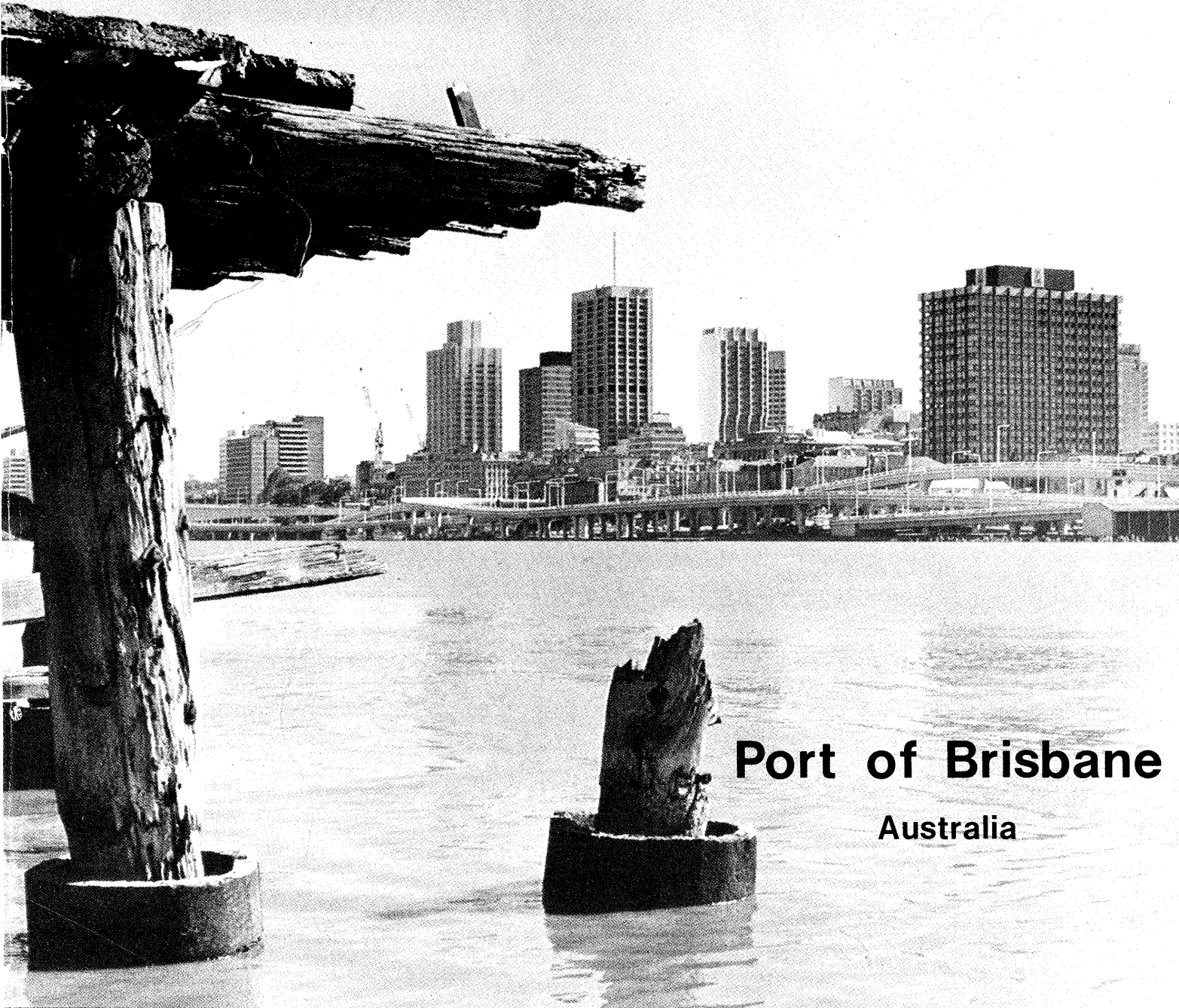


PORTS *and* HARBORS

April, 1980 Vol. 25, No. 4



Port of Brisbane
Australia

IAPH Conference Nagoya May 1981

The Publisher: The International Association of Ports and Harbors

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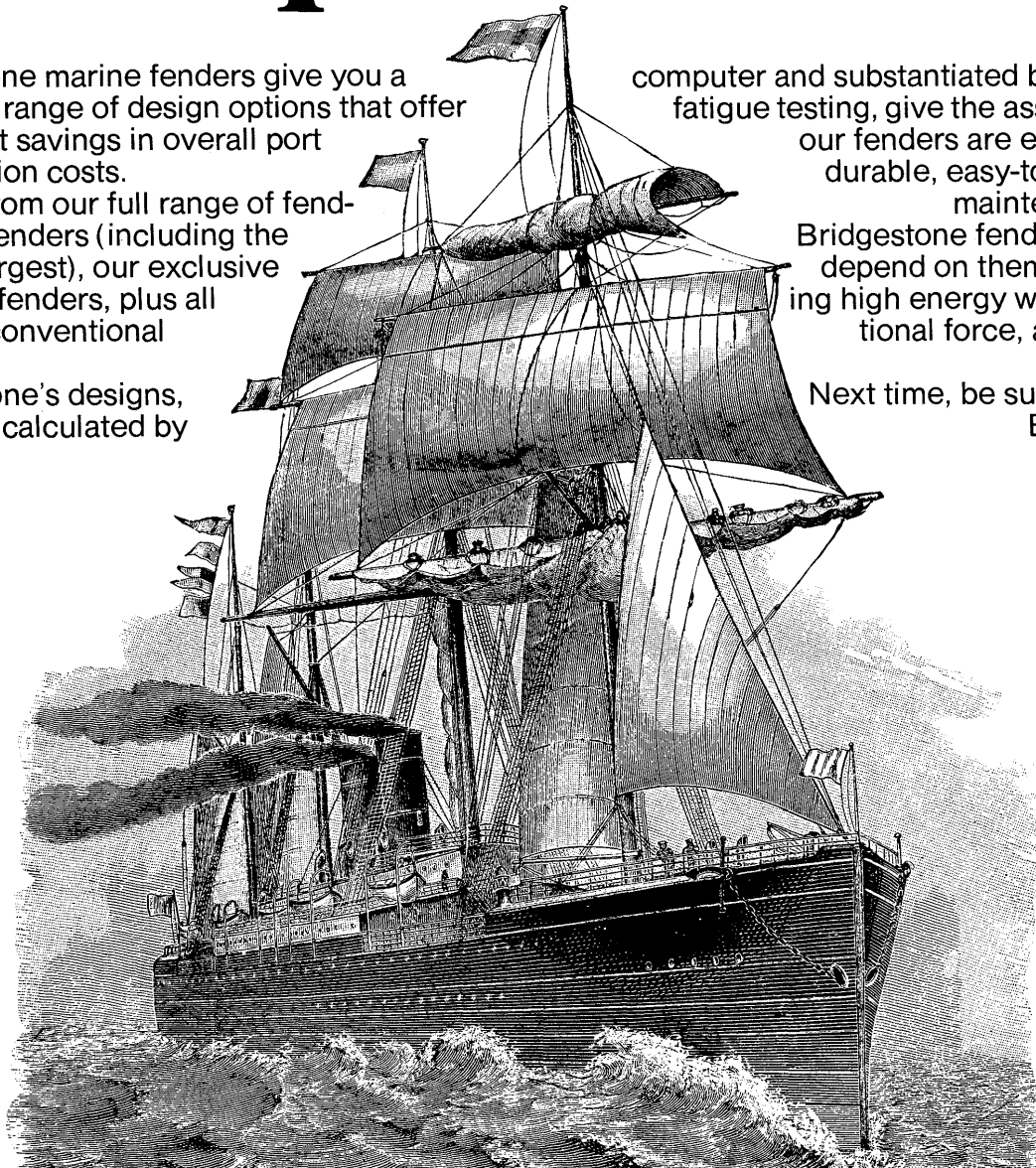
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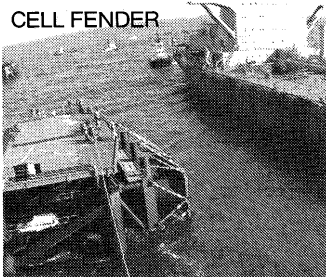
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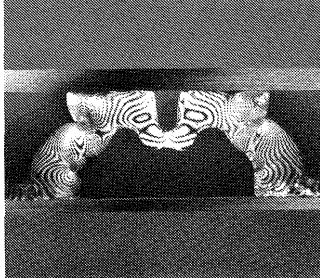
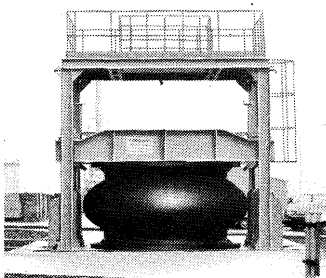
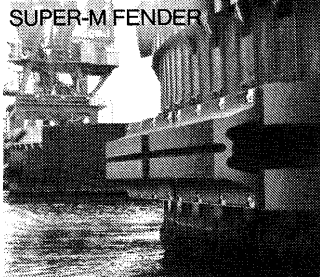
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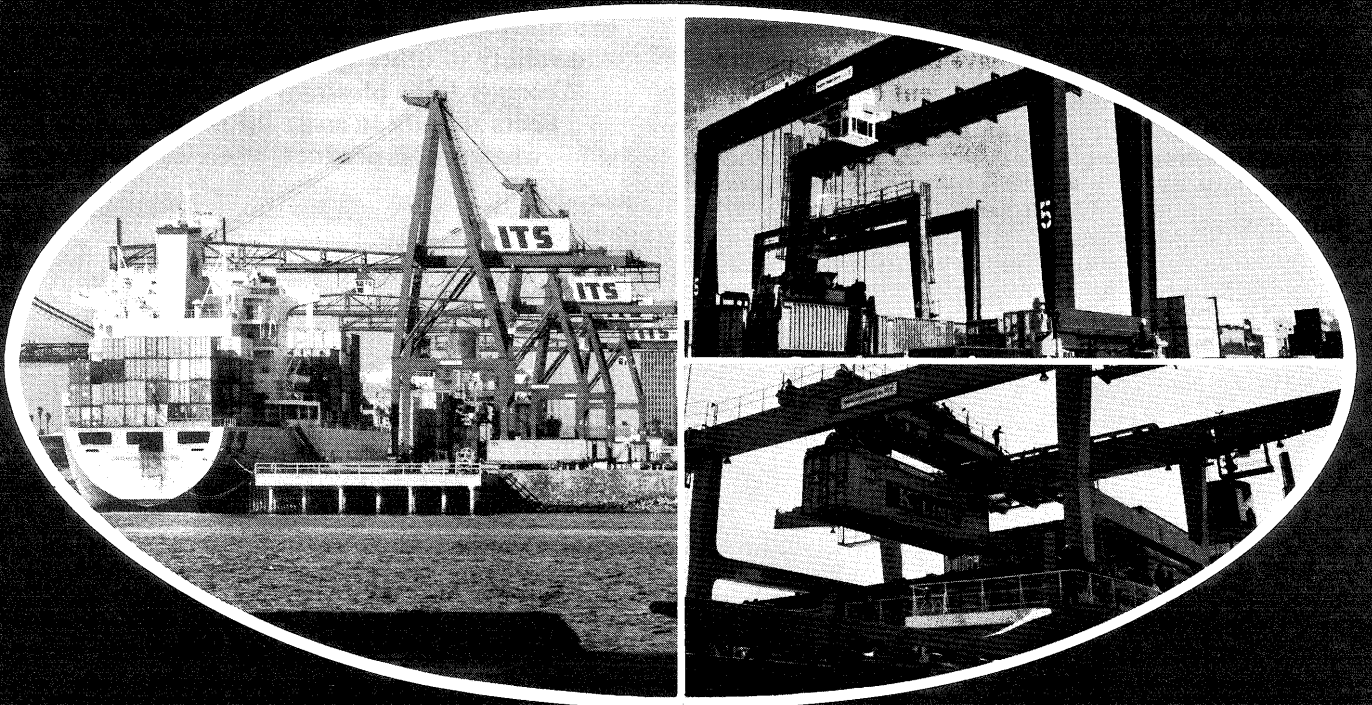
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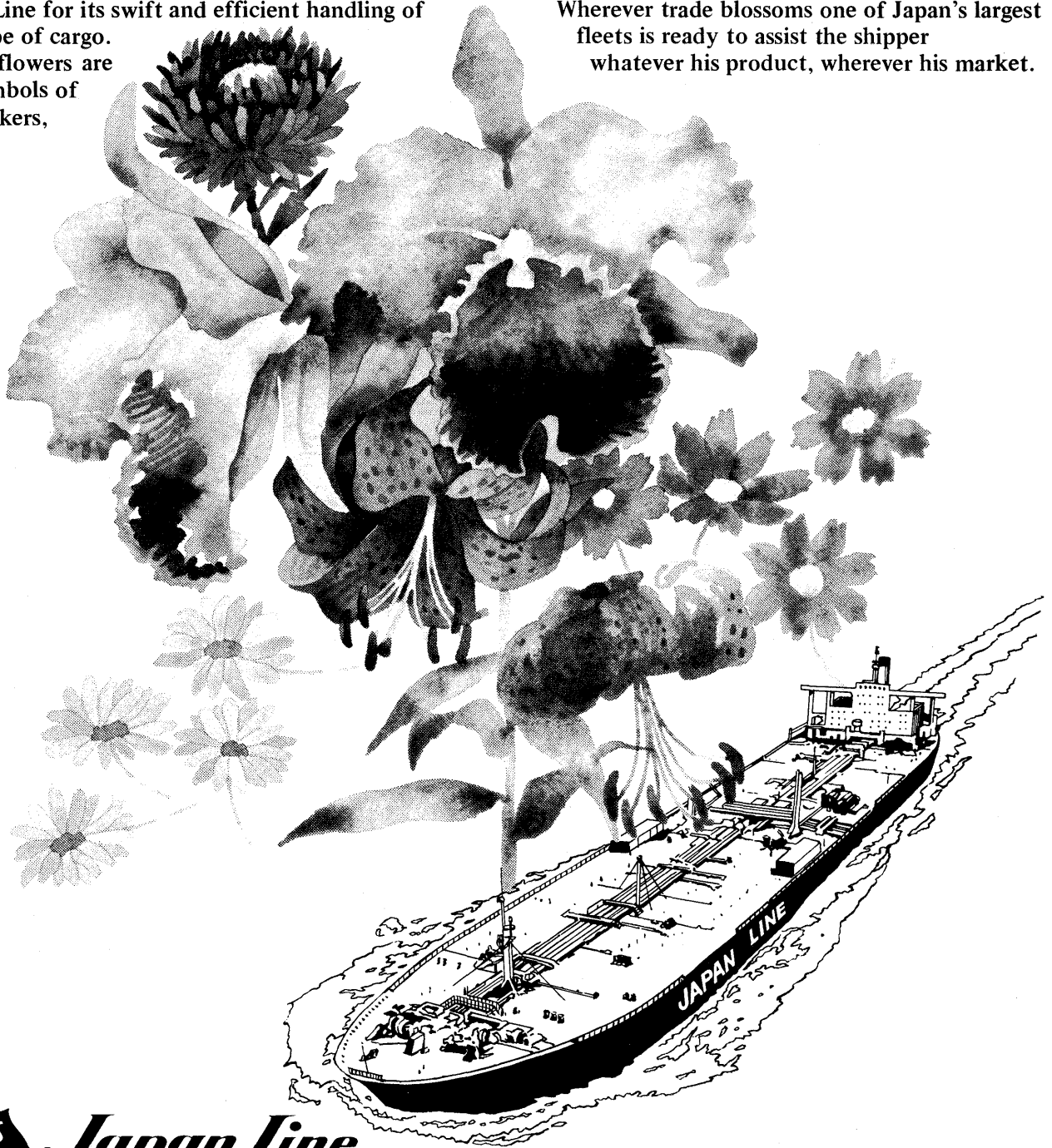


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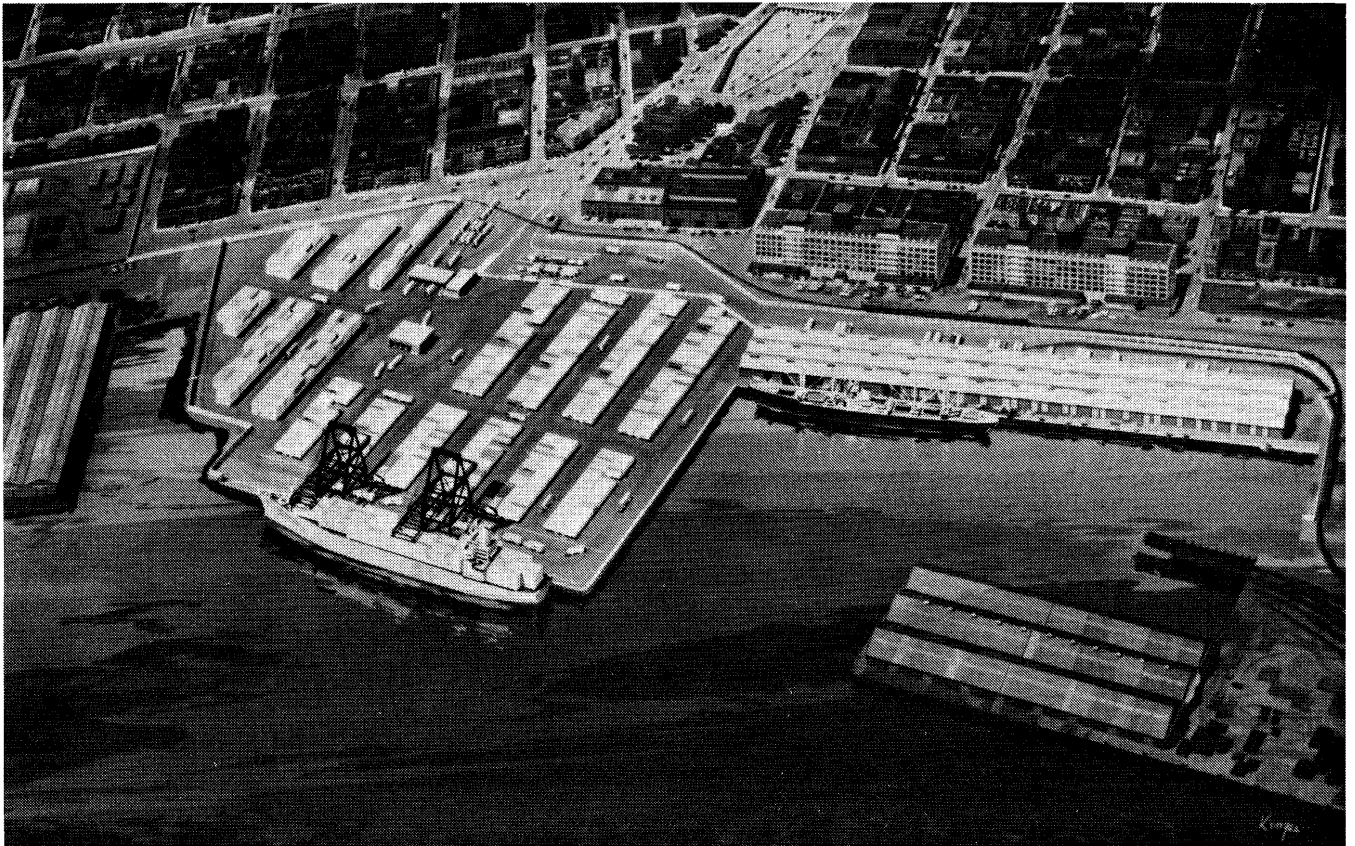
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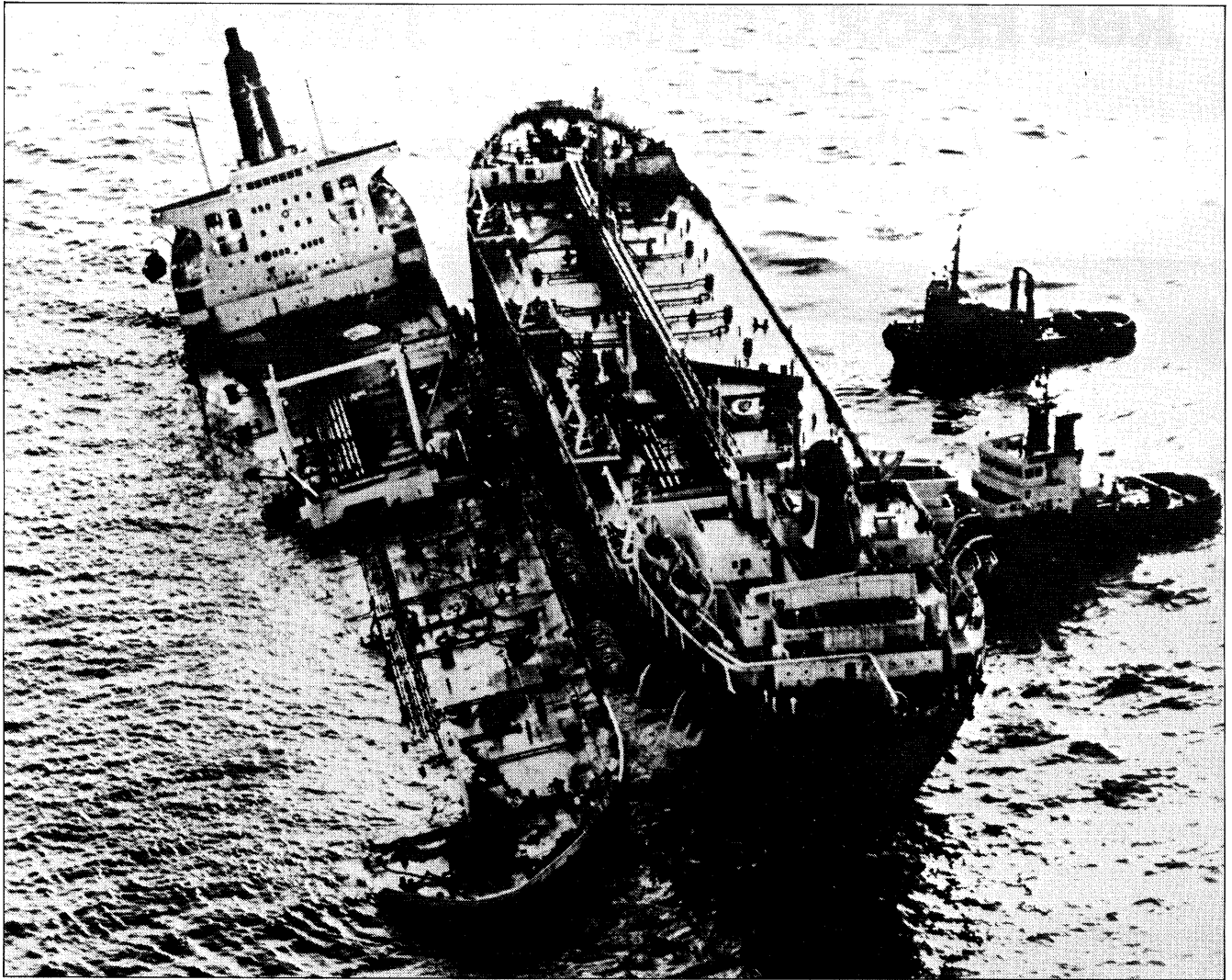


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| The Cover: Port of Brisbane, Queensland, Australia. A classic example of the old and the new—in the foreground is a crumbling section of one of the pre-1900 South Brisbane wharves and, behind, is part of the central city's modern skyline. The old wharves are being demolished and replaced by parkland. (From Port of Brisbane Authority Annual Report 1978-79) | |

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IAPH announcements and news

IAPH Sister Port Scheme

— Chairman Stuart reports the Progress and asks your Cooperation —

One of the important topics discussed by the Special Committee on International Port Development during the 11th and most recent IAPH Conference in Deauville, was the question of achieving closer relationship between ports in the developing countries and those in the developed world. It was decided at the Le Havre/Deauville Conference that a working group, consisting of members of the Special Committee would be responsible for organizing, promoting and executing the Scheme.

