

# DORTS and HARBORS June, 1984 Vol. 29, No. 6

# Port of Richmond

The Publisher: The International Association of Ports and Harbors

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

DREDGING and

# MANAGEMENT





# From the land of the free-AN INEXPENSIVE PROPOSITION.

The statue marking the entry to the land of the free stands at the entrance of the Port of New York and New Jersey. Although nothing's free any more, you'll find that our costs are genuinely competitive.

You'll find that our security and cargo handling speed also help better your overall cost.

So before shipping, do some comparison shopping. Get the facts from our sales office.



### THE PORT AUTHORITY

OF NY & NJ One World Trade Center 64E, New York, NY 10048 Telephone: (212) 466-8315





# PORT of NAGOYA

Your entrance to everywhere in Japan.

convenient



efficient

Central Japan is the fastest growing industrial area in the country. And Nagoya Port is the very heart of this exciting activity. Last year we handled more than 100 million tons of cargo. Completely modernized and completely containerized, we're growing year by year. By rail, truck or ship we move your cargo faster, more efficiently and more economically.



NAGOYA PORT AUTHORITY 8-21 IRIFUNE 1-CHOME MINATO-KU NAGOYA 455-91 JAPAN TELEX : 4463816 NPA J PHONE : (052) 661-4111

sophisticated

# Whether it's Exporting or Importing -

Minerals for Europe — Marble for Italy — Sugar for Canada — Beef and Containers for the U.S.A. and South Korea or Cars from Japan — Oil from the Middle East.

# THE PORT OF TOWNSVILLE is the KEY



TOWNSVILLE HARBOUR BOARD



For further enquiries, contact the Townsville Harbour Board, Townsville, North Queensland, Australia. Cables: 'Nausport'. Telex: NAPORT — 473344. PORTS and

# HARBORS

#### Published by

#### The International Association of Ports and Harbors

N.G.O Consultative Status, United Nations (ECOSOC, UNCTAD, IMO)

President A. J. TOZZOLI Director, Port Department Port Authority of New York & New Jersey U.S.A. 1st Vice-President J. DEN TOOM Managing Director, Port Management of Amsterdam, The Netherlands 2nd Vice-President J. M. WALLACE President, Maritime Services Board of NSW, Australia 3rd Vice-President J. AUGER President & Chief Executive Officer Ports Canada, Canada Conference Vice-President Conference v ucer resumm J. ROMMERSKIRCHEN Head, Office for Port, Shipping & Transport Dept. of Economic Affairs, Transport & Agriculture, City of Hamburg, W. Germany Immediate Past President A. S. MAYNE Former Chairman, Port of Melbourne Authority Australia **Executive Committee Members** P. BASTARD Inspector for all Non-Autonomous French Ports, Ministry for the Sea, France F. GINGELL Vice-Chairman, Fraser River Harbour Commission, Canada T. HIROTA Director-General, 2nd District Port Construction Bureau, Ministry of Transport Japan F. KOHMURA President, Nagoya Container Berth Company Limited, Japan R. P. LEACH Executive Director, Port of Houston Authority, U.S.A **R. T. LORIMER** General Manager, Auckland Harbour Board, New Zealand J. H. McJUNKIN Executive Director, Port of Long Beach, U.S.A. K. L. MÖNKEMEIER Director of the Port, City of Hamburg, W. Germany Administration, Korea Maritime and Port Administration, Korea J. D. MTURI Managing Director, Kenya Ports Authority, Kenya E. R. PERRY Executive Director, Port of Los Angeles, U.S.A. E. SCHÄFER General Manager, Port of Copenhagen, Denmark J. K. STUART Chairman, Associated British Ports, U.K. W. D. WELCH Executive Director, South Carolina State Ports Authority, U.S.A. WONG, HUNG-KHIM General Manager, Port of Singapore Authority, Singapore

Secretary General: Dr. Hajime Sato

Head Office: Kotohira-Kaikan Bldg. 2-8, Toranomon 1-chome, Minato-ku Tokyo 105, Japan Tel.: TOKYO (591) 4261 Cable: "IAPHCENTRAL TOKYO" Telex: 2222516 IAPH J

Page

#### June, 1984 Vol. 29, No. 6

#### CONTENTS

IAPH announcements and news: $\dots \dots \dots$
Head Office starts compilation of the IAPH Membership Directory 1985
edition - International Service of Documentation (S.I.D.) - Recipient of
Bursary announced – Bremen Trade Mission in Japan – Membership Notes
IAPH Award Scheme 1984: Closing Date Drawing Near
Statement of the IAPH Sub-Committee on Terminal Safety
By Per H. Olson, Head of Operations, Gothenburg Oil Ports
IMO Report by Mr. A.J. Smith
Open forum:
Development of A Universal Port in the Industrialized Urban
Area of Hamburg – By Joerg Rommerskirchen, City of Hamburg, 15
Congestion in the Port of Aden, An approach to identify the
Elements of the Problem and to devise Remedial Measures
By Zubair A.A. Idd, Yemen Ports Authority
Port Releases:
MARAD '82 – Port and Intermodal Development –
Port Spectrum-Performance Reports:
Cairns Port Authority
Puerto Rico Ports Authority
Massport
Yemen Ports Authority
International maritime information:
World port news:
Review of maritime transport, 1981: UNCTAD, 33
CCC/ESCAP seminar on the Kvoto Convention.
Container business booms in Port of Vancouver
Negative impact of user fees reported: Reed cites U.S. study
Record container volume places Charleston at top of Sun Belt Ports 39
Port of Antwerp in 1983
Multipurpose Bulk Terminal – Port of Le Havre/CIPHA
concession signed
Passengers boost Southampton
Thames refuse barges to be 'Magrorolled': MacGregor Navire
Privatisation: Transport Minister assures KPA workers
Expansion at Jebel Ali

Cover: Port of Richmond

Price US \$3.50 per copy US \$35.00 per year



Do you want to start up business in Germany? Are you looking for someone reliable to import and distribute your goods? And is quick low-cost transport essential? Then contact Mr. Tsuyama, the representative of the Ports of Bremen and Bremerhaven and the Bremer Lagerhaus-



#### **Tokyo (03) 431-8012**

Gesellschaft (one of the largest port operating companies in the world). He knows all the right people. In Japan. In Germany. In Bremen. Give him a ring. He'll have time to talk to you. In his office or yours. You can find him in the Sanko-Mori Building 3–1, Atago 1-chome, Minato-ku, Tokyo.













Bremen and Bremerhaven are among the most efficient all-round ports. There are 12,000 sailings a year to 1,000 ports all over the world. Ship your cargo via Bremen and Bremerhaven: it takes only one day to reach its destination anywhere in West Germany.

Fast. Safe. Economical. For your benefit.

[4X]



#### Bremer Lagerhaus-Gesellschaft Port Operating Company Bremen/Bremerhaven

# IAPH announcements and news

# Head Office starts compilation of the IAPH Membership Directory 1985 edition

A circular from the Secretary General to all members is due to be dispatched towards the end of May, requesting their cooperation concerning the 1985 edition of the IAPH Membership Directory, a conference-year edition.

Upon receipt of the Secretary General's letter, all members are requested to check the information which the Secretariat has attached to the entry form and to make the necessary corrections and changes for the given items, including: 1) name of organization, 2) annual volume of cargo handled (in metric tons) covering both general and bulk cargo in the case of Regular Members, 3) address, 4) mailing addressee, 5) cable address, 6) telex number and answer-back code, 7) office number(s) and 8) names and positions of principal officers.

In case any member fails to update the relevant information through this channel, the Head Office will be obliged to carry the previously-published information in the new edition of the Directory. The Secretary General appeals to members not to waste this once-a-year opportunity to acquaint the world ports and port-related businesses which receive our Membership Directory with up-to-date details concerning their organizations.

Members are also invited to run their advertisements in the Directory at reasonable rates, US\$300 for a full page and US\$180 for a half-page.

#### International Service of Documentation (S.I.D.)

If IAPH members have any difficulty in obtaining information concerning port handling or civil engineering, S.I.D. can be of help! Give a description, in as much detail as possible, of the problem you are facing or the type of data you require, and we and three other voluntary organizations will do our best to assist you. If it is bibliographic references you seek, don't hesitate to get in touch with us.

Send your requests to: PORT AUTONOME DU HAVRE Centre de Documentation B.P. 1413 76067 Le Havre Cedex France Tel: (35) 22.81.40 Ext 341 Telex: PAHAVRE 190663 F

#### **Recipient of Bursary announced**

According to a recent communication from Mr. J.K. Stuart, Chairman of the IAPH Committee on International Port Development, Mr. F.C. Lam Loong, Traffic Officer, Mauritius Marine Authority, had been granted a bursary to attend the statistics course at Port Centre Marseilles for the period 29 March – 13 April, 1984.

The arrangements concerning the bursary payments were completed by the Secretary General. The report which the recipient is to send to the Chairman of the Committee on International Port Development after the completion of his course will be published in the journal as soon as it is received.

#### Bremen Trade Mission in Japan

On the evening of April 18, 1984, at a Tokyo hotel, a reception was given by the Bremen Trade Mission headed by Mayor and Primeminister of the Federal State of Bremen, Hans Koschnick. The reception was attended by some 500 people representing port and shipping circles, and from IAPH Dr. Hajime Sato, Secretary General, and other members were the guests. Prior to the reception, a press conference was held. The picture below shows the delegation at the press conference. From left: Messrs. Hans-Berned Giesler, Folkert Mindermann, Hans E.W. Hoffmann, Dr. Rolf Fastenau, Hans Koschnick, the delegation's interpreter and Consul Gerhard Beier.



#### **Membership Notes**

**New Members** 

#### **Associate Member**

#### Charter Publications Ltd. (Class D)

Bank Chambers, Downham Market, Norfolk PE38 9BU, U.K. Office Phone: 0366 387344 Telex: 817508 (Mr. V. Charlesworth, General Manager)

#### **Temporary Member**

#### Mormugao Port Trust

Mormugao Harbour, Goa, India 403 8030Office Phone:2221 (Vasco Exchange)Telex:0191-219Cable:HARBADMIN(Mr. Cecil Noronha, Chairman)

#### Change

#### Port of Seattle

Telex:703433 PORT SEA UDPresident:Mr. Henry T. SimonsonVice President:Mr. Jack S. BlockSecretary:Mr. Paul S. FriedlanderAssistant Secretary:Mr. Jim WrightCommissioner:Mr. Ivar Haglund

# IAPH Award Scheme 1984: Closing Date Drawing Near !

How could the efficiency of your port be improved ? Your answer could win you the "Akiyama Prize" (a silver medal and US\$750 in cash) plus an invitation, including travelling costs and hotel accommodation, to attend the 14th Biennial Conference of IAPH, May 4-11, 1985 in Hamburg, Fed. Rep. of Germany.

# Make your applications without delay! The closing date is September 1, 1984.

The IAPH Award Scheme is an essay contest held for port staff in developing countries. Since the 11th Conference held in Deauville, France in 1979, one of the most exciting scenes to take place in front of all the delegates attending the plenary session has been the awarding of the first prize to the winner in person. The past recipients of this top prize have been:

Ms. Daphne Phinopoulos, Cyprus Ports Authority (invited to the 11th Conf., Deauville, in 1979); Mr. Carlos Canamero, ENAPU, Peru (invited to the 12th Conf., Nagoya in 1981); and Dr. Josip Kirincic, the Port of Rijeka, Yugoslavia (invited to the 13th Conf., Vancouver, in 1983).

Following the success of the scheme in the past, the call to continue operating the scheme every two years was endorsed at the Vancouver Conference, and Chairman Stuart announced the conditions for entry to the 1984 Scheme, as reproduced in the box below.

The decision on the winner of the 1st Prize, named the "Akiyama Prize", will be made no later than 1st January

in order that the individual winner or the leader of the winning group entry can be notified in sufficient time to allow him or her to be able to accept the invitation to attend the Conference. In order to meet this timetable, all entries must be received by the Secretary General no later than 1st September, 1984.



Mr. Carlos Cañamero, ENAPU, Peru (right) the winner of the First Prize in the IAPH Award Scheme 1980, receives a silver medal from President Bastard (left) following a report by Chairman Stuart (center) at the Nagoya Conference.

#### **Conditions for entry**

- 1. Suggestions regarding how the efficiency of your port (or ports in general) could be improved should be presented in English, French or Spanish, typewritten, and submitted to the Secretary General, The International Association of Ports and Harbors, Kotohira-Kaikan Building, 2-8, Toranomon 1chome, Minato-ku, Tokyo 105, Japan.
- 2. Suggestions may cover any aspect of the administration, planning or operations of ports, such as improving productivity or the utilization and maintenance of equipment and storage areas, reducing delays and damage to cargo, etc. An attempt should be made to quantify the benefits which would result from the suggested improvement together with the costs (if any) involved.
- 3. Entries which should be between 10 and 20 pages in length may be made either by individuals or small groups employed by IAPH member organizations, and should be the original work of the entrant(s). Entries which are the result of official studies or otherwise sponsored projects will not be eligible.
- 4. Entries will be judged by a panel of experts appointed by the Chairman of the Committee on International Port Development of IAPH. The panel will give greater merit to papers identifying and

evaluating specific improvements rather than entries covering a wide range of improvements in general terms.

- 5. The First Prize for the winning entry will consist of:
  (i) the Akiyama Prize (a silver medal plus US\$750 or the equivalent in local currency); and
  - (ii) an invitation, including travelling costs and hotel accommodation, to attend the 14th Biennial Conference of IAPH, to be held in May 1985 in Hamburg, Federal Republic of Germany.

- 6. In addition to the First Prize, Second, Third and Fourth prizes of US\$500, US\$400, US\$300 will be awarded to the next best entries.
- 7. Additional prizes of US\$100 each will be awarded to any other entries judged by the panel to be of a sufficiently high standard.
- 8. A winning entry may be subject to publication in the Ports and Harbors magazine.
- 9. At the decision of the panel, a bursary may be awarded to any one prize winner (subject to agreement of the employer).
- 10. The closing date for receipt of entries is 1st September 1984.

8 PORTS and HARBORS - JUNE 1984

\*\*

## Statement of the IAPH Sub-Committee on Terminal Safety

By Per H. Olson Chairman of the Sub-Committee on Terminal Safety, IAPH Committee on Port Safety, Environment and Construction

In its meeting on November 29, 1983 in Rotterdam the Sub-Committee discussed the report of the inter industry working group on fire prevention in cargo tanks of chemical tankers.

Without commenting on the contents of the various chapters the Sub-Committee supports the conclusions of the report.

In addition, the Sub-Committee recognizes that in future new chemical products as well as an important increase in individual tank sizes may cause a call for additional safety on board chemical tankers. In that case it should be made the ship's responsibility to provide for that additional safety.

Member ports are invited to support the conclusions of the report and bring their views to the attention of their respective governmental representatives at IMO in order to ensure that Ports' views on this matter are taken into account in the forthcoming discussions in IMO committees.

Should any port have principle objections to specific statements in the report, they are invited to bring these to the attention of the Chairman of the Sub-Committee on Terminal Safety:

Mr. Per H. Olson Head of Operations, Gothenburg Oil Ports Port of Gothenburg P.O. Box 2553 S-403 17 Gothenburg, Sweden Telex: 20957 Scanprt S

# Summary of a Report by the Shipping, Chemical, Port and Storage Industries into Fire Prevention in Cargo Tanks of Chemical Tankers

#### Background

At the 1978 Tanker Safety and Pollution Prevention Conference, modifications and additions to the 1974 SOLAS Convention were adopted, the purpose being to strengthen the Convention in view of a number of serious oil tanker casualties. As a result, the tonnage requirement for the installation of inert gas systems on new tankers was reduced from 100,000 dwt to 20,000 dwt and above.

The change, it has been suggested, inadvertently brought chemical tankers of 20,000 dwt and above under the above requirements and has been commented on by the United States of America (FP XXIII/8) as follows:—

"From the discussions at MSC it was clear, however, that the implications of the TSPP inert gas requirements on chemical tankers were not fully considered at the time the '78 Protocol was drafted."

Had the Convention been intended to address chemical tankers, it is believed that due consideration and mention would have had to be made of all associated hazards, not only fire. Furthermore, some instructions would have been necessary to amend the already existing BCH Code in order to reflect the requirement, and consideration given to the suitability of existing inert gas systems to chemical tankers and their cargoes.

