public car park and 15 North Wharf to separate the general public from the Victoria Dock working areas. The resulting area will allow members of the public to walk to 15 North Wharf at their leisure and in safety to view the Port.

As part of the overall plan the North Wharf security gate will be widened for easier access to public and working areas.

The first phase is expected to be completed by June 1981, and will provide safe access to the heart of the Port.

Introducing the Conference City — Nagoya

Central Park

Central Park which is a symbol of this young city lies in the center of Nagoya. Flanked on both sides by TV towers, it extends 550 meters from north to south, 40 meters east to west and covers an area of 35,000 m² in total. Growing in the park are 244 camphor trees and 65,000 trees of 32 different species. Lawns covering 10,000 m² carpet the park and are studded with colorful flower beds. The paths for strolling are all of an identical brown color, and when dusk gathers, more than 50 sodium lamps add an orange glow which engenders a calm and harmonious atmosphere.

Constructed under the park is an underground shopping arcade and novel and original ideas have been amply applied in its design. Lining both sides of the arcade are numerous stores and shops such as stylish boutiques, restaurants, etc. — 110 in number — attracting many visitors.

Higashiyama Park

One of the most popular recreation and sightseeing spots

in Nagoya is Higashiyama Park which lies to the east of the city and covers the area of 84.2 hectares. In the Park there is a botanical garden and a zoo which is recognized as one of the largest in the Orient. The Botanical Garden contains 2,569 species of plants and trees in the natural setting of its hilly slopes, and moreover, there is a conservatory that houses more than 1,700 species of tropical and subtropical plants.

Atsuta Shrine

This shrine with about 2,000 years of history is well known to the citizens of Nagoya as the oldest and the most sacred of all shrines (with the exception of Ise Grand Shrine). The sanctity of this shrine stems from the Sword enshrined there which constitutes one of the Three Regalia of the Emperor, and inherited by succeeding Emperors for more than two thousand years. The other two are the Mirror at the Ise Grand Shrine, and the Jewels at the Imperial Palace in Tokyo.



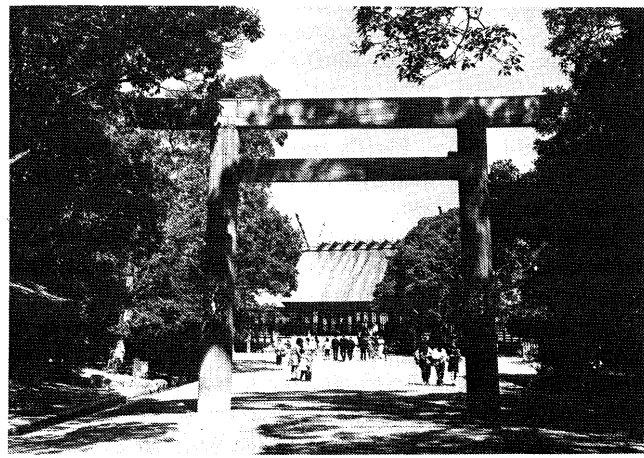
Central Park: new sightseeing spot in center of Nagoya City