Members of the Working Group are:—

- Mr. J.K. Stuart (Chairman), British Transport Docks Board
- Mr. R.O. Ajayi, National Cargo Handling Co., Ltd., Nigeria
- Mr. Joseph Bayada, Cyprus Ports Authority
- Mr. Richard D. Ford, Port of Seattle, U.S.A.
- Mr. Claude Mandray, Port of Rouen, France
- Mr. Frank J. Roovers, Massachusetts Port Authority, U.S.A.
- Mr. Carlos H. Salazar, National Ports Dept., Direccion de la Marina Mercante, Ecuador
- Mr. N.M. Samaras, Port Consultant, Greece
- Mr. P.Y. Ten Arve, Port of Rotterdam, the Netherlands
- Mr. Yukio Torii, Port of Kobe, Japan
- Mr. Eric Williamson, Chief of Ports Section, UNCTAD

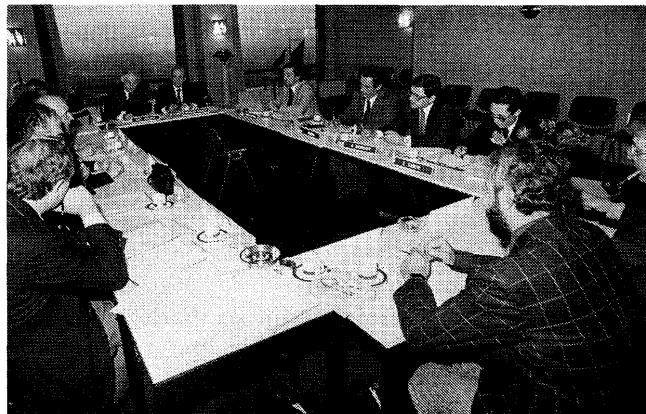
The Group met for the first time in Rotterdam on November 27/28, 1979 during which it was concluded that on the basis of comments and reactions received it was clear that a Sister Port Scheme would be worthwhile, and should be progressed. Questions of organization and publicity were discussed and a plan of action for the period leading to the second meeting of the Working Group was agreed.

Since the Rotterdam meeting, a questionnaire based on a draft prepared by Mr. Bayada of the Cyprus Ports Authority has been finalized and has taken into account comments made by Member of the Working Group.

All IAPH Members will shortly be receiving the questionnaire and are urgently requested to complete and return them to the Working Group coordinator. On the basis of replies from both donor and recipient ports, the matching of potential sister ports will then commence.

The next meeting of the Sister Port Scheme Working Group has been scheduled for June 25/26/27 in Cyprus, at which time it is hoped that the response from Members will have enabled positive progress to have been made in arranging Sister Port relationships.

(Please see page 9 for the questionnaire.)



First meeting of Sister Port Scheme Working Group held in Rotterdam.

Mr. Kinyanjui leaves K.P.A.

According to a recent communication, Mr. Peter Kabibi Kinyanjui, Chairman of the Board of Directors of the Kenya Ports Authority, has left the Authority due to the changes in Government appointments. He was the Third Vice-President of the IAPH since May 1979, while he served on the Executive Committee since 1973, and on the Board of Directors since 1971. During his tenure, he was active in the IAPH committee activities including committees on International Port Development, Constitution & By-Laws, and Membership Committee. As one of the architects, he contributed to the establishment of the Port Management Association of Eastern Africa.

He was replaced by Mr. Lawrence Waiyaki Wambaa, according to the letter from Mr. Jonathan D. Mturi, Ag. Managing Director. (rin)

1980 IMCO Meetings to be observed by IAPH Liaison Officer

Mr. A.J. Smith, IAPH Liaison Officer with IMCO (Secretary, British Ports Association) informed that he would be scheduled to attend the IMCO meetings to be held during 1980 as listed hereunder. The schedule was reported to the IMCO secretary-general by Dr. Sato in his letter of February 16, pursuant to the requests as contained in the IMCO circular 687.

| | |
|--------------|--|
| 18-22 Feb | Legal Committee—42nd session |
| 25-29 Feb | Sub-Committee on Safety of Navigation —24th session |
| 17-21 Mar | The International Oil Pollution Compensation Fund—Assembly 3rd session |
| 24-28 Mar | Sub-Committee on Bulk Chemicals—7th session |
| 28 Apr—2 May | Sub-Committee on the Carriage of Dangerous Goods—13th session |
| 19-23 May | Maritime Safety Committee—42nd ses- |

| | |
|-----------|--|
| | sion |
| 2- 6 Jun | Council 44th session |
| 5 Jun | Committee on Technical Co-operation —18th session |
| 9-13 Jun | Marine Environment Protection Com- mittee—13th session |
| 23-27 Jun | Legal Committee—43rd session |
| 20-24 Oct | *Council—45th session |
| 23 Oct | *Committee on Technical Co-operation— 19th session |
| 10-14 Nov | *Marine Environment Protection Com- mittee—14th session |
| 17-21 Nov | *Legal Committee—44th session |
| 24-28 Nov | *Sub-Committee on Bulk Chemicals—8th session |
| 1- 5 Dec | *Maritime Safety Committee—43rd ses- sion |

Intersessional Working Group

30 Jun - 4 Jul Working Group on Nuclear Merchant
Ships

Note: *Tentative (rin)

UNIDROIT President writes to IAPH

Mr. Mario Matteucci, President of UNIDROIT (Inter-
national Institute for the Unification of Private Laws,
Rome) wrote to IAPH secretary-general and expressed
UNIDROIT thanks for IAPH's taking part in the study
group by Mr. Lennart Bergfelt of Gothenburg and members'
cooperation to the questionnaire on the draft Convention
on the Liability of International Terminal Operators. (rin)

IAPH Foundation sponsors the publication of "Industrial Ports and Economic Transformations"

A 201-pages book entitled "Industrial Ports and Eco-
nomic Transformations" by two eminent French econo-
mists, Mr. Paul Hanappe and Mr. Michel Savy has been
published by the IAPH Head Office Maintenance Founda-
tion and sent to all members of the Association at the end
of February with the compliment of the Foundation
President Toru Akiyama.

The original text of the treatise was serialized in
"Ports and Harbors" in 10 installments from March 1978
until March 1979, during the period the Head Office was
flooded with requests for the complete copy.

To answer such ardent requests of our readers, the IAPH
Foundation sponsored the full cost of publishing and
mailing the book to all IAPH members and the relative
organizations.

Former Dy. Secretary General Toshio Kanchi passes away

Mr. Toshio Kanchi who had served as Deputy Secretary
General for the period 1964-1967 under the late Mr. Gaku
Matsumoto, former Secretary General and then remained as
a part-time adviser to the Head Office until last year, died
on February 25, 1980 in a Tokyo hospital. He was 70 years
old.

The funeral service held on February 27th at his Tokyo
residence was attended by Dr. Hajime Sato, Secretary
General who made a memorial address on behalf of the
Head Office, and Mr. Toru Akiyama, President of the
IAPH Foundation as well as all staff members of the



The late Mr. Toshio Kanchi

Secretariat.

Among his many contributions to the IAPH, the com-
pilation of the 20 years chronological history of IAPH done
by him and published in the November 1975 issue of "Ports
and Harbors" is praiseworthy and his efforts at the forma-
tion stage of the Association will be long remembered.

Mr. Kanchi before his career in IAPH was a veteran
newspaper man of the Asahi Shinbun, a Japan's leading
daily news whose circulation exceeds 6 million.

He is survived by his wife Chieko and a married son and
daughter. The address of the bereaved family is; 5-13-3,
Nishi Ikebukuro, Toshima-ku, Tokyo 171.

Membership Notes:

New Members

Regular Member

Shuaiba Area Authority (Also read the article on page 40)
P.O. Box 4690, Kuwait
Office Phone: 960069/96046
Telex: 4205 A/Back SIDB KWAT
(Capt. A.R. Al-Naibari, Manager, Port of Shuaiba-Kuwait)

Associate Member

Mr. J.P. Bonon (Class E)
c/o Compagnie Francaise de Raffinage
Franklin Building 35 rue du 129ème-76600 Le Havre,
France, Office Phone: 42-47-80

Visitors

On February 21st, Mr. J. Dubois, IAPH Executive Com-
mittee member and General Manager of the Port of Le
Havre Authority accompanied by Mr. J. Monnin, Japan and
Far East Representative of the Port Authority visited the
Head Office and were welcomed by Secretary General and
his staff. Also present were two resident members of IAPH
Executive Committee, Mr. Gengo Tsuboi and Mr. Fumio
Kohmura, Executive Vice-President of Port of Nagoya
Authority who is the host of our next conference in 1981.

Mr. Dubois was on his port promotion tour to Japan and
Far East.

The following afternoon Mr. Dubois gave a press confer-
ence with a film presentation of the latest developments of
the French 2nd biggest port of Le Havre and a cocktail
party for the invitees from shipping and trade companies at
a Tokyo hotel.

IAPH Questionnaire on Sister Port Scheme

Guidelines on the completion of Questionnaire

The Sister Port Scheme originated from the Tri-Port relationship that exists between the Ports of Kobe, Rotterdam and Seattle. The Scheme was proposed by those ports at the 1979 IAPH Conference at Deauville and was accepted. A special Sister Port Scheme Working Group, made up of members from the Special Committee on International Port Development was formed to shape, promote and execute the Scheme.

Ports perform an important national, regional and international role and great emphasis is placed by IAPH on their proper functioning and development. At present in the world there are a great number of ports of different size and in varying stages of development and in this age of technical cooperation and assistance a lot can be said in favour of the concept of "ports assisting ports".

This concept forms the basis of the Sister Port Scheme idea whereby it is proposed that two ports, the "younger" sister, a developing port or port in developing country, and the "elder" sister, a more developed port, form a relationship whereby the elder advises and assists the younger.

The exact scope, nature, duration and terms of this twinning arrangement is something to be worked out between the parties. One can think for example of an arrangement which may last for a number of years or merely for the duration of a specific project. On the other hand, the assistance may be needed in one particular area (e.g. training) or may be of a more general consultative nature.

With respect to financial terms and conditions, the Working Group has laid down one major rule, i.e. the motive for the Sister Port relationship may not be purely commercial or profit oriented.

The matching of donor and recipient ports takes place on the basis of information obtained from the attached questionnaire.

There are two different kinds of questionnaires namely (A) Questionnaire for Donor ports and (B) Questionnaire for Recipient ports. (Questionnaires to be sent to members will be identified by different colors.)

When the coordinator is of the opinion that a proper match can be made, he will inform the donor port supplying the particular details of the recipient port. After acceptance by the donor port, the two ports will be brought into contact by the coordinator and then left to work out between themselves the specific details, finance and duration, etc. of their arrangement.

The questionnaires have been kept short and deal with basic facts. However, you are urged to detail your answers as much as possible. **Section B** dealing with particular areas in which assistance is offered/sought requires as many details as can be provided (e.g. not only mark the word training but also indicate in what field, and at what level etc.) to assist the coordination of matches.

Question B3 dealing with terms and conditions under which the participation is offered/sought requires your particular attention. Please answer all questions and enclose further material on your port which may be of assistance.

Enquiries on the Questionnaire and on the Scheme should be directed to:—

Drs. P.Y. Ten Arve, IAPH Sister Port Coordinator

c/o Technical and Managerial Port Assistance Office
Port of Rotterdam

P.O. Box 6622, 3002 AP Rotterdam, the Netherlands

(Even if you are not interested in the Sister Port Scheme, your cooperation in completing **Question A1** will be appreciated.)

(A) Questionnaire for donor ports

Port Authority/ Name :
Organization: Address:
Ports under jurisdiction:

- A. (1) Are you interested in participating in the Sister Port Scheme?
Yes ☐ No ☐
If no give reasons:
- (2) Are there any particular ports/port authorities you would like to associate with in this scheme?
Yes ☐ No ☐
If yes, name ports/port authorities:
If no, do you have preference for
a) ports in countries speaking the same language
b) ports of similar size and characteristics as your own
c) ports within your region
d) others
- (3) Does your port already have existing port relations?
Yes ☐ No ☐
If yes, name and briefly describe relationship(s)
- (4) Are there any ports, countries, areas you do not want to be associated with?
Yes ☐ No ☐
If yes, name ports, countries, etc.
- B. (1) In what particular areas is assistance offered?

| | Yes | No |
|--------------------------------------|--------------------------|--------------------------|
| a) training | <input type="checkbox"/> | <input type="checkbox"/> |
| b) contributions to studies/seminars | <input type="checkbox"/> | <input type="checkbox"/> |
| c) teaching and instruction | <input type="checkbox"/> | <input type="checkbox"/> |
| d) special project or advisory work | <input type="checkbox"/> | <input type="checkbox"/> |
| e) others | | |
- (2) In what form do you envisage the offered assistance

| | Yes | No |
|----------------------------------|--------------------------|--------------------------|
| a) training overseas | <input type="checkbox"/> | <input type="checkbox"/> |
| b) training at your port | <input type="checkbox"/> | <input type="checkbox"/> |
| c) project evaluation | <input type="checkbox"/> | <input type="checkbox"/> |
| d) advisory work | <input type="checkbox"/> | <input type="checkbox"/> |
| e) general periodic consultation | <input type="checkbox"/> | <input type="checkbox"/> |
| f) exchanging visits | <input type="checkbox"/> | <input type="checkbox"/> |
| g) others | | |
- (3) Under what financial terms and other conditions are you prepared to participate?

I when sending instructors/advisors/staff abroad

| | Yes | No |
|--|--------------------------|--------------------------|
| a) you will absorb all expenses | <input type="checkbox"/> | <input type="checkbox"/> |
| b) you expect all expenses paid for | <input type="checkbox"/> | <input type="checkbox"/> |
| c) you expect the hotel and travel expenses will be paid for | <input type="checkbox"/> | <input type="checkbox"/> |
| d) you expect the travel expenses paid for | <input type="checkbox"/> | <input type="checkbox"/> |
| e) others | | |

II when receiving staff/trainees etc.

| | Yes | No |
|---|--------------------------|--------------------------|
| a) you can absorb all expenses | <input type="checkbox"/> | <input type="checkbox"/> |
| b) you will pay the "local" expenses | <input type="checkbox"/> | <input type="checkbox"/> |
| c) you will pay the travel and hotel expenses | <input type="checkbox"/> | <input type="checkbox"/> |
| d) you will pay the travel expenses only | <input type="checkbox"/> | <input type="checkbox"/> |
| e) others | | |

Other conditions
- C. (1) Status of ports/port authority:

| | Yes | No |
|---------------------------------|--------------------------|--------------------------|
| a) Government Department | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Semi-government Organization | <input type="checkbox"/> | <input type="checkbox"/> |

- c) Autonomous/privately owned ☐ ☐
- d) Other
(please specify)
- (2) Area of jurisdiction/involvement
- | | All | Part | None |
|--|--------------------------|--------------------------|--------------------------|
| a) Pilotage: Movement of vessels (berthing, shifting etc.) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Berth allocation | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Stevedoring/cargohandling | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Customs clearance | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Policing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Health control | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g) Immigration control | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h) Ownership of port facilities | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i) Leasing of port facilities | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j) Bunkering | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k) Ship supplies | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| l) Ship repair facilities | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| m) Salvage | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| n) Towage | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| o) Safety | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| p) Traffic control | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| q) Research development (computerized) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| r) Statistics | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| s) others | | | |

(B) Questionnaire for recipient ports

Port Authority/ Name :

Organization: Address:

Ports under jurisdiction:

- A. (1) Are you interested in participating in the Sister Port Scheme?
- Yes ☐ No ☐
- If no give reasons:
- (2) Are there any particular ports/port authorities you would like to associate with in this scheme?
- Yes ☐ No ☐
- If yes, name ports/port authorities:
- If no, do you have preference for
- a) ports in countries speaking the same language
- b) ports of similar size and characteristics as your own
- c) ports within your region
- d) others
- (3) Does your port already have existing port relations?
- Yes ☐ No ☐
- If yes, name and briefly describe relationship(s)
- (4) Are there any ports, countries, areas you do not want to be associated with?
- Yes ☐ No ☐
- If yes, name ports, countries, etc.
- B. (1) In what particular areas is assistance sought?
- | | Yes | No |
|---|--------------------------|--------------------------|
| a) training | <input type="checkbox"/> | <input type="checkbox"/> |
| b) participation in studies or seminars | <input type="checkbox"/> | <input type="checkbox"/> |
| c) teaching and instruction | <input type="checkbox"/> | <input type="checkbox"/> |
| d) special project or advisory work | <input type="checkbox"/> | <input type="checkbox"/> |
| e) others | | |
- (2) In what form do you envisage the requested assistance?
- | | Yes | No |
|--|--------------------------|--------------------------|
| a) training overseas | <input type="checkbox"/> | <input type="checkbox"/> |
| b) training at your port | <input type="checkbox"/> | <input type="checkbox"/> |
| c) establishment of port training school | <input type="checkbox"/> | <input type="checkbox"/> |
| d) project evaluation | <input type="checkbox"/> | <input type="checkbox"/> |
| e) advisory work | <input type="checkbox"/> | <input type="checkbox"/> |
| f) general periodic consultation | <input type="checkbox"/> | <input type="checkbox"/> |
| g) exchanging visits | <input type="checkbox"/> | <input type="checkbox"/> |
| h) others | | |
- (3) Under what financial and other conditions are you prepared to participate?

I when sending trainees/staff abroad

- | | Yes | No |
|--|--------------------------|--------------------------|
| a) You can absorb all expenses | <input type="checkbox"/> | <input type="checkbox"/> |
| b) you can pay the travel expenses only | <input type="checkbox"/> | <input type="checkbox"/> |
| c) you can pay travel and hotel expenses | <input type="checkbox"/> | <input type="checkbox"/> |
| d) others | | |

II when receiving staff/instructors/advisors/consultants

- | | Yes | No |
|-------------------------------------|--------------------------|--------------------------|
| a) you can absorb all expenses | <input type="checkbox"/> | <input type="checkbox"/> |
| b) you can pay all "local expenses" | <input type="checkbox"/> | <input type="checkbox"/> |
| c) you can pay the travel expenses | <input type="checkbox"/> | <input type="checkbox"/> |
| d) others | | |

Other conditions

C. (1) Status of ports/port authority:

- | | Yes | No |
|--|--------------------------|--------------------------|
| a) Government Department | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Semi-government Organization | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Autonomous/privately owned | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Other (please specify) | | |

(2) Area of jurisdiction/involvement

- | | All | Part | None |
|--|--------------------------|--------------------------|--------------------------|
| a) Pilotage: Movement of vessels (berthing, shifting etc.) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Berth allocation | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Stevedoring/cargohandling | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Customs clearance | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Policing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Health control | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g) Immigration control | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h) Ownership of port facilities | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i) Leasing of port facilities | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j) Bunkering | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k) Ship supplies | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| l) Ship repair facilities | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| m) Salvage | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| n) Towage | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| o) Safety | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| p) Traffic control | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| q) Research development (computerized) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| r) Statistics | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| s) others | | | |

(3) Statistical Information

- Seaborne goods trade (in metric tons) year
- Volume of trade metric tons
- Goods unloaded international/of which in transit/.....
- Goods loaded international/of which in transit/.....
- Coastal traffic unloaded
- Coastal traffic loaded
- Type of cargo
- Bulk liquid a) petrol/derivatives
- b) LNG, LPG etc.
- c) others
- Bulk dry a) ores
- b) coal
- c) grain/cattle feed
- d) others
- Containerized goods
- Other unitized goods (e.g. Ro/Ro, Lash, etc.)
- Conventional general cargo (breakbulk)
- Port facilities available Number
- Bulk liquid berths
- Container terminals
- General cargo berths
- Ro/Ro facilities
- Others

Open forum: Port releases:

Annual Report 1978-79: Port of Brisbane Authority (extracts)

1. Chairman's report (extract)

As the year closes, and one reflects on the events of the preceding 12 months, it is difficult not to feel some measure of pride in the achievements and the general progress of the Authority.

There can be no doubt that the organisation has maintained its impetus, and its primary role as the co-ordinating/developmental body for the Port of Brisbane is now accepted and appreciated by the community at large, particularly the port users.

The Authority feels that the stevedoring operations should be the province of private enterprise as has been the case for about 150 years. Our job is to provide the facilities and, as a first priority, make them available to the private sector for efficient utilisation.

In short, it is a "partnership" arrangement. For the most part, the Authority provides the capital; free enterprise contributes the operational know-how. It is a system which the Authority believes will work for the benefit of all concerned.

Our current and major undertaking—the development of a modern container and ro/ro installation on the Fisherman Islands—is well advanced and, at the time of this report's compilation, the Board is negotiating (with Brisbane Amalgamated Terminals Limited) a lease agreement to cover the operation of the islands' first terminal. Concurrently, site preparation is proceeding for a second terminal that will be needed in the future.

The opening of the first stage of No. 1 terminal is expected in the June/July period, 1980. The Authority intends that this islands' port will be of the very highest standard, functioning in the most efficient and economical manner that it is humanly possible to achieve. Naturally, the islands' project continued to occupy a great deal of the Authority's time, energy and finance.

Our financial commitment in the undertaking now totals \$40 million.

In early August 1978, the first concrete pour of the wharf decking took place and, as at June 30, about three quarters of the wharf deck had been laid. Progress towards the completion of the full 552 metres of wharf decking is more than satisfactory.

The bogies (wheels) for the container cranes have been positioned on the deck. Preparations for the erection of the "legs", for the first crane structure are well in hand. The cranes will quickly become the main feature of the "skyline" in the region of the mouth of the Brisbane River. As indicated in the previous annual report, the port's trade recovered last year to reach an impressive total of 8,741,000 tonnes. The outstanding feature of the year was that grain exports attained a record level of 1,283,000 tonnes—up 89% over the depressed (drought) export

market of 1977/78.

Meat exports also were buoyant, reaching a level of 387,000 tonnes and confirming Brisbane's position as the meat export capital of Australia.

Another noteworthy event was the commencement of regular coal exports from the West Moreton fields to Fiji. These modest shipments could well be the forerunner of a substantial new export trade for the port. The possibility of a coal trade was taken into consideration in the original planning of the Fisherman Islands and space allocation to accommodate the trade has been made. This space will be activated should the trade reach a figure to justify the construction of a bulk handling installation.

Sir Charles N. Barton, O.B.E., E.D.
Chairman

2. Harbour Fund Statement of Income and Expenditure

for the Year ended June 30, 1979

| | 1978/79 \$ | 1977/78 \$ |
|---|-------------------|-------------------|
| Income: | | |
| Harbour dues | 6,994,785 | 5,608,251 |
| Wharfage and berthage | 572,292 | 218,228 |
| River dues | 373,205 | 362,169 |
| Mooring fees | 140,517 | 125,886 |
| Rental | 519,304 | 418,718 |
| Management fees | 374,846 | 214,000 |
| Interest | 660,958 | 823,759 |
| Dredging services | 2,057,669 | 3,373,484 |
| Maintenance, construction and other services | 143,785 | 326,877 |
| Pollution control and survey services | 127,317 | 89,697 |
| Recoveries—inter-fund | 2,039,910 | 2,324,662 |
| Sale of fixed assets—net | 19,333 | 13,953 |
| Miscellaneous | 44,853 | 21,624 |
| TOTAL INCOME | 14,068,774 | 13,921,308 |
| Expenditure: | | |
| (Depreciation) | (698,496) | (741,274) |
| TOTAL EXPENDITURE | 9,079,685 | 8,526,046 |
| Net income before appropriation | 4,989,089 | 5,395,262 |
| Appropriations: | | |
| Capital works reserve | 4,800,000 | — |
| SURPLUS FOR THE PERIOD | 189,089 | 5,395,262 |

(Continued on next page bottom)

Annual Report 1978-79: Department of Marine and Harbours South Australia

(extracts)

1. Director-General's report (extract)

The year 1978-1979 has seen further increases in the volume of trade through South Australian ports and a significant improvement in the financial results of the Department. Total trade through all South Australian ports, that is, the Government owned and managed ports and the private ports, was 16.1 million tonnes (13.9 million tonnes in 1977-1978), an increase of 16 percent. Major increases occurred in the export of bulk cargoes, particularly grain, and there has also been an encouraging increase in general cargo trade through the Port of Adelaide.