These points were subsequently recognized in discussions at IMO and, as a consequence, it was decided to develop a short-term solution. Thus, as a first step, efforts were concentrated on the development of an interim requirement for the use of inert gas on board chemical tankers when carrying substances listed in Appendix 1 to Annex 1 of the 1973 MARPOL Convention. This became known as the "interim solution" and was subsequently adopted by the Assembly at its 12th session in November, 1981 under cover of Resolution A.473 (XII).

The Resolution above expressed the need for a longterm solution, based on investigations into fire prevention and inert gas systems with respect to chemical tankers.

The need for detailed investigations to be undertaken was emphasized in a USA submission to the eighth session of the Sub-Committee on Bulk Chemicals (BCH VIII) in October, 1980 which called for a "comprehensive study of the problems which begins by studying the need for improved protection".

The shipping, chemical, ports and storage industries supported this view and in a paper submitted to the Maritime Safety Committee by ICS (MSC XLIV/10/1) recommended that substantial studies be undertaken by Administrations and Industry, and submitted to IMO so that an enlightened final solution acceptable to all could be developed.

The MSC accepted this recommendation, and an Interindustry Working Group was subsequently established to carry out the industry contribution to these studies. Membership of the Group comprised the following Organizations:—

International Chamber of Shipping (ICS)

European Council of Chemical Manufacturers' Federations (CEFIC)

Oil Companies International Marine Forum (OCIMF) International Association of Ports & Harbors (IAPH) Independent Tanker Storage Association (ITSA) Chemical Carriers Association (CCA)

The Inter-industry Working Group (IIWG) decided a suitable approach for undertaking the study, would be to divide the task into two parts, i.e. a qualitative report and quantitative report. The qualitative report deals with the analysis of chemical tankers with respect to their design and operation, the standards of safety employed taking into account the carriage requirements and characteristics of their cargoes, their safety record and the problems with the use of inert gas.

For the quantitative report, the Group commissioned Lloyd's Register of Shipping to carry out an independent hazard analysis to quantify the risks involved in the event of the following failures:—

Fire or explosion in cargo tank. Serious hazard to crew on tank entry. Chemical carry-over via inert gas manifold. Polymerisation of a cargo (all causes except chemical carry-over via inert gas manifold).

#### **Chemical Tanker Design and Operation**

Chemical tankers of the size under consideration i.e. 20,000 dwt and above are generally extremely versatile and sophisticated ships, which are able to carry an extensive range of chemicals and products with widely differing characteristics at any one time. This complexity, in both design and operation, differentiates the chemical tanker from the crude oil and product tankers. The "Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk" (BCH Code) was developed, not only to take into account the fire hazard but also to address the hazards of toxicity, corrosivity and reactivity in accordance with agreed criteria.

The Group recognized that it should consider and include in the report a section on chemical tanker design and operation, and a comparison of chemical tankers with crude oil and petroleum tankers. The Group found that there were considerable differences in the complexity of design and operation due to the nature of their respective trades and cargoes.

The features of a relatively new chemical tanker and the characteristics of the cargoes carried are given to illustrate the complexity and sophistication of such vessels and their trade, some of which are given below:—

- (a) A multiplicity of cargo tank sizes, some dedicated to a particular product, but each having its own cargo pumping, piping and venting system thus giving maximum segregation and protection against contamination and reactions with their cargoes however caused.
- (b) Flexibility of cargo handling systems allowing concurrent discharge, loading and tank cleaning operations.
- (c) A high frequency of tank entry for cleaning and inspection purposes.
- (d) A heavy workload on those persons responsible for the planning and execution of safety in operation.
- (e) The cleaning and preparation of tanks, lines and equipment to a high standard, which generally includes gas freeing with high capacity air fans once the cargo

tank is stripped of all residues.

#### Safe System of Work

Industry has recognized the importance of a safe system of work by contributing to the development of the BCH Code and providing procedures to ensure such a system. The International Chamber of Shipping (ICS) Tanker Safety Guide (Chemicals), which has been endorsed by IMO, is an example of the latter, containing guidelines for the safe operation of chemical tankers both at sea and in port.

It is the duty of all the industries concerned with the shipping of chemicals to ensure that their operations are carried out safely and with the minimum impact on the environment. The Group believes that the operations adopted within the industry presently meet this standard and that there is an awareness of the need to ensure the continuing maintenance of it.

It was therefore towards ensuring that chemical tankers had a safe system of work including a fire prevention system that the Inter-industry Working Group addressed its efforts.

The 1974 SOLAS Convention is concerned, inter alia, with fire prevention. A standard of fire prevention can be defined as a system of high reliability which will prevent fire occurring by controlling one of the elements necessary for the combustion process (fuel, oxygen or heat.).

Chemical tankers have a fire prevention system based on avoiding sources of ignition and this can be shown by incident data and experimental evidence to be effective and reliable. Furthermore, where this system is known not to be reliable then an alternative system is adopted. An example of this is the carriage of carbon disulphide. In this case, due to the very low ignition energy, it is not possible to avoid sources of ignition, and hence the alternative of removing oxygen by the use of nitrogen is adopted. The BCH Code thus incorporates a fire prevention system appropriate to all the chemicals carried.

It can therefore be argued that the system adopted on chemical tankers meets the standard of fire prevention recognized in all the industries concerned and it should be considered equivalent to that required by the 1974 SOLAS Convention.

#### Fire and Explosion Data Relating to 'Chemical Vessels'

The Group examined the casualty record on not only the size of the vessel that would be affected by an extension of the inerting requirements, but of the whole chemical tanker fleet, including barges.

The incidence of in-tank fires and explosions was found to be very low, with only three recorded incidents to vessels of over 20,000 dwt in the period 1973 to 1983 (part), two of which occurred in 1973. In the intervening period the BCH Code has been improved and the operational standards and procedures strengthened. Collectively these developments should be instrumental in bringing about an improvement to what is already an excellent safety record.

#### Problems with the Use of Inert Atmospheres

The Group identified various systems available for providing a supply of inert gas from oil-fired equipment or nitrogen from pressure swing adsorption, membrane or cryogenic sources.

Inert gas from oil-fired equipment is totally unsuitable for the chemicals carried in chemical tankers for many reasons which are detailed in the report. Nitrogen from either cryogenic, membrane or pressure swing adsorption sources would be acceptable on quality grounds for most but not all chemicals transported.

The provison of inert gas or nitrogen to each tank would further complicate an already complex pipework arrangement and would add to the very serious hazard already recognized by the chemical industry in its use. While recognizing the advantages of nitrogen in improving safety in some areas, its indescriminate use cannot be supported.

Additionally the use of inert gas or nitrogen to blanket certain chemical monometers can lead to a serious situation which may be as dangerous to the crew as an explosion in the tank.

Since the use of nitrogen is the only acceptable system for use with some chemicals, the method of providing this has to be considered. Shipboard pressure swing adsorption or membrane systems appear to be the only potential means of providing nitrogen independent of shore supplies. However, the systems have not been sufficiently developed in a marine context and the cost of such systems could be appreciable and no corresponding benefit can be seen.

#### An Equivalent System for Fire Prevention

Finally the report shows that if the more usual definitions of 'fire hazard' are used, then a different view can be taken of the 1974 SOLAS requirements. In this respect, an inert gas system would be required where there is a significant ignition hazard. The BCH Code recognizes this principle but a different approach to inerting has been adopted.

Furthermore, substantial differences were found between the operations on chemical and oil tankers and therefore the risk of in-tank explosions cannot be considered. Consideration of inert gas as the only fire prevention system to the exclusion of other systems presents many difficulties. The system adopted on chemical tankers is effective and reliable and meets the recognized standard. The fire prevention system currently adopted on chemical tankers should be accepted as being equivalent to that required by Regulation II-2/60 of the 1974 SOLAS Convention.

#### Conclusions

The Inter-industry Working Group has considered all aspects of fire and explosion in cargo tanks relating to the carriage in chemical tankers of the chemicals listed in chapter 6 and 7 of the BCH Code, including the need for improved fire prevention, the suitability of available inert gas or nitrogen systems and all other related factors to ensure a safe system of work.

From the evidence available to the Group, the following conclusions have been drawn:

1. The BCH Code and the industry's operational guidelines for the carriage of chemicals provide an effective fire prevention system. This system meets the standard established by the engineering, chemical and shipping industries and has been universally accepted by regulatory authorities. The system has proved highly effective during the years it has been in use, and it is improbable that its effectiveness would be significantly enhanced by general requirements to inert chemical tankers. The Group has concluded, on the basis of industry's experience with the existing system and a comparative hazard analysis, that the existing fire prevention system for chemical tankers affords equivalent safeguards to the cargo tank requirements prescribed for oil tankers in Regulation II-2/60 of the 1974 SOLAS Convention.

- 2. The BCH Code requires inerting for those chemicals having significant ignition hazards. The assignment of these requirements was based on an evaluation of each chemical's hazard profile by experts taking account of ships' features prescribed by the Code and the operational guidelines used by the industry. The relatively few incidents of fire and explosion aboard chemical tankers indicate no justification for extension of the current inerting requirements, rather the existing fire prevention system is shown to have a satisfactory record and is reliable.
- 3. There are substantial differences between the operations performed in handling flammable liquids on chemical and oil tankers and the risks cannot be considered equivalent.
- 4. The level of static electricity produced during water washing of a chemical tanker's cargo tank is insufficient to be considered hazardous.
- 5. Boiler flue gases and gases from oil-fired inert gas generating plants are totally unacceptable for inerting chemicals carried in chemical tankers due to adverse product quality effects.
- 6. The use of pure nitrogen is acceptable on quality grounds only for those products which do not require the presence of oxygen for polymer inhibition purposes. If nitrogen is used on some of these monomers by mistake a very serious situation could arise.
- 7. Pressure swing adsorption or membrane systems for providing nitrogen are impractical for use on board chemical tankers if a general requirement for inerting is restricted to small units. Furthermore, these units do not supply the quality of nitrogen required by food chemicals.
- 8. The marketing of chemicals is a complex operation which is very dependent upon quality criteria and customers particular requirements. Any requirements which would lead to a deterioration of the product quality during transportation will interfere with this marketing operation and have serious economic consequences.
- 9. A general requirement to provide an onboard inert gas facility for use with chemicals will complicate an already onerous ship operation without decreasing any overall risk to the crew. Indeed, it is submitted that, the more complicated the onboard situation is made, the greater will be the hazard and hence the greater the risk to the crew and ship.
- 10. While recognizing the advantages of nitrogen in certain situations, the Group believe that the extensive use of nitrogen would further increase the overall risks to the crew and ship.
- 11. The supply of nitrogen from shore installations in either gas or liquid form would be extremely costly and would provide a source for only a limited number of situations.

The chemical and shipping industries are mindful of the necessity of maintaining safe systems of work throughout their operation and their efforts have resulted in a good record. The industries concerned will continue to make improvements where these are necessary, in order to improve their good record.

# IMO Report by Mr. A.J. Smith

#### **IMO Maritime Safety Committee**

The forty-ninth session of the Maritime Safety Committee was held from 2 to 6 April 1984 under the Chairmanship of Mr. Emil Jansen (Norway).

The session was attended by sixty-one representatives from Member States and twenty-six observers from intergovernmental and non-governmental organizations, including IAPH.

In view of time constraints the Committee considered the most urgent work dealt with by its Sub-Committees since its last session and approved their respective recommendations. The details of these of interest to ports have been included in reports provided at the time of the Sub-Committee meetings. The Sub-Committees in question were:

Carriage of Dangerous Goods Radiocommunications **Bulk** Chemicals Safety of Navigation Fire Protection

In dealing with the work of the Sub-Committee on Fire Protection, the Committee noted the request by IAPH/ ICS/OCIMF for recognition of the International Safety Guide for Oil Tankers and Terminals - Second Edition. A copy of the Guide had been provided to each delegation.

IAPH members will recall that in the opinion of the industry the Guide provides information on all safe methods of conducting the various operations in order that personnel are sufficiently informed to make clear decisions. It has also the purpose of making recommendations for tanker and terminal personnel on operating practices. To this end matters of design are not directly considered and the emphasis is placed on practical advice for safe operations within the regulatory framework.

The Maritime Safety Committee has asked the Fire Protection Sub-Committee to advise on the Guide's acceptability for use by Member Governments.

It is important to note at this stage, however, that the Swedish and UK Governments will want assurances regarding the "uncontrolled atmosphere" aspect of guidance. The Netherlands delegation will also be wanting to check out governmental adivce on that matter to determine whether it has been disregarded.

#### **Consideration of A Single IMO Technical Convention**

The Committee was unable to consider at this session a paper by the USSR (MSC 48/13) on a proposed single technical convention but invited Members to submit comments on the USSR paper for discussion at the fiftieth session.

#### **Review of the Work Programme**

Most time was spent by the Committee on a review of the work programme. The need is for balance if all the objectives of the IMO are to be met.

There was agreement that the number of working groups formed during its sessions and those of its subcommittees should be limited to those considered essential. Too many ad hoc working groups put a great strain on small delegations in providing technical expertise.

Work programmes were then decided for each of the Sub-Committees. A list of these is attached.

#### **Replacement of Tonnage Parameters in Conventions**

Some time was then spent discussing the replacement of tonnage parameters in conventions. There is an obligation to complete the work by 1986.

The Committee agreed that the fiftieth session should be of two weeks' duration and be held from 19 to 30 November 1984, the extra week being taken from those already allocated for the Committee and its subsiduary bodies.

#### ANNEX

#### Work Programme of the Sub-Committee on **Bulk Chemicals**

		Target
		completion
		<u>_date_</u>
1	Evaluation of safety hazards of new	Continuous
	chemicals	
2	Procedures and arrangements for the	1986
	discharge of noxious liquid substances	
3	Form of Cargo Record Book	1986
4	Carriage of mixtures of Annex I and	1986
	Annex II to MARPOL 73/78	
5	Revision of the lists of substances of	1986
	Annex II to MARPOL 73/78	
6	Inclusion of new substances in the lists of	1986
	Annex II to MARPOL 73/78	
7	Extension of the Bulk Chemical and IBC	1986
	Codes to cover pollution aspects	
8	Implementation of requirements to provide	1986
	adequate reception facilities	
9	Carriage of oil like Annex II substances in	1986
	tankers [dependent on MEPC decision]	
10	Interpretation and updating of the Bulk	1984
	Chemical, IBC, Gas Carrier and IGC Codes	
11	Carriage of bulk chemicals in cargo tanks of	1984
	dry cargo ships	
12	Development of guidelines on the safe	1984
	handling of hazardous substances carried	
	for the purpose of dumping at sea	
13	Inert gas requirements for chemical tankers	1985
	and gas carriers	
Not	e. Items 2 to 9 assigned by MEPC	

Note: Items 2 to 9 assigned by MEPC

#### Work Programme of the Sub-Committee on the Carriage of Dangerous Goods

		<u>Completion</u>
1	Amendments to the International Maritime Dangerous Goods (IMDG)	Continuous
2	Amendments to:	
	1. the "Emergency Procedures for	Continuous <sup>1/</sup>
	Ships Carrying Dangerous Goods	

(EmS)" with regard to new substances

	2. the "Medical First Aid Guide for Use in Accidents Involving Dangerous Goods (MFAG)" with regard to new substances	Continuous <sup>1/</sup>
3	Intermediate Bulk Containers (IBCs) for	1987
	Dangerous Goods	
4	Portable Tanks and Road Tank Vehicles	1985
	for Dangerous Goods	
5	Revision of MEPC/Circ. 78	1984

5 Revision of MEPC/Circ. 78 19 "Inclusion of pollutants in the International Maritime Dangerous Goods (IMDG) Code"

 $^{1}$ Until 1986 work on amendments regarding existing substances may be completed.