Higashiyama Botanical Garden

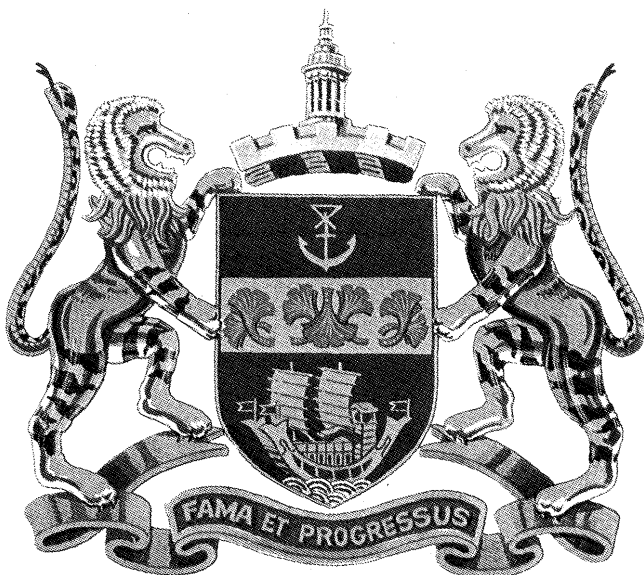


Underground shopping arcade beneath the Central Park



Atsuta Shrine: One of the oldest and most sacred Grand Shrines in Japan

Arms of Port of Osaka



ARMS: Azure, on a fess or, between in chief an emblem of Port of Osaka gold and in base waves of the sea argent, thereon an ancient Japanese ship of two masts under sail of the second, flags flying gules, seven leaves of ginkgo tree, two, three, and two vert.

CREST: On a wreath or and gules, the Spire of City Hall proper.

SUPPORTERS: On either side a "Nue" (monster; with head of monkey, body of lion, legs of tiger, and tail of snake).

MOTTO: FAMA ET PROGRESSUS.

Port of Bluff trade rebounds: Southland Harbour Board

The Port of Bluff has achieved its second highest tonnage on record. Further substantial trade increases are expected this year.

Fears of declining trade and depressed revenues following the introduction of containerisation have not eventuated and the port seems set for a period of consolidation and growth.

Bluff's best year for cargo was in 1977 when 1.2 million tonne of exports and imports crossed the wharves.

Then in 1978 most of Bluff's wool exports and about half its potential meat exports were railed from local freezing works and wool stores to container ports.

Despite this blow, Bluff's trade that year dropped less than 4% and since then the amount of cargo handled has shown a steady increase.

Trade figures for the year to 30 September 1980, reveal Bluff's total cargo levels to be only one ship-load or 20,000 tonne down on the 1977 record year.

The Board's general manager Mr. Neil Cantrick, sees a trend towards greater use of contention shipping methods particularly to service developing markets.

One of the most significant features of the latest result is the resurgence of meat tonnages which were up 20%. Wool exports staged their own recovery of 28%.

Further substantial increases in meat exports through

Bluff are predicted for 1981, mainly to the Persian Gulf area.

In view of this development, the Board has committed a considerable amount of funds to upgrading the all-weather meat loader complex.

Primary produce such as meat and wool are important to a port because they are high value, labour intensive exports.

New Auckland Harbour Board Chairman

The new Auckland Harbour Board Chairman, Mr. M.A. Shanahan, can lay claim to the unusual distinction, under the circumstances, of having played an important role in the establishment of the Auckland Waterside Workers' Industrial Union of Workers.

He was a solicitor for the Labour Department 1951 and addressed the inaugural meeting of the union in the Auckland Town Hall on the new rules for the organisation, which were adopted.

Mr. Shanahan was first elected to the Board in 1974, representing Waitemata City and adjacent Boroughs and Rodney County, and he has been a member since that date. He was elected Deputy Chairman in 1978.

What would he like to see in the way of changes at the Port of Auckland?

'A strike-free port. There is a conciliation and arbitration system and I think it should be used.'

Karachi Port Trust launches computer training course

The Training and Education Department in collaboration with Management Systems & Computerization Department has launched a series of computer training courses. The objective of these courses is to familiarise various levels of employees of Karachi Port Trust with the computer system. The first course of the series was conducted from 8th to 11th November, 1980.

Rear Admiral M.I. Arshad, H.I. (M), S. Bt. Chairman, K.P.T. inaugurated the first course on 8th November, 1980. Addressing the participants of the course he emphasized the need of making use of a computer system to improve the efficiency and productivity of Karachi Port Trust and pointed out the areas where computer could be used to the great advantage of the Organization. He, however, warned that the indiscriminate use of computer system without proper knowledge and motivation of people could result in the multiplication of inefficiencies. Regarding the computer training courses he said that they will go a long way towards familiarising the employees of Karachi Port Trust with a computer system and implementing the programme of computerization successfully.

Computer Training will be a regular feature and almost every month one course will be organized for the benefit of employees of Karachi Port Trust.



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