The Department has satisfactorily coped with an increased level of activity over the whole of its areas of administration, including commercial ports' activities, marine affairs' administration, pleasure boating functions, the provision and operation of harbor facilities for the fishing industry and other matters. At the same time, the year has seen a continuation and intensification of efforts to secure direct shipping services between South Australia and particular major world trading areas where the State is presently inadequately served. In addition, a planned programme for the development and marketing of ports' industrial lands for use by port related industries has commenced and will be vigorously pursued.

(Continued from page 11)

3. Harbour Fund Balance Sheet as at June 30, 1979

| | 30/6/79 \$ | 30/6/78 \$ |
|--|-------------------|-------------------|
| Current Liabilities: | | |
| TOTAL CURRENT LIABILITIES | 2,465,501 | 2,820,999 |
| Loan Indebtedness: | 22,446,283 | 15,573,913 |
| Reserves: | | |
| Capital works | 4,800,000 | — |
| Accumulated Funds: | 20,168,775 | 18,443,579 |
| | <u>49,880,559</u> | <u>36,838,491</u> |
| Current Assets: | | |
| TOTAL CURRENT ASSETS | 8,964,910 | 8,993,741 |
| Sinking Fund: | | |
| Investment at cost | 116,662 | 56,950 |
| Amount due from Graving Dock Fund: | 2,226,000 | 2,854,000 |
| Fixed Assets: | | |
| Property, plant and equipment, wharves, improvements | | |
| \$46,056,798 less accumulated depreciation \$7,483,811 | 38,572,987 | 24,933,800 |
| | <u>49,880,559</u> | <u>36,838,491</u> |

During the year, organisational changes were effected and inter alia, these have given us an improved capability in marine affairs' administration which is particularly important in modern times. The Department has been able to provide a professional input into the many areas of marine administration at Commonwealth and State levels and keep abreast of current day developments essential for the protection of the State's territorial seas.

Marine and Harbors' functions impinge on many sectors of the business community, the grain industry, the fishing industry and the community generally and we have continued our efforts to open the Department to the many organisations, groups and individuals affected by our actions. Industrial relations on the waterfront are of vital significance and harmonious discussions continued during the year with the many trades unions operating in the State's ports. As in the past years, the industrial record at the Port of Adelaide and other South Australian ports has been the best in Australia and industrial harmony in these difficult times is fundamental to the success of the State's ports system.

The Department of Marine and Harbors has met the demands placed upon it during 1978-1979, and we look forward to the challenges of the future.

The Year 1978-1979—Significant Operating Results

Receipts from all sources over all Departmental functions for 1978-1979 amounted to \$17.5 million, an increase of \$3.5 million or 25 per cent over the previous year (\$14 million).

Expenditure incurred on management and administration, harbor works and services, fishing industry services and other functions amounted to \$11.8 million, an increase of \$0.6 million or 5 per cent over the previous year (\$11.2 million). The Australian national rate of inflation was 8.2 per cent during the year.

Whilst receipts for services over all Departmental activities were more than sufficient to meet management and operating costs, the resultant surplus of \$5.6 million was insufficient to meet allocated charges of \$8.9 million for interest, debt redemption and superannuation contributions. These charges increased from \$8 million in 1977-1978, an increase of 11 per cent. It was necessary for the balance \$3.3 million to be met from Consolidated Revenue (\$5.2 million in 1977-1978).

From time to time, attention has been drawn to the incidence of interest and debt redemption charges and their significance in relation to the economics of commercial ports' operations. At the same time, investment in port facilities (a capital intensive industry and an industry experiencing intense technological changes), is essential to ensure adequate shipping services so vital to the State's importers and exporters and the regional economic needs of South Australia. It is axiomatic that in a number of the world's ports, it is necessary to provide these capital intensive facilities in advance of matching trade and shipping volumes, and it is for this, and other reasons, that many of the world's ports are subsidised by Governments, or are

(Continued on next page bottom)

Annual Report 1978/79: Gladstone Harbour Board (extracts)

1. Chairman's review (extract)

The year which ended on 30th June, 1979, was perhaps one of the most significant in the history of the Port of Gladstone.

Record trade, enormous development programmes, and announcements of further industrial expansion, combined to provide an exciting year in the progress of the Port.

Gladstone serves a naturally rich area of Central Queensland. The products of that wealth in the form of mineral and agricultural produce pass through the Port to the World's markets. The Gladstone Harbour Board is continually aware of the need to ensure that facilities at the Port are geared to handle the cargoes which flow through it. During 1978/79 giant steps have been taken to provide new

and to update the existing facilities.

The major development programme undertaken during the year was the construction of a new Coal handling complex at Gladstone. This 4000 tonne per hour facility is being constructed by the Board in association with Dampier Mining Company, a subsidiary of the Broken Hill Proprietary Company Limited. All major contracts were let at year's end and construction progress augurs well for completion of the project by April, 1980.

Two major announcements of great importance to the Port were made during the year. Comalco Limited are to proceed during the coming year with the establishment of an Aluminium Smelter at Boyne Island. The initial two potline Smelter with an Aluminium output of 180,000 tonnes per annum, will consume Alumina from Queensland Alumina Limited's Refinery.

Queensland Cement and Lime Company Limited is to establish a Clinker Works at Fisherman's Landing, using limestone mined in the Mount Larcom district. Initially, the works will produce 500,000 tonnes of Clinker per annum.

The Gladstone Harbour Board will be involved in providing harbour facilities for both these projects.

Grain and Oil Seed are gaining further importance as cargoes through the Port. Further Grain storage is being provided at Gladstone as a joint venture between the State Wheat Board, other Grain interests, and this Board.

In addition to the aforementioned developments, continuing interest is being shown in the Port by other large industrial concerns. Gladstone's natural deep harbour, adequate Port land, and abundant electricity from the Gladstone Power Station, combine to provide an attractive impetus for the further development of the Port.

The Gladstone Harbour Board is keen to see the full potential of the Port realised. As a further step towards the eventual upgrading of the Port, the Board is commissioning seabed investigations to provide necessary information for major developmental dredging.

Trade through the Port during 1978/79 was an all-time record. Cargo throughput was 16,067,933, an increase of 7.6% on the previous year. This cargo was handled in 442 vessels.

Harbour dues collected during the year totalled \$1,926,206, and Tonnage rates were \$273,754. The Board's finances remain in a sound position even though only minor increases were made in some Port Charges during the year.

(Continued from page 12)

released from a proportion or even total investment costs by Governments.

As part of our corporate development planning, the Department has completed the first stage of a management information system review, including financial and management accounting proposals, and it is hoped that some rationalisation of allocated investment charges may eventually result from this study. In assessing financial results, it is important to recognise that the Department undertakes some essential functions, for example, in marine affairs, for the fishing industry and in the provision of advisory services, which are either non revenue-producing or produce minimum revenues, and our planned financial management system will enable the proper segregation of costs and revenues associated with these services.

If one makes some allowances for the extent of allocated investment costs and costs associated with essential, but non revenue-producing services, then for the financial year 1978-1979, DMH commercial ports' activities approximated a break-even financial situation.

J.G. Griffith, Director General

2. Receipts and payments on account of Consolidated Revenue for the year ended 30th June, 1979

| | 1978 \$ | 1979 \$ |
|---|------------|------------|
| RECEIPTS | | |
| | 13 954 759 | 17 448 455 |
| Wharfage | 7 468 028 | 8 988 410 |
| Tonnage Rates | 1 139 483 | 1 387 908 |
| Conservancy Dues | 686 730 | 768 951 |
| Pilotage Fees and other Services. | 2 222 537 | 2 389 295 |
| Bulk Handling Charges | 2 368 605 | 3 838 389 |
| Fishing Industry Charges | 69 376 | 75 502 |
| PAYMENTS | 11 173 524 | 11 814 292 |
| EXCESS OF RECEIPTS OVER PAYMENTS | 2 781 235 | 5 634 163 |
| INTEREST ON LOAN FUNDS, sinking fund contribution and superannuation contribution .. | 8 045 645 | 8 886 357 |
| BALANCE BEING COST OF MARINE AND HARBORS DEPARTMENT MET FROM CONSOLIDATED REVENUE | 5 264 410 | 3 252 194 |

2. Balance Sheet as at 30th June, 1979

| 1978 \$,000 | | 1979 \$,000 |
|----------------|---------------------|----------------|
| 16,236 | Accumulated Funds | 18,455 |
| | Represented by:— | |
| 5,866 | Current Assets | 6,168 |
| | Deduct | |
| 303 | Current Liabilities | 393 |
| 5,563 | Working Capital | 5,775 |

(Continued on next page bottom)

Annual Report 1978-79: The Maritime Services Board of New South Wales

1. President's message (extract)

TRADE:

Despite continuing economic difficulties, both nationally and internationally, the overall performance of the Ports of New South Wales was highly satisfactory, giving us every cause for confidence in the future.

There were a few low points, but these were more than compensated for in a number of areas such as coal exports and both the inward and outward movement of general cargo.

Total trade through all ports fell by 1.3 million tonnes from 72 million tonnes in 1977/78 to 70.7 million tonnes this year.

This drop, however, was entirely attributable to only two commodities—wheat and oil—the movement of which was disrupted by industrial disputation.

Newcastle, on the other hand, broke the 10-million tonne barrier in overseas coal shipments for the first time during the year under review, and Port Jackson registered an increase of 522,426 tonnes in inward general cargo movement.

Even more pleasing was the all-time record of 349,337 containers handled in Port Jackson, and record figures for overall trade registered in Port Kembla and Newcastle.

Port Kembla and Newcastle were particularly hard hit by industrial disputes but managed, nonetheless, to post overall trading increases of 1.2% and 2.2% on the record

1977/78 levels, reaching 17.8 and 19.4 million tonnes, respectively.

The minor ports of the State also fared well during the year, with Twofold Bay registering an increase of 24,235 tonnes and Clarence River an increase of 39,084 tonnes.

PORT DEVELOPMENT:

The year was one of unusually high activity—highlighted, undoubtedly, by the official opening on April 23 of the Bulk Liquids Berth, the first berth in Port Botany, the new port at Botany Bay.

The berth, the most modern of its kind in Australia, puts this State in the forefront of bulk liquids receipt and discharge.

At the heart of the Port Botany complex, the giant Brotherson Dock is rapidly nearing completion, with the opening of the 42-hectare Australian National Line container terminal scheduled for December, 1979.

The 38-hectare Container Terminals (Australia) Limited terminal on the opposite side of the dock is due to be completed early in 1981.

In Port Jackson, the major works focused once again on the Darling Harbour and White Bay areas. In Darling Harbour, the Number 3 wharf has reached an advanced state of construction, and in White Bay work began on extensive modifications and extensions to the Balmain coal loader. The changes are designed to increase the loader's annual throughput from 2.9 million tonnes to 4.5 million tonnes.

In Newcastle, the \$70 million harbour deepening programme is on schedule. Provision of the interim depth in the harbour of 13.1 metres—which will complete the first stage of the project—is anticipated towards the close of the next financial year.

As far as Port Kembla is concerned, an environmental impact statement into the construction of a second coal loader was completed during the year. Detailed design work and supervision of construction of the \$105 million loader is being undertaken on the Board's behalf by the Public Works Department. First contracts are expected to be awarded early next financial year.

Work on exploratory bores in connection with the planned \$10 million multi-purpose berth in the port's inner harbour started at the close of the financial year.

The information obtained from this work will assist the Board in the detailed planning for the design and construction of the new berth.

FINANCE:

The operations for the year resulted in a net surplus of \$118,080 as against \$98,597 for the previous financial year.

J.M. Wallace
President

2. Balance Sheet as at 30 June, 1979

| 1977-78 | LIABILITIES | 1978-79 |
|-------------|----------------------------|-------------|
| \$ | | \$ |
| 142,089,033 | CAPITAL: (1) | 259,159,307 |
| | | |
| | FUNDS OTHER THAN CAPITAL | |
| 57,864,967 | USED FOR ACQUIRING ASSETS: | 84,962,409 |

(Continued from page 13)

| | | |
|--------|------------------------------|--------|
| 17,625 | Add Fixed Assets | 25,099 |
| 23,188 | | 30,874 |
| | Deduct | |
| 6,952 | Security Deposits and others | 12,419 |
| 16,236 | | 18,455 |

3. Profit and Loss Statement for Year ending 30th June, 1979

| 1978 | | 1979 |
|--------|--|--------|
| \$,000 | | \$,000 |
| | INCOME | |
| | Wharves | |
| | Harbour Dues, Tonnage Rates and Berthing Charges | 2,168 |
| 1,571 | | |
| | Land and Buildings | |
| 288 | Rent | 281 |
| | Smallcraft Facilities | |
| 24 | Mooring and Berthing Fees | 28 |
| | Conveyor Systems | |
| 1,850 | Handling Charges | 2,111 |
| 3,733 | | 4,588 |
| | LESS EXPENSE | |
| | (Depreciation) | (851) |
| 2,055 | | 2,212 |
| 1,678 | | 2,376 |
| | LESS | |
| | Administration | 395 |
| | Interest | 395 |
| 732 | | 790 |
| 946 | OPERATING SURPLUS | 1,586 |

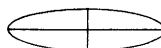
| | |
|--|----------------------|
| 55,129,194 RESERVES: | 54,992,528 |
| 10,848,559 CURRENT LIABILITIES AND PROVISIONS: | 12,342,885 |
| 61,729 TRUST ACCOUNTS: | 43,286 |
| <u>\$265,993,482</u> | <u>\$411,500,415</u> |
| 223,479,237 FIXED ASSETS: (10) | 354,868,451 |
| 4,046,059 CURRENT ASSETS: | 5,094,700 |
| 275 SECURITIES: | 275 |
| — INVESTMENTS: (12) | 20,300,000 |
| 1,096,706 CASH IN TRANSIT: | 1,577,759 |
| 19,573,520 CASH AT TREASURY: | 19,385,718 |
| 17,797,685 NEWCASTLE HARBOUR DEEPENING | 10,273,513 |
| <u>\$265,993,482</u> | <u>\$411,500,415</u> |

3. Income and Expenditure Account for the Year ended 30 June, 1979

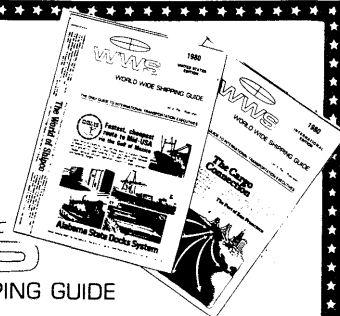
| EXPENDITURE | \$ |
|--|----------------------|
| Administrative Expenses | 6,181,506 |
| General Charges | 9,960,117 |
| Collection of Harbour and Tonnage Rates | 530,314 |
| Navigation, Shipping and Boating Services | 8,479,220 |
| Survey of Ports | 970,598 |
| Maintenance of Property | 11,157,057 |
| Sundry Services | 6,085,505 |
| Dredging | 813,238 |
| Demolition of Wharves and Buildings | 28,718 |
| Coal Loading Facilities | 16,595,961 |
| Payments re Agreement with B.H.P. under Port Kembla (Further Dev.) Act. 1971 | 530,000 |
| Bond Store Operations | 225,489 |
| Transfer to Newcastle Harbour Deepening Account | 13,312,589 |
| Renewals Fund Transfer | 13,300,000 |
| Suplus transferred to Nett Revenue Account | 20,911,829 |
| | <u>\$109,082,141</u> |

| INCOME | \$ | \$ |
|---|-----------|----------------------|
| Harbour Rates, Inward and Transhipment | | 36,297,470 |
| Harbour Rates, Outward | | 21,926,281 |
| Tonnage Rates and Berthing Charges | | 6,114,716 |
| Navigation and Shipping Charges Pilotage | 4,631,209 | |
| Light Rates | 2,213,750 | 6,844,959 |
| Storage Charges | | 647,403 |
| License Fees | | 2,003,346 |
| Interest on Deposits | | 1,760,847 |
| Miscellaneous Recoveries (Rates, Insurance, etc.) | | 606,198 |
| Miscellaneous Services | | 28,169,320 |
| Rents | | 4,563,819 |
| Bond Store Operation | | 147,782 |
| | | <u>\$109,082,141</u> |

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World Bank news; Extract from 1979 Annual Report

The World Bank

The World Bank is a group of three institutions, the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), and the International Finance Corporation (IFC).

The common objective of these institutions is to help raise standards of living in developing countries by channeling financial resources from developed countries to the developing world.

The World Bank, established in 1945, is owned by the governments of 134 countries. The Bank, whose capital is subscribed by its member countries, finances its lending operations primarily from its own borrowings in the world capital markets. A substantial contribution to the Bank's resources also comes from its retained earnings and the flow of repayments on its loans. Bank loans generally have a grace period of five years and are repayable over 20 years or less. They are directed toward developing countries at more advanced stages of economic and social growth. The interest rate the Bank charges on its loans is calculated in accordance with a formula related to its cost of borrowing.

The International Development Association was established in 1960 to provide assistance for the same purposes as the Bank, but primarily in the poorer developing countries on terms that would bear less heavily on their balance of payments than Bank loans. IDA's assistance is, therefore, concentrated on the very poor countries—mainly those with an annual per capita gross national product of less than \$581 (in 1977 dollars). More than 50 countries are eligible under this criterion.

The IFC was established in 1956. Its function is to assist the economic development of less developed countries by promoting growth in the private sector of their economies and helping to mobilize domestic and foreign capital for this purpose. Membership in the Bank is a prerequisite for membership in the IFC, which totals 109 countries. Legally and financially, the IFC and the Bank are separate entities. The Corporation has its own operating and legal staff, but draws upon the Bank for administrative and other services.

The Year's Activities in Brief

In fiscal 1979, the World Bank, together with its af-

filates, the International Development Association (IDA) and the International Finance Corporation (IFC), made lending and investment commitments aggregating \$10,435.9 million.¹ The total was \$1,686.8 million higher than in fiscal year 1978.

The World Bank committed a total of \$6,989.0 million; 142 Bank loans to 44 developing countries were approved during the year. In fiscal 1978, the Bank's commitments amounted to \$6,097.7 million.

IDA commitments during the past year were \$3,021.5 million. A total of 105 credits to 43 developing countries were approved. In fiscal 1978, IDA commitments totaled \$2,313.0 million.

Total Bank and IDA lending in support of those projects whose total costs can be estimated amounted to about 34% of total project costs.

The IFC made 48 investments amounting to \$425.4 million. Those investments were for projects in 33 developing countries. The Corporation made 41 investments worth \$338.4 million in fiscal 1978.

¹ The fiscal year of the World Bank, as well as of its two affiliates, runs from July 1 to June 30.

Port-related Project approved for Bank and IDA Assistance in Fiscal 1979 Transportation

BENIN: IDA—\$8.3 million. Supplementary finance will be made to an \$11 million credit approved in June 1978 for a transportation project. Norway has bought a participation in the full amount of the supplementary credit.

SOMALIA: IDA—\$5.5 million. A conventional tanker pier—to be used for receiving inbound crude oil for the Mogadishu oil refinery and for outbound refined products—in Mogadishu's deep water harbor will be provided; as a result, ship waiting time will be reduced, and general cargo berth capacity released. Total cost: \$6.6 million.

TURKEY: Bank—\$75 million. Ten main public ports will be rehabilitated, institutional and financial improvements made in port operations, and master planning and feasibility studies undertaken to help meet traffic requirements through 1984. Co-financing (\$1 million) is being provided by the UNDP. Total cost: \$155.6 million.

Bank and IDA: Trends in Lending, by Sector (US\$ millions. Fiscal years.)

| | 1977 | | | 1978 | | | 1979 | | |
|------------------------------------|----------------------|---------|---------|---------|---------|---------|---------|---------|----------|
| | Bank | IDA | Total | Bank | IDA | Total | Bank | IDA | Total |
| Agriculture and rural development | 1,637.8 | 670.1 | 2,307.9 | 1,929.0 | 1,340.7 | 3,269.7 | 1,568.1 | 953.7 | 2,521.8 |
| Education | 210.1 | 78.5 | 288.6 | 268.9 | 83.0 | 351.9 | 245.5 | 250.5 | 496.0 |
| Energy | 150.0 | — | 150.0 | — | — | — | 82.4 | 30.0 | 112.4 |
| Industrial development and finance | 730.7 | 25.5 | 756.2 | 829.5 | 80.4 | 909.9 | 628.6 | 48.2 | 676.8 |
| Industry | 570.8 | 16.0 | 586.8 | 364.8 | 27.0 | 391.8 | 721.0 | 121.5 | 842.5 |
| Nonproject | 126.5 | 90.0 | 216.5 | 80.0 | 75.0 | 155.0 | 301.5 | 105.0 | 406.5 |
| Population and nutrition | 42.5 | 4.8 | 47.3 | 25.0 | 33.1 | 58.1 | 17.0 | 97.0 | 114.0 |
| Power | 784.5 | 167.0 | 951.5 | 900.0 | 246.2 | 1,146.2 | 872.5 | 482.4 | 1,354.9 |
| Technical assistance | 1.5 | 15.4 | 16.9 | 11.0 | 9.3 | 20.3 | — | 29.7 | 29.7 |
| Telecommunications | 140.0 | — | 140.0 | 153.6 | 67.5 | 221.1 | 110.0 | — | 110.0 |
| Tourism | 98.6 | — | 98.6 | 50.0 | — | 50.0 | 66.7 | 46.5 | 113.2 |
| Transportation | 875.6 | 172.0 | 1,047.6 | 918.1 | 174.8 | 1,092.9 | 1,430.9 | 473.5 | 1,904.4 |
| Urban development | 128.2 | 30.0 | 158.2 | 222.4 | 146.2 | 368.6 | 297.5 | 12.0 | 309.5 |
| Water supply and sewerage | 262.5 | 38.2 | 300.7 | 345.4 | 29.8 | 375.2 | 647.3 | 371.5 | 1,018.8 |
| Total | 5,759.3 ¹ | 1,307.5 | 7,066.8 | 6,097.7 | 2,313.0 | 8,410.7 | 6,989.0 | 3,021.5 | 10,010.5 |

International maritime information: World port news:

Recommendations on the Safe Transport, Handling and Storage of Dangerous Substances in Port Areas : (2)

Report of the 4th intersessional meeting of the Joint Ad Hoc Working Group, IMCO, 22-26 October 1979 (CDG XXXI/4)(extracts)

5.3 SHORE INSTALLATIONS

5.3.1 REPAIR WORK

5.3.1.1 The BERTH OPERATOR, after having consulted the MASTER of a SHIP, where appropriate, should ensure that he is in possession of a certificate of approval issued by the DESIGNATED PORT OFFICER, before any repair work consisting of the use of hot rivets, welding, burning and power tools, and any other repair work which may lead to a hazard because of the presence of DANGEROUS SUBSTANCES, is carried out.

5.3.1.2 The BERTH OPERATOR after having consulted the MASTER of a SHIP, where appropriate, should ensure that tools and equipment when used in an area where a flammable atmosphere may exist or develop, are used in such a manner that no fire or explosion can be caused.

5.3.2 WARNING NOTICES

5.3.2.1 The BERTH OPERATOR should ensure that, before HANDLING BULK DANGEROUS SUBSTANCES at any BERTH on the shore, appropriate warning notices are placed at all entrances and approaches to the BERTH.

5.3.3 COMPATIBILITY

5.3.3.1 The BERTH OPERATOR should ensure that liquid BULK DANGEROUS SUBSTANCES are handled and stored in such a manner so as to preclude the possibility of a dangerous interaction with incompatible substances or materials.

5.3.4 COMMUNICATIONS

5.3.4.1 The BERTH OPERATOR should ensure that effective communication has been established between a BERTH used for the HANDLING of BULK DANGEROUS SUBSTANCES and the storage installation from or into which such substances are being transferred. Any earphone, microphone or other apparatus so used should be of a type approved for use in such places.

NOTE: VHF equipment operating on frequencies allocated to the maritime mobile service should not be permitted for communications between a berth and the storage installation.

5.3.5 PIPELINES

5.3.5.1 The BERTH OPERATOR should ensure that any PIPELINE used for liquid BULK DANGEROUS SUBSTANCES:

- .1 is not used for substances other than those for which it is suitable, having regard to the temperature and compatibility of the substances;
- .2 which is liable to be damaged by impact, is suitably protected;
- .3 is electrically continuous except for the inclusion of an insulating flange or short section of non-conductive hose when used for the transfer of a flammable liquid. The PIPELINE on the seaward side of the insulating section should be electrically continuous to the SHIP, and that on the landward side should be electrically continuous to the jetty earthing system;
- .4 terminates in an area which is well ventilated (a PIPELINE should not terminate in a depression in which an accumulation of vapour may occur).