#### Work Programme of the Sub-Committee on Containers and Cargoes

		Target
		completion
		<u>date</u>
1	Recommendations on the provisions for the carriage of Grain:	le 1986
	1. dispensation from trimming requiremen	ts
	2. standards of trimming	
	3. securing of grain surfaces	
	4. strength of grain fittings	
2	Code of Safe Practice for Solid Bulk Cargo	es.
	including:	2
	1. consideration of requirements for	Continuous
	new cargoes	
	[2. consideration of making certain	1985/1986
	elements of the Code mandatory] $\frac{1}{2}$	
	3. material possessing chemical hazards –	Continuous
	segregation and classification (in	
	co-operation as necessary with the	
	Sub-Committees on Bulk Chemicals	
	and the Carriage of Dangerous	
	Goods)	
	4. development of new criteria against	1986/1987
	shifting of bulk cargoes	[0, 1
4	Safe stowage and securing of cargo,	[Sub-
	cargo units and vehicles	Committee
		to propose
~		datej
Э	Matters related to the Code of Safe	1986
	Deals Cargoon	
	Deck Cargoes	

 $\frac{1}{Subject}$  to the approval of the Committee

#### Work Programme of the Sub-Committee on Fire Protection

		Target
		completion
		date
1	Standards for inert gas systems for chemical tankers and gas carriers when	1984
	carrying flammable liquids other than	
	petroleum products	
2	Guidelines for oil tankers not fitted with	1985
	inert gas systems	

3	Formulation of fire test procedures for:	
	1. flame spread on division linings and	1984
	deck coverings	
	2. ignitability of primary deck coverings	1986
	3. criteria for upholstered furniture and	[1987]
	toxicity of surface finish materials on	
	board ships	
4	Analyses of research results in smoke	Continuous
	control	
5	Guidelines for the design, performance	1986
	and operational procedures for cargo tank	
	venting arrangements	
6	Analyses of fire casualty records	Continuous
7	Fire fighting systems	
	1. portable and fixed halogenated	1986/87
	hydrocarbon units	
	[2. fixed carbon dioxide systems	
	3. fire pumps and fire main $\frac{1}{2}$	

 $\frac{1}{S}$  Subject to the approval of the Committee

# Work Programme of the Sub-Committee on Radiocommunications

Target

		completion
		date
1	Maritime distress system, e.g.:	
	1. development of a global maritime	1988
	distress and safety system	
	2. replies to Questionnaire on casualties	Continuous
2	Operator function – operational main-	1988
	tenance and administrative requirements	
3	Planning of the revision of Chapter IV	1988
	of the 1974 SOLAS Convention <sup>1/</sup>	
4	Promulgation of navigational and meteor-	1987
	ological warnings to shipping (in coopera-	
_	tion with IHO and WMO)	
5	Digital selective calling	1986
6	Operational requirements for future	1986
	EPIRBs	
7	Performance standards for shipborne radio	1987
	equipment	
8	ITU World Administrative Radio Conference	e 1986
9	CCIR Study Group 8 matters	Continuous
10	INMARSAT services	Continuous
11	International Code of Signals	Continuous
12	Exemptions from radio requirements	Continuous

 $\checkmark$  Not to be completed until the new sub-systems of the EGMDSS have been adequately tested.

# Work Programme of the Sub-Committee on Safety of Navigation

		Target completion
		date
1	New and amended routeing systems	Continuous
2	Implementation and interpretation of	1985
	the 1972 Collision Regulations as specified	
	in MSC 48/25, paragraph 12.5	

3	Amendments to the Standard Marine Navigational Vocabulary including	Continuous
4	Amendments to the International Code of Signals (to assist the Sub-Committee	Continuous
~	on Radiocommunications, II necessary)	
С	including those related to the 1979 SAR	
	Conference (except those concerning life-	
	saving appliances and radiocommuni-	
	cations):	
	1. harmonization of aeronautical	Continuous
	and maritime search and rescue	
	procedures (in cooperation with	
	ĪCAO)	
	2. plan for provision of maritime	1986
	search and rescue services	1005
	3. amendments to the MERSAR Manual	1985
	4. amendments to the IMOSAR Manual	1985
6	Ship reporting systems	1984
7	Accuracy requirements for and	1984/85
	harmonization of radionavigation	
0	systems	1095
8	Review of international requirements and	1985
0	Performance standards for pavigational	1986
9	aids and related equipment	1700
10	Navigating bridge visibility	1984
11	International guidelines on bridge	1984
	design and layout (to provide guidance	
	and co-ordination with ISO)	
12	Study of a world-wide satellite navigation	1986
	system	
13	Revision of resolution A.156(ES.IV) on the	e 1985
	carriage of electronic position-fixing	
	equipment	1004
14	Development of standard vessel manoeuvr-	1986
	ing data in cooperation with the Sub-	
	Committee on Ship Design and Equipment	,
	to revise resolution A 209(VII)	
	to revise resolution A.209(VII)	
	Work Programme of the Sub-Comm	nittee
	on Ship Design and Equipmen	t
		Target
		Completion
		date
1	Harmonization of alarm provisions	1988
	associated with machinery and electrical	
	installations in IMO instruments	
2	Manoeuvrability of ships –	
	Review of resolution A.209(VII) as the lea	d 1986
	sub committee in co-operation with the Si	ih-

		Completion
		date
1	Harmonization of alarm provisions	1988
	associated with machinery and electrical	
	installations in IMO instruments	
2	Manoeuvrability of ships –	
	Review of resolution A.209(VII) as the lead	d 1986
	sub-committee in co-operation with the Su	b-
	Committee on Safety of Navigation	
3	Review of the MODU Code	1988
4	Helicopter facilities as they related to	Continuous
	respective responsibilities under the	
	IMO/ICAO Agreement	
5	Operating mechanisms for watertight doors	s [ ]

Operating mechanisms for watertight doors and operating procedures in service



Information: General Management, Town Hall, B-2000 Antwerp – Phone 03/231.16.90 – Telex: 31.807

## **Open forum:**

# Development of A Universal Port in the Industrialized Urban Area of Hamburg

By Joerg Rommerskirchen Head, Office for Port, Shipping and Transport City of Hamburg



(Paper presented to the World Port Development Conference and Exhibition, May 2-4, 1984, Rai-Amsterdam)

#### **Development Conditions**

#### Hamburg's Geographical and Economic Situation

Subject of my presentation are basic development conditions as well as specific port policy for the development of the infrastructure in Hamburg according to these specific circumstances.

In the northeast of the Federal Republic, Hamburg runs the largest port in this territory. It handles on an average 18% or 40 million tonnes of the Federal Republic's seaborne trade and about 20 million tonnes of transit cargo for other countries.

Although Hamburg lacks the correspondingly large industrial hinterland of its competitors, it handles such reasonable proportion of the Federal Republic's and its neighbours' seaborne trade today. One reason why the Hanseatic City has regained its former position in spite of adverse circumstances was its early and conscious policy of assuming a wide range of what one might call bridge functions. A bridge is a part of the infrastructure which is only meaningful if all other parts function at full capacity with the same purpose in mind. Therefore port planning in Hamburg has always been and still is planning for the port in the narrower sense as well as for the infrastructure in the hinterland, and for the establishment and maintenance of a business climate which promotes the exchange of ideas and goods in and through this city.

#### The Economic Importance of the Port in the Region

Hamburg and its surroundings are a highly industrialized urban area where today live almost 3 million people. The basic unit for the development of this area was the port, which still makes an essential contribution to economic life today. There are about 915,000 workplaces in the Hanseatic City. More than 100,000 – directly or indirectly – are dependent on the port. These workplaces are not only connected with cargo handling but also with the enormous storage business of the emporium Hamburg. A major part of this attraction results from its free port facilities. Further workplaces are provided by trade and services connected with the port.



#### Traffic Carriers in the Hinterland

About 40% of the goods handled in the port are transported by railway. Because of rail transport Hamburg's hinterland extends over a far larger area of the federal territory than would be possible if reliance were placed solely on other traffic carriers. Therefore the railway means for Hamburg's connection with its hinterland what the Rhine means for Rotterdam. At the moment steps are being taken to extend the rail capacity in Hamburg as well as on the routes to Hamburg. This will ensure the city's present and future competitiveness.

#### Institutional Framework of Port Policy

Hamburg is conditioned by the federal structure of West Germany and its membership of the European Community. Therefore Hamburg is not autonomous in the shaping of its port policy. Important conditions are made by other planning bodies on whose decisions the Hanseatic City has only a small or even no influence.

The EEC legislates on traffic crossing frontiers. Its principal consideration is to concentrate on the integration of the member states. The problems of competition which could arise as a result of their policy with reference to traffic to and from seaports appear to be of secondary importance for the European Economic Community.

The political structure of the Federal Republic with its system of vertical division of responsibilities between the federation, the "Länder" (that means the federal states) and the local authorities means that Hamburg has too little influence on supraregional traffic policy and its own connection to the federal wide network of traffic infrastructure.

Competition with other ports within the so-called

Hamburg-Antwerp Range, its geographical situation on the periphery of the European Economic community and the Federal Republic and its special position as a link between the EEC and Comecon are further cogent factors which influence Hamburg's scope for decision and organization in port planning.

But Hamburg's special situation does not only entail risks but also opportunities which it should make use of within the given framework.

Under our system the traffic infrastructure planning for the port of Hamburg is subject to a number of authorities. Nevertheless much of decisive importance has been done in the last few years to improve supraregional traffic connections. In the sector of rail traffic the federal railway routes have been electrified and the marshalling yard in Maschen – one of the biggest in Europe – has been completed. The building of the new "Autobahnen" (motorways), today reaching from Scandinavia to Portugal, Spain and Italy, has considerably improved our road connections. In 1976 the Elbe Lateral Canal provided access for all inland shipping to West Germany's inland waterway network. The deepening of the Lower Elbe to 13.5 metres below mean low water level permits vessels with more than 100,000 tons deadweight to call at Hamburg fully loaded.

Three main points must be stressed with reference to the future improvement of the port's infrastructure in general, namely road traffic, the extension of the port railway stations and the deepening and maintenance of the port.

#### Port Development by the Hanseatic City

If you take note of the special features of Hamburg port policy, it appears at first sight to be rather strange that, even in cases where it could have intervened, it waived its right of sole jurisdiction and competence. Actually there is neither a Port of Hamburg joint stock company, nor a Port Authority or similar all powerful organization responsible for the port economy as may be found in many other places. Viewed as a whole, Hamburg in its recent history has done quite well in that the Senate and the Bürgerschaft (that means the state and local parliament) of our city have laid down the political directives. They lease the port properties and provide the requisite infrastructure. The private companies compete with each other almost certainly to the advantage of the port customers. So their efforts prove the state's offer by suprastructure investments of their own to such a degree that these customers are offered comprehensive or "universal" facilities.

Hamburg is the owner of all land in the port. Within the framework of the separate but jointly agreed spheres of responsibility, the city places the sites and quay walls as infrastructural measures. It leases them for a period based on the economic life of the buildings. Furthermore it ensures a suitable connection with the supraregional traffic network, and efficient internal traffic infrastructure. This is an essential factor in the long-term safeguarding of the port's competitiveness.

The port economy in Hamburg is made up of a large number of independent companies which bear their own financial risks in full. In competition with other enterprises inside and outside the port, they alone are responsible for running their business, what investments they have to carry out for equipment, storage facilities and buildings. This is done by the individual assessment of the relevant risks and opportunities on the market. The Hanseatic City can and will not influence business decisions.

This division of responsibility between state and private enterprises in the port, which has now been practised since the end of the 60s, has paid off in my opinion, for financial co-responsibility triggers off motivation. Motivation and personal commitment are the positive reasons why we can speak of the Port of Hamburg as a single unit in spite of my earlier remarks.

This system we call "Neue Hafenordnung" (new port system),

- guarantees a high degree of compliance with the wishes of a diversified clientele,
- encourages the creativity and innovative power of all because it gives a chance of success to those who are prepared to take a business risk and
- leads, because of their financial responsibility, to a market orientation.

# Communication as Instrument of a Market Orientated Port Development

This system based on the principles of social market economy requires a high degree of communication between shipping agents, terminal operators, employees, the city and the Federal government. The problems which can arise in this target finding process and ways of solving them will be the subject of expert discussions at the IAPH Conference and the Portex Trade Fair both in Hamburg in May 1985. Today I would like to invite you to both these conferences.

#### Development of the Port Infrastructure in an Industrialized Urban Area

#### Tasks to be fulfilled by the City for the Future

Provision and development of the port comprise in the main infrastructure measures which need long periods for planning and implementation. There the following must be considered:

- traffic policy conditions,
- provision for integration into the superior traffic infrastructure,
- creation of high capacity traffic junctions with the superior traffic infrastructure,
- requirements of an adequate port traffic network,
- provision of land area for the extension of the port, and
- requirement of continuous modernization in the existing port.

#### Planning in a State of Uncertainty

The measures for extending and modernizing the port must be planned in such a way that sites can later be used for alternative purposes.

The state has to take a long-term view and must be prepared to bear the financial risk for the provision of sites and traffic infrastructure on the scale likely to be used by private companies. But periods of planning for the future diverge widely in the case of the state and private firms. The task of the port policy is to detect at an early stage the long-term development trends and to adapt the infrastructure of the port to these trends. This is the main task of Hamburg's port policy.

The private enterprises plan under relatively short-term aspects; their considerations are guided mainly by business, i.e. profit oriented motives. Hamburg, on the other hand, has to bear in mind the interests of its economy as a whole.

#### Planning: Preparation and Co-ordination

#### In the Hanseatic City

Planning for the future, that means having in advance an idea of the requirements of those concerned, is a problem of information. The city must regularly work out models for the port based on its own ideas and those of the port economy of possible developments in the port as well as in seaborne traffic and in the hinterland. This coordination and model building process passes through a number of informal contacts before it reaches the final discussion stage between the Department of Economic Affairs and the economy. After a planning proposal has been drawn up by the Administration and discussed with all those concerned, it is frequently approved by a resolution of the city parliament.

#### With other local Authorities

With reference to the traffic infrastructure, the co-ordination of the plans must be effected jointly by the city, the Federal Government and the neighbouring federal states as already mentioned. One part of a plan must be fitted into another plan so that a practical coordinated whole emerges for all different traffic carriers.

#### Development Planning with a Shortage of Sites

#### **Problems of Competition in Site Utilization**

Hamburg is a city state which lacks the reserves of Land area and sites. Its port lies in the heart of the city, that means in the middle of the urban area. This certainly has advantages; the distances are shorter and port contacts can be more intensively pursued. The disadvantage — and this affects planning for site provision in particular — is the competition for the use of these sites conditioned by this lack of space.

Port sites cannot be created ad lib but must be laid out on a topographically suitable spot. This means that the port cannot evade claims for use which has already been realized for other purposes. This leads to conflicts. Actually the claims of housing, leisure and nature must be constantly weighed against those of port, industry and business.

#### **Restructuring in the Existing Port Area**

Therefore port development in Hamburg can obviously never be solely a matter of planning new installations "in the open countryside". It must always entail planning for an efficient utilization of existing port sites. Old installations must be modernized and adapted to new requirements (for example from the shed operation to terminal conception), and where this does not suffice and new installations are urgently required (for instance container traffic), new sites must be made available.

In the past, Hamburg has carried out a development programme in the existing port area by creating modern special— and multi-purpose terminals for port operations. Care was taken that the seaward-side and the shore-side cargo handling capacity of the individual terminals were so co-ordinated that no bottle-neck could occur. These modernization measures ensure the maximum economic efficiency of both infrastructure and suprastructure.

#### Provision of Sites for Necessary Expansion Measures

In order to ensure that all sites located in a new port

area can be made available for the purpose intended, sometimes it is necessary to make use of the instrument of expropriation with compensation at the market rate. This procedure is conducted on a legal basis. In order that sites in the port area are used only for port purposes, Hamburg secures its ownership of all these sites and only leases them to firms operating in the port.

The securing of sites is thus a very wearisome process, which in consideration of those affected can only be conducted with the long-term view in mind. Provision means that a certain proportion of available sites is essential for responsible planning and development of a pulsating and expanding port. In the recent past Hamburg has again secured new sites for its port. The old reserves have been reduced to such an extent that the feasibility of port policy could be endangered in future.

Port development cannot be geared only to the requirements of the region in which the port lies, which has to provide necessary sites. Port planning must take into account competition with other ports and thus take note of the demands of the customers it is trying to attract. Here the problem arises again that port planning is not autonomous but reacting planning.

With our unusual system of partnership and co-operation on the one hand but a separation of responsibilities on the other hand, we in Hamburg think that we found out the right way to strengthen the competitiveness of our port and to make the best use of our too few sites available. You can check this for yourselves at the IAPH Conference in May 1985.