5.3.5.2 The BERTH OPERATOR should ensure that:

- .1 adequate precautions are taken to prevent a short-circuit of the insulating section referred to in 5.3.5.1.3 above;
- .2 the earthing and insulating systems referred to in 5.3.5.1.3 above are inspected at reasonable intervals to ensure their effectiveness; and
- .3 other metallic connexions between the BERTH and the SHIP are protected or arranged so as to ensure that there is no possibility of incentive sparking where a flammable atmosphere may be present.

5.3.6 SOURCES OF IGNITION

5.3.6.1 The BERTH OPERATOR should ensure that the MASTER of a SHIP is notified of any conditions which may require precautions to be taken for avoidance of sources of ignition on the SHIP such as galley stoves and cooking appliances with non-immersed elements.

5.3.7 CONTAINMENT OF SPILLAGE

5.3.7.1 The BERTH OPERATOR should ensure that all drain holes and pipes and all other drains of any kind, where liquid BULK DANGEROUS SUBSTANCES might

escape in case of an accident, are closed before HANDLING commences and are kept closed during the whole of the period of the HANDLING of liquid BULK DANGEROUS SUBSTANCES.

5.3.8 SHORE ELECTRICITY SUPPLY TO SHIPS

5.3.8.1 The BERTH OPERATOR should ensure that no connexion, cable or equipment for shore electrical supply is used on or near a SHIP carrying flammable vapour or where gas may be present, unless approved in accordance with the requirements of the REGULATORY AUTHORITY.

5.3.9 STORAGE

5.3.9.1 The REGULATORY AUTHORITY should ensure that permanent installations for the storage of liquid BULK DANGEROUS SUBSTANCES including PIPELINES in the PORT AREA are designed, constructed and maintained in accordance with current national standards taking into account temperature, the development of pressure, compatibility of substances and the need to ensure harmonization with the requirements laid down for SHIPS.

5.4 HANDLING

5.4.1 FLEXIBLE PIPES

5.4.1.1 The MASTER of a SHIP and the BERTH OPERATOR within their respective areas of responsibility should ensure that:

- .1 no FLEXIBLE PIPE is used for any substance other than that for which it is suitable, having regard to the temperature and compatibility of the product, or at any working pressure for which it is unsuitable;
- .2 each length of flexible hose complete with end fittings is provided with a certificate stating that a prototype of that hose has undergone a test. This certificate should contain at least the following information:
 - .1 that the bursting pressure was not less than 5 times the specified maximum working pressure, over the range of service temperatures,
 - .2 the intended extreme maximum and minimum service temperatures,
 - .3 that the hose provided is not the length used for prototype testing. (Prototypes must not be used in service);
 - .4 before being placed in service, each new FLEXIBLE PIPE supplied should be hydrostatically tested at ambient temperature to a pressure not less than 1.5 times its specified maximum working pressure nor more than two-fifths its bursting pressure. The hydraulic test should be carried out at intervals not exceeding one year. Written proof of these tests should be available for inspection;
 - .5 that before being put into use on any day, a FLEXIBLE PIPE is visually inspected by a SKILLED PERSON for signs of deterioration. If there is any sign of deterioration, the FLEXIBLE PIPE should be tested as described in .3 above.
 - .6 a FLEXIBLE PIPE is indelibly marked so as to allow the identification of the products for which it is suitable, its specified maximum working pressure, the

test pressure and the last date on which it was tested at this pressure, and if used at service temperatures other than ambient, its maximum and/or minimum service temperature;

- .7 any FLEXIBLE PIPE after use is drained and purged of the liquid BULK DANGEROUS SUBSTANCE and that in cases where this is not possible or has not been carried out, the FLEXIBLE PIPE is provided at each free end with a suitable means to prevent the escape of vapour or admission of air. Such equipment should always be provided on FLEXIBLE PIPES used for the HANDLING of highly toxic liquids or liquefied gases; and
- .8 FLEXIBLE PIPES rigged for HANDLING liquid BULK DANGEROUS SUBSTANCES are kept under adequate supervision.

5.4.2 PRELIMINARY PRECAUTIONS

5.4.2.1 The MASTER of a SHIP and the BERTH OPERATOR, within their respective areas of responsibility should ensure that cargo HANDLING controls, gauging systems, emergency shut-down and alarm systems, where applicable, have been tested and found to be satisfactory before cargo HANDLING operations begin.

5.4.2.2 The MASTER of a SHIP and the BERTH OPERATOR should before liquid BULK DANGEROUS SUBSTANCES are pumped into or out of any SHIP from or into a shore installation:

- .1 agree in writing on the HANDLING procedures including the maximum loading or unloading rates taking into account:
 - .1 the arrangement, capacity and maximum allowable pressure of the SHIP's cargo lines and the PIPELINES;
 - .2 the arrangement and capacity of the vapourventing system;
 - .3 the possible pressure increase due to emergency shut-down procedures; and
 - .4 the possibility of the accumulation of electrostatic charge; and
- .2 complete and sign the appropriate safety check list, models of which are given in Appendix 4*), showing the main safety precautions to be taken before and during such HANDLING operations; and
- .3 agree in writing on the action to be taken in the event of an emergency during HANDLING operations.

*) Under further development.

5.4.3 PUMPING

5.4.3.1 The MASTER of a SHIP and the BERTH OPERATOR within their respective areas of responsibility should ensure that:

- .1 frequent checks are made to ensure that the agreed back-pressures and loading or unloading rates are not exceeded;
- .2 all reasonable care is taken to prevent all relevant piping and associated equipment on board the SHIP and ashore from developing a leak, and are kept under adequate supervision during the HANDLING of liquid BULK DANGEROUS SUBSTANCES;

- .3 effective communication between the SHIP and the shore installation is maintained throughout the HANDLING operations, and that written notices on the signals to be used in an emergency are exchanged;
- .4 the safety check list mentioned in 5.4.2.2.2 above is available for inspection throughout the HANDLING operations;
- .5 SHIP's stores are not worked in a manner that may be liable to cause damage to the connecting PIPELINES or associated equipment, or may otherwise endanger the HANDLING operations in progress, during the HANDLING of liquid BULK DANGEROUS SUBSTANCES, HANDLING of ballast water contaminated with DANGEROUS SUBSTANCES and gas freeing or tank cleaning;
- .6 during the HANDLING of liquid BULK DANGEROUS SUBSTANCES, arrangements are made for gauging of SHIP's tanks and shore tanks to ensure that no tank is overfilled.

5.4.4 COMPLETION OF OPERATION

5.4.4.1 The MASTER of a SHIP and the BERTH OPERATOR within their respective areas of responsibility should ensure that after the completion of every transfer of liquid BULK DANGEROUS SUBSTANCES the valves of the discharging and receiving cargo spaces and tanks are closed and any residual pressure in the relevant piping is released, unless the same valves are required to be open for normal plant or SHIP operation; they should also ensure that:

- .1 prior to the disconnexion of the shore PIPELINES from the SHIP, the piping should be drained of liquids, the pressure relieved and the piping vented; and
- .2 all safety precautions are taken, including the blanking off of the SHIP manifold connexion and the shore PIPELINE

5.4.5 SHIP TO SHIP TRANSFER

5.4.5.1 The ship to ship transfer of liquid BULK DANGEROUS SUBSTANCES should be subject to the authorization of the PORT AUTHORITY. If the PORT AUTHORITY permits ship to ship transfer it should impose conditions such as special safety check lists and control of the place where the operation may be undertaken, taking into account the particular hazards involved.

5.5 SPECIAL CATEGORIES

5.5.1 EXCESS PRESSURE IN TANKS CONTAINING LIQUEFIED GASES

5.5.1.1 The MASTER of a ship and the BERTH OPERATOR within their respective areas of responsibility should ensure that excess pressure does not develop in the tanks containing liquefied gases under pressure in the SHIP or on the BERTH. Where appropriate, the surroundings should be cooled by whatever means are available, including the use of water spray.

5.5.2 REFRIGERATED LIQUEFIED GAS

5.5.2.1 The MASTER of a SHIP and the BERTH OPERATOR within their respective areas of responsibility should

ensure that the loading or unloading of liquefied gas at low temperature is carried out in such a way that:

- .1 all tanks and PIPELINES are gradually and evenly cooled to prevent thermal stress and, unless the approval of the DESIGNATED PORT OFFICER has been given, all automatic controls, gas detectors and other associated instruments are in working order;
- .2 adequate arrangements are made for the safe removal of any vapours and condensate which may form in a PIPELINE when the PIPELINE is being cooled;
- .3 all persons exposed to the hazard of frost-bite are supplied with appropriate protective clothing.

5.5.3 HIGHLY HAZARDOUS SUBSTANCES

5.5.3.1 In establishing criteria for the acceptability, referred to in 3.1.1 for liquid BULK DANGEROUS SUBSTANCES, which are designated to be carried in ship type I in the Gas Carrier Codes or the Bulk Chemicals Code, the REGULATORY AUTHORITY should have particular regard to the highly hazardous properties with respect to the TRANSPORT and HANDLING of those substances.

5.6 COMBINATION CARRIERS

5.6.1 Any combination carrier which has previously carried crude oil or petroleum products having a flashpoint not exceeding 60°C as a cargo, should be subject to the recommendations unless it can be demonstrated that no liquid, solid or gaseous residues of oil remain in any of the ship's tanks, holds, void spaces or pump rooms.

5.6.2 The DESIGNATED PORT OFFICER may exempt combination carriers which do not comply with the requirements of paragraph 5.6.1 above, subject to the following conditions:

- .1 cargo spaces carrying or destined to carry SOLID BULK DANGEROUS SUBSTANCES should be clean and gas-free;
- .2 spaces adjacent to those referred to in .1 above should be either:
 - .1 gas-free; or
 - .2 inerted and purged of hydrocarbon vapour in such a way that dilution with air will not give rise to a flammable atmosphere, and a positive pressure is maintained;
- .3 residues of flammable liquids, whether or not mixed with water, should not be carried in a space having a common bulkhead with spaces referred to in .1 above, and should be blanketed with a suitable inert gas, and a positive pressure maintained; and
- .4 the conditions referred to in .2 and .3 above should be maintained during the SHIP's stay in port.

6 SOLID BULK DANGEROUS SUBSTANCES

6.1 INFORMATION FOR OPERATIONAL AND EMERGENCY PURPOSES

6.1.1 The MASTER of a SHIP and the BERTH OPERATOR within their respective areas of responsibility should have immediately available the following information with

respect to each DANGEROUS SUBSTANCE handled, stored or transported:

- .1 the correct technical name of the substance, the UN number (when available) and a description of the relevant physical and chemical properties (including reactivity) necessary for the safe containment and HANDLING of the substance;
- .2 special equipment needed for the safe HANDLING of a particular substance; and
- .3 emergency procedures, including
 - action to be taken in the event of a spillage or leak;
 - countermeasures against accidental personnel contact; and
 - fire-fighting procedures and suitable fire-fighting media.

6.2 REPAIR WORK

6.2.1 The MASTER of a SHIP should ensure that he is in possession of a certificate of approval issued by the DESIGNATED PORT OFFICER, after consultation with the BERTH OPERATOR where appropriate, before any repair work consisting of the use of hot rivets, welding, burning and power tools, and any other repair work which may lead to a hazard because of the presence of solid BULK DANGEROUS SUBSTANCES, is carried out on a SHIP.

6.3 ENTRY INTO SPACES

6.3.1 The MASTER of a SHIP and the BERTH OPERATOR within their respective areas of responsibility should ensure where any space has been used for the carriage or storage of solid BULK DANGEROUS SUBSTANCES which may cause depletion of the oxygen content of the atmosphere in that space, the space should be adequately ventilated before any person enters into the space. If there is any reason to believe that the atmosphere may not be respirable, the precautions set out in paragraph 5.2.4.1 should be adhered to.

6.4 EMISSION OF HARMFUL DUSTS

6.4.1 The MASTER of a SHIP and the BERTH OPERATOR within their respective areas of responsibility should ensure that where the HANDLING of BULK DANGEROUS SUBSTANCES may give rise to the generation of dusts harmful to personnel, precautions should be taken to avoid the escape of such dusts in a dangerous manner or in dangerous quantities. Persons exposed to such dusts should be protected in accordance with the provisions in paragraph 3.4.5.

6.5 EXPLODABLE DUSTS

6.5.1 Where solid BULK DANGEROUS SUBSTANCES are being handled in a manner which may give rise to combustible dust liable to explode on ignition, the MASTER of a SHIP and the BERTH OPERATOR within their respective areas of responsibility should take all practicable steps to prevent such an explosion, for example by limiting the concentration of dust in the atmosphere in any enclosed space and by avoiding sources of ignition. All practicable steps should be taken to restrict the spread and

effects of any possible explosion.

6.6 SUBSTANCES WHICH REACT WITH WATER

6.6.1 The MASTER of a SHIP and the BERTH OPERATOR within their respective areas of responsibility should ensure that substances which, on contact with water, may evolve flammable or toxic gas or become liable to spontaneous combustion, are protected from contact with water to such extent as may be necessary to avoid danger, and should take such steps as may be necessary to avoid the exposure of any person to a dangerous concentration of any toxic gas that may be evolved.

6.7 OXIDIZING SUBSTANCES

6.7.1 The BERTH OPERATOR should ensure that oxidizing substances carried or stored in bulk should be kept so as to avoid the possibility of contamination. Such substances should be kept away from any source of heat or ignition.

APPENDIX 1

ADVANCE NOTIFICATION

1 ARRIVAL BY WATER

1.1 PACKAGED DANGEROUS GOODS

- 1.1.1 name of the SHIP and date of arrival;
- 1.1.2 the correct technical name of the substances, the UN number (where available), the IMDG Code Classification, the flashpoint (as appropriate), and the quantity;
- 1.1.3 stowage of the DANGEROUS GOODS on board, indicating those to be unloaded and those to be left on board;
- 1.1.4 the condition of the DANGEROUS GOODS if any undue hazard is likely to arise;
- 1.1.5 any known defect which may substantially affect the safety of navigation.

1.2 BULK DANGEROUS SUBSTANCES

- 1.2.1 name of SHIP and date of arrival;
- 1.2.2 the correct technical name of the substances, the UN number (if applicable), the flashpoint (as appropriate) and the quantity;
- 1.2.3 whether a valid CERTIFICATE OF FITNESS is held for the cargo;
- 1.2.4 stowage of the DANGEROUS SUBSTANCES on board, indicating those to be unloaded and those to be left on board;
- 1.2.5 the condition of the DANGEROUS SUBSTANCES and any known defect in the cargo containment and handling system, equipment or instrumentation related to the cargo carried in bulk which may lead to any undue hazard;
- 1.2.6 any known defect which may substantially affect the safety of navigation.

2 ARRIVAL BY LAND

2.1 PACKAGED DANGEROUS GOODS AND BULK

DANGEROUS SUBSTANCES

- 2.1.1 name of the shipper and date of delivery;
- 2.1.2 the correct technical name of the substances, the UN number (if applicable), the IMDG Code Classification (if applicable), the flashpoint (as appropriate) and the quantity;
- 2.1.3 the number and type of packages (if applicable);
- 2.1.4 the name of the SHIP into which the DANGEROUS SUBSTANCES are to be loaded (if available), the SHIP's agent and the berth.

APPENDIX 2

TRANSPORT AND HANDLING OF EXPLOSIVES

Additional basic items for consideration by the Regulatory Authority

1 It should at all times be ensured that relevant directives are given and appropriate records kept as to the location of any means of transport involved in the transport of explosives in the PORT AREA.

2 It should be ensured that there is at all times a RESPONSIBLE PERSON in charge of any quantity of explosives in the PORT AREA.

3 EXPLOSIVES IN COMPATIBILITY GROUP L

3.1 Explosives in Compatibility Group L should not be handled in a PORT AREA unless the special permission of the DESIGNATED PORT OFFICER has been obtained and any special precautions, required by him, have been taken.

4 HANDLING OF DETERIORATED EXPLOSIVES

4.1 Because of the sensitivity of many explosives, special conditions should be considered and agreed before any explosives which for any reason may have deteriorated or undergone a change of condition that may materially increase the hazards attendant upon their conveyance or handling are moved in the PORT AREA. Such special conditions should be agreed in writing between the DESIGNATED PORT OFFICER and the RESPONSIBLE PERSON having charge of the explosive.

5 LOADING AND DISCHARGE OF EXPLOSIVES

5.1 No explosives should be brought to a BERTH for loading into a SHIP unless the SHIP is ready to receive them. No explosives should be unloaded from a SHIP at a BERTH, unless the means of transport by which they are to be removed from the PORT AREA is ready to receive them. Once the HANDLING of explosives has begun it should proceed with due diligence.

5.2 The area of the BERTH where the explosives are being handled should be clearly marked out as a protected area in which the provisions of 3.4.8.1, 3.4.8.3 and 4.4.1.1.2 are strictly enforced. The limits of the area should extend at least 10 metres from the immediate HANDLING area.

5.3 The space in the SHIP or vehicle in which explosives are to be loaded should be carefully cleaned and maintained

in a clean condition and particular attention should be paid to the provisions 3.5.1.1.4.

5.4 Explosives should not be handled during the hours of darkness unless prior consent has been obtained from the DESIGNATED PORT OFFICER who should take into account all relevant considerations, including the standard of illumination, security, fatigue of workers and weather conditions.

6 WEATHER CONDITIONS

6.1 Because of the nature of explosives the provisions of 3.4.2.1 need careful attention particularly in respect of wet conditions.

7 ADDITIONAL FIRE PRECAUTIONS

7.1 No source of ignition should be brought into or near to a place where explosives are being handled. The wearing of shoes or boots with unprotected metal nails, heels or tips of any kind should be prohibited except where the consignment consists only of ARTICLES of Class 1* and care should be taken to ensure that any portable lights are adequately protected so as not to provide a source of ignition.

*For definition see page 1002 of the IMDG Code.

8 RADIO OR RADAR TRANSMITTING

8.1 During the handling of explosives no radar or radio transmitter should be used within 50 metres of the HANDLING area, except under such conditions, including power output limitations, as may be established by the REGULATORY AUTHORITY.

9 BUNKERING

9.1 No bunkering with fuel oil should be permitted during the handling of explosives or while the hatches of cargo spaces containing explosives are open, unless the permission of the DESIGNATED PORT OFFICER has been obtained.

10 DAMAGED PACKAGES

10.1 If in the course of HANDLING explosives in the PORT AREA any package of explosives, or the seal of any such package, appears to be damaged, that package should be set aside for examination and repaired or otherwise disposed of safely.

10.2 If any explosives are spilled or escape from a package the RESPONSIBLE PERSON supervising the handling should ensure that such spillage is immediately collected and safe arrangements are made for its repacking or disposal. Every such incident should be immediately reported to the DESIGNATED PORT OFFICER.

11 COMPLETION OF LOADING

11.1 When loading is completed the loaded SHIP or vehicle should depart from the PORT AREA as soon as is reasonably practicable.

12 SECURITY

12.1 As the safety of HANDLING explosives is affected by degree of security attained, consideration should be given to all measures necessary to prevent unauthorized access to explosives including appropriate checks that all packages are received in good order and condition at all stages of the handling operation.

13 EXPLOSIVES IN CLASS 1, DIVISION 1.4, COMPATIBILITY GROUP S

13.1 The REGULATORY AUTHORITY should consider any exemption necessary from the requirements for explosives in Class 1, Division 1.4, Compatibility Group S.

APPENDIX 3

SEGREGATION FOR RADIOACTIVE SUBSTANCES ON SHORE

1 SEGREGATION FROM PERSONS

1.1 No Yellow Label package should be stored or assembled nearer to any place regularly frequented by employees than the minimum distances given in the Table below, unless measurements taken by using an appropriate instrument show clearly that the radiation level at all points inside that place is less than 1 millirem per hour. Where the packages are not in a special store, the area covered by applying the table below should be barred or marked off. Entry into the special store or barred-off area should be for the purpose of essential duties only and the time spent in handling packages should be kept to the minimum necessary.

Table: Segregation of Yellow Label packages from persons

| Sum of transport indices | Segregation distances in metres |
|--------------------------|---------------------------------|
| Up to 5 | 2.2 |
| Over 5 to 110 | 3.2 |
| " 10 to 20 | 4.5 |
| " 20 to 30 | 5.2 |
| " 30 to 40 | 6.2 |
| " 40 to 50 | 7.1 |
| " 50 to 100 | 10 |
| " 100 to 150 | 12 |
| " 150 to 200 | 14 |

(N.B. The segregation distance should be adhered to regardless of whether walls or ceilings intervene between the storage place and the occupied place).

1.2 Persons under 18 years of age should not be employed in the handling of Yellow Label packages or in any occupation which keeps them for long periods in places where the radiation level is likely to exceed 0.75 millirem per hour.

1.3 If the frequency of storage of Yellow Label packages on the premises is such that personnel on average over the year spend more than ten hours per week in the store when such packages are present, more stringent measures should be adopted (possibly including monitoring of radiation doses received) and guidance on this should be sought from

the recommendations of the International Commission for Radiological Protection (ICRP).

2 SEGREGATION TO PREVENT CRITICALITY

2.1 Apart from segregation to reduce external radiation (in accordance with sub-section 1.1 above), certain types of package containing fissile material must be stacked in such a way as to ensure freedom from any risk of criticality hazard. All such packages (Fissile Class II and III) carry a Yellow Label showing the Transport Index, which is specially adapted to provide the necessary means of control. The following rules apply to all Yellow Label packages:

- .1 the number of Yellow Label packages stacked together must be limited so that the total number of Transport Indices does not exceed 50;
- .2 a clear distance of 6 metres must be left between stacks. (This rule must be applied regardless of whether the stacks are separated by walls or ceilings. There is no objection to the intervening space being used for the storage of other goods).

2.2 This is solely a criticality precaution and does not relate to radiation control. Fissile Class II and III packages from only a small proportion of the total radioactive traffic but because there is no special "fissile" label, the 50 Transport Index limit and 6 metre separation requirement should be applied indiscriminately to all consignments.

APPENDIX 4

MODEL FORM OF SHIP/SHORE SAFETY CHECK LIST

VESSEL _____

BERTH _____

INSTRUCTIONS FOR COMPLETION:

The safety of operations requires that all questions should be answered affirmatively after checking by both ship and terminal representatives. If an affirmative answer is not possible, the reason should be given and agreement reached upon appropriate precautions between the ship and the terminal.

| | Ship Representative | Terminal Representative | Remarks |
|--|---------------------|-------------------------|---------|
| 1. Is the ship securely moored? | | | |
| 2. Are emergency towing wires correctly positioned? | | | |
| 3. Is there safe access between ship and shore? | | | |
| 4. Is the ship ready to move under its own power? | | | |
| 5. Is there an effective deck watch in attendance on board and adequate supervision on the terminal? | | | |
| 6. Is the agreed ship/shore communication system operative? | | | |
| 7. Have the procedures for cargo, bunker and ballast handling been agreed? | | | |
| 8. Has the emergency shut down procedure been agreed? | | | |
| 9. Are fire hoses and fire fighting equipment on board and ashore ready for immediate use? | | | |
| 10. Are cargo and bunker hoses and/or arms in good condition and properly rigged? | | | |
| 11. Are scuppers effectively plugged, and drip trays in position, both on board and ashore? | | | |
| 12. Are unused cargo and bunker connexions, including the stern discharge line, if fitted, blanked? | | | |
| 13. Are sea and overboard discharge valves, when not in use, closed and lashed? | | | |
| 14. Are all cargo and bunker tank lids closed? | | | |
| 15. Is the agreed tank venting system being used? | | | |
| 16. Are hand torches of an approved type? | | | |
| 17. Are portable VHF/UHF transceivers of an approved type? | | | |
| 18. Are the ship's main radio transmitter aerials earthed? | | | |
| 19. Are electric cables to portable electrical equipment disconnected from power? | | | |
| 20. Are all external doors and ports in the amidships accommodation closed? | | | |
| 21. Are all doors and ports in the after accommodation leading into or overlooking the tank deck closed? | | | |
| 22. Are air conditioning intakes which may permit the entry of petroleum gas closed? | | | |
| 23. Are window-type air conditioning units disconnected? | | | |
| 24. Are smoking requirements being observed? | | | |
| 25. Are the requirements for the use of galley and other cooking appliances being observed? | | | |
| 26. Are naked light requirements being observed? | | | |

Declaration:

We have checked with each other the items listed on this check list in the course of a joint inspection, and have satisfied ourselves that the entries we have made are correct to the best of our knowledge.

For Ship Name Rank Signature

For Terminal Name Position Signature

Time Date

| | | | | | | | |
|--------------------------------------|--------------------|--|--|--|--|--|--|
| Acknowledgement of repetitive checks | Time and date | | | | | | |
| | Initials: For ship | | | | | | |
| | For terminal | | | | | | |

NOTE: The precautions listed above are more fully set out in the IMCO recommendations or in relevant Guides such as the International Safety Guide on Oil Tankers and Terminals. Additional items may be included as the Regulatory Authority may deem necessary for particular types of dangerous goods.

MODEL FORM OF CARGO TRANSFER CHECK LIST FOR LIQUEFIED GAS

VESSEL _____

BERTH _____

INSTRUCTIONS FOR COMPLETION:

The safety of operations requires that all questions should be answered affirmatively after checking by both ship and terminal representatives. If an affirmative answer is not possible, the reason should be given and agreement reached upon appropriate precautions between the ship and the terminal.

| | Ship Representative | Terminal Representative | Remarks |
|--|---------------------|-------------------------|---------|
| 1. Is the ship securely moored? | | | |
| 2. Are emergency towing wires correctly positioned? | | | |
| 3. Is there safe access between ship and shore? | | | |
| 4. Is the ship ready to move under its own power? | | | |
| 5. Is there an effective deck watch in attendance on board and adequate supervision on the terminal? | | | |
| 6. Is the agreed ship/shore communication system operative? | | | |
| 7. Have the procedures for cargo, bunker and ballast handling been agreed? | | | |
| 8. Has the emergency shut down procedure been agreed? | | | |
| 9. Are fire hoses and fire fighting equipment on board and ashore ready for immediate use? | | | |
| 10. Are cargo and bunker hoses and/or arms in good condition and properly rigged? | | | |
| 11. Are scuppers effectively plugged, and drip trays in position, both on board and ashore? | | | |
| 12. Are unused cargo and bunker connexions, including the stern discharge line, if fitted, blanked? | | | |
| 13. Are sea and overboard discharge valves, when not in use, closed and lashed? | | | |
| 14. Are all cargo and bunker tank lids closed? | | | |
| 15. Is the agreed tank venting system being used? | | | |
| 16. Are hand torches of an approved type? | | | |
| 17. Are portable VHF/UHF transceivers of an approved type? | | | |
| 18. Are the ship's main radio transmitter aerials earthed? | | | |
| 19. Are electric cables to portable electrical equipment disconnected from power? | | | |
| 20. Are all external doors and ports in the amidships accommodation closed? | | | |
| 21. Are all doors and ports in the after accommodation leading into or overlooking the tank deck closed? | | | |
| 22. Are air conditioning intakes which may permit the entry of petroleum gas closed? | | | |
| 23. Are window-type air conditioning units disconnected? | | | |
| 24. Are smoking requirements being observed? | | | |
| 25. Are the requirements for the use of galley and other cooking appliances being observed? | | | |
| 26. Are naked light requirements being observed? | | | |
| 27. Is the water spray system ready for immediate use? | | | |
| 28. Is necessary protective clothing available or being worn? | | | |
| 29. Are void spaces properly inerted or kept securely closed? | | | |
| 30. Are cargo tank relief valves correctly set and in good order? | | | |
| 31. Is gas detection equipment set for the cargo, calibrated and in good order? | | | |
| 32. Are cargo system gauges and alarms correctly set and in good order? | | | |
| 33. Are cargo and bunker hoses in good condition and properly rigged; have certificates been checked? | | | |
| 34. Are automatic shutdown systems working properly? | | | |
| 35. Does shore know the closing rate of ship's automatic valve at operating temperature; does ship have similar details of shore system? | | | |
| 36. Are those directly involved aware of the agreed cargo transfer sequence? | | | |

Declaration:

We have checked with each other the items listed on this check list in the course of a joint inspection, and have satisfied ourselves that the entries we have made are correct to the best of our knowledge.

| | | | |
|--------------|------------|----------------|-----------------|
| For Ship | Name | Rank | Signature |
| For Terminal | Name | Position | Signature |
| | Time | Date | |

| | | | | | | | |
|--------------------------------------|--------------------|--|--|--|--|--|--|
| Acknowledgement of repetitive checks | Time and date | | | | | | |
| | Initials: For ship | | | | | | |
| | For terminal | | | | | | |

NOTE: The precautions listed above are more fully set out in the IMCO recommendations or in relevant Guides such as the ICS Tanker Safety Guide – Liquefied Gas. Additional items may be included as the Regulatory Authority may deem necessary for particular types of dangerous goods.

ATTACHMENT

COMMENTS MADE BY THE WORKING GROUP TO SPECIFIC ITEMS OF THE ANNEX

PREAMBLE

1.1 Even though the adopted definition of the term TRANSPORT now “means the movement by one or more modes of transport in port areas”, the Group considered it justified to express in the opening paragraph of the recommendations that “the TRANSPORT OF DANGEROUS SUBSTANCES into, within and out of PORT AREAS and their HANDLING and storage therein should be controlled to ensure the safety of persons working or living in or near PORT AREAS and the protection of port installations and environment.” However, the scope of the present recommendation is outlined in paragraph 1.4 of the preamble thereof.

1.3 The two last sentences have been added in response to the question posed by the FP Sub-Committee (FP XXIII/14, 12.3.2).

2.2 DEFINITIONS

COMPETENT PERSON. In order not to be at variance with the definition given in ILO Convention 152 and since the term had been very sparingly used in the recommendations this definition was deleted in response to comments given by CDG XXX/16, 4.4.2. The Group was of the opinion that there was no great need to have definitions of “Responsible Person” and “Skilled Person” identical with those of ILO, and they were therefore not amended.

“DANGEROUS SUBSTANCES” The Group could see no practical solution to the difference between the flash-points of packaged goods and bulk substances, but decided to draw attention to the question by insertion of a footnote.

“SHIP”. The Group was of the opinion that there was no conflict between the definition and inland water craft rules as inferred by the CDG Sub-Committee (CDG XXX/16, 4.4.1).

3.1.1 ACCEPTABILITY OF DANGEROUS GOODS IN PORT AREAS

3.1.1.1 The Group did not agree with the statement made

in paragraph 4.4.3 of CDG XXX/16 for the reason that specifying the restrictions would imply that everything not specified would be acceptable.

3.1.2.1 The Group did not agree with the statement made in CDG XXX/16, paragraph 4.4.4. The Master must under the provisions of Chapter VII of SOLAS be notified of all Dangerous Goods and Substances and this principle should apply also to Port Authorities. The flexibility is safeguarded by the contents of the last sentence.

3.1.5.1 The Group did not agree with the proposal of the BCH Working Group (BCH VI/WP.2 Annex p. 15). The text as appearing in the recommendations was considered satisfactory.

3.1.6 The Group considered the text appearing in the recommendations to be satisfactory. The possibility of developing more detailed criteria for reporting incidents should perhaps be studied at a future date.

3.2.1 **SIGNALS.** The Group discussed at length whether the provision “Exhibition of lights should not be required when SHIPS are under way” which the NAV Sub-Committee had left in square brackets, should be retained in the text. On balance it was decided to delete the provision.

3.2.2.1 The Group could not agree with the opinion expressed in COM XX/11, Annex 9.1 that the “REGULATORY AUTHORITY” rather than the PORT AUTHORITY should ensure that every SHIP engaged in the TRANSPORT OF DANGEROUS SUBSTANCES can maintain effective communications with the PORT AUTHORITY. However, the words “and with the requirements of the REGULATORY AUTHORITY” were added to the text appearing in MSC XL/22, Annex 2.

3.2.3.1 The Group, in response to the statement contained in CDG XXX/16, 4.4.7, agreed that it was desirable to retain the paragraph.

3.2.4 WATCHKEEPING

The Group accepted the proposals of the STW Sub-Committee but to locate the provisions as follows:

Proposed 3.2.4.1 located at 5.2.1

Proposed 3.2.4.2 located at 4.2.1

Proposed 3.2.4.3 located at 3.2.4.2.

3.2.5.1 The Group agreed to retain the provision that “the

crew is trained and practised in the use of firefighting equipment” for its relevant to ships not covered by SOLAS or STCW Conventions, and could therefore not agree with the contents of BCH VI/WP.2, Annex, Page 16.

4.3.3.2 The Group found that the proposal in CDG XXX/16, paragraph 4.4.12 could not be accepted as it could not be applied to containers and because of the specific provisions in the IMDG Code.

4.4.1.2 The Group considered that no particular emphasis should be placed on one specific precaution and that the phrase “such as extensive ventilation” proposed in CDG XXX/16, 4.4.13 should not be included.

5.1.2.1 The proposal in CDG XXX/16, 4.4.15 to the effect that the word “presence” should be qualified was not found acceptable as vapours might come from ashore as well as from the ship.

5.1.4 This text has been transferred from the part on PUMPING as the Group considered this a more logical location.

5.2.3 ENTRY INTO SPACES. The Group made the observation that the text now appearing in the recommendations contained elements of considerable value and could therefore serve as a model for updating corresponding requirements in other codes and guides.

5.2.5 HANDLING. The Group noted that this subject was still under consideration by the FP Sub-Committee.

5.2.5.2 The FP Sub-Committee’s attention should be drawn to the fact that “gauze screen” has been substituted by “flame arrester”.

5.2.6 GAS-FREEING, TANK CLEANING AND INERTING. The Group was aware that the FP Sub-Committee would consider also this part of the recommendations. The Group noted that the recommendation by the BCH Sub-Committee to the effect that IMCO should develop internationally acceptable guidelines on the basis of which ship “operating manuals” for tank-cleaning, gas-freeing, inerting, changing cargo, etc. should be drawn up, had been endorsed by the MSC and that the BCH Sub-Committee had invited submission on the subject.

5.3.5.1.5 The sub-paragraph stating that “when PIPELINES are rigged for HANDLING liquid BULK DANGEROUS SUBSTANCES they are kept under adequate supervision” has been deleted in this part. It is included under HANDLING where the Group considered that it rightly belongs.

5.4.1.1.2 The Group, in accepting the intentions of BCH VI/WP.2, Annex, paragraph 8, considered that the only practical way of ascertaining that prototype testing has taken place, is by means of a certificate. Hence the altered text now appearing in the recommendations.

5.4.5 The Group discussed this item at great length and, although the text was not found fully satisfactory by all participants, it was generally thought that it gives considerable warning of the particular hazards involved in ship-to-ship transfers.

5.5.1 The Group considered that this provision should be retained, mainly for the benefit of personnel ashore.

5.5.2 The Group considered that this provision also should be retained, for the reasons given under 5.5.1 above.

5.5.3 The Group considered that there was ample justification for including this text, dealing with particularly hazardous substances, in the recommendations.

5.6.2 The Group recognized that these provisions are to be found in the ISGOTT Guide, but was of the opinion that the concentrated presentation in the recommendations was of considerable value, and that they should thus be retained in the present generalized form. This was also believed to be of benefit to shore-based personnel.

6.5.1 The Group, in response to the request for clarification expressed in FP XXIII/14, 12.3.2, stated that the steps referred to, as the text now appears, will not require any provision with regard to the construction or equipment of a ship. (See also paragraph 1.4 of the PREAMBLE.)

APPENDIX 1 – ADVANCE NOTIFICATION

1.1.2, 1.2.2, 2.1.2 The Group did not find it possible to follow the proposals of the BCH and CDG Sub-Committee concerning mentioning of the flash points by degree, as a great deal of difficulties in the interface between land-transport requirements and those for sea-going ships might be expected. By using the term “as appropriate” it was considered that such difficulties would be avoided while safeguarding observance of applicable provisions.

APPENDIX 2 – TRANSPORT AND HANDLING OF EXPLOSIVES

The Group found it difficult to understand the statement by the CDG Sub-Committee to the effect that: “Appendix 2 is not necessary and should be reconsidered, in particular, the handling of deteriorated explosives should be prohibited and the provisions of (paragraph) 7.1 are obsolete.” The Group drew attention to the fact that paragraph 7.1 has been somewhat amended.

GENERAL FRAMEWORK FOR PORT AUTHORITIES. BASIC INCOMPATIBILITY. It was recognized that advice from experts on explosives, particularly those involved in the activities of the CDG Sub-Committee, was necessary. In this context the Group stated that it would be appreciated if a satisfactory text of Appendix 2 could be developed by that sub-committee.

APPENDIX 3 – SEGREGATION FOR RADIOACTIVE SUBSTANCES ON SHORE

The Group noted the statement made in document CDG XXXI/3, 9.1. It was nevertheless considered that guidance on the subject would be of value in the recommendations and that the Appendix should, in principle, be retained. The Netherlands delegation has consulted experts on the question of compatibility of the present provisions of the Appendix with the principles of ICRP 26 and had been advised that there was no conflict between them. It would be appreciated if the CDG Working Group on Class 7 would revise the text of the Appendix.

APPENDIX 4 — MODEL FORM OF SHIP/ShORE SAFETY CHECK LIST

The Group noted that a submission on the subject would be made by the ICS at the first opportunity to the BCH Sub-Committee.

MISCELLANEOUS

The Group noted the observations by BCH Sub-Committee on Shipborne Barges (BCH VI/WP.2, paragraph 6.6). The Group considered that these were covered under the present definition of SHIP. [However, it might perhaps be desirable to develop specific provisions for shipborne barges at a future date.]

The Group also noted the observations of the BCH Sub-Committee on possible improvement of Codes and Guides. In this respect reference was made to the last sentence of the paragraph. In this context the Group, while expressing the opinion that the recommendations as presently elaborated, should be regarded as a much required improvement upon Resolution A.289 (VIII), recognized that they could be further substantially improved in several sectors and that they would, in any event, require updating at reasonably limited intervals in order to keep pace with the rapid development in the production and transport of dangerous substances.

(Concluded)

Conference

1. "The 2nd Terminal Operations Conference" RAI Congress Centre, Amsterdam, 18-19 June 1980

Details from:

Conference Manager, C.S. Publications Ltd.,
McMillan House, 54 Cheam Common Road,
Worcester Park, Surrey KT4 8RJ, England
Tel: 01-330 3911. Telex: 8953141

Publications

1. "Containerisation International Yearbook 1980"
Price £23 (in the UK); £25 (surface mail worldwide);
£30 (airmail to Europe); £38 (airmail outside Europe)
Containerisation International Yearbook,
National Magazine House, 72 Broadwick Street,
London W1V 2BP, England
2. "Arab Maritime Data 1979/80"—an official Arab League
Publication
Price \$65.00
Arab Maritime Data, Benn Publications Ltd.,
25 New Street Square, London EC4A 3JA, England
Tel.: 01-353 3212. Telex: 27844

Marad port pricing study

The U.S. Maritime Administration has contracted with Applied Systems Institute, Inc. of Washington, D.C. for a study of port pricing, the ultimate purpose of which is the development of rate-making formulas that will enable port authorities and their conferences to identify facility and service costs and thus establish tariff rates for marine-related services that are "reasonably compensatory." Impetus for the study came from resolutions approved at AAPA's

annual conventions in Nassau and Honolulu which called for "the development of a rate-making formula that assures reasonably compensatory charges related to the costs of each individual port."

The study data will be drawn from detailed surveys of 13 major ports—New York, Baltimore, Hampton Roads, Charleston, Savannah, New Orleans, Houston, Seattle, Portland, Oakland, Los Angeles, Milwaukee, and Toledo. Both tariff and contractual marine terminals will be taken into account. The data bank will be used in constructing and testing analytical models and finally in devising the formulas themselves. Finally, the formulas will be subjected to validating processes. The final report will be completed in June 1981.

Brazilian port news in brief

- The Port of Forno, at Arraial do Cabo, has been incorporated by Cia. Docas do Rio de Janeiro, which now controls four ports in the State of Rio de Janeiro.
- Commander Ney Câmara Valdez, executive director of the National Transatlantic Shipping Center, has criticized the unification of Brazilian ports under a single command, for this has discouraged competition among them.
- The port of Santos reached to total of 782 Lash-type barges handled from January to July of 1979, which is a sign of the port's growing specialization.

Port of Halifax news

• Records set in 1979

Cargo movements through the Port of Halifax reached record levels in 1979. At 15,782,000 tons, total throughput showed a 2% increase over 1978, also a record year.

Almost 2,300,000 tons of containerised general cargo was handled, an increase of 18% over the 1978 total of 1,950,000 tons.

A healthy 23% increase over the 1978 total of RoRo traffic resulted in total movements of 202,000 tons. Most of this increase was handled through Autoport, Canada's largest and most sophisticated automobile handling facility. A new RoRo service for trailer traffic between the Port of Halifax and Newfoundland was established toward the end of 1978 and in its first full year of operation significantly added to the throughput at Autoport.

A record was set in the number of ship arrivals at the Port of Halifax with a total of 2,305. Halifax International Container Terminal had a record 453 ship calls during 1979 maintaining its position as Canada's most intensively-used common-user facility.

• Halifax increases market share of East Canada's container traffic

Container traffic at the Port of Halifax increased 18.2% in 1979, moving from a year end total of 1.8 million tonnes in 1978 to 2.1 million in 1979.

Complete figures, for container traffic handled at Eastern Canadian ports, show an 11% increase for total container traffic; rising from 5.5 million tonnes in 1978 to 6.1 million tonnes in the year just ended. The results would indicate that the Port of Halifax increased its share of the total market by more than 2%; moving from a 32% share in 1978 to over 34% in 1979.

Total traffic at the Port of Halifax in 1979 was 14,346,841 tonnes, up 2% over 1978.

Officials at the port are cautious in predicting major new gains this year, but much more optimistic about the year 1981 when the Fairview Cove Container Terminal comes on stream, thereby adding over 1 million tonnes of container handling capacity to the port's existing stock.

Over 130 million bushels of grain handled in 1979: Port of Québec

This is a new volume record and the result of an association that started in 1967 between Bunge of Canada and the Port of Québec.

At the time, the existence of grain elevators, the year-round accessibility and the depth of water were as many reasons to justify the establishment of Bunge of Canada in Québec. Though the availability of the railroad network also had some weight in the original decision, intermodal accessibility was an important advantage to the Port of Québec.

Indeed, Québec is a deepwater seaport (12.5 m at low tide) that is easily accessible by barge, train and truck. Moreover, it offers oceangoing vessels of more than 100 000 tons a profitable connection towards international markets.

The Bunge of Canada company operates the 640 grain elevator bins owned by the Port of Québec. Those bins have a static storage capacity of 8 million bushels to serve both the domestic and foreign markets.

In the twelve years of this association, Bunge of Canada has invested \$17 million and \$3 million were added by the Port of Québec so that Québec be recognized as one of the most important centers of grain distribution in North America.

Port crime drops 13%, pilferage down, recovery up

The Maryland Port Administration recently reported that 1979 was a good year for crime prevention in the port of Baltimore with a 13 per cent drop in reported crime; a reduction in the value of stolen goods, and an increase in the percentage of stolen goods recovered by police.

There were 366 serious criminal offenses reported during 1979 compared with 422 during the previous year the MPA police said in its year-end report to W. Gregory Halpin, the Port Administrator. There was \$363,000 worth of stolen goods reported, of which goods worth \$191,000 were recovered—a recovery rate of 53 per cent. In 1978 property worth \$789,000 was reported stolen and \$317,000 was recovered—a recovery rate of 40 per cent.

The improved statistics, according to Capt. Frank Mazzone, commanding officer of the MPA police, are "attributed to better reporting procedures, better police patrolling techniques and better cooperation with the port community." This crime report refers only to activities on port facilities operated by MPA.

225,000 autos imported through Port of Baltimore in 1979

For the past decade, Baltimore has been a major port of entry for the foreign imports, reaching a high of 314,566 in 1971 at the Dundalk Marine Terminal.



ENERGY EFFICIENT—"The Monster", the Port of Charleston's 400-ton-capacity crane, makes maximum use of energy by expending its own to help transport two energy-producing nuclear steam generators to a Duke Power Company plant near Charlotte, N.C. Built by Westinghouse Corporation at Tampa, Fla., the 350-ton units were ocean-barged to Charleston for lift aboard rail cars to travel via Southern Railways to the plant.

In 1978, a second port of entry for import autos was opened at Atlantic Terminals, Fairfield. It is used exclusively for Datsun models, while Toyotas, Subarus, Mercedes, Fiestas and other makes are shipped through the Dundalk Terminal.

Last year's auto imports were 23,582 less than the number recorded in 1978, when 249,480 foreign cars entered the port of Baltimore.

Heavy-Lift drums up business for Port of Baltimore

A 491,250 pound, 93-foot-long steel boiler drum was the most recent piece of cargo to test the capabilities of "Baltimore 350", the port's largest land-based heavy-lift crane. And "Baltimore 350" passed with flying colors.

Destined for a power station in Spain, the drum was a component of an anthracite coal-fired steam generator.

"Baltimore 350" is an electric-powered stiff-leg derrick.

Located on an acre of land at South Locust Point Marine Terminal, the crane is constructed on an elevated platform 26 feet above the pier on reinforced concrete pedestal supports. It has a reach of 99 feet beyond the bulkhead and a lift capacity of 350 tons.

The 350-ton crane was built by the Maryland Port Administration at a cost of \$2.2 million with the expectation of handling a variety of cargoes ranging from 70-300 tons.

Approximately 30 miles of channels and the harbor's anchorage basin are involved, and some ship turning areas will be enlarged.

Corps officials estimate that around 1.8 million cubic yards of annual dredging will be required after the project is completed. That figure takes into account completion of the Cooper River Rediversion Project, expected to reduce the harbor's silting problem by at least 70 percent.

Port busy in '79: Port of Corpus Christi

Total tonnage moved through the Port of Corpus Christi in 1979 matched the busy 60-million-ton pace set in 1977 and 1978.

The four divisions of the Port of Corpus Christi posted a year-end total of 60.8 million tons. Strong gains in dry cargoes and bulk chemicals offset slight declines in petroleum and grain tonnage during 1979.

Port Director Harry Plomarity said an aggressive marketing program and adequate Port handling facilities were key elements in the strong showing of dry cargo tonnage which increased by 18 per cent.

Plomarity pointed out that these high levels are double the 28 to 30 million ton totals posted during the 1960s and early 1970s. Increased refining capacity, crude oil imports and larger grain exports account for the increase during the 1970s, he explained.

Deeper harbor for Charleston appears likely by mid-1980

Finishing touches are being applied by the U.S. Army Corps of Engineers to an updated review of the Charleston Harbor Deepening Project. If all goes smoothly, major channels will be increased by the mid-1980s from 35 to 40 feet deep at low tide.

The present depth of 38 feet for the entrance channel would be expanded to 42 feet and in Shipyard River from 30 to 38 feet. A final public hearing as well as congressional approval and funding must be accomplished before work can begin.

Proposals for deepening the harbor have been considered for more than a decade. A formal study of the project was submitted to congress in 1974 and acted upon favorably two years later.

About two years and \$48 million will be required to dredge the estimated 27 million cubic yards of deposits.

Cargo through the Port of Houston in 1979 set a new all-time record of 112 million tons

Refineries and other industries along the Houston Ship Channel's fabulous 50 miles contributed substantially to the total, probably retaining the Port of Houston's position as the third largest port in the United States.

The nation's decreasing appetite for gasoline and other petroleum products is reflected in crude oil imports which totaled 25,177,924 tons as compared to 29,485,666 tons in 1978.

Total foreign trade for 1979 was 54,592,758 tons according to the preliminary statistics as compared to the final tabulation of 62,474,095 tons in 1978, a difference largely accounted for by the decrease in crude oil imports.

Port of Houston Authority cargo wharves handled 13.8 million tons of revenue cargo, which was a slim three percent below the previous year.