Auf Wiedersehen in Hamburg!



# **Congestion in the Port of Aden** An Approach to identify the Elements of the **Problem and to devise Remedial Measures**

#### By Zubair A.A. Idd **Director General** Yemen Ports Authority

#### Introduction

It is generally accepted that ports, irrespective of their size, configuration, efficiency and level of sophistication are vital links in the transportation chain of a country and they invariably exert a profound impact on the country's economy, since they materially determine the extent to which the country can progress in foreign trade. This is very true in the case of People's Democratic Republic of Yemen, a third World Country.

In developing ports, congestion has always been a phenomenon and the Port of Aden, which is a post colonial developing port is no exception to it. As port congestion is a source of financial and economic impact, it must, indeed, be viewed seriously and all out efforts should be made to lessen the effect and to initiate radical measures for eliminating as far as possible this recurring source of waste.

In order to identify and appreciate the elements of the congestion problem in the Port of Aden, it is essential to have a cursory glance at the Aden Port vis-a-vis the location, commercial importance, type of cargo handled, trend of cargo traffic, available port facilities and the existing technical and human resources.

#### The Port

The Port of Aden is one of the principal bunkering ports in the world and the most important in the Middle-East area. The location, at the Southern end of the Red Sea and off the North-eastern corner of Africa, makes it a most convenient port of call for traffic passing through the Suez Canal and for shipping serving the ports in the Arabian Gulf. The Harbour is naturally protected by land from the West round to the South-West by a breakwater of stone construction. The existence of the refinery at Little Aden enables the Port to provide bunker fuels at competitive prices.

The Port consists of two separate areas - the Inner Harbour, in which bunkering operations take place, and the Home Trade Quay area, where the general cargo is handled. In the Inner Harbour, in addition to bunkering, general cargo is loaded to and from lighters.

#### Berths

The inner harbour has 13 number berths for carrying out bunkering operations. Facilities, however, are available for vessels taking bunkers simultaneously to load and discharge general cargo from and to lighters. Besides 14 number cargo berths are available in the inner harbour for cargo working only.

Vessels drawing less than 18 feet of water may berth alongside the Home Trade Quay, which is 800 feet long. The length of vessels berthing at this quay is restricted to a maximum of 350 feet owing to the size of the turning circle area.

To the east of the Home Trade Quay are the Import-Export Quay and the Dhow Quay, which are 2,000 feet and 550 feet long respectively from where general cargo is loaded/off-loaded from the lighters and dhows. To the west and south of Home Trade Quay is the Lighter Basin with two Quays 600 feet and 400 feet long, which serve the Free-Zone. Several small quays in Tawahi and Hedjuff are used for working lighters, when the facilities at the Home Trade Quay are too congested.

It will thus be seen that Aden has remained primarily as a lighterage port with alongside facilities possible for a limited number of vessels only. Lighters are being employed for 80% of the cargo handled in the port.

#### Storage Area

The covered storage space available consists of 180,000 sq. ft. of sheds on the Import-Export Quay, 50,000 sq. ft. on the Home Trade Quay, 100,000 sq. ft. on the lighter quay and open sided sheds on the Dhow Quay having a total floor area of 20,000 sq. ft.

The total area available for open storage is approximately 1,200,000 sq. ft. and consists of 500,000 sq. ft. behind the Import-Export Quay, 420,000 sq. ft. behind the Home Trade Quay and 280,000 sq. ft. in the Lighter wharf area. A small proportion of the open area is hard surfaced.

#### **Cargo Handling Methods**

Methods of loading/unloading ships and lighters in the Port of Aden are as follows:

- Ships' Derricks
- Ships' Cranes
- Quayside Cranes
- Floating Cranes
- Manual Labourers (Lighters)

Unloading/loading can be to/from lighters, the quay side, road transport or another ship. Equipment such as mobile cranes, forklift trucks and tractor-trailer units are available for handling to and from warehouses.

#### **Cargo Types**

The cargo being handled in the Port of Aden comprises the following categories.

- Small Carbons
- Loose Cargo (eg. Timber, etc.) Crates, Cases and Large Cartons Bulk Cargo (eg. Grain, etc.)
- **Bags and Sacks**
- Pallets
- Bales
- Paper Reels
- Drums and Barrels
- Metal ingots and Sheets
- Bars and Tubes
- Awkward Shapes

- Strapped Timber

- Containers

- Live Stock

- Heavy Lift

- Vehicles

- Refrigerated Goods

#### Stevedoring

The stevedoring activities covering all work associated with loading and unloading on board ships and on lighters moored alongside ships are under the control of the port authority and as such no private company or agency is in this field.

#### **Quay Working**

Cargo handling on the quays in Aden falls under three Categories of Loading/Unloading namely:

- Direct to/from ship on the Home Trade Quay
- Direct to/from dhows on the Dhow Quay
- To/from Lighters to Quays at Maalla

The last category accounts for over 80% of the cargo handled in the port at present.

#### Warehouse Working

The storing of cargo in warehouses is carried out by the quay workers. Labour for removing goods from warehouses is provided by the consignee if the goods are destined for the private sector. The removal of goods to the customs warehouses and of goods for the Public Sector is carried out by labour supplied by the Port Authority.

#### Lighterage

As mentioned earlier lighters are used for the majority of the cargo handled in the port. A fleet of about 100 lighters ranging in rated capacity from 50 to 400 tons with the associated tugs and launches is available with the Port Authority for handling cargo from and to the ships.

#### **Cargo Traffic**

Ocean going vessels have entered the Port of Aden in the past for three main types of trade. These trades in order of importance are:

- Oil Bunkering
- Dry Cargo Unloading or Loading
- Oil Cargo Unloading or Loading

There is a degree of interaction between these trades, for instance, the tonnage of bunkers supplied affects the demand for oil products and therefore the number of oil tankers. Some other trades at the Port of Aden have developed largely as a result of the three main trades. Most notable of these are:

- Transit/Entrepot Goods Trades
- Chandling and Ship Provisioning Trades
- Ship Repairing Trade
- Passenger/Crew Shipping Trade

These secondary trades became established as a result of vessels calling on primary trades and their demand for services. The establishment of such services became in turn, an added attraction of Aden as a port.

The present level of commodity trade in Aden Port is largely dependent upon the economic activities within the country itself. The past fourteen years, since advent of Independence have seen many changes in both the internal situation in the P.D.R.Y. and the external environment in which P.D.R.Y. exists. These internal and external events have had major repercussions on the external trade of P.D.R.Y. and on the activity in the Port of Aden.

The tonnages handled prior to the closure of Suez Canal in 1967 were about one million tons per annum. The closure of the Canal caused a severe drop in the number of vessels on West/East Trades Routes calling at Aden, since these vessels switched to Cape or Panama Routes.

Many of these vessels which called primarily to collect cheap bunker fuels also unloaded cargoes both for internal consumption in Aden and for transshipment to neighbouring ports. This transshipment trade suffered to a large extent with the closure of the Suez Canal.

During the period 1967–1970, dry cargo handled was about 650,000 tons per annum. The effect of the laws passed in 1969–1970 ending the "Free Port" status of Aden was to cease the entrepot trade. This caused a drop in imports from 480,000 tons in 1970 to 299,000 tons in 1971.

The period 1971 to the present has seen dry cargoes handled in Aden at about 700,000 tons per annum. Almost the whole of this trade is the external trade of P.D.R.Y. since the entrepot/transshipment trade is extremely small.

Considering the various factors affecting the future level of commodity trade, it is estimated that by 1985 the Port of Aden will be handling about one million tons of dry cargo per annum.

Containerised cargoes will become increasingly common in the next few years and Aden can expect a growing number of container boxes as this becomes the standard packing in industrialised countries. However, the lack of alongside berthing is a major deterrent to the shipment of cargoes to Aden in containers, and until such time as alongside berths for ocean-going vessels are made available, containerised cargoes are likely to be limited to odd box on conventional general cargo vessels.

#### **Cargo Handling Equipments**

Prior to 1978 the rolling equipment for cargo handling in the Port of Aden was largely of vintage type and inefficient. Most of it was phased out and replaced by new and modern equipment under Aden Rehabilitation Project during 1978–1979. The Port's own financial resources have been utilized to further their strength and a number of mobile cranes have been acquired and inducted into the service of Aden Port very recently. Besides a large number of cargo pontoons, tugs and launches were delivered and commissioned in the Port during December 1981. The present strength of the fleet of equipment both on land and at sea comprises the following:

	Mobile Cranes 7 Tons	3 Nos
_	Mobile Cranes 10 Tons	3 Nos
	Mobile Cranes 14 Tons	18 Nos
_	Mobile Cranes 18 Tons	2 Nos
_	Truck Mounted Crane 14 Tons	1 No
	Truck Mounted Crane 20 Tons	1 No
	Fast Mobile Crane 10 Tons	1 No
	Fork Lift Truck 3 Tons	1 No
	Fork Lift Truck 10 Tons	14 Nos
	Tractor-Trailer Unit 12 Tons	3 Nos
_	Bulk Grain Unloader	2 Nos
	Belt Conveyor	1 No
	Lighters (50 to 400 Tons)	35 Nos
	Lighter Tugs	6 Nos
	Crew Launch	6 Nos
	Floating Crane 30 Tons	1 No

For handling containers and general cargo four forklifts of 28 tons capacity with lifting attachments, two terminal tractors and four trailers have been ordered and the delivery of this equipment will materialise during February, 1982.

#### Maintenance Infrastructure for Cargo Handling Equipment

The maintenance of lighters and associated floating craft is being carried out by the workshop at Hedjuff which functions as an independent unit. Rolling equipment maintenance is being carried out by the small shore workshop at Maalla Wharf. This maintenance unit is placed under the administrative control of Wharf Manager although the Chief Engineer of the Port Authority renders technical advice to this unit from time to time. The garage for parking the rolling equipment forms an integral part of this workshop.

#### Organization of the Wharf Department

This department functions under the control of Wharf Manager and is divided into two sections.

- "Indoor" dealing with accounts, dues and manifests
- "Outdoor" dealing with cargo traffic

The work of the "Outdoor" section is basically limited to inspection duties and associated paperwork in so far as the handling of cargo is concerned. Inspectors are stationed at the main gate check point and at various zones in Maalla Wharf. Warehouse Inspectors supervise the receipt and release of cargo. The outdoor section is also responsible for wharf cleaning and managing the passenger launch service commenced recently.

The "Indoor" section is concerned with all documentation relating to the release of goods and payment of dues and hence it is involved in checking every item on import and export manifest against the manifest copies of the pass note prepared by the agent and arranging for clearance documentation, to be used in conjunction with customs release procedure. Dues payable are calculated and documented and include charges for wharfage, rent, demurrage, berthing, cranage, warehousing, etc..

#### Organization of the Cargo Operation Department

This department is responsible for cargo landed at Aden, up to the point where it is delivered to the warehouses and is concerned with all stevedoring, landing, delivery to the sheds, inspection, tallying and security.

Stevedoring is the responsibility of the assistant operations manager, who is supported by Superintendents, Foremen, Inspectors, Tally Clerks etc.. The stevedoring and quay working are carried out by workers drawn from the labour pool.

The Wharf department as well as the Operations department function under the administrative control of the Port Authority.

#### Development in the Port of Aden

The following developments are in progress:

- Construction of four number deep water alongside berths and one Ro-Ro berth. The total length of alongside berths would be 750m with a dredged depth of 12m. The Ro-Ro berth will have 150m length and a dredged depth of 6.5m.
- Development of a container park area, construction of additional transit sheds and asphalting other open areas.
- Positioning of a grain unloader, silos, container crane, 6 ton capacity quayside cranes, etc. on the proposed new berths.

The above-mentioned work has reached planning and design stage and commissioning of them is expected to take place in the year 1984.

#### Congestion in the Port of Aden

A close study of the evolution of congestion indicates that it is by and large seasonal and occurs both on sea and on land. The former is generally caused by delays in unloading vessels resulting in their accumulation at Outer Harbour, while the latter is caused by overfilling of all storage facilities on land and the resulting mix-up of individual consignments. Of these the congestion on land is predominant. This kind of congestion is not directly caused by insufficient pace of unloading vessels, although an excessive volume of traffic is the basic source of both. It is quite possible, indeed, to process and evacuate from the wharf area the full quantity of cargo unloaded from ships and thus avoid overcrowding of available storage facilities with all its undesirable consequences.

Unfortunately it seldom happens, if ever, due partly to the usual shortage of space and mainly to administrative and procedural delays.

Overfilling of storage space on land has a backfiring effect in as much as all cargo handling operations are hampered and slowed by the difficulty of depositing goods upon their discharge from vessels and lighters. In a kind of vicious circle, congestion on land aggrevates congestion on sea.

#### Primary Causes of Congestion in Aden Port

These can conveniently be categorized as caused of an economic, technical and administrative nature.

#### **Economic Factors**

The economic factors have contributed significantly in causing the port congestion. The desire for speedy economic progress has led to massive purchase of industrial and other equipment, in addition to consumer goods, grain, cement etc. without realising the limitations of the existing capacity of the port and inland transportation.

This is further aggravated by the fact that various Government Department responsible for importing and distributing most of the consumer goods to the public plan the import of items almost simultaneously, resulting in the arrival of goods at the port over a specific short span of the year. Further detailed discussion on this topic is beyond the scope of this paper.

#### **Technical Inadequacy**

It is evident that the Port of Aden has an insufficient number of general cargo berths. Also specialized terminals for container and Ro-Ro vessels are absent. Inadequate storage space in transit sheds contributes to an early beginning of congestion on land. Insufficient number of cargo handling equipment, particularly the number of fork lifts available for actual operation, is another limiting factor of technical nature which results in a slow rate of unloading cargo and an apparent longer stay of vessel in the berth. Although shortage of physical means of evacuation of cargo from the port and inadequacy of access roads are the other causes for the congestion, even if imported cargo is cleared efficiently and promptly, these aspects are beyond the jurisdiction and control of the Port Authority.

#### Administrative and Performance Deficiencies

It is difficult to over-emphasize the extent to which these deficiencies have contributed to congestion. Their combined effect involves the holding of most cargoes at the water front area, much longer than is necessary and compatible with the efficient use of existing port facilities. Procedural delays in complying with various regulations such as customs clearance, import licences, etc. add to the congestion problem. Slow delivery procedures and allowing transit sheds and open storage yards in the immediate vicinity of the waterfront to be used for medium and long term storage cause overfilling of water front. Delivery and clearance formalities become slower and difficult due to the mixing-up of consignments.

Lack of proper training and inadequate supervision of port workmen are the other major causes for low productivity. Poor maintenance of rolling equipment is one of the weakest points of cargo handling operations.

Lack of co-ordination between various Government Agencies in respect of working hours is another delaying factor of an administrative nature.

An ineffective feedback system in appraising the concerned authorities of the correct day to day position of cargo movements appears to have caused delay in appreciating the situation and initiating prompt corrective action for improvement.

#### **Remedial Measures**

The shortage of basic port facilities is obviously the fundamental cause of the present congestion. But this cannot be remedied in a rush as major port extension works are long term measures and they take years for completion. It should, however, be appreciated that the Port Authority did not stay inactive in this respect. As explained earlier, the port development activities that are in progress include the construction of additional general cargo alongside berths and new alongside berths for container and Ro-Ro vessels. These berths will have necessary quayside cranes and container cranes with adequate covered and open storage spaces. These measures will certainly go a long way in combating congestion to a large extent.

The capacity of a port is generally a very flexible conception. However too much depends on local, national and infrastructural facilities as well as on the kind of incoming and outgoing commodities.

Also, seasonal fluctuations of the usual traffic, organization of the port operations and last but not least, labour regulations reflect significantly on the capacity of the port. It should also be borne in mind that the efficiency of the port and its overall capacity depend not so much on its size and the number of available berths as on the proper kind and layout of facilities on land and on the quality of all auxiliary installations. Intensive use of available quays and of the entire waterfront could also enhance the capacity of the port.

A considerable improvement in the performance of the port is therefore possible by suitably re-organizing the port operations and applying most radical corrective measures, but in no case could it be expected to handle, without appreciable congestion, a volume of imports much larger than its average capacity. Such of these measures envisaged to improve the efficiency of the Port of Aden could be as follows:

#### Stevedoring

In the Port of Aden, stevedoring includes all work associated with loading and unloading on board ship and on lighters moored alongside. For deriving profit, the labour and equipment must handles maximum number of tons in a minimum of time, at the same time assuring an optimum quality and efficiency of service. It is an equation where speed and service must be maximized.