Barbours Cut Terminal was the bright spot in the tonnage picture with a 97 percent increase over 1978. This busy intermodal terminal handled 1,701,586 tons, most of which was in the 266,250 containers.

New construction in progress values at over \$45 million: Port of Los Angeles

During the fiscal period ending December 31, 1979, more than \$12 million was expended for the Port's five-year, \$416 million capital development project.

Major construction projects included the new Harbor Department Administration Building, \$4.9 million; the Matson container yard at berth 209, \$1.9 million (Harbor Department net); the Seaside Container Terminal Complex, \$1.4 million; and container cranes, \$1.9 million.

Operating revenue for the first two quarters of the 1979-80 fiscal year totalled \$25.8 million, a 24% increase over 1978. Increased revenue from wharfage (\$2.9 million), dockage (\$.6 million) and oil royalties (\$.4 million) accounted for the major part of this increase in revenue.

Operating and administrative expenses for the same period increased to \$11.1 million, over 46% more than the previous year.

Total revenue tons billed was 19.8 million metric tons for the two quarter period. Net income through December 31 was \$15.3 million.

Port of Los Angeles continues to lead West Coast harbors in total revenue tonnage

Total revenue tonnage for fiscal year 1978-79 exceeded that of any other peacetime year with 40 million tons recorded, according to figures recently released in the Harbor Department's annual report. Total general cargo was almost 13 million tons, with petroleum totalling over 27 million tons.

The Port of Los Angeles also recorded a net operating income of \$28.2 million, up 17.4 percent from the previous year.

It is estimated that 20,000 Southland businesses are dependent upon harbor trade, with 130,000 jobs directly or indirectly reliant upon the Port's continued operation.

The Port of Los Angeles is currently undergoing a five-year, \$416 million capital development project aimed at further modernizing its facilities to accommodate the larger container vessels expected in the eighties.

The 135-acre Seaside Container Terminal Complex, now almost fully occupied, is the largest container handling facility on the West Coast. Expansion of the Matson Con-

tainer Terminal will permit this company to install the second of its revolutionary computer-controlled container handling systems. The system is expected to eliminate costly equipment and maintenance, and will speed up cargo movement.

Dredging is needed for big cruisers scheduled for New York, but ...

Three major luxury liners—the QUEEN ELIZABETH 2, the ROTTERDAM, and the NORWAY (formerly the FRANCE)—may not be able to call at the New York Passenger Ship Terminal this spring because the Port Authority cannot obtain the necessary Federal permits to undertake essential berth maintenance dredging. The first of the three ships, the QE 2, is scheduled to arrive on April 6.

In a letter to Mr. K. Constantinides, Vice President of Home Lines, and Chairman of the New York Passenger Terminal Users Association, Peter C. Goldmark, Jr. Executive Director of the Port Authority explained that the reason for the uncertainty is that the Environmental Protection Agency is withholding its approval and, therefore, the U.S. Army Corps of Engineers is unable to grant the Port Authority its permit to perform the dredging.

Mr. Goldmark, in his letter, declared, "We continue to hope that the EPA can be convinced of the gravity of this crisis and issue the permits immediately to allow us to perform the required dredging in time to accommodate your ships. We intend to work intensively toward that end."

Longshore labor, ship industry employers set program for early negotiations, strike-free 1980 master pact

The top leaders of Atlantic and Gulf Coast longshoremen and key elements of ocean shipping industry recently agreed on early contract bargaining and an all-out effort to complete a master agreement by July 1—some three months before the deadline.

Thomas W. Gleason, President of the 100,000-member International Longshoremen's Association, AFL-CIO, and industry spokesman James J. Dickman said in a joint statement that bargaining will open formally in March. This initial effort will be followed by intensive negotiations over the next three months by ILA officials and management leaders representing ocean carriers, stevedores and port employer associations to work out details of the seven items in the master pact, and other issues related to the agreement.

"The early settlement of the master contract should end fears of a work stoppage in 1980 and remove concern over transport delays at deadline time among freight shippers and others involved with seaborne commerce in our ports," said Mr. Gleason and Mr. Dickman, the chief management negotiator and President of New York Shipping Association, Inc.

Howard Terminal — 2nd generation: Port of Oakland

The Port of Oakland marked the start of construction of a new two-berth container terminal recently with a groundbreaking ceremony held on the terminal site.

The new container terminal has been named the Charles P. Howard Container Terminal in honor of the 92-year-old shipping pioneer who began work on the Oakland waterfront in 1904.

The new facility is being built on the site of the Grove/Market Street conventional cargo facility.

Development of the Howard Container Terminal is the latest step in the Port of Oakland's continual program to provide container handling facilities which meet the needs of steamship lines calling at the Port.

Under a three-year, \$49.5 million redevelopment program that will provide a further 125 acres of container terminal area, the Port will increase its capacity by about 40 percent. Current reconstruction projects involving both the Howard Terminal and Outer Harbor facilities will provide seven additional container berths and four container cranes.

"We are optimistic about the prospects for increased trade with the countries of Asia", said Thomas L. Berkley, President of the Oakland Board of Port Commissioners. "Oakland is the traditional West Coast gateway for American exports and expects to continue that leadership role", he added.

New container terminal facilities in the Outer Harbor have been opened in phases by the Port. When completed in mid-1980, that facility will include 55 acres of container storage area and two berths.

Port moves up in national ranking: Port of Portland

After a second year of tonnage increases, the Port has taken steps to increase facilities as well. An expansion of the Terminal 6 complex, will increase the Port's capacity to handle container cargo; recent studies, however, have indicated the originally proposed expansion may not be enough, and the area set aside for expansion will be enlarged.

The numbers behind the decision equalled the best year ever through the first three quarters of 1979.

Much of the increase took place at Terminal 6, where export container tonnage rose 20.1 percent and imports recorded a modest 4.4 percent jump.

Based on available data, the Port's Research Department recommended increasing the expansion from 900 feet of wharf to 1,050 to provide a four-berth facility for ships and barges. It is estimated the new dock will accommodate traffic through 1985.

In addition to the berth, the expansion will include two new container cranes and 17 acres of paved container yard.

Portland's recent successes have been noted nationally as well. In a study of total foreign waterborne commerce during 1977 and 1978, the American Association of Port Authorities found Portland ranked 15th in the country; more importantly, the Port recorded the highest percentage of increase of any U.S. port, with a tonnage gain of 34.7 percent during the period. The same study showed Portland also had the nation's highest percentage of increase in cargo value between the two years, totaling 44.8 percent.

Ship behaviour in restricted waters— First report on research program

The National Ports Council published recently the first of what will be a series of reports on research being carried out by the National Maritime Institute into the behaviour of ships in ports and their approaches. This initial report is concerned with the hydrodynamic interaction between passing ships*.

The work stems from an earlier investigation promoted by the Council which resulted in a report published in 1975 entitled "Port Approach Design—a Survey of Ship Behaviour Studies", in which several areas of uncertainty in the determination of appropriate port approach channel dimensions for given ships were identified. This study led to discussions with interested parties and a decision to undertake a programme of research which would involve theoretical and model studies, to be correlated by full scale measurement where possible. This work is being funded by the Department of Transport who have asked that NPC staff should act as their technical advisers throughout the programme.

In explaining the background to the programme the NPC point out that the layout and design requirement of a port approach channel for a given ship, or the determination of the maximum ship size acceptable within a given channel, are as yet uncertain areas of knowledge. The benefits in terms of safety of operation and reduction in costs are potentially such, however, that a considerable incentive exists to resolve the areas of uncertainty.

It is intended that as each area of work is completed the results will be conveyed to those concerned with their application. This document, which is being circulated to British Ports, is the first of a series of reports which will be issued as the work progresses. It is specifically aimed at providing the practitioner with a guide to the application of the research findings. It is hoped that ultimately this series of documents will provide a compendium of information upon ship behaviour problems in confined waterways.

* "Ship Behaviour in Ports and Their Approaches—Part I: Bow and Stern Sinkages caused by Interaction between Passing Ships." Published by the National Ports Council, Commonwealth House, 1-19 New Oxford Street., LONDON. WC1A 1DZ Price: £10.00.

Further port growth predicted: King's Lynn

The British Transport Docks Board are expecting substantial growth in traffic at their east coast port of King's Lynn, despite the current problems in the steel industry. 1979 was another busy year for the port: despite the general recession in trade throughput of the year, and the lorry drivers' strike, total traffic through the port was almost 900,000 tonnes, very similar to the precedent year's figure.

1979 has been a year of traffic stability for King's Lynn and this has given the port's management the chance to upgrade and improve many of the dock handling facilities, laying the foundation for expansion of trade in 1980.

Work carried out during the year has included the extension of crane tracks into Bentinck Docks West, the refurbishing of two bridges carrying road and rail traffic between the Bentinck and Alexandra Docks, the purchase



of new fork-lift trucks and the refurbishing of existing trucks, and the reconditioning of the complete electrical system in both East and West Bentinck Docks. These improvements will all help to improve the speed and general efficiency of port operations.

Southampton wins bigger tea share

The British Transport Docks Board port of Southampton has more than doubled its share of the UK trade in importing tea. In 1978, the port handled only 5,074 tonnes of tea imports, but according to figures released by HM Customs and Excise the tonnage for the first nine months of 1979 was well over double at 10,157 tonnes.

The increased tonnage has given Southampton a significant rise in market share in the tea trade: from 2.9 per cent in 1978 to 6.4 per cent last year.

The British Transport Docks Board are forecasting another substantial increase in both tonnage and market share for 1980.

Continued revival of Southampton

The Port of Southampton has been chosen by Interroll S.A. of Madrid, the Spanish shipping line, as the U.K. terminal for their new ro/ro freight service to Portugal, Spain and Italy.

The choice of Southampton as U.K. terminal for Interroll's new ro/ro operation is seen as further evidence of returning confidence in the port.

Uncharacteristic industrial relations difficulties in 1977/8 damaged Southampton's reputation for reliable performance quite severely, but 1979 was a much better year in which much was done to correct the previous problems.

With the exception of a two day unofficial stoppage of work by a small group of men on one container terminal, 1979 was entirely strike-free at Southampton and this achievement continues into the current year. Significant improvements were made in working patterns and operational organisation in that time, and there is a growing confidence amongst the port's management, labour force, and customers that Southampton can now regain its reputation for reliability and good performance.

PLACON Training Courses 1980

Mr. P.D. Kenward, General Manager of PLACON Ltd. (A subsidiary of the Port of London Authority) in his recent letter announced the programme of PLACON Training Courses 1980, as follows:—

| Course | Duration | Level | Dates |
|--|------------|--|---|
| A. Port Policing & Security (Senior) | 3 weeks | Officers of middle and senior rank | 20.09.80/17.10.80 |
| B. Port Policing & Security (Container and Unit Loads) | 2 weeks | Officers of all ranks | 20.10.80/31.10.80 |
| C. Port Policing & Security (Intermediate) | 8 weeks | Officers of junior and middle rank | 20.10.80/12.12.80 |
| D. Port Policing & Security (Induction) | 12 weeks | Junior officers | 22.09.80/12.12.80 |
| E. Commande Management | 2 weeks | Senior officers | 26.05.80/06.06.80 |
| F. Seamanship | 2 weeks | Junior rank | (1) 10.03.80/21.03.80 (2) 23.06.80/04.07.80 (3) 03.11.80/14.11.80 |
| G. Chartwork & Radar | 3 weeks | Junior rank | (1) 18.02.80/07.03.80 (2) 02.06.80/20.06.80 (3) 13.10.80/31.10.80 |
| H. Port Management & Operations | 2 weeks | Junior and middle management | 09.06.80/20.06.80 |
| J. Ship Loading (Appreciation) | 3 weeks | Operations Managers, Supervisors & Foremen | (1) 14.04.80/02.05.80 (2) 01.09.80/19.09.80 |
| L. Container Operations | 2 weeks | All levels | 23.06.80/04.07.80 |
| M. Documentation | 1 week | All levels | 07.07.80/11.07.80 |
| N. Instructor Training | 1 week | All levels | (1) 12.10.80/17.10.80 (2) 10.11.80/14.11.80 |
| P. First Aid | 1 week | All levels | 27.10.80/31.10.80 |
| Q. Plant Operation (Appreciation) | 1 week | Junior operating managers, supervisors and Foremen | Note 6 |
| R. Safety | 1 week | All levels | Note 6 |
| Practical Attachments | 1-12 weeks | All levels | By prior arrangement |

Notes:

- 1) Courses are not 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 participants of their sponsorship organization.
- 2) Course fees are inclusive of lunch and light refreshments on all working days.
- 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. Booking confirmation and joining instructions will be sent in acknowledgement. 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. Course fees will be invoiced in full in the case of cancellations at less than four weeks notice.
- 6) At the time of publication of this, dates for certain courses were undecided. These course dates are available 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
London Dock House, 1 Thomas More Street
London, E1 9AZ, England

(Telex: 887719)

(rin)



The launch, christened "CAILLOC" was built at La Teste by shipbuilders ARCOR. Her very resistant hull is made from resine re-enforced with fiberglass. She is 9.25 m long. Equipped with two 75 hp engines, she has a speed of about 10 knots. She will be in permanent use, since her design allows her to be used as a hydrographic launch. As such, she will strengthen the existing fleet of hydrographic craft belonging to the PORT OF BORDEAUX AUTHORITY, which help control the depths, especially along the dykes. Cailloc can also be used for safety and is equipped with a large tank for carrying dispersants which can be used through two jets which form a blanket of spray on either side of the craft.

Vessel Traffic Management in the Port of Rotterdam

Project organisation

The State and the City of Rotterdam are cooperating closely within a project organisation. The State is responsible for the administration of the waterway via the State Waterways Department and for navigational assistance to shipping via the State Pilotage Authority.

The City has an obvious interest in an efficient functioning of its port and consequently in the safest possible nautical management of shipping in all forms. The 'Project-bureau Walradar Waterweg' is working under the direct responsibility of the Rotterdam Municipal Port Management.

The name of the bureau is misleading as shore-based radar covers only part of the assignment it has been given.

It is more appropriate to speak of a Vessel Traffic Management System (VTMS). Shore-based radar will play a major part in it, but it remains an instrument within a larger whole. VTMS is much more than a shore-based radar system: it is a navigational aid and a planning instrument, combined to make an integral traffic management and information system which will be capable moreover of giving early warning when dangerous situations threaten.

When the Project Bureau commenced work in 1975, it envisaged two goals:

- promoting the safety of shipping and of the population;
- promoting efficiency in the port.

The starting point was to keep the advantages of the existing traffic management system as it had grown in practice, while eliminating or mending its weaker points. The result was to be a wholly modern and reliable traffic management system centred round a perfect information processing.

Information processing

The flow of information into, from, around or towards the port of Rotterdam is gigantic. One of the chief tasks of the new system is, therefore, to channel this flow and make it manageable. The aim of data processing is easy to define: getting the right information to the right place at the right time.

The collection and transmission of this information is keeping many people in business and government bodies extremely busy. Together they make a rather variegated and seemingly heterogeneous company, comprising pilots, harbour masters, patrol craft crews, dangerous goods inspectors, traffic managers and all the people involved in the operations of the Harbour Coordination Centre. This last organisation coordinates all the government departments with vital tasks as regards shipping movements. The Royal Dirkzwager Shipping Agency too, is functioning within the current traffic management system as an observation and reporting station.

Outside the system, the shipping agents, tug crews, linesmen, customs officials, police and fire brigade have their own roles to play. But they get their information from bodies within the system.

Planning ahead

Transmission of information by telephone, teleprinter or written messages is not always satisfactory in practice. Gaining access to information is often difficult and there is overlapping.

An inventory of these short-comings pointed to the need for a data processing system with all the available information stored in a computer. This would enable people to push a button, as it were, to obtain from minute to minute full information on incoming and outgoing vessels. It would make it possible to alert in turn pilots, tug crews, linesman, exactly when they are wanted.

Such an information processing system will also facilitate planning ahead, which is very important for an orderly management of vessel traffic, especially when it involves a clearance system for entries and departures of sea-going vessels. Regulation results in a clear traffic picture that can be followed from minute to minute.

Development program

For the set goal to be reached, a number of routes had to be mapped. In view of the extreme complexity of the development project, it was decided to break down the five-year schedule for establishment of the complete vessel traffic management system, into three phases:

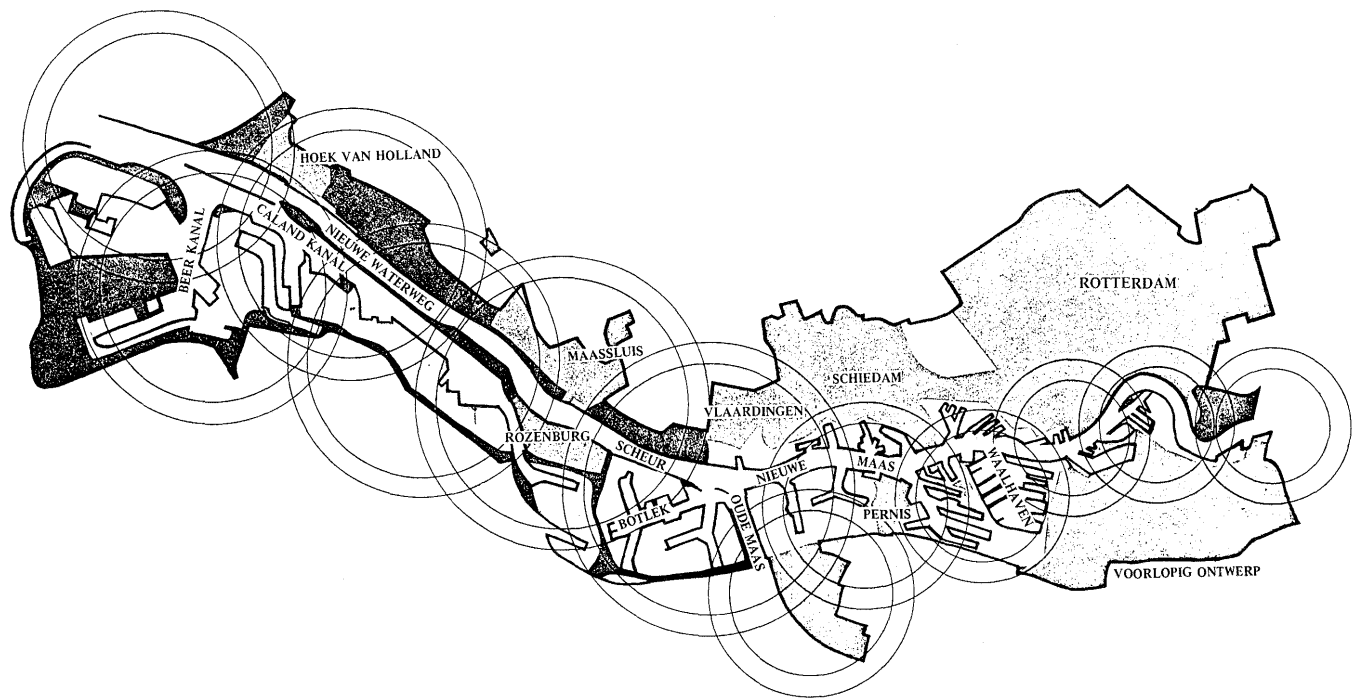
- Phase 1:
preparatory research involving assignment of a series of expert studies and surveys, and consultation of the port users;
- Phase 2:
the experimental period, also called system development phase;
- Phase 3:
the construction of the definitive system which is intended to take over from the existing shore-based radar system in 1983.

It is expected that Phases 2 and 3 will largely overlap.

The preparatory Phase 1 has been completed meanwhile. It consisted of a series of studies and sectional surveys requiring the assistance of external consultants.

These included:

- Raadgevend Bureau Berenschot which investigated the information and communication patterns in the port;
- the Traffic Engineering Division of the State Waterways Department, which made traffic measurements;
- Sperry Systems Management which formulated the functional specifications for Phase 2;
- Philips Nederland B.V. which shaped the technical specifications of the new equipment and moreover carried out radar experiments;
- the Netherlands Maritime Institute which prepared the accident analyses;
- the Institute for Mechanical Constructions (IWECO), a division of the Organisation for Applied Scientific Research in the Netherlands (TNO), which developed a traffic simulator model;



- The TNO Institute for Perception which studied the current duties of the radar operators.

Users survey

An extensive survey, covering virtually all the users of the existing system and a number of government departments, was made during Phase 1. The respondents were asked to write down the requirements which they felt should be met by an up-to-date vessel traffic management system. The survey proved very useful, thanks to the detailed, thorough and expert answers given by most of the respondents. All these desires and requirements were weighed with the greatest objectivity as to technical, operational and economic feasibility. The outcome provided in many respects the basis for the finishing touches to the research programme. It was a kind of joint brainstorming which was much appreciated by all concerned.

Nearly all the respondents made clear that radar should continue to be the primary sensor also in the new vessel traffic management system.

However, there were a good many desires and requirements as to the new equipment, including two very important ones:

- it should permit traffic management planning;
- it should be capable of playing a vital part in dealing with catastrophes and accidents.

Other desires put forward by the users were:

- the system should be able to recognise the shape of vessels;
- it should be capable of pinpointing not only 550,000-dwt tankers, but also buoys and small pleasure craft, including ones made of wood or synthetic materials;
- observation should remain good at widely varying distances;
- targets in confused situations should be distinguishable;
- observation should not be dependent on weather conditions.

tions.

It was generally felt that guidance should be obligatory for VLCC's (very large crude carriers), vessels with dangerous cargoes and ships in distress conditions. There was also fairly general agreement that ships should be cleared for entry and departure.

Anyone who is concerned about the increasing numbers of ships carrying dangerous cargoes, and favours the safest possible vessel traffic management, could not agree more. The government authorities who are responsible for the well-being of the Rijnmond population, also felt it should be possible to make vessels accept guidance when traffic density or other circumstances require.

But it is not that simple. The question arises whether masters and their pilots will be prepared to follow advices and directions from the traffic managers. The expectation is, they will answer this question positive.

General plan

It is certain that the new vessel traffic management system will cover at any rate the Euro Channel and the Hook of Holland roadstead, the Rotterdam Waterway and Nieuwe Maas River up to 5 kms upstream from the Van Brienenoord Bridge, Koningshaven, the Oude Maas River up to 5 kms upstream from the Spijkenisse Bridge, the Beer Canal, Caland Canal and Hartel Canal, including the dock basins bordering on these waterways.

The new vessel traffic management system is expected to comprise:

- one Harbour Coordination Centre (HCC),
- three Regional Traffic Centres, and
- approximately twenty unmanned radar stations.

The regional centres are provisionally planned to be set up in the Hook of Holland, the Botlek area and near Waalhaven. They will probably be supported by some advanced operating stations, such as the Van Brienenoord

Bridge station and the Hartel Canal station.

The regional centres will collect information supplied by the radar towers in the direct vicinity. These towers will consist of simple steel masts supporting revolving radar scanners. The slender masts will be between 20 and 40 metres' tall. Fed in this way, the regional centres will be able to carry out their traffic management activities. These are localised functions, but very important ones because they enable the centres to give traffic information and advice directly to sea-going and inland vessel within their regions.

Besides, there will be a constant exchange of information between the regional centres and the HCC in charge of overall traffic management. The duties of the HCC include preparing the outward and inward clearance of sea-going vessels, directing operations in case of catastrophes, and supervising transports of dangerous goods.

The radar stations will not be manned; the operators will be concentrated in the regional centres. The regional centres could be distributed over the operational area to watch over the aforementioned three vital points. Whether radio direction finders and a closed television circuit will be used at various points is still being studied.

Target extraction

Now that the actual construction of the system is approaching, the limits of the opportunities afforded by modern technology must be explored. Will it be possible for a computer to process the raw radar signals obtained in a 'problem area' like the port of Rotterdam which is crammed with towering cranes, chimney stacks, buildings

and other tall structures?

One of the chief questions requiring an answer now is whether this is technologically feasible at an acceptable cost.

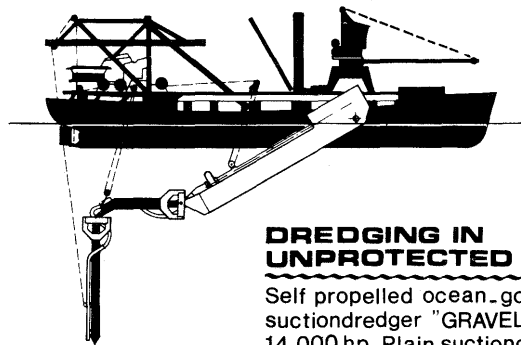
Automatic feeding of a computer with radar signals, from which location, speed, overall measurements and other relevant information on incoming and outgoing vessels can be derived, is called target extraction. All this information—coded in figures—is processed, stored and made available in systematic form by the computer. By using several computers the main centre may obtain a complete and reliable picture of the traffic as it is throughout the 40-km operational area of the port of Rotterdam from minute to minute, with predictions of what is going to happen in the next few minutes. This is a highly attractive prospect.

Exact and automatic tracking and registration of shipping movements by a computer would greatly facilitate things for the radar operators. Watching and interpreting a radar image is fatiguing and will in the long run impose a strain on the operator. This may become unacceptable in some circumstances, say, when traffic is busy at a time of reduced visibility.

Even in the preparatory phase questions were raised like: what is the average time for a radar operator to remain fully concentrated on his job? and: is it possible to automate the fatiguing part of an operator's duties?

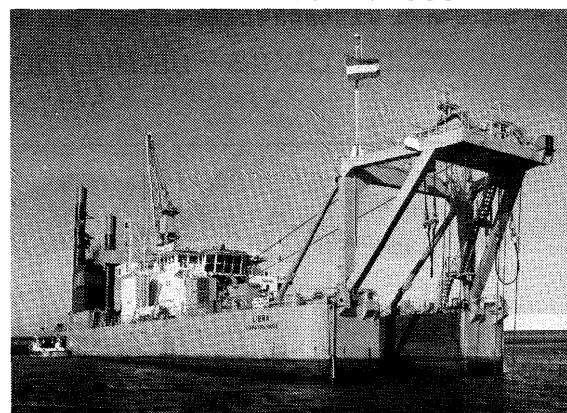
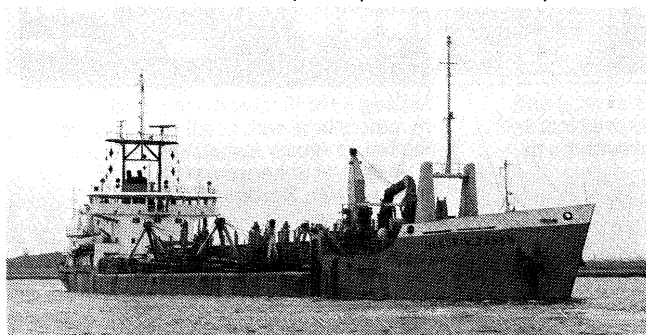
Target extraction might be the redeeming answer as it would leave to the computer routine operations that have little to do with the real task of a radar operator. The operator could spend the time saved on reflect, weigh and

DREDGING ANYTHING ANYWHERE ANYTIME



DREDGING IN UNPROTECTED WATERS

Self propelled ocean-going cutter/
suctiondredger "GRAVELINES"
14,000 hp Plain suctiondepth 60.00m



DREDGING IN HARD MATERIALS

"AQUARIUS" and "LIBRA"
Self propelled ocean-going rock cutterdredgers
Total 17,500hp installed Power on the cutter 3000 hp

PUMPING ASHORE

"HENDRIK ZANEN"
Trailing suction hopper dredger (5750m³)



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Holland

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decide, so the actual traffic management work, which is the whole point of the new system.

An ingenious shore-based radar system is of eminent importance, of course, but it remains only part of the overall vessel traffic management system as it is now being conceived.

Safety first

It would be unfair to say that the existing system functions badly or has fatal shortcomings. Yet a recent survey showed that it could fail if exceptional situations were to occur.

The situations meant are not long periods of dense fog or a severe gale, but emergencies or catastrophes. Prevention of such situations and dealing with them if they happen, calls for a safety system capable of doing more than perfect management of everyday shipping movements. It should be able to evaluate an alarm swiftly and correctly, to give immediate aid, and to direct operations. The flow of information generated in such a case, should be available quickly and no errors may be made in the processing.

It is this last point—more important than the technological renovation of the system—which has the full attention of the Project Bureau. A purposeful effort is being made to create a vessel traffic management system with so much built-in safety as to be unique among all the world ports.

This makes clear that the human factor must not be eliminated in the new system. Human skill, involvement and reactive ability remain indispensable. Especially when exceptional circumstances occur, decisive action depends

on human agency alone.

The period that has now begun will show whether men will be given the tools they require for their responsible job.

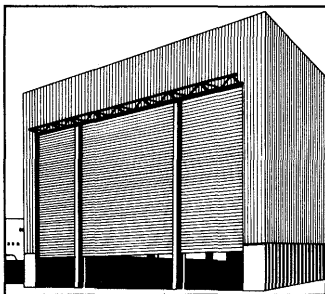
It will soon be known, we hope, whether new breakthroughs have occurred in technology. If so, the port of Rotterdam will have in the mid-1980s a safety and information system of such sophistication that the ancient Greeks would have called it the eighth wonder of the world. We westerners of the technological era, however, are too down to earth for such epithets.

Port-computer disposes of forms-flood nuisance

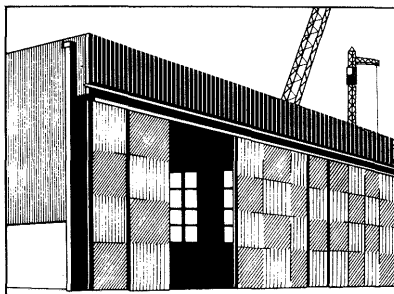
The universally-unique, mutual 'Data-bank Bremen Ports' project, in successful operation since the end of 1973 has—in the words of the press—proved its worth in the ports as a 'dam to the flood of forms'. Founded by over 100 undertakings of varying size in all five branches of the Bremen port economy—forwarding, cargo-handling, ship brokers & agents, stevedoring companies, as well as cargo-control firms—the data-bank provides, particularly for handling export orders, forwarders, cargo-handling undertakings and government offices, 215 computer programs at present. Employees of the participating undertakings operate, at their places of work, a total of 130 screens and 70 printers—directly connected to the central computer. With a press of the button up-to-date ship-sailing data is to hand in seconds; movement-orders, bladings, forwarding-matrixes and accounts are printed in one process. Just as in the forwarding firms, the employees action similarly, in the

Matex manufactures and installs industrial doors

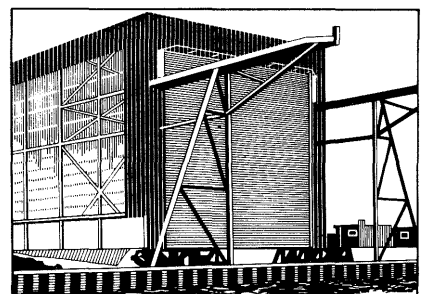
rolling doors – sliding doors – overhead doors – folding doors
Matex also manufactures outside doors:



rolling door 27,3 meters wide and 17 meters high, on the premises of B.V. Scheepswerf- & Machinefabriek de Merwede, in Hardinxveld-Giessendam.



sliding door 40 meters wide and 10 meters high, at Nieuwe Noord-nederlandse Scheepswerven in Groningen.



rolling door 18 meters wide and 18 meters high with small doors above the rail for gantry installation, without gale strut, at Scheepswerf Jac, den Breejen & Zn, Hardinxveld-Giessendam.

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cargo handling (and respective government) offices. Where hours have been required previously for all this work, only minutes are needed now. Decisive for this is overlapping operational and branch communications from all service-suppliers participating in the seaport trade through the data-bank. In the final development stage—to be completed in 1981—the ships agents, stevedores and cargo-control firms are to be incorporated into the system, with the data-bank service being rounded off with an import packet.

For the medium term, the plan is to install a second computer which can then be utilised for special situations.

(For more information: Datenbank Bremische Häfen, D-2800 Bremen, Martinistr. 1, Tel: 0421/320441. Dir. Werner Lampe.—Siemens AG, D-2800 Bremen, Contrescarpe 72. Tel: 0421/364461. Dir. Arthur Schmitt. Telex: 245 451).

Hamburg Port handled 45.7 million tons of bulk cargo in 1979

Last year, bulk cargo accounted for 72 percent of the total of 63.2 million tons handled.

Of the cargo, the highest growth rate was for dry bulk cargo (ore, coal, fertilizer etc.)—also known as grabbable cargo; 15.4 million tons passed through the port last year—40.5 percent more than in 1978. Incoming cargo accounted for the lion's share, 12.8 million tons, up 50.5 percent.

Handling of suction cargo (grain, oilseeds, feedstuffs) last year amounted to 9.6 million tons, up 8 percent compared to 1978, and liquid cargo increased to 20.8 million tons, up 14.6 percent.

Expansion and modernization of grain handling terminals and also liquid cargo terminals are under way at the port. Twelve million DM have been budgeted to carry out the expansion. It is planned to enlarge the storage area for coal and ore by about one-third and install additional equipment such as conveyor belt systems, grab loaders, etc.

High handling volume underlines Hamburg's efficiency

In the first six months in 1979 the terminals of the Port of Hamburg handled 30 million tons of goods of every kind. This amounts to a rise of 10.2 per cent or 2.8 million tons over the comparable period of the preceding year. This excellent result for the port is primarily due to growth rates in grabbable cargo (coal, ore, potash) from 5.3 to 7.3 million tons. Also with regard to general cargo, which because of its labour intensive degree is particularly important for the employment situation, the upward trend of the past years continued. 8.8 million tons work out to a rise of 3.5 per cent over the first half-year of 1978. In the case of suction cargo (grain, feedstuffs, oilseeds), there was a drop of over 13 per cent.

The upward development in container traffic persisted. In the first six months 305,700 containers (20-ft basis), with a total weight of 2.8 million tons, were handled in the port. This means a growth compared to the previous year's period of 6.6 and 9 per cent. The containerisation degree (share of containerised cargo in overall general volume) reached 31.5 per cent.



Large-capacity equipment at Hamburg Port speeds handling of bulk cargo. The port reports it handled 45.7 million tons in 1979.

West Germany's top port for volume of coffee handled: Hamburg

The Port of Hamburg recently reported that it led all West German ports in the amount of coffee handled in 1979; over 450,000 tons. Of the amount, some 315,000 tons were destined for West German importers; the balance of 135,000 tons was transit cargo for third countries. The 1979 figure was an increase of more than 9 percent over the previous year.

The per capita consumption of coffee in West Germany has risen rapidly. In 1952, it was just over 1,000 grammes; 20 years later it passed the 5,000 gram mark and today is about 7,000 grams.

At the port, large quantities of coffee beans are stored in warehouses as reserve stocks. Qualified specialists ensure expert handling of the valuable cargo. An additional service is removing dust and foreign particles from the coffee, sorting it according to color and weight, weeding out bad beans, processing damaged coffee and blending.

Mr. P. Macha appointed new executive chairman of Tanzania Harbours Authority

The President of the United Republic of Tanzania, Mwl. J.K. Nyerere has appointed Mr. Peter Macha MP. new Executive Chairman of the Tanzania Harbours Authority.

Mr. Macha replaces Mr. Peter Kisumo who has been appointed Chairman in another Organization. Their appointments were effective January 5th 1980.

Melbourne trade in 1978/79 up 3 per cent

Total trade to pass through the Port of Melbourne in the financial year ended 30 June was 17,564,000 tonnes, a gain of 3 per cent on the previous year.

Once again container traffic through the Port increased with a rise of 9 per cent over the previous year. Total containers handled rose from 431,089 to 471,512. In terms of tonnage handled this represented 8,224,000 tonnes, an increase of 11 per cent over the previous year. Of the total general cargo to pass through the Port 68 per cent was carried in containers.

Revenue for the year was \$34,230,000 (\$30,617,000 in the previous year) and revenue expenditure was \$33,185,000 (\$29,322,000 last year) resulting in a net revenue surplus of \$1,045,000. Capital expenditure during the year on Port works was \$20,203,000 (\$17,611,000 last year).

Other trade increases recorded during the year were Overseas Exports up 8 per cent to 5,240,000 tonnes; Overseas Imports up 1 per cent to 6,236,000 tonnes and Coastal Exports up 2 per cent to 3,018,000 tonnes. Coastal Imports fell 1 per cent, a decrease of 12,000 tonnes from 3,092,000 tonnes in the previous year to 3,070,000.

Bulk cargoes in all areas of trade dropped a total of 346,000 tonnes (11 per cent), due primarily to the world crude oil situation.

Safety—Seven days a week

Recently the Master of an overseas vessel which broke its moorings during a Force 8 south-westerly wind reported to his owners that prompt action by Port of Melbourne Emergency Service crews and a tug prevented his ship suffering extensive damage.

In concluding his report the Master said "I am thankful that such a service exists, and that it is available on a Saturday afternoon in Australia".

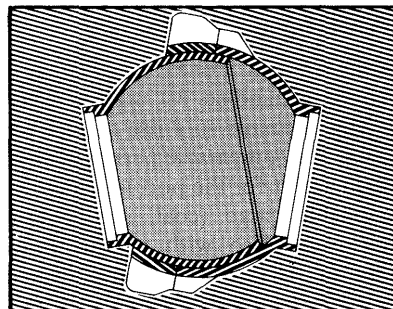
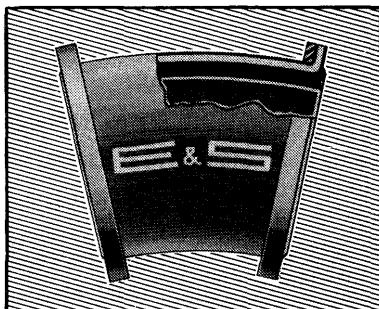
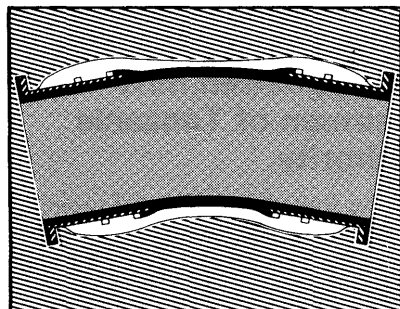
This remark from a grateful ship's Captain illustrates the high reputation the Port of Melbourne has for being a safe Port. It further illustrates the co-operation which exists between the Port services, the tug companies, and, when the necessity arises, other organisations such as the Victoria Police, Civil Ambulance and Metropolitan Fire Brigade.

The incident quoted, which involved the 42,000 gross ton Remuera Bay, began in the early evening when the wind increased to Force 8. Remuera Bay started to move off the wharf and a call for assistance was made to Harbor Control. A tug was called, a Port Emergency crew was promptly in attendance and the ship was quickly brought back alongside.

The speed and efficiency with which this rescue operation was mounted was made possible by the thorough emergency procedures laid down, and by the fact that the Port of Melbourne Authority has a well equipped, highly

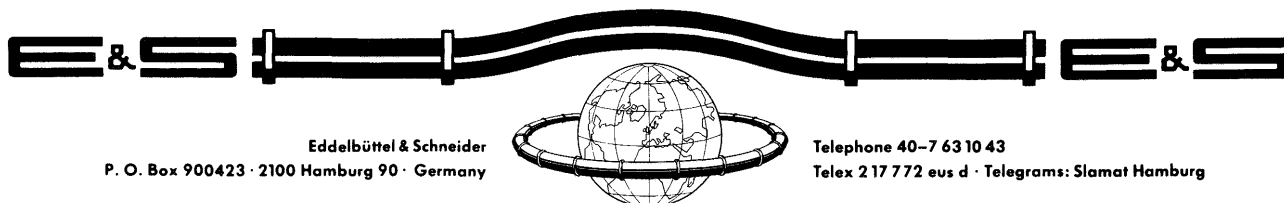
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(Continued from page 38)

trained force of men on standby twenty-four hours a day, seven days a week. The service embraces firefighting, first aid, a diving section and rescue and security specialists.

In the financial year 1978/79 the Port Emergency Service cost \$3.7 million to operate. To some this may appear to be a high price to pay, but when the safety of personnel using the Port and of the millions of dollars worth of shipping berthed on any one day, plus the value of cargo, it is a small cost indeed.

Hong Kong Marine Department studies a new passenger terminal

The government here has formed a working group to study the provision of a sea terminal to accommodate passenger liners plying between Hong Kong and Chinese ports.

The move followed the starting of two regular passenger liner services—one between Hong Kong and Xiamen (Amoy) and the other between Hong Kong and Shanghai—early this month.

A third service, for daily trips between Hong Kong and Guangzhou (Canton), is also due to start later this month.

At present, all these ships on arrival will have to moor at the Yaumatei Anchorage or be tied to harbour buoys and the passengers ferried from the ships to the immigration and customs facilities at a nearby pier.

The working group, comprising Marine Department officials, was set up early January. It will look for a site on which a terminal can be built. It will also study the provision of other facilities and the manpower required for immigration and customs procedures.

The Director of Marine, Mr. Malcolm Alexander, said such a terminal should be centrally located in an area with hotels, land transport and related travel facilities.

The Port of Shuaiba — New IAPH Member

- The Port of Shuaiba is located some 50 km. south of City and is the second port of the State of Kuwait.
- Established in 1967, the Port was constructed to serve the Industries to be developed in the Shuaiba Industrial Area the largest designated industrial area in the State.
- Presently the Port comprises five dry cargo berths situated on a quay mole and providing 850 metres of berthing space enabling vessels of up to 10.67 m. draught to be accommodated as well as a Petroleum Products Pier for the loading and discharging of bulk liquid carrying vessels consisting of four berths, and capable of taking vessels with draughts of up to 13.71 m.
- Principal commodities handled at the dry cargo berths consist of raw materials for use by industries within the area together with certain products manufactured by these industries consisting of fertilizer, clinker, sulphur, barytes, drilling mud, shrimps, cement, vehicles, pipes and aggregates, etc. General cargo is also handled and over recent years an increasing number of vessels have been accommodated with cargoes destined for receivers outside the industrial area.

- The Petroleum Products Pier whilst originally constructed as a two berth complex, was increased to four berths in 1975, and provision made to berth the longer vessels which were being constructed and to take account of the increased demand being made of the facility.
- Tonnages handled may be obtained in detail from the "Annual Statistical Abstract of the Enlarged Shuaiba Industrial Area 1979", but a steady growth rate has been maintained to the extent that in the year 1978 exports & imports of dry cargoes through the Port totalled almost 2¼ million tons whilst some 9¾ million tons was loaded or discharged at the Petroleum Products Pier.
- To accommodate the growth of traffic generated by the enlarged Industrial Area with the development of further industries and to take account of the population expansion and movement associated with such a development, a planned expansion programme of Port Expansion was embarked upon in 1977.
- Projected tonnages indicate an increase in both dry cargo and liquid products to be handled during the next ten years rising to some 9 million tons and in excess of 13 million tons respectively. Thus it may be seen that the Port of Shuaiba is being expanded in accordance with the needs of a developing industrial area to sustain the extra berth capacity being provided.
- Stages I & II of this programme consisting of a total additional ten berths is nearing completion. These berths will give an added 2.1 kms. of berthage and the first nine berths with depths alongside of up to —14 m. will be operational at the beginning of 1980.
- Stage III which will complete the Port Expansion Programme and will add a further five deepwater berths and an extra large barge harbour has received Governmental approval and work is expected to commence upon the construction of these facilities during 1980.
- The Port Manager of Shuaiba Port is Capt. A.R. Al-Naibari, who is responsible for the operation and administration of the existing facilities and the forward planning of the Port development and facilities.

In order to promote the high standard of efficiency necessary in a modern developing port, Capt. Al-Naibari thought it necessary to seek assistance in the form of highly qualified technical advice and in 1977 a Contract was signed with the U.K. Company, "Gulf Port Management Services" for the provision of advisers in various disciplines in Port Operation.

The Port of Nagoya Today

General Information

The Port of Nagoya is a man-made port that has progressed rapidly in the short space of 70 years since its opening. It is now one of Japan's most prominent international trading ports. Its activities are expanding steadily every year: in 1979, a total of 57,428 ships entered the harbor (approximately 123 million gross tons); cargo handled reached 109.5 million tons.

The facilities of the commercial port were actively organized and enlarged to respond to trends toward rationalization in materials transport—trends toward larger and more specialized ships, integrated land-sea transport, etc. An industrial port was built to improve the region's industrial structure by implanting key industries that would support its economy.

When a study was made on the relationship between this development of the port and the economy of the surrounding region, it was found that "the Port of Nagoya contributes to up to forty percent of the external economic results of four Prefectures, namely, Aichi, Gifu, Mie, and Shizuoka, with a total population of approximately thirteen million."

Water Area, Surroundings, and Mooring Facilities

The Port of Nagoya is located approximately in the center of the Pacific Coast of the Japanese Archipelago, at the northern tip of Ise Bay. The Port is located in the southern part of Nagoya City (at 35° 5' North latitude and 136° 53' East longitude) and has a water surface extending over 81 million square meters. There is a hightide break-water in the south, extending into the sea some 7.6 kilometers, to protect inner-harbor anchorages (21 million square meters) from rough waves all year long. There are quays and buoys where a total of 286 ships, including large vessels of the 65,000 ton dry weight class, can be moored simultaneously.

Ship lanes can accommodate the entry of the largest ships made in recent years: water depth is from ten to fourteen meters; width is from two hundred to four hundred meters; total length reaches approximately twenty-one kilometers.

And at about ten kilometers off from the hightide break-water, the Ise Bay Sea Berth has been installed to receive large tankers. Two tankers of the 250,000 ton class can be moored simultaneously at this dolphin-style fixed pier.

The Commercial Port

1. Foreign Trade Facilities

(1) Kinjo Pier

As the key base for large ocean-going foreign trade liners, the Port of Nagoya's Kinjo Pier has a water surface of 1.91 million square meters, where up to thirty-five large-class vessels, including 50,000 ton-class passenger ships and public container ships (at 24 berths) can dock at a time (the total length is 6,350 meters). Functional sites of the Pier include the freight handling area, upper stories, etc., while at the center of the Pier are located the International Exhibition Hall and, to familiarize the citizens with the

Port, a Port Play Land, garden area, and square, with the aim of providing a complete modern foreign trade center.

(2) Container Pier

The importance of container transport in international trade has grown. For this reason, in the Port of Nagoya was founded the Nagoya Container Berth Co., Ltd., in 1970 (President: Fumio Kohmura), and was built a fully-equipped container base (two 35,000 ton-class berths) in West Ward IV. On the site of 2.1 million square meters at the rear of this base, there is a complex distribution terminal combining organically a container pier with freight handling facilities with CFS and warehousing functions.

The total of 436 fully containerized vessels were received and 1.79 million tons of containerized cargo were handled at this terminal in 1979.

The Industrial Port

The industrial port is divided into two zones in the west and the south of the commercial port facilities.

(1) The Southern Coastal Industrial Zone (19 million square meters)

The principal industries located in this zone are, in Section 1: the city gas plant, synthetic chemical plants, iron works, and a special pier for the export of automobiles with a quay where three large vessels can dock at a time, and from which automobiles are sent all over the world.

In Section 2 are located iron works—integrated iron-steel plants—owned by two large Japanese companies. In Section 3 are located electricity and city gas plants, large shipyards, oil refineries, and a foodstuffs complex.

In Section 4 are located oil refineries (including a crude oil stockyard) and an LNG receiving terminal, which serves as the fuel supply source for the production of electricity and city gas.

(2) The West Coastal Industrial Zone (12 million square meters)

The area surrounding the Port of Nagoya has had a developed lumber industry since long ago in the past, and the volume of timber imported through this Port is one of the greatest in Japan.

Around the lumber stocking area is being created an efficient timber port possessing both production and distribution facilities with a lumber center housing some 270 small and medium sized lumber businesses.

In the West Zone are also located small boat builders, steel machinery distribution and processing, and electricity.

The Port's Road Network

Although major inland road services do connect with the Port of Nagoya, nowadays, when containerization is accompanied by the need, felt ever more strongly, for smooth transportation networks linked to economically important points in the surrounding region, it has become indispensable to have an improved and enlarged road network around necessary ports to make best and full use of their functions.