Experience shows that in Aden Port the productivity levels are affected by the following shortcomings:

- The standard of supervision is low in technical skill, the application of discipline and allocation of work.
- Some members of stevedoring gangs, including winchmen, hatchmen and manual workers, lack experience and training.
- The Labour Pool is too big to allow experience to be gained and formal training to be introduced.

The most urgent need in stevedoring is an improvement in the standards of supervision in technical skill, application of discipline and allocation of work. Suitably qualified persons should therefore be positioned and those must be capable of training their eventual replacements.

A reduced labour pool will result in the members gaining more experience and this should bring about an improvement in the standard of stevedoring. Coupled with improved supervision, it will enable effective training to be introduced, which should result in an improved standard of winchmen and hatchmen. The labour gang size should be adjusted to suit the cargo handled and the transfer of men from one hatch to another during a shift should be standard practice. As labourers belonging to a pool are less motivated than their counterparts working elsewhere under contract, work standards must be set and financial incentives introduced for handling more tons of cargo per ton than foreseen in predetermined norms.

#### **Quay Working**

Quay congestion in Aden is due to the lack of handling equipment to take cargo to the areas available away from the quay, the cargo being left in the sheds for period in excess of the normal permitted maximum time, thus preventing the sheds from being used for their correct purpose of short term storage in transit between consignor and consignee. Above all, there is inadequate supervision.

The rate of working on the quays high at present due to the task system of work, and re-organization is unlikely to bring about any significant improvement. However the methods of working need much to be desired. Augmenting the strength of forklift trucks could reduce labour requirement significantly. In this context it is worth mentioning that the port authorities have already taken steps to acquire four container forklifts, two terminal tractors and four semi-trailers.

Also five more forklifts of 3 tons capacity are on order, although this number is rather small compared to the overall actual requirements.

#### Warehousing and Storage

It is observed that the tendency is to stack goods only to a limited height, thus under-utilizing much of the available storage space. Where only one commodity is stored in a shed, storage is neat and floor space is utilized to the maximum. This type of storage results from the receipt of large consignments, normally a shipload, and the port warehouses are being used for long term storage. Port regulations stipulate a maximum dwell time of 7 days, after which goods are removed to the customs warehouses at the consignee's expense. This regulation is not applied to Government Departments, and as these account for over 90% of imports, the port is required to operate in a manner for which it was not designed.

The Port serves essentially as a link in the transportation chain between the supplier and the consumer. Therefore the storage facilities provided by the port should be sufficient only to allow the port user to make arrangements for the collection of goods in the case of imports or for cargo to be assembled in the case of exports. If longer-term storage is required this should be provided by the consignee or alternatively by the port as a separate service. Quayside sheds should be used only for short term storage. If the port wishes to provide longer-term storage warehouses built specifically for that purpose should be erected remote from the quay.

Large consignments should not be stored in transit sheds where mixed cargo has been received and particularly the goods to be loaded directly to transport at the quayside and delivered to the long-term warehouse.

As a result of some quayside sheds being used for long term storage, the remaining sheds are required to cope with larger quantities than is desirable. It is noticeable that in sheds were mixed cargo has been received and particularly where consignments have been sorted into shipping marks, the layout is poor. This appears to be a direct result of space shortage caused by the misuse of quayside sheds.

#### **Cargo Handling Equipment**

The major cargo handling equipment is limited to semi portal cranes, mobile cranes and forklifts at Maalla and the 30 ton floating crane. The lack of equipment and heavy dependence on manual handling has a serious effect on the utilization of facilities at the Maalla wharf. As mentioned earlier the cargo handling operation would be greatly improved by augmenting the strength of forklifts and tractors with trailer units.

In order to gain maximum benefit from the forklift trucks, it would be necessary to purchase an initial supply of about 5,000 pallets. This would allow suitable cargo such as loose cartons to be palletised either on board the ship or on the quayside. The cargo would then be handled in palletized form until delivered from the warehouse.

For improving the handling efficiency of bags and sacks full use should be made of the portable conveyors. For transfer of cargo over distances which are too long, tractors and semi trailers should be put to use. With proper scheduling the tractor will on each stop exchange an empty trailer for a loaded one or vice versa. This type of operation requires competent supervision as the scheduling depends on the times required for loading, transporting and unloading.

The semi portal cranes on the home trade quay are in a poor state of maintenance and have a limited residual life. A programme is to be drawn to replace them with technically improved quayside cranes of 6 tons capacity. Also the electric forklifts meant to work in sheds and ships holds are not being utilized now. Every effort is to be made to render them operational. Surfacing work at Maalla should be completed expeditiously in order to derive full benefit of the mechanical handling equipment.

A low maintenance level of cargo handling equipment at Maalla has resulted in under-utilization of this equipment. A practical programme of periodic maintenance is to be drawn and adhered to firmly, so as to reduce the frequency of breakdown in the equipment. An adequate stock of maintenance and repair space parts are to be held in the Maalla stores. At present a large number of 10-ton forklifts are rendered non-operational for want of spare parts. This has an adverse effect on the productivity in cargo handling.

Periodical inspection, greasing and servicing of the mechanical equipment is totally neglected for want of infrastructure such as a service station. Prolonged use of equipment without paying attention to these factors is liable to reduce the operational life of machines considerably.

Another major factor which affects the serviceability of mechanical handling equipment is the handling of the machines by operators who have very little or no knowledge at all of the correct and safe operating procedures and the adverse effects suffered by the machines due to improper handling. Such of these operators must be put through a systematic practical training course of operation and they should thereafter be tested for adequate knowledge of the correct and safe operation of the equipment.

#### Training

From the foregoing analysis of problems and remedial measures suggested, one could readily draw the inference that the most serious problems facing the Port of Aden are the lack of training, experience and skill of personnel. This is true of most functions involved in port operations and the result is that the port is heavily dependent on a small number of individuals. These key members tend to be overworked and there is a danger that increased activity could result in a hazard to their health. As they are over-worked, these key personnel are unable to devote any time to the training of their subordinates and there is little likelyhood of the situation improving unless suitable alternatives measures are initiated to bridge the gap.

The port transport industry has to keep pace with changes and developments both at national and international levels. Productivity improvements can only be achieved by increasing the use of machine power. And in port transport, like elsewhere, the trend to adopt advanced systems involves inherent problems. Workers at all levels of the port transport industry must be able to go on meeting the changing requirements of tomorrow's technology. In doing so they establish themselves professionally as expertly trained men blending skills, insight and experience in handling cargo safely and economically. The complexity of change in technology and further sophistication of management tools necessitate systematic and specialized training for the port personnel, particularly since learning only from experience often means the perpetuation of old techniques and ideas.

A review of the past training activities in the Port of Aden reveals that general training remained non-systematic and ad-hoc, as was the case with many organizations in the post-colonial Third world countries. Such training activities were never based on formally identified training needs and hence whatever training was offered was basically unplanned. With the obvious absence of any form of evaluation, it was not possible to assess the impact of training in the day-to-day operations of the organization. An integrated approach to training with a suitable form of evaluation is an urgent need, and the approach should be based on the following objectives:

#### (Continued on next page bottom)

#### **Port Releases:**

# MARAD '82 — Port and Intermodal Development —

#### (Extracts from "The Annual Report of the Maritime Administration for Fiscal Year 1982, U.S. Department of Transportation")

During fiscal year 1982, the Maritime Administration (MARAD) produced its first annual assessment of the status of the U.S. public port industry. The Agency also provided research and technical planning assistance to State and local port authorities and private industry.

In the intermodal area, MARAD continued its cooperative efforts with port agencies' terminals to demonstrate and implement a prototype container terminal control system. It also identified trends in intermodal minibridge operations and produced an updated inventory of American intermodal equipment.

#### (Continued from page 22)

- To inculcate in every worker the idea that the port is meaningful to him, he must not only know what he is doing, but must be aware of the purpose of his work.
- To encourage a greater sense of responsibility.
- To meet a situation when mechanization and automation create new problems and demand new ways of acting and thinking.
- To promote team spirit and teamwork that are an happen due to lack of interest.
- To promote team spirit and team work that are an essential part of work.

In solving the Aden Port's training problem following elements are to be considered.

- A large number of persons falling under various more categories need training.
- In certain cases "on the job training" may be more effective than formal training.
- Due to attendance at outside courses, individuals can be away from their work for relatively long periods, a situation which may reduce the practical value of such courses and in present circumstances may put additional strain on other staff.

Very few formal training courses can be precisely trailored to the needs of individuals.

The problem of training in the Port of Aden is to be viewed from an entirely different angle owing to its nature and complexity. It requires an in depth study for analyzing the training needs, development of training programmes, preparation of training material, implementation of the training programme and evaluation of each training course. These specialized tasks are obviously beyond the capacity of the port administration, and therefore external assistance will be essential to accomplish these tasks. In this regard it is strongly advocated that competent authorities such as

#### **Annual Report on Ports**

Under Section 2, Public Law 96 - 371, enacted October 3, 1980, the Secretary of Transportation is required to submit an annual report to the Congress on the condition of public ports of the United States. The first report was issued in September 1982 and identified problems which confront ocean, Great Lakes, and inland waterway ports in adjusting to technological, economic, financial, environmental, and legislative changes.

#### Port and Waterway Development

During the fiscal year, MARAD supported efforts to reduce constraints on dredging and recover the costs of dredging and maintaining our Nation's navigable channels. The Agency also participated in Government-industry

ILO and UNCTAD may be approached for their expert advice and assistance, since they have been rendering valuable service in the field of maritime training, particularly in developing countries.

#### Conclusion

In conclusion, it can be assumed that the ideal port is one that offers all the services one could desire. An ideal can seldom be achieved and the service offered by a port will always be hampered by some contingency. But, though an ideal is not attainable, one can nevertheless strive after it.

In bringing the congestion problem under control the port industry of Aden has a big task ahead of it, and to carry out this task, the port is hampered by the imbalance of traffic with which it has to deal, by the need to make extensive investments in a limited period, at the very time when the cost of such investments is soaring and when in many cases there is a shortage of the additional trained staff needed for the expansion.

As mentioned earlier, by maintaining flexibility, the port should be able to take advantage of improvements in technology and methods and to adapt more readily to new procedures. The plan and layout of the facilities segmented should be flexible with an eye to future developments and the choice of new equipment should assure the greatest flexibility of operations.

The next and most important aspect is "Training". It is a fact that money spent on training will be wisely invested. Training must be thorough and continuous and must be given to the entire workforce so that everyone understands the nature and objectives of the port operations as well as their individual role and the relationship of their role to the total operation. efforts to increase U.S. coal exports and contributed to projects and studies designed to assess existing and potential U.S. port capabilities.

#### **Technical Port Assistance**

MARAD provided technical assistance through a number of programs and projects dedicated to improved port planning and operations. This involved the development of several analytical research tools and techniques for improving planning, productivity, and the general efficiency of port management and terminal operations.

The Agency initiated a program to provide port marketing assistance to U.S. ports. The program includes data and analytical tools developed through research efforts and special projects with broad industry applications. Individual ports can use such tools to formulate or enhance their own marketing strategies.

MARAD produced a pricing formula providing U.S. ports with a guide for establishing "reasonably compensatory" tariff rates for using public marine terminal facilities. The formula is designed to determine benchmark prices for the use of piers, wharves, docks, and cranes, and the leasing of terminal facilities.

During FY 1982, a MARAD team surveyed the St. Louis Metropolitan Port at the invitation of the Port Administrator of the City of St. Louis Port Authority. The inspection was followed by discussions and briefings on MARAD's research and analytical port planning tools being considered for use by the Port of St. Louis.

#### **Planning Program**

MARAD continued its cost-shared port and intermodal planning program. This effort includes cooperative master planning studies with local, State, and regional port agencies and associations; port planning information systems and data base development; and economic impact and financial analyses.

The following projects were completed during the year:

- San Francisco Bay Area Seaport Plan Developed a coordinated master plan for seaports in the San Francisco Bay. The approved plan provides the basis for future Bay Area development.
- Regional Port Impact Model Designed a flexible, selfcontained analytical planning tool to enable U.S. ports to prepare regional economic impact assessments and to undertake policy simulations based on changes in a port's activities or its economic environment.
- Usage Pricing for Public Marine Terminal Facilities Created a formula to derive reasonably compensatory prices for use of public marine terminal facilities, providing a benchmark for comparative analyses of port terminal tariff rates.

These projects were initiated during FY 1982:

- Port Planning Information System To create an integrated and automated port planning analysis system, incorporating various port-related data bases, terminal capacity, facility requirements, vessel movements, and economic impacts.
- Port Economic Impact Kit To revise an existing kit, simplifying its methodology and adapting various sections to software programs suitable for microcomputers or desk-top calculators. The kit enables small and medium-sized ports with limited resources and personnel to make port economic impact assess-

ments.

- Public Port Financing in the United States (Update) To update an existing public port financing study which addresses port development and expansion. Present financing methods, problems, and alternatives will be emphasized and foreign financing methods noted.
- Port Risk Management Manual To develop a guide for solving common risk management problems and provide a reference on port risk management techniques.

During the year, work on the following projects continued:

- Delaware River Regional Port Study Analyzes longrange port development needs for the Delaware River. Under the management of the Delaware River Port Authority, the study involves four major cities and two counties.
- New York-New Jersey Regional Port Planning Study Analyzes cargo terminal needs and uses of city-owned piers, wharves, docks, and waterfront, including intermodal services and future facility sites. The study is managed by the City of New York, assisted by the cities of Bayonne, Elizabeth, Jersey City, and Hoboken, N.J.
- Maryland Statewide Port Planning Study Analyzes economic, environmental, and institutional impacts on port development within Maryland. The study encompasses cargo demand, terminal capacity, and intermodal connections and services.

#### **Operations Planning**

As it is planning program, MARAD shares the costs of its port and intermodal operations program with industry participants and with other Federal and State agencies. The program helps port and terminal operators improve productivity in the operation of port terminal facilities, equipment, and waterways.

Several projects were completed during FY 1982:

- Port and Waterway User Fees Investigated effects of proposed U.S. Coast Guard fee structure on port and vessel operations and on foreign and domestic trades. The study was undertaken at the request of the Coast Guard.
- Tonnage Tax and Customs Revenue Uses Analyzed Federal revenues collected from tonnage taxes and import duties as an alternative means of funding channel maintenance and improvements. The study was made in response to a request to the Secretary of Transportation from a private port industry group.
- Joint Exercises with Military Traffic Management Command (MTMC) – Conducted joint exercises with MTMC to evaluate procedures for marshalling commercial motor and rail transportation to meet Department of Defense needs in a contingency prior to a national emergency declaration.
- Inventory of American Intermodal Equipment Conducted annual inventory of intermodal equipment owned by U.S. steamship and container leasing companies.
- International Shipborne Barge Register Produced a reference identifying shipborne barges engaged in international trade.
- Inland Waterway Port Operations Model Developed model to study operating characteristics of inland waterway port facilities. Produced by the University of

Tennessee under MARAD's University Research Program, the model can estimate port capacities and cost and time associated with port operations at various cargo levels.

- Inland Waterway Fleeting Operations Evaluation Model – Developed model to examine site and operational alternatives to provide efficient fleeting services to linehaul tows or for dock delivery operations while minimizing harbor congestion. Model was developed and implemented by Washington University, St. Louis, Mo., under MARAD's University Research Program.
- Tanker Berthing Evaluation Evaluated tugboat performance during tanker berthing maneuvers and provided data to define changes in tugboat thrusting capability experienced as a tug interacts with a slowly moving tanker. The project was jointly funded by MARAD and the Coast Guard.
- National Vessel In-Port Locator System (VIPLOC) Demonstrated at the San Francisco Marine Exchange a computer-based system for vessel locations in ports. The cost-shared system will be used by the National Association of Marine Exchanges to develop nationwide vessel traffic reporting capability.

At the end of the fiscal year, work was continuing on the following projects:

• U.S. Stevedoring/Terminal Operator Industry Study – Provides an economic profile of the stevedore/terminal operator industry. Data have been gathered with the cooperation of the National Association of Stevedores. The Port Authority of New York and New Jersey is producing economic impact data on equipment investment, jobs, income, taxes, and expenses.