For this reason, it is planned to build a giant chain of bridges linking the East of the Port of the West.

According to this plan, three large bridges connected to Nagoya's existing roads would span the waters between the

West Zone (timber port and container terminal), Kinjo Pier (heart of the commercial port), Area No. 9 (petroleum products terminal), and the South Zone (industrial port). Last year work began on one part of the bridge that will connect the West Zone with Kinjo Pier. (tentatively named the Meiko West Bridge).

When completed, it will be Japan's largest suspension bridge. Not only will it become an attractive part of the Port of Nagoya's landscape, its completion is eagerly awaited for the stimulus it will give to the economy of the region behind the Port by linking major arteries.

Making the Port a Pleasant and Familiar Place

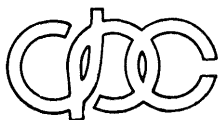
In its functional aspects, the Port of Nagoya has come to reach world standards, but not being particularly favored as regards natural scenery, it could be said that a feeling of closeness between the residents of the harbor region and the port is lacking. For this reason, efforts were made to give the port more warmth when a greening plan was first drawn up in 1969. In order to expand its impact, this plan was revised in 1973: it became a plan to "green" a total area of approximately 3.02 million square meters by 1985. Work is now in progress to make this plan a reality.

In addition to this, in order to more strongly link residents with the port, to make them more port-conscious, and to make them feel closer to the port, "The Gathering for Port Environment Improvement Talks" was created in September 1978 between representatives of port residents

from every economic sector and social class.

The plan for the redevelopment of No. 2 District, most suitable for the creation of a port environment that could be enjoyed by the region's residents, was drafted in line with the proposals made during these "Port Environment Improvement Talks." It was decided to create by 1983 a 39,000 square meter tree-covered park that would evolve into a world port, with a port building, parking lot, etc.

A tree planting ceremony is planned to commemorate Nagoya's hosting of the 12th Conference of the International Association of Ports and Harbors and the 30th anniversary of the foundation of the Nagoya Port Authority. This tree-planting shall further increase the concern of the citizens for their port, while at the same time it is anticipated to contribute to the rapid future progress of the Port of Nagoya, gateway to the international city of Nagoya.



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Osaka Port Chemical Center put into operation



The structural innovation of trade and industries in Japan has brought about the qualitative change of Osaka Port as an international trade port. The sophisticated port facilities such as container terminals have been installed to cope with this revolution of maritime transportation.

The transition of maritime cargoes both in quantity and quality has been seen remarkably in chemical products including dangerous cargo, thereby necessitating the functional response of the port. The transport of chemical products has become diversified. Special tankers have become used for the transport for a large quantity of chemical goods and containerships for unit cargoes. Under such circumstances, the installation of port facilities for handling these small unit chemicals have been strongly called for.

The Osaka Municipal Port & Harbor Bureau has planned the Chemical Wharves from the standpoints as follows:

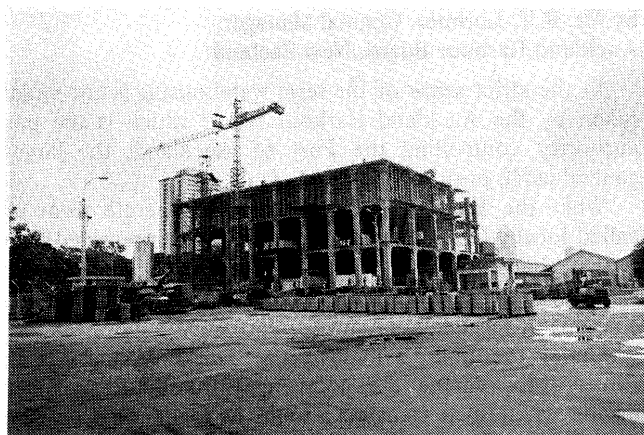
1. To systemize an integrated system for distribution including temporary storage, vanning & devanning, customs clearance, information, etc., all of which are necessary for coping with containerization.
2. To minimize transportation costs and prevent probable accidents on the roads by shifting overland transport of chemical products to maritime.
3. To prevent dangers by collectively handling such cargo at a particular place where anti-disaster facilities are perfectly provided with.

From these viewpoints, the Port & Harbor Bureau projected the Chemical Wharves at the extreme west end of South Port, far distant from the residential zone. It has constructed the sheds and other facilities specialized in handling chemical products at the lot adjacent to the Wharves for leasing them to related maritime transport enterprises.

The volume of chemicals handled at the port has been increasing since the Chemical Center was put into operation. Some are anxious about the results from the interac-

tion of chemicals in case an accident breaks out, with lots of dangerous cargo stored there. However, in this Center only safely packaged unit cargo are stored, and the sheds are constructed according to the classifications stipulated under Fire Law, each keeping safety distance with another, provided with fire fighting and anti-disaster facilities.

New cold storage to be ready soon: Port of Singapore



Picture shows the cold storage complex under construction

Traders and businessmen will soon be able to make use of more efficient and effective cold storage facilities in Singapore, at competitive rates, with the completion of a \$10 million cold storage complex at Keppel Wharves.

The modern 30 m high five-storey complex is owned and operated by Suzue (Singapore) Cold Storage Pte Ltd, a joint venture between the Port of Singapore Authority and Suzue Gumi Warehouse of Japan.

The building will have a total of 12,000 sq m with 10,000 tonnes storage capacity. This storage capacity will make it the largest complex of its kind in South East Asia.

Ro-ro shipping service signed between Australia and Port Kelang

An agreement to inaugurate and operate a Ro-Ro shipping service between Australia and Port Kelang was signed at the Australian National Line headquarters in Melbourne, Australia between the LPK Chairman Y.B. Datuk Haji Abu Hassan bin Abdullah, the Director General En. Harun Din and the ANRO Consortium members on September 19th 1979.

The Anro members are made up of the Australia Shipping Commission, Neptune Orient Lines Limited, the Australian Straits Container Lines (Pte) Limited and the Nedlloyd (Singapore) Pte. Limited.

(Continued on next page bottom)

VOICE — "I would like to know"

Replies to Cyprus Port Authority's Questions on Warehousing of Goods in Port Stores

(Question 8001; refer to the Jan.-Feb. issue.)

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

In the strict sense of the term warehousing is not undertaken by the Auckland Harbour Board which is the port authority controlling the Port of Auckland, the largest general cargo port in New Zealand.

What the Board does at Auckland is operate what are called locally Off Wharf Stores where cargo is received from transit sheds to make way for goods from a ship newly arrived, or to provide more wharf working space for discharging or receiving operations.

Under the Board's by-laws the Traffic Manager is authorised to remove the goods and the Board's officers decide when such transfers should be made. Officers plan the movement because they know the requirements of ships arriving at the port and are aware of the demands on each berth.

Customs officers are not consulted about, or involved in, the movement of cargo from wharf transit sheds to Off Wharf Stores as such goods do not leave the port area.

The actual work of removing the goods from the operational transit area to Off Wharf Stores is done by a wharf carrier working under contract to the Board.

Any cargo remaining undelivered from these Off Wharf Stores after a stated period, say two years, is sold by the Board at public auction.

(Continued from page 43)

Progress report on port development projects: Port of Penang

Under the Third Malaysia Plan the Port of Penang was allocated a sum of \$135 million towards improving facilities in the port. Among the major projects that have been completed are the Bus Terminus Complex, Container cum Ro-Ro Berth, purchase of Container Handling equipment, the deepening of the North Channel Study and purchase of marine crafts.

Other major projects in varying stages of completion include the Phase III port expansion study, construction of a vegetable oil tanker pier, construction of bulk cargo terminal and management accounting study.

Part I of the Phase III Port Expansion Study has already been completed. This includes the location of the probable site of the new port together with tentative highway and transportation networks. An environmental study on the repercussion on the marine life as well as the social and economic effect of the new port was also undertaken. Other related tasks which were completed included traffic studies, commodities forecasts and berth capacities.

Prior to such auctions the New Zealand Customs Department may claim goods subject to Customs Duty or Licence and can hold its own public auction sale. In these circumstances the Board receives the balance remaining from the sale after deduction of Customs Duty and the expenses of the auction.

Replies to Chittagong Port Authority's Questions on Railway Facilities and Functions

(Question 8002; refer to the Jan.-Feb. issue.)

by Mr. R.T. Lorimer, General Manager,
Auckland Harbour Board, New Zealand

In New Zealand the railways are run as a Government department and are completely separate from port authorities. They operate services to their clients with direct contracts to carry the goods concerned.

The Auckland Harbour Board, as the port authority, is responsible for the safe movement of all traffic in its area and therefore can control the movement and speed of rail traffic on its wharves.

New Zealand Railways Department is totally responsible for the safe carriage of cargo within railway wagons.

Shipping companies, agents, stevedores or the actual owners of cargo do all the booking of freight and ordering of wagons. All expenditure is between these representatives and New Zealand Railways.

Cargo can be loaded or unloaded direct from or to rail wagons and ship by dock labourers employed by the shipping company concerned. The client pays rail freights direct to New Zealand Railways.

Experience here is that this system works well and, as a port authority, the Board sees no advantage in having direct control of rail traffic in the port except in the application of port traffic regulations regarding movement and speed.

by Mr. A.A. Shaw, Manager, Terminal Operations,
Port of Vancouver, National Harbours Board, Canada:

1) Our port is served by four railways.

Two of the railways, Canadian National Railways and Canadian Pacific Railway, are transcontinental railways having their own trackage.

British Columbia Railway is owned and operated by the Province of British Columbia in British Columbia only.

The Burlington Northern Railway is owned and operated by a U.S. company, having a line from Seattle, Washington, U.S.A., to Vancouver.

2) The railways work in cooperation with the various terminals but are independent of the Port Authority.

3) The booking/expenditure, etc., are controlled by the owner of the cargo unless the goods are moving under the mini land bridge system at which times the steam-

ship lines control same.

- 4) Railway freights are paid directly to the railways.
- 5) In Canada we are fortunate in having only two trans-continental railways which are cooperative in their operations. Both national railways, while cooperative, are also very competitive and provide unit trains for volume movements in addition to their normal services. The other two railways provide local services only. All four railways have track access to port facilities.

by **Mr. S. Ullman, General Manager,**
Port of Gothenburg, Sweden:

Railway Facilities

Gothenburg is connected to any part of Sweden and to all major places in adjacent countries by five railway lines, owned and operated by the Swedish State Railways.

To serve the different port districts of the Port of Gothenburg there is a system of main railway tracks and shunt terminals covering a total track length of 65,000 metres. In addition, there are tracks of about the same length to and within the different port districts.

The exclusive owner of this port railway system is the Port of Gothenburg, which is a municipal agency. The construction of new tracks, as well as renewal and repair, is also the responsibility of Port of Gothenburg. All traffic operations, however, is carried out by the State Railways.

The State Railways charge their freight costs to the cargo-owners. A surcharge is made as from the Gothenburg freight railway station, to cover additional costs of transport of cargo to and from different port districts. Out of this surcharge, Port of Gothenburg receives a part to cover costs of construction, renewal and repair of main railway tracks and shunt terminals.

Port of Gothenburg has to cover all costs of construction, renewal and repair of railway tracks within the separate port districts. These costs form part of costs to be covered by general port charges paid by port users.

With the exception of liquid bulk cargo, all cargo handling in the port of Gothenburg is carried out by the Gothenburg Stevedoring Company. The municipality of Gothenburg holds 95% of the shares of the Stevedoring Company. The Stevedoring Company also loads and discharges cargo to and from railway waggons. The equipment used for this purpose consists of transtainers, straddle carriers, and fork lift trucks. The cost of handling of railway cargo is charged by the Stevedoring Company—via shipowners, shipbrokers, or forwarding agents—to the cargo owners, mostly along with other handling costs.

Railway waggons are booked as follows:

General and break bulk cargo

As for **import cargo**, the forwarding agents orders, from the State Railways, waggons to be used for the specific shipment. The forwarding agent notifies the Stevedoring Company about what waggons have been booked, to what place and at what time.

As for **export cargo**, the shipper orders waggons from the State Railways. The State Railways notify the Stevedoring Company by telex about what waggons are under way, giving also the booking number of the cargo. The Stevedoring Company is in daily contact with the State Railways and suborders waggons successively according to stowage plan.

Containers

Almost every container transported by railway is loaded/unloaded at a special railway terminal i.e. the Skandia Harbour. Normally, the booking of waggons is a matter between shipowners and the State Railways. The Stevedoring Company is notified by the State Railways by telex about booking numbers of the different units and their place in the train.

Mainly, the container traffic is carried out by time scheduled so called block trains to fixed places of destination. Often, these block trains are overbooked. In such cases, the State Railways and the Shipowners agree about priority.

Replies to Chittagong Port Authority's Questions on Port Security (Question 8003; refer to the Jan.-Feb. issue.)

by **Mr. R.T. Lorimer, General Manager,**
Auckland Harbour Board, New Zealand:

Within the Traffic Department of the Auckland Harbour Board, which controls the large international Port of Auckland and the small Port of Onehunga for the Pacific Islands and coastal trades, there are five sections which have prime responsibilities for the security of cargo.

The plain clothes Port Security (Special Duties) Section was formed in March 1972 to prevent illegal acts on Board properties, particularly relating to cargo.

Other sections are uniformed Security Officers who act as gatekeepers, uniformed Night Officers, uniformed Traffic Officers and uniformed Cargo Check Officers.

In addition, staff in the wharf and supervisory sections and off wharf stores are encouraged to maintain interest in cargo security but this is secondary to their principal functions.

All security personnel act under the authority of Board by-laws. They hold either the national Ministry of Transport traffic officers' warrant or a special constable's appointment made under Board authority granted by the Harbours Act adopted in 1950 by the central Government.

The Port Security (Special Duties) Section comprises a senior officer and three other officers. They were appointed in accordance with the Board requirement of "proven integrity, good health and a background of service in the New Zealand or a Commonwealth police force, preferably in the investigative field."

The Section is provided with a vehicle equipped with radio telephone for direct communication with all manned gatehouses, portable hand sets and the base set in the section's office and to other Traffic Department vehicles.

It is a flexible, mobile plainclothes unit able to organise hours of duty to meet any contingency. Police training enables members to handle situations of the kind most likely to be met, with tact and discretion.

Normal rostered coverage is from 8 a.m. to 10.30 p.m. Monday to Friday and 8 a.m.-12 noon Saturday, the late shift officer being on call overnight and the duty man Saturday morning on call over the weekend.

Board membership of the International Association of Airport and Seaport Police gives access to international co-operation by consultation and communication.

The 36 uniformed officers are employed to man wharf

gates on a 24-hour basis mainly to control vehicle and pedestrian access to and from wharves in accordance with Board by-laws. When necessary, as in the absence of toll clerks, they also check cargo leaving the port area.

Night officers are primarily responsible for the security of all Board property from 1730 hours to 0800 hours. They assist with problems of security, access and emergency.

The 21 Traffic Officers control vehicle movements in and about the port and pleasure boat harbours. They prosecute only those traffic offences detected on Board property.

Cargo Check Officers strictly control traffic in and out of the Container Base. Only vehicles depositing or uplifting cargo and producing the appropriate documentation are permitted to enter or leave.

This differs from the system on conventional wharves where numerous other vehicles having business on the wharves are permitted access and parking facilities. On conventional wharves they check outgoing cargo with tally notes.

Security personnel have close liaison with Customs Officers and members of the national (civil) Police Force. The warrants and authority of the Board's security staff operate only within Board properties with an extension in special circumstances to one mile outside Board boundaries. Offenders apprehended by the Board's security force are turned over to the National Police for prosecution.

**by Mr. J.A.C. Barratt, Manager,
Corporate Communications, Port of Vancouver,
National Harbours Board, Canada:**

1. The Police establishment is divided into two components, namely, Patrol Division and Criminal Investigations. The Patrol Division consists of uniformed policemen patrolling Port owned facilities on an around the clock basis. The Criminal Investigations Branch investigate major crime and maintain liaison with neighbouring police forces. The establishment consists of 36 men at present and is reviewed annually.
2. The Police are supplied with accommodation, transportation, communications and equipment.
3. The Police establishment is mutually agreed to by Port Management and the senior Police Officer. Budgetary requirements are provided and monitored by Port Administration.
4. Police are duly sworn Peace Officers having all powers, privileges and responsibilities as provided in the Criminal Code of Canada. The main function owned facilities. The National Police are concerned with Federal laws such as drug enforcement and customs and excise.
5. Police are recruited from the local area and trained in accordance with National Standards. On completion of training, successful candidates are duly sworn before a Superior Court Judge.

**by Mr. E.F. Ellen, Secretary, International
Association of Airport & Seaport Police:**

Throughout the world, seaports and airports are policed in different ways and the method chosen in any particular instance is a result of the circumstances which, in many respects, are peculiar to the port or airport alone.

1. A port may choose to be policed on an 'as required' basis in common with any other private premises of any nature. This means that the port will function without a specific police presence and police will only attend in answer to a particular need. This is the method adopted within some port areas which have not a high risk in that they have a small work force and the security risk of the goods handled is small, for example in ports handling bulk goods.

2. If the risk is somewhat higher then a port will, very often, employ a number of guards. There are persons who are not police of any kind but may be uniformed. The only power they have is that which is possessed by any citizen of the country or, on occasion, they may have assumed powers based on conditions of employment or conditions of entry into private premises. The guards have recourse to the assistance of police from outside, on a 'as required' basis. This method works well enough in areas where there is a constant work force and a comparatively low security risk. So often these guards become token gatekeepers only.

3. As the port operation becomes larger, or the risk is somewhat greater it becomes desirable to have a constant police presence and here the choices follow two paths.

3. (a) i. The port area may be policed by the National Police but only as part of a greater area. This means there is a constant presence as opposed to the occasional presence as in 1 above. There are, however, two major disadvantages to this method of policing. Whilst the police are present, there is no great problem but, in common with the police the world over, such are the demands on their services that the local police commander may feel obliged to take his men from the port area to deal with another situation. This is fully understandable from the police viewpoint but it leaves the Port Authority in a position of not knowing from one day to another what will be the extent of the cover it will receive. On this 'here today and gone tomorrow' basis it is difficult to the point of impossibility to integrate the police fully into understanding the operation of the port. The second disadvantage is that the Port Authority has no measure of control over the police function and may be well at the mercy and prejudice of the local police commander.

3. (a) ii. The port area may be policed by the National Police but in the form a Port Division. With this method there is the advantage over the system in 3 (a)i that personnel are not so easily transferred into and out of the port area. There still remains the disadvantage that as the personnel are National Policemen, it is sometimes difficult for them to relate to the somewhat peculiar and specialised requirements of a port area. In some ports where this method was practised it became the system that the older, unfit police officers were posted to the ports division and left there to serve out the remainder of their time. Once again, this was not good for the port authority as they had

to manage in a highly vulnerable area with their security in the hands of elderly disgruntled men.

3. (b) The second choice within the basic concept of a qualified police presence is that the Force is not part of the National Police but is an autonomous force. Here it must be admitted that there is often a stumbling block. Whilst some countries permit a police force to exist in addition to the National Police, some other countries are most definitely opposed to the idea. Where there is no bar to this idea of a Specialised Police Force there are still choices as to exact method.

3. (b) i The Port Police Force, duly enacted and empowered by law, can be the only security force within the port area undertaking all security functions subject only to the obvious necessity of calling for assistance from the National Police in the event of their being any occurrence which is beyond their own operational capability. Experience has shown that this manner of security can be somewhat expensive because there is a measure of duplication between the equipment and facilities which the Port Force has and which the National Police has. Set against this marginal disadvantage is the benefit the Port Authority can derive from the certainty of the police presence, the budgetary control and a measure of operational control.

3. (b) ii. There are some purely routine functions in security which it is not necessary to have a fully trained police officer to perform. It is this fact which leads some port areas to adopt the two-tier system of security. The foundation tier of such a system comprises uniformed, non-empowered security officers or guards. These are supported, trained, supervised and administered by Port Police Officers who attend to those things which require full police powers. The advantage of this system is that the cost is kept within reasonable limits because the port authority is not paying for a level of expertise it does not need. The disadvantage can come from considerations of size. If the port area to be policed is not very large then the necessary security force and port police force may be smaller than is advisable to maintain a separate viable entity.

4. Before any decision is made as to which of the various methods is feasible in any particular area, it is advisable to have an objective security survey carried out of the area in question by someone totally unconnected with the port area. Sometimes it is true that those nearest the problems can see them least clearly.

5. Having given you, in brief form, the underlying principles and options open, I shall try to answer the specific questions you ask. In one or two areas this may be difficult because you use terms and refer to situations which I am not familiar.

Question 1.

The numbers of police required to cover a port area can be ascertained in a simple manner and the method is the same whether the police to be used is a contingent of the National Police or a separate Port Police Force. If the question is asking how many men are necessary to do a particular job then it is necessary to know the details of the jobs to be done, the hours of work of the police, the leave days and annual leave days due, sickness levels and many other details which should be made the subject of separate correspondence. Although basically simple, the procedure is somewhat lengthy. If this is about which you seek advice, perhaps you would let me know.

Question 2.

Here again, the facilities extended the National Police detachment will depend to a very large extent on the service you are expecting them to provide. For example, if they are required to maintain a static presence at a gate, for example, then it is not unreasonable for them to require some form of shelter at that point. Similarly, if there is a large contingent in one area far away from their own national base then it would not be unreasonable for them to expect the provision of vehicles or watercraft as appropriate. Here again, without an idea of the precise nature of the problem it is not possible to advise in detail.

Question 3.

With the use of National Police it is difficult to see how port management can have any line of control over the Police operation. This is one of the disadvantages of the scheme. It is only possible for the port management to tell the police, in the basic contract when to do the job and where to do the job but never how to do it. With a Force which is wholly maintained and operated by the port authority the line of control is through the ranks of the Force with the Chief Constable or Chief Police Officer responsible to port management at a high level or possibly directly responsible to the Board of Management. In this situation the port authority have a much greater measure of policy control but never so much as to turn the Port Police Force into a 'private army'.

Question 4.

There should be no difference between the powers vested in a National Police Force and the powers vested in a Port Police Force. In the Port of London, the Port Police have marginally greater powers than other forces in the country. When considering function, as a police force in a port is operating in a specialised area, they will have to develop specialised skills and their functions may differ from the National Police. There is sometimes the danger that the functions required of a Port Police Force are not really police functions at all and it is here that a two-tier system becomes a distinct advantage.

Question 5.

I am afraid that I must end on an unsatisfactory note. I do not understand your use of the term 'recruitment/deputation rules' in the context in which you have used them.

Finally, for the purpose of removing any misunderstanding of what has been written above, two definitions are called for.

National Police. This means the National Police of the country and includes any detachment of that police force which is used for policing to police a port area.

Port Police. This is not the National Police but refers to a separate autonomous Police Force which is wholly maintained by the Port Authority but which has full police powers.

Question 8004

What is the World Maritime Day and when and how celebrated?

Answer:

1) The World Maritime Day was established by the 10th IMCO Assembly held in November 1977 with the intention of focusing world attention to IMCO's work in relation to shipping and the sea. March 17, 1978 was decided to be the first World Maritime Day, and was dedicated to mariners, the men and women engaged in what was still one of the world's most hazardous profession, being celebrated by various governments and organizations relative to shipping and maritime industries. (IMCO circular 436)

2) At the 11th IMCO Assembly, having considered the report of IMCO secretary-general on World Maritime Days 1978/1979 as well as a note expressed by one of Member country, decided on November 13, 1979 to transfer the observance of World Maritime Day from March 17 to **the last week of September. Within that week, each Member Government would be free to designate a specific day for its own celebrations.** (IMCO headquarters will celebrate the World Maritime Day on September 26, 1980 in London.)

3) The theme for World Maritime Day, as approved by the Assembly is "Maritime Training for Safer Shipping and Cleaner Oceans". This is to highlight the important place of maritime training in the work of IMCO and the special efforts which have been made in IMCO in this field in

recent years, culminating in the adoption in 1978 of the Convention on the Training, Certification and Watchkeeping of Seafarers. (IMCO circular 705)

4) If members of non-governmental organization, when contacted by the relevant governmental agencies or the journalism, in support of the dissemination of the intention, the IMCO requests, should be prepared to give their support to the effect. (IAPH Head Office)



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