- Coal Export Terminal Design Criteria for Large Shallow Draft (LSD) Ships – Involves development of design criteria for coal terminal shiploading facilities for LSD and wide-beam ships.
- Lightweight Tug Firefighting Module Evaluation Tests lightweight firefighting module in various operational modes. The economic and operational feasibility of temporarily mounting air-transportable pump and monitor modules on commercial tugs to combat waterfront or shipboard fires was previously demonstrated. Evaluation was continuing in a joint venture with the U.S. Navy and National Aeronautics and Space Administration.
- Dredging and Dredge Disposal Investigates new methods for dredging and dredge disposal in U.S. ports.
- Multipurpose Harbor Service Craft Evaluation Provides technical evaluation of the City of Tacoma's highspeed, surface effect ship as a multipurpose harbor service craft. The results of operational tests during simulations will provide port city fire service organizations, port authorities, and State and Federal agencies with information on a cost-effective marine fire protection tool.

Project	Task	Vendor	Contract Number	Amount
	Marketing and Domest	tic Enterprise		
Port and Intermodal Develo	opment:			
Maryland Port System Study	To develop and prepare the Maryland State Transportation Plan that will aid in the identifica- tion of future transportation policies and goals over a 20-year period.	Maryland Department of Transportation Baltimore, Md.	2-20042	\$63,000
Port Information System	To provide the design and methodology of a Port Planning Information System to evaluate general data development, trade data and vessel information.	Transportation System Center Cambridge, Mass.	400-29008	100,000
Analysis of Coast Guard User Charges	To modify MARAD's trade and fleet data base to assist in assessing the impact of U.S. Coast Guard proposed user charges.	Temple, Barker and Sloane Lexington, Mass.	P.O. 2-2292	10,000
Tanker Berthing Evaluation	To conduct full scale tests and instrumentation requirements for full scale tests to validate the tug effect modules at the National Maritime Research Center.	Military Sealift Command Washington, D.C.	400-29000	70,000
Tanker Berthing Evaluation	To obtain the services of an "Empire State Class" tugboat to assist in full scale tests.	Exxon Company, U.S.A. Linden, N.J.	2-20009	18,000
Market Analysis:				
Market Assessment of Bulk/Containerships	To determine the market feasi- bility of U.Sflag bulk/container- ships, by performing an assess- ment of the supply and demand factors for combination service.	Temple, Barker and Sloane Lexington, Mass.	2-20028	166,952

Research and Development Contracts awarded – Fiscal Year 1982

**Port Spectrum–Performance Reports** 

# **Cairns Port Authority**

Expenditure

(Extracts from "Annual Report, Year ended 30th June, 1983, Cairns Port Authority")

Chairman's report (extract)

This last year has seen the Authority involved in several major developmental projects, which have far-reaching consequences for Far North Queensland.

In October, 1982, the Roll-on/Roll-off stern loading ramp and associated facilities were opened by the then Minister for Northern Development and Maritime Services, the Honourable V.J. Bird, M.L.A. This new facility greatly assists in the movement of container cargoes through the Seaport of Cairns.

The year has also seen completed an extension to No. 1 Wharf in Smiths Creek. This wharf extension brings direct benefits to the Gulf trade, in that Authority lessees Mason Shipping Co. are now able to operate their new vessel "Leichhardt" from there.

Airport redevelopment has proceeded satisfactorily, with fill operations now completed and the construction of the new terminal and associated facilities on schedule. The first part of 1984 should see both terminal and extended runway in use by domestic and international airlines.

Another development project presently being planned by the Authority is the construction of the new stem at No. 10 Wharf expected to cost \$460,000.00 when complete.

This year, Cairns has proved again its great potential as a tourist attraction, and the Authority, in calling for expressions of interest for the construction of a new \$150 million Foreshore Marina Complex, is I believe, acting as a catalyst to further the growth of this valuable resource into the next decade.

#### M. Borzi, O.B.E. Chairman

#### Income and expenditure account

for the year ended 30th June 1983

	<u>1983</u> \$000's	<u>1982</u> \$000's
Income		
Wharves	1,945	1,871
Lands & Tenanted Buildings	582	376
Small Boat Harbours & Facilities	61	66
Conveyor Systems	3	2
Quarries – River Sand Dredging	27	29
Recoverable Work	230	341
Total Operating Income	2,850	2,688
Non Operating Income	465	461
Total Income	3,316	3,150
	3,316	3,150

	<u>1983</u> \$000's	<u>1982</u> \$000's
Wharves	1,983	1,639
Lands & Tenanted Buildigns	315	232
Small Boat Harbours & Facilities	93	88
Conveyor Systems	2	3
Quarries – River Sand Dredging	3	9
Recoverable Work	229	337
Accounts Written Off	5	6
Total Operating Expenditure	2,633	2,317
Non Operating Expenditure	69	65
Total Expenditure	2,703	2,382
Excess of operating and non-operating		
Income over Expenditure	613	767
	3,316	3,150

1983

1982

#### **Balance sheet**

as at 30th June 1983

	\$000's	\$000's
Capital		
Seaport Operations:-		
Accumulated Funds 1st July	2,956	3,197
Transfer to the Asset Replacement and	045	0.92
Transfer to Special Loan Redemption	945	982
Fund	34	
	1 976	2 215
Transfer from Appropriation Account	615	740
	2,592	2,956
Contribution by the Asset Replacement		
and Improvement Fund for		
Capital Works	1,993	2,031
	4,586	4,987
Reserves	3,108	1,996
Subsidies and Non-Repayable		
Advances for Construction	9,436	8,282
Repayable Advances for Construction	1,020	211
	18,152	15,478
Airport Operations:-	3,960	3,048
Subsidies and Non-Repayable		
Advances for Construction	11,987	387
Reserve	43	
	15,990	
	34,143	18,913
Represented by:-		
Fixed Assets – Seaport	8,545	7,175
Less Provision for Depreciation	1,166	1,013
	7,379	6,162
Work in Progress – Seaport	2,301	2,490

Assets provided by Lessees - Seaport	12,548	11,850	Stores on Hand	10	12
	22,229	20,502		45,170	28,908
Fixed Assets – Airport Less Provision for Depreciation	3,012 25	2,773 10	Deduct Liabilities:- Creditors	84	231
	2,986	2,763	Suspense		
Work in Progress - Airport	10,156	235	Sinking Fund Loans	4,145	2,798
	13,143	2,999	Other Loans	6,274	6,562
	35,372	23,502	Prepayment	101	
Cash on Hand and Bank Balances	191	299	Security Deposits	256	265
Investments	7,684	4,294	Provision for Maintenance	165	136
Debtors	1,911	800		34,143	18,913

# **Puerto Rico Ports Authority**

(Extracts from "Annual Report 1982-83, Puerto Rico Ports Authority")

#### **Executive Director's review (extract)**

Originally of an agriculturally based economy, the island gradually shifted to a manufactured based economy in search for new horizons. An aspect which the Government of Puerto Rico early recognized as a must since the initial stages towards reorientation of the economy was that of the planning and development of adequate port facilities. Entrusted with this responsibility, our agency has been earnestly discharging it since its birth in 1942.

The accomplishments attained during the fiscal year ended June 30, 1983 is just a nutshell of the great input our agency has in the island's economic development. Consider the tourism industry, for example, which ranks prominently among the business sectors upon which our island's economy greatly depends. To a large extent, success of this industry notably depends on the Ports Authority planning, developing and maintaining the gateways of the island: our airports as well as the tourism terminals in San Juan.

Major tourism oriented projects completed during Fiscal Year 1982-83 comprise the Two Level Arrival-Departure Road System at the International Airport, for the amount of \$9,356,889.41. Also, in order to accommodate our present and future waterborne tourist trade we have completed dredging works in Old San Juan at Tourism Pier No.3, East Side, to a depth of 37 feet; Pier No.5, 30 feet; Pier 6 to a depth of 30 feet, at a total cost of \$1,000,000, these three projects. In addition, dredging works were performed at Pier 10, also in Old San Juan, to a depth of 27 feet; and wharves A and B in Puerto Nuevo, both to a depth of 36 feet, for a total price of \$290,880.00 these latter three projects.

With its current 37 feet depth on its East Side, Pier No.3 is now suitable to accommodate the world's largest passenger cruise vessels; in fact, the S/S Queen Elizabeth II, world's second largest cruise vessel calls frequently at our port.

The Puerto Rico Ports Authority is taking no pause on its vigorous port facilities planning, development and maintenance program that at a cost of \$9 million the Agency will carry out during Fiscal Year 1983-84.

> Carlos Soler Aquino Executive Director

#### Management

The powers of the Authority are vested in and exercised by the Secretary of Transportation and Public Works, with the provision in the Authority By Laws for delegation by the Secretary of such administrative powers and duties that the Secretary has deemed proper to delegate to the Agency officers, agents or employees. Under such provision, the affairs of the Authority are conducted by an Executive Director appointed by the Secretary with the approval of the Governor.

#### **Industrial Relation**

The most significant achievements of the Industrial Relations Office during the fiscal year 1982-83, comprised the continued climate of excellent management-labor relations, in the administration of five (5) labor contracts.

As of June 30, 1982, the Authority's work force amounted to 1,161 employees. Of this figure, 949 employees are represented by five unions. The remaining 212 are management employees.

The collective bargaining agreement covering one of the five unions will expire December 31, 1983, with three of the remaining four labor contracts expiring in 1984.

Under the terms of the collective bargaining agreements a \$60.00 monthly pay raise has been in effect for the members of these unions during each year comprised in the labor contracts. By resolution promulgated for the Authority by the Secretary of the Transportation and Public Works Department, a pay raise in the same amount was extended to management employees.

Fringe benefits for all regular and temporary employees continued during fiscal year 1983. Major fringe benefits include a life insurance plan for each employee, a medical plan for employees and their direct dependents, and a contribution to a welfare fund for union employees; all of these benefits at a cost of \$1.8 million for the fiscal year covered by this report.

Equal Employment Opportunity statutes are faithfully observed by the Authority, especially in recruitment of personnel and other applicable items, such as vacation and sick leave programs.

#### **Business Operations**

The activities of the Authority are divided into three main programs: Airport Operations, Maritime Operations,

and Other Programs.

#### Authority Facilities

The Authority facilities consist of airport and seaport installations.

#### Seaports

The Authority operates most of the seaport facilities in the Commonwealth. These facilities include wharves and piers for passenger terminals and general cargo, special wharves for container and bulk cargo, as well as ancilliary support facilities and services such as covered and open storage areas, container terminals, ship repair facilities, towing and berthing assistance and anchorage areas for deep draft vessels.

The Port of San Juan is the most important commercial port in Puerto Rico and the busiest ocean terminal in the Caribbean, handling around 74 per cent of total commercial volume on the island. The facilities at this port consist of a total of 33 piers holding 44 berths, including 14 berths which are used for containerships for lift-on lift-off and roll-on roll-off operations, as well as 4 deep draft passenger and cruise ship berths.

The piers at the City of San Juan proper are located in the north side of San Juan Harbor adjacent to Old San Juan. Piers 1 and 3 are modern, rebuilt piers, with two berths each for cruise ships. The other piers in the Old San Juan area include transit sheds areas and open storage areas, mainly used for general cargo.

The major seaport construction project of the Authority has been the development of Puerto Nuevo at the south shore of San Juan Harbor. Puerto Nuevo accounts for approximately 63% of all seaport general cargo handled at the Authority port facilities in San Juan.

#### **Balance sheet**

as at June 30, 1983	<u>    1983    </u> \$000's	<u>1982</u> \$000's
Assets		
Current Assets: Current funds:	2 0 2 0	2 205
General Operating Funds Revenue, Construction and	3,830	3,305
Ferry Assistance Funds	5,099	5,982
Total current funds	9,529	9,287
Marketable equity securities, at market (Cost \$75,182) Accounts receivable, net of allowance	3	3
for doubtful accounts of \$1,962,970 in 1983 and \$1,252,125 in 1982	14.461	8,061
Interest receivable	27	162
Inventories	1,311	1,911
Prepaid expenses	414	534
Total current assets	25,748	19,916
Restricted Assets: Sinking fund:		
Bond Service Account	8,049	7,451
Reserve Account	7,949	7,720
Employees' Retirement System Fund Provision for Department of Treasury	281	308
Contribution	400	
Interest receivable	307	864
Total restricted assets	16,987	16,344
Property and equipment Less accumulated depreciation and	274,232	267,644
amortization	82,084	75,628

28 PORTS and HARBORS — JUNE 1984

Net property and equipment	192,148	192,015
Isla Grande operations	41,266	37,387
Other Assets, at cost: Noncurrent funds-Renewal and Replace- ment, Judicial, Improvement, Mainte-		
nance and General Reserve Funds	33,216	30,094
Interest receivable	1,274	1,799
Deferred charges	1,168	1,204
Total other assets	35,659	33,098
	311,809	298,762
Liabilities and Capital		
Current Liabilities:		
Accounts payable and accrued expenses	9,595	12,161
Amounts retained from contractors	537	838
Current portion of other long-term debt	<u></u>	100
Total current liabilities	10,133	13,101
Liabilities Payable from Restricted Assets:		
Current portion of bonds payable	1,995	1,905
Interest on bonds Employees' Retirement System Fund	2,671	2,721
Provision for Department of Treasury	201	508
Contribution	400	
Total liabilities payable from restricted assets	5,348	4,934
Bonds payable, excluding current portion	85,390	87,385
Less unamortized discount	830	896
Net bonds payable Other long-term debt, excluding current	84,559	86,488
l otal long-term debt	84,559	86,833
Isla Grande operations	41,266	37,387
Capital: Contributed capital		
Commonwealth of Puerto Rico	49,167	49,167
Federal Government	43,648	39,004
Others	3 169	604 3 169
Total contributed conital	06 500	
Retained earnings	90,390 73 911	91,946 64 559
Total canital	170 501	156 505
Commitments and contingencies	1/0,501	130,303
communents and contingencies	211 200	200 762
	<u> </u>	298,/62

#### Statements of revenues & expenses

for the year ended June 30, 1983

	1983	1982
	\$000's	\$000's
Revenues		
Maritime operations:		
Wharfage, dockage and harbor dues	13,570	11,076
Equipment and property rentals	3,496	3,748
Other	4,624	4,582
Airport operations:		
Landing fees	6,337	5,801
Space rentals	14,156	11,502
Other	3,733	4,158
Fuel flowage fees	2,221	2,402
Total revenues	48,140	43,271
Expenses:		
Salaries and employee benefits	21,041	19,751
Depreciation and amortization	7,655	7,658
Rent	215	206
Repairs and maintenance	1,169	1,008

(Continued on next page bottom)

(Extracts from "Annual Report 1983, Massachusetts Port Authority")

#### Executive Director's message(extract)

It is no secret that, for several months during fiscal 1983, Massport had to endure politically turbulent waters. As the storm settled, however, "The Port" emerged stronger and more stable than ever before.

Our outstanding management team remained in place, our unprecedented development program stayed on course, and our overall financial strength - led by Logan Airport - was never better.

Logan International Airport continued to post exceptional and record-breaking performance statistics in passenger traffic and air service. Our most worrisome problem, airport access, gained immediate relief from the new oneway toll collection system and long-term attention from Governor Dukakis' proposal to improve the Central Artery and build a new airport tunnel.

Our seaport strategy continued to pay dividends, as we reduced the port deficit, increased our cargo handling capacity, and encouraged the private sector to recycle our obsolete maritime properties. As we move toward becoming a more dominant port in the region, we are determined to offer more competitive rates and establish greater productivity at our container terminals. These changes, the history of labor relations in the Port of Boston tells us, may not be smooth. Yet, the viability and, indeed, the survival, of the Port depend upon the implementation of modern operating procedures.

Two development projects are worthy of note: BOSCOM and the Massachusetts Technology Center. It is not accidental that the Massport Board, in choosing development options, has favored those which enhance the region's technological leadership. Both of these projects, in their own way, add to the national preeminence of New England's high technology industry.

Finally, at the midpoint in this fiscal year, political stability was established at Massport, a most welcome development for the Authority, its users and investors. This new climate of cooperation between the Commonwealth of Massachusetts and Massport resulted in a most productive relationship on both oneway tolls and the Artery/Tunnel proposal, as well as in Massport's decision

	·	
Insurance	1,132	979
Professional services	744	515
General and administrative	9,106	8,467
Total expenses	41,064	38,587
Operating revenue	7,076	4,684
Other Revenues (expenses):		
Interest and other	8,926	6,086
Interest	(5,343)	(5,442)
Litigation	(10)	(796)
Other	(1,297)	(488)
	2,275	(640)
Net revenue	9,351	\$4,044

(Continued from page 28)

to manage the State's new Transportation Building.

David W. Davis Executive Director

#### Massport launches a new course

In fiscal 1983, Massport continued to expand and modernize its cargo handling terminals in the Port of Boston while launching new management and marketing initiatives to strengthen its standing in the highly competitive seaport container industry.

Massport facilities include: Moran Container Terminal in Charlestown, the largest, busiest container berth in New England; Conley Terminal in South Boston, with berths leased to Sea-Land and Toyota; and Massport Marine Terminals in South Boston, now under construction and used to discharge and store road salt.

While all North Atlantic ports suffered from the sluggish worldwide economy, the Port of Boston held its own. Container volume dipped three percent overall, yet progress continued to be made against the port deficit during fiscal 1983.

Moran Terminal registered modest gains in containers, tonnage, and ship calls. Imported automobiles arriving at the Conley Terminal were up 18 percent; but lumber, reflecting a weak housing market, fell dramatically during fiscal 1983.

In order to hold down costs and step up productivity, Massport decided not to open a new container berth at its Conley Terminal until reasonable staffing levels could be established in negotiations between the shipping association and the unions involved.

The Port of Boston presents Massport with a number of marketing challenges stemming from high, fixed labor costs as well as goegraphy, size, and a declining volume of heavy industrial goods in the region. Nevertheless, Massport is determined to recapture trade leaving the region through other ports – Boston presently handles only 43 percent of all New England ocean-borne cargo – by initiating an aggressive marketing program aimed at shippers in the region.

Because its seaport cargo terminals are vital to regional trade and commerce, handling more than 800,000 tons a year valued at \$2.3 billion, Massport will continue to expand and upgrade its container facilities. The Authority is equally committed to insuring that those facilities are managed efficiently and marketed effectively to serve New England shippers.

#### **Balance sheet**

as at June 30, 1983

	<u>    1983    </u> \$'000	<u>1982</u> \$'000
Assets	<b>\$ 000</b>	<b>\$ 000</b>
Cash	886	479
Investments in U.S. Government		
obligations and certificates of deposits		
at amortized cost, which approximates market, including accrued interest	164,749	161,802

Accounts receivable, less allowance		
for doubtful accounts of \$436,000	10 222	8 604
Prepayments and other assets	4,294	5 168
	190 151	176.052
	180,151	176,035
Investments in facilities		
Facilities completed:	422 (12	100 200
Airports	422,015	400,389
Port	107 338	86 677
Tort	107,550	
T	587,271	550,127
Less accumulated depreciation and	(107.400)	(176 714)
amortization	(197,400)	(170,714)
	389,871	373,413
Construction in progress	39,242	36,821
Net investment in facilities	429,113	410,234
Total Assets	609,264	586,287
Liabilities and Fund Equity		
Liabilities		
Accounts payable and accrued expenses	8,657	11,139
Accrued compensated absences	2,379	2,234
Accrued pension cost	6,692	6,959
Accured interest payable	11,564	9,417
Notes payable	23,000	23,000
Funded debt	285,210	287,820
Total Liabilities	337,502	340,569
Deferred income	1,820	1,752
Contingent liabilities and commitments		
Fund Equity		
Retained earnings	230,250	208,514
Contributed capital, grants-in-aid of	39 692	35 452
COnstruction	57,072	55,752

Total Fund Equity	269,942	243,966
Total Liabilities and Fund Equity	609,264	586,287

#### Statement of income

for the year ended June 30, 1983

	<u>1983</u> \$'000	<u>    1982    </u> \$'000
Revenues	φ 000	φ 000
Tolls, fees and sales of services	53,493	51,612
Rentals	25,352	24,186
Concessions	29,780	25,781
Income on investments	13,881	14,213
Other	881	1,107
Total Revenues	123,387	116,899
Expenses		
Operations and maintenance	42,807	44,138
Administration	13,185	12,468
Insurance	1,406	1,348
Pension cost	2,797	2,495
Interest	17,742	16,561
In lieu of taxes	4,981	4,680
Total Expenses	82,918	81,690
Income before depreciation and		
amortization	40,469	35,209
Depreciation and amortization,		,
including \$2,215,000 in 1983 and		
\$1,929,000 in 1982 on assets acquired		
with contributed capital, grants-in-aid		
of construction	20,948	19,768
Net Income	19,521	15,441

# Yemen Ports Authority

(Extracts from "Port of Aden, Port of Mukalla, Port of Nishtun,  $1981 \sim 1982$  Magazine")

#### **Director General's review**

Aden, has in the past, been known as only a Principal International Bunkering Port. As the bunkering of ships has formed the mainstay and nurtured the growth of Aden, it is understandable that the layout of the harbour has been primarily developed to this end and therefore berths for ships were all at buoyed moorings, apart from the Home Trade Quay at Maalla, which can accommodate ships of draughts up to 18 feet.

The steady growth of trade in the recent years, both internal and external in the independent Democratic Yemen, necessitated the Port of Aden to handle general and bulk cargoes on a larger scale. Besides the port has also to serve as the sole entry point for a large range of package type goods which are fed to local warehouses and subsequently to every corner of the republic. Also the diversity in trade stresses the importance of the port in the economy and its role as a generator of activity in the P.D.R.Y. It has thus become necessary to provide greater facilities for vessels using the port.

With the overall objective of determining the strategy, which would maximise the contribution of the Port of Aden to the economy of P.D.R.Y., a study has, recently, been carried out by consultants, who have prepared a master plan for the next ten years. The plan is currently under review by the Authority. Under the Aden Rehabilitation Project, a large number of Floating crafts including two sophisticated Voith Schneider propelled water tractors have been inducted into the Port's fleet of crafts. In improving the cargo handling activities, a large number of equipments of diverse nature have been acquired.

In the current phase of development scheme, the Port's facilities are being augmented with the construction of deep water alongside berths and shore installations including transit sheds, warehouses, open storage areas, parking areas, offices, workshop services and access roads. Some minor projects are already in their final stage of completion and major ones including construction of deep water along side berths have reached the design stage.

Realising the importance of adequately maintaining water depths for effective port operations, the Authority has already concluded a contract for the construction and delivery of a self propelled trailer suction/Grab hopper dredger.

The Authority has always been conscious of the vital needs of determining and fulfilling the various training requirements throughout the port. With a view to meeting vast majority of the training needs at all levels of the port management, the Authority is actively considering the proposal of setting up an integrated port training institute in Aden. A preliminary study has already been carried out, which has identified the need for such an institute and further steps are being taken to assess the infrastructural facilities needed for establishing and operating the Institute. The Port of Mukalla continued registering phenominal growth in shipping traffic. The Authority is pleased to report that the long awaited Al-Mukalla Harbour construction work has recommenced. The completion of construction work, being executed by Compagnie d'Enterprise C.F.E. (Belgium) is scheduled for completion in two years time. Further capital development plans for this port are in hand and undoubtedly, these will prove, with in a few years, the Hadramauth Governorate to be one of P.D.R.Y.'s rapidly developing and progressive regions.

The Ports of Aden and Mukalla have been providing a high level of service at competitive rates to its users. Their investments in capital infrastructure and modernization in port activities and the good team work by the Authority's employees will further increase productivity and maintain the Yemen Ports Authority's position as the ports, where ships are expeditiously turned round.

During the year 1981, the Yemen Ports Authority has proved itself a major factor in the overall successful development of P.D.R.Y. and the credit for this achievement goes to every member of staff, the Authority's clients, shipping companies and the general public. However, no small part has been played by the chairman and members of the Board of Administration of the Yemen Ports and Shipping Corporation. With the gift of foresight and unrelenting desire to prove the success of effective planning and investment, the Board has recognized the potential and provided the Authority with their unhesitating support.

> Zubair A. A. Idd Director General

#### **Consolidated balance sheet**

as of December 31, 1981

	1981 YD'000	1980 YD'000
Assets:		
Fixed Assets		
Depreciable Assets: Less: Accumulated Depreciation	34,565 6,505	33,657 4,874
Total Net Fixed Assets	28,059	28,783
Investment Term Deposits	82	97
Current Assets Cash in Hand Cash at Bank Debtors Stores (at cost) Work-in-progress Goods-in-transit Prepayment – (Port Rehabilitation Project) Overseas Agents Account Accrued Income Other Debtors Account Total Assets	3 7,930 3,262 872 3,643 231 457 32 112 29 44,718	1 8,240 1,511 845 312 2455 456 39 60 65 40 658
Liabilities:		
Capital: Port of Aden Authority as at 31/12/78 Transferred from National Shipping Co. Transferred from National Dockyard Co.	28,432 645 133	28,432 645 133
Total Capital	29,211	29,211
Other Funds: Reserves	4,729	4,097

Long Term Loans:		
International Development Association	554	554
Arab Fund	2,633	2,633
Loan for Deep Water Berth – North Project	109	87
Loan for Prefabricated Buildings Project	645	-
	3,943	3,276
Long Term Liabilities	893	887
Other Provisions	16	16
Current Liabilities		
Creditors	902	624
Republic Treasury	1,404	1,157
Income Tax Department	1,518	919
Social Security Fund 1975	235	236
Other Credit Balances	1,862	231
	6,834	3,169
Total Liabilities	44,718	40,658

# Consolidated statement of revenue and expenses

for the year ended December 31, 1981

	1981	1980
	YD'000	YD'000
Revenue from Operations		
Wharves Revenue	4,385	2,624
Operation Department Revenue	5,473	4,553
Marine Revenue	564	635
Chief Engineer's Department Revenue	148	70
Other Revenue	272	193
Revenue from F.C. Maint Workshop	9	5
Total Revenue	10,853	8,084
Less:		
Operating Expenses		
Salaries and Wages	1,784	1,646
Stores – (Repairs and Maintenance)	250	225
Labour Pool and External Services	2,027	1,803
Fuel and Power	175	154
Staff Expenses	589	499
General Expenses – Inc. (Stores-Stat.)	345	236
Depreciation	1,615	1,630
Total Operating Expenses	6,787	6,197
Net Profit	4,066	1,886

#### (Continued from page 33)

#### Container traffic: UNCTAD

Countries	1980 (TEUs)	1979 (TEUs)	1980 over 1979 (%)
Morocco	56 712	57 825	-2
Papua New Guinea	55 636	47 792	17
Chile	45 878	25 098	84
Brazil	43,183	34 989	23
Jordan	41 765	33 442	27
Sri Lanka	37 327	43 680	-16
Netherlands Antilles	33 440	26 140	27
Haiti	32 451	29 267	10
Honduras	31 769	32 539	$^{-2}$
Kenya	30 660	15 146	107
Nicaragua	24 806	4 998	400
Mauritius	20 554	15 374	40
Others reported	187 262	142 625	31
Total reported	7 303 098	5 882 939	24
World total reported	36 510 087	31 986 093	14
Developing country percentage	20.0	18.4	

#### Seatec V **Practical Dredging**

- Primary (or capital) Dredging

   Contracted or in-house? The relative merits
   Preparation and issuing of tender documents

  - C) Selection of contractors
  - d) Equipment selection and mobilisation Co-ordination and superintendance of e)
  - contractors
  - f) Operational experience case histories
- Maintenance Dredging
  - a) Contracted or in-house? The relative merits b) Costing and price control of maintenance
  - dredging Equipment selection and mobilisation
  - d) Maintenance and supervision of contracted
  - performance levels e) Case histories
- Establishment of local joint-ventures with foreign dredging contractors
  - a) For capital dredging projects
  - b) For maintenance dredging
  - c) Case histories
- Pre-dredging Surveys and Studies a) Site investigations and surveys b) Hydraulic studies
- Dredger Design and Construction
  - a) Simplicity or state of the art? A constructive appraisal
  - A dredger for all jobs or specialised designs? b) Criteria for the selection and specification of dredger types
  - c) Dredging equipment specification and procurement
- Practical Dredging Management
  - a) Optimising equipment use through management systems
  - b) Optimising use through planned maintenance programmes
  - Dredger maintenance and repair Equipment maintenance & repair, d) Manufacturers spares & service

## Seatec V and Portec II

CALL FOR PAPERS

#### sponsored by

- United Nations ESCAP
- Eastern Dredging Association
- International Association of Ports & Harbors
- ICHCA International Cargo Handling
- **Co-ordination Assn.**
- and Approved and Sponsored by

#### Indonesia's Ministry of Communications and Directorate General of Sea Communications.

#### Notes for Authors

- Summaries of papers within the subject guidelines are requested to be received by August 1, 1984.
  Summaries to be maximum 250 words.

- summaries to be maximum 250 words.
  All papers to be objective and the authors own work, previously unpublished.
  The papers to be in English, the Conference language.
  Fee payable by Authors is US\$200 which includes pre-printed Conference Papers, attendance at any conference session, technical visit, conference lunch and social function.
  Authors of selected papers will be advised by September 1, 1984.
  Full text of papers, maximum 3,000 words + illustrations, to be submitted by December 1, 1984.

- All travel and accommodation in connection with the conference to be met by Authors.

#### Portec II

#### Practical Port Management and Cargo Handling

- Planning ports and cargo handling facilities to match trade demands. Determinants and outline factors. Criteria for selection of "model" plan.
- · Planning and implementation of management structure to match port facilities.
- Planning, organisation, training and operations. Management economics and finance.
- Principals and practice of port economics and operational finance.
- Port Operations a) Operations for general cargo, interface with
  - shippers and shipping companies.
- b) Traffic management.
- Documentation and processing: overcoming C) "information pollution"
- d) Transhipment procedures. Implementation of the Through Bill.
- Customs procedures: integrating statutory e) requirements with efficiency of freight documentation.
- Port user liason promotion.
- g) Training for efficient port operations.
- Cargo Handling master or servant of port operations?
  - a) Making modern cargo handling systems compatible with the social necessity of large labour forces.
  - b) Evaluation of cargo handling systems and criteria for equipment selection and procurement.
- c) Maintenance systems for maximised equipment utilization.
- d) Maintenance training programmes.
- Training for optimum use of cargo handling systems.

JAKARTA	CO	NVENTI	ON	H/	۱LL,	, IN	DO	NES	δIA,	MA	RC	H 2	6 -	29,	19	85
<u> </u>										_	_				_	-

#### PAPER SUBMISSION

To: MarIntec S.E.A. (Pte) Ltd., MarIntec House,
210 Lavender Street, Singapore 1233
Tel: 2928288 Telex: RS 26418 MARTEC

Author' Name:
Professional Qualifications:
Company:
Position in Company:
Address:
Telephone: Telex:
abide by them should my paper be selected.
abide by them should my paper be selected. Enclosed is paper summary entitled:
abide by them should my paper be selected. Enclosed is paper summary entitled:

(Signature)

# International maritime information: World port news:

# Review of maritime transport, 1981: UNCTAD

#### (Extracts from "TD/B/C.4/251/Rev.1")

#### Summary of Main Developments in 1981

- (i) World seaborne trade declined by 2.8 per cent in 1980, but the world fleet continued to expand slightly (by 0.9 per cent from mid-1980 to mid-1981), thus accentuating the world surplus of tonnage.
- (ii) The developing countries' share of the world deadweight tonnage rose from 10 to 12.5 per cent, but 1.7 per cent of this increase was attributable to the reclassification of Singapore (previously an open-registry country, now classified as a developing country), and the balance was mainly attributable to increases in three individual fleets. Ownership remains concentrated among a few countries, with 11 countries owning 74 per cent of the total deadweight tonnage owned by developing countries. The developed market-economy and open-registry countries accounted for 79.7 per cent of the world deadweight tonnage, and the socialist countries for 7.4 per cent.
- (iii) According to 1979 figures (the latest available), the developing countries generated 40.3 per cent of world cargoes, the developed market-economy and openregistry countries 53.6 per cent, and the socialist countries 6.1 per cent.
- (iv) The world surplus of shipping has resulted in low freight levels in the bulk trades. In the liner trades, the general rate increases appear to have been lower in 1981 than in the previous year, but data are lacking on rates applicable to specific commodities and on the effects of various surcharges.
- (v) As in previous years, developing countries have suffered much more from the costs of transport than have other countries: in 1980, 10.94 per cent of the c.i.f. value of their imports was composed of freight charges, as distinct from 5.42 per cent in the case of developed market-economy countries.

#### World seaborne trade by types of cargo, 1970 and 1979–1981

(Billions of ton-miles)

Year	Crude oil	Oil products	Iron ore	Coal	Grain	Other cargo	Total trade
1970	5 597	890	1 093	481	475	2 1 1 8	10 654
1979	9 614	1 0 4 5	1 599	786	1 0 2 6	3 605	17 675
1980	8 385	1 0 2 0	1 613	952	$1\ 087$	3 720	16 777
1981	7 350	930	1 580	1 0 3 0	1 1 2 0	3730	15 740

#### Container port traffic of developing countries and territories, 1979 and 1980

Country of territory	Container traffic: 1980 (TEUs)	Container traffic: 1979 (TEUs)	Percentage change 1980 over 1979
Hong Kong	1 464 961	1 303 923	12
Singapore	917 000	698 500	31
Saudi Arabia	818 233	710 473	15
Republic of Korea	687 904	626 288	10
Philippines	426,420	354 241	20
United Arab Emirates	339 982	258 767	31
Nigeria	238 926	118 917	101
Thailand	181 430	164 248	10
Jamaica	179 009	153 280	17
Malaysia	171 692	152 460	13
Kuwait	170 796	122 256	40
India	142 642	99 705	43
Ivory Coast	133 858	116 385	15
Panama	130 010	95 483	37
Argentina	122 655	49 862	146
Cyprus	89 092	56 481	59
Indonesia	75 464	42 550	74
Trinidad and Tobago	72 026	51 346	41
Syrian Arab Republic	61 956	45 126	38
Bahrain	60 196	42 569	40
Pakistan	60 170	40 1 37	50
Egypt	59 900	45 605	30
Lebanon	57 333	25 422	128

(Turn back to page 31)

#### Development of international seaborne trade, 1970 and 1978-1980

(Goods loaded)

				Dry c	eargo			
	Tanke	Tanker cargo		Total		<i>Of which:</i> <i>main bulk commodities</i>		all goods)
Year	Millions of tons	Percentage increase/ decrease over previous year	Millions of tons	Percentage increase/ decrease over previous year	Millions of tons	Percentage increase/ decrease over previous year	Millions of tons	Percentage increase/ decrease over previous year
1970	1 440	13.0	1 165	13	488	16	2 605	13.0
1978	1 900	0.4	1 650	4.7	667	3.4	3 5 5 0	2.4
1979	2 044	7.6	1 785	8.2	762	14.2	3 828	7.8
1980	1 851	-9.4	1 881	5.4	796	4.5	3732	-2.5

# CCC/ESCAP seminar on the Kyoto Convention

A Sixth Seminar on the Kyoto Convention was held in Bangkok, from 18 to 23 November 1983. Organized by the CCC in collaboration with the UN Economic and Social Commission for Asia and the Pacific (ESCAP), the seminar was attended by 56 participants from 13 countries (Bangladesh, Bhutan, China, Hong Kong, Indonesia, Korea (Rep. of), Malaysia, Papua New Guinea, Solomon Islands, Samoa, Sri Lanka, Thailand and Vanuatu) and 5 international organizations (IAPH, IATA, ICAO, ICC and UNCTAD).

In opening the seminar, the Executive Secretary of ESCAP, Mr. Shamsul Kibria, stated that the simplification and harmonization of Customs regulations and procedures would help boost trade and thus contribute further to the socioeconomic development of Asia and the Pacific. He also pointed out that "Customs laws and regulations can best serve their long-term purposes if they are made to reflect the twin aims of effective enforcement and the efficient movement of goods, thus contributing to the growth of trade".

Replying to the statement of the Executive Secretary, Mr. G.D. Gotschlich (Director, Technique) thanked ESCAP for offering its conference facilities and for allocating the necessary resources. He also thanked the Thai Customs Administration for its unfailing assistance, particularly with regard to the dissemination of information on the seminar to private and public agencies and other persons concerned outside of Customs; the presence of so many non-Customs representatives was indicative of the effectiveness of this action. Mr. Gotschlich referred to the excellent working relationship which existed between ESCAP and the Council and to the emphasis placed by the Council, for financial reasons, on regional seminars. He concluded by referring to the excellence of the participation at this seminar, both in terms of quality and quantity, which clearly demonstrated that the Council's approach was the right one and that countries and territories of the ESCAP region recognized the importance of the Kyoto Convention to international trade.

Participants fully appreciated the significant contribution made to export development by the application of certain modern Customs techniques recommended in the Convention. They also agreed that the seminar had achieved its main objective, to acquaint them with the provisions of the Convention and thereby facilitate accession thereto by their respective countries, where appropriate.

(Newsletter CCC)

#### **Publications**

#### "Occupational Safety in Grain Elevators and Feed Mills" by the National Institute for Occupational Safety and Health, U.S.A.

The study covers grain-handling and processing facilities of all types (of which there are about 15,000 in the United States), including export terminals. Included is a description of grain elevators and feed mills, together with statistical data correlating accidents with the "population at risk." Specifically addressed are hazards associated with combustible dust, as well as other safety hazards that may be encountered in the grain elevator and mill industry. Guidelines are suggested for training, the use of personal protective equipment, the control of combustible dust and ignition sources, emergency planning, bin entry, isolation and lockouts, machine guarding, safe use of equipment and tools and other work practices which could reduce worker exposure to occupational safety hazards. The report (DHHS NIOSH Publication No. 83-126) is available from the National Institute for Occupational Safety and Health, Division of Standards Development and Technology Transfer, Technical Information Branch, Publications Dissemination Section, 4676 Columbia Parkway, Cincinnati, OH 45226.

#### "The Use of Self-Unloaders in U.S. Dry Bulk Commerce": Maritime Administration

Self-unloading bulk carriers, a common sight on the Great Lakes for many years, are now appearing at U.S. coastal ports in small but growing numbers. The study found that oceangoing self-unloaders are economically feasible under the right conditions and operating circumstances. Among the determinants are the length of voyage, ship size, terminal dimensions, loading and discharging rates and the availability and characteristics of cargo. The study examined different types of Great Lakes unloading equipment to help predict performance characteristics of "conceptual" oceangoing self-unloaders. The report (order number PB83-161331) is available for \$29.50 per copy from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22151.

#### Brazilian ports news in brief

- 1983 has been a year of many transformations in the port of Rio de Janeiro, with the consolidation of the transfer of the handling of minerals and coal to the Port of Sepetiba, which already reached the 1 million ton mark, and the important increase in the general cargo handling, with special emphasis in steel mill products. The port's overall cargo handling figure decreased from 28.5 million tons in 82 to 17.9 million in 83, mainly as a result of the transfer of solid bulk cargo.
- Brazilian ports have been showing successive records of cargo handling, since the policy "the important thing is to export" is driving the Brazilian economy. Few port administrations, however, succeeded like the Port of Paranagua in defying the old story about "ports don't have profits": in 83, besides the hystorical record of 11.2 million tons, it has shown a positive balance of 4 billion cruzeiros.
- To standardize progressively the pallets used in Brazilian ports to the measure of 1,000 m × 1.20 m and to form a pool of ports and shipowners to permit the rotation of the pallets in coastal trade: these were the two main suggestions out of the First Panel on Cargo Unitization sponsored by the Brazilian Association of Port Entities (ABEP), in Rio de Janeiro. Now the suggestions shall be discussed with the Brazilian Association of Coastal Trade Shipowners (ABAC), with users of maritime transportation and other interested parties to reach a consensus. The following step, as far as the port sector is concerned, shall be the forwarding of the matter to Portobras who has the power of decision of establishing

the measure.

• Manaus, Salvador, Rio, Santos, Paranagua and Rio Grande are the ports chosen by the Ministry of Transportation to receive the benefits of the new investments to be made for the handling of containers. There are two studies going on towards this goal: one with resources of Portobras and shipping companies and another one with resources of the World Bank. The adaptation of these ports for the fast handling of containers has to comply basically with the needs of general traffic between Brazil, the United States and the North of Europe, which already by 80% uses this unitizing process. (Portos e Navios)

#### Lumber cargo sets new record: Nanaimo Harbour

A record-breaking cargo, produced mainly at Doman's Nanaimo mill, was loaded recently aboard the maidenvoyaging, Sanko Line, bulk carrier, Sanko Diamond. Marketing arrangements were made by Eacom Timber Sales Ltd.

Sanko Diamond, here on its maiden voyage from Japan, loaded more than 30,000,000 gross f.b.m. of Vancouver Island lumber, the biggest lumber cargo yet to be shipped from Nanaimo, according to shipping circles. It is also the largest cargo of lumber ever loaded in one port on the Island and possibly B.C.

To mark the event, executives of port, shipping and lumber production companies joined with the ship's officers at a reception held aboard the new vessel while it was loading at the new Duke Point dock of Nanaimo Harbour Commission, April 2nd.

Engraved bronze plaques were presented by Nanaimo Harbour Commission Chairman Don Rawlins to Captain T. Sato and to Don King, President of Eacom Timber Sales. Herb Doman, President of Doman Industries whose firm produced the lumber, was present as was Edmund Ellis, Vice-President of Sanko Kisen Corporation, Vancouver, along with some two dozen business people from Vancouver and the Island.

M.V. Sanko Diamond, length 188 m., breadth 28 m. with a net tonnage of 12,589, gross 22,009 and deadweight of 38,000, left the S.S.K. Sasebo yards in Japan, January 8th this year. The bulk carrier is a Panama flag, five hatch, job crane vessel especially suitable for forest products.

Robert Chase, Manager of Marketing and Public Relations for Nanaimo Harbour Commission says the record lumber shipment "is a bright spot in an economy that is beginning to improve. It gives a boost to our outlook."

# Port of Prince Rupert sets new annual tonnage record : Ports Canada

Record tonnages of cargo were shipped through the Port of Prince Rupert in 1983. And, the prospects for 1984 and beyond are even better.

Three point one million tonnes were handled in 1983, up 29 percent over 1982. The previous high occurred in 1980 with a total throughput of 2.9 million tonnes.

Records shipments at the Port's two major export terminals contributed to most of the increase.

Grain shipments through Prince Rupert Grain Ltd.'s elevator represented 54 percent of total Port tonnage. The elevator's throughput was up 45 percent over 1982 to a total of 1.7 million tonnes.

Fairview Terminal which is owned by Ports Canada also had a record year shipping 420,000 tonnes, up 33 percent over 1982. The major commodity routed over Fairview was lumber and the final tally reached an all time high of 250,300 tonnes. Other commodities include speciality grains and grain by-products, up 68 percent and mineral concentrates, up 26 percent.

Fairview and other Ports Canada berths accounted for 24 percent of the total Port tonnage, an increase of 41 percent.

Although there was an increase in most commodities handled, pulp exports were down 15 percent to 194,300 tonnes. The number of cruise ship landings were down to 31 from 39 in 1982.

The Port's outlook for 1984 and beyond is excellent. Port General Manager Ken Krauter says that there is every indication that the demand for lumber will remain strong, particularly in the United States.

He also notes that coal shipments through the Ridley Island coal terminal began recently and that throughput from this terminal alone is expected to reach six million tonnes.

In addition, the new Ridley Island grain terminal with an annual throughput capacity of 3.5 million tonnes will be on stream in early 1985.

Mr. Krauter says traffic projections indicate that by 1990 total Port throughput will exceed 13 million tonnes annually. (Currents)

#### \$11.8 million contract awarded at Grande Anse, Port of Chicoutimi: Ports Canada

This contract includes the construction of a concrete caisson wharf of approximately 285 metres long, and an eight-hectare backup storage area.

"This contract is part of a \$26.6 million project for the relocation of the Port of Chicoutimi to Grande Anse. The major consulting engineering and design contracts were awarded in 1983, including project management and supervision, access road and wharf design. Clearing for construction of the access road is now completed and road construction began last January. The construction on this \$11.8 million project will begin in early May and will be completed by the fall of 1985," stated Mr. Dionne, MP for Chicoutimi.

The total port project being funded under the Special Recovery Program also include an \$8 million urban renewal project in the city's downtown core at the existing port site.

The whole port relocation project will generate about 400 person-years of direct and indirect employment during the 21-year construction period. About 300 person-years of employment will be generated by the \$8 million urban renewal project which is also funded under the Special Recovery Program.

This project is part of the federal government's \$2.4 billion Special Recovery Capital Projects Program, an-

nounced in the April, 1983, budget. It is one of more than 60 projects in the transportation sector.

#### Impact studies meet requirements of Environmental Assessment Review Board: Port of Quebec

Two studies recently published by the Port of Quebec detailing the environmental, sociological and economic impact of a 42.5 hectare expansion of its facilities at Beauport meet the requirements of the Federal Environmental Assessment Review Board, now examining the project.

That confirmation is am important step for the Port of Québec in its request for the definition of an environmentally acceptable perimeter for development as its Beauport deep-water facility.

The project presented by the Port of Quebec calls for the zoning of 42.5 hectares of the Beauport flats as "designated for port development", with additional sites for new port users to be constructed in three phases according to demand. It consists of an extension of existing installations from pier 54 (Beauport) to the east in the form of a peninsula in deep water (18 meters) beyond the shoreline at low tide.

When construction has been completed, the project will add 793 m. of what frontage and 34 hectares of space for port activities to existing facilities. The new site will be bordered by a green belt 60 to 90 meters wide, totalling 4 hectares, in addition to a beach covering an area of 4.5 hectares at low tide.

The area known as the Beauport Flats, extending along the north shore of the St. Lawrence River east from the St. Charles River Estuary, is an exceptional site for port development. It also offers considerable potential for waterfront recreational activities in the heart of an urbanized area and is an excellent wildlife habitat.

The proposed development will offer a beach and recreational area to the public and will not encroach upon the ecologically sensitive intertidal area along the shoreline.

Once the perimeter for development at Beauport has been defined, the Port of Québec will benefit from greater operational flexibility, with a "bank" of prime additional port sites available to shippers. (*Port de Québec*)

# Port of Saint John announces plans for work on ro-ro ramp

The Port of Saint John, NB, Canada, has received authorization from the Ports Canada Board of Directors to proceed with design and engineering work for an additional roll-on roll-off cargo loading ramp. It will be located at the bulkhead between Brunterm Ltd.'s Rodney Container Terminal and Pier 3, according to Gordon C. Mouland, General Manager of the Port of Saint John.

The 200-foot-long ramp, which will cost about \$6 million, would enable the port to load and discharge stern and quarter-loading ro-ro ships 24 hours a day, regardless of the tidal range. Stern-loaders would be worked from the bulkhead and quarter-loaders would be moved to the Rodney Terminal side, where a notch would be cut to install the ramp. Financial and marketing analyses are being done to confirm the economic viability of the project, a requirement which is part of Ports Canada's mandate to be economically self-sufficient.

Upon approval, actual construction of the project will begin, possibly as early as May, with completion of the ramp scheduled for fall before the start of the 1984 winter season.

Existing ro-ro ramps at the Navy Island Forest Products Terminal and Lower Cove Terminal can work only at certain tidal ranges and only for certain vessels. There is also a ro-ro capability at the CN Marine Ferry terminal.

# Container business booms in Port of Vancouver

Containers, the ubiquitous boxcars of international shipping, are big business for the Port of Vancouver.

The total number of containers handled in the port during 1983 was 136,178 TEUs (twenty-foot equivalent units). This represents an increase of 22,168 containers, or an impressive growth rate of 19.4 per cent, over the container volumes of 1982.

The year 1983 also set a record for the number of containers handled in Vancouver, outstripping the previous alltime high set in 1981.

The higher volume also pushed actual container commodity tonnages to a new, record level of 1,158,000 tonnes, an increase of 15.2 per cent over 1982.

Port General Manager Erik Tofsrud said that the growth in container traffic reflected improving economic conditions and a worldwide trend.

"However, we want to ensure that the Port of Vancouver can consolidate its success in this area and use past levels of container traffic as a basis for future growth."

The Port already has appointed a task force charged with examining ways in which Vancouver will remain competitive with U.S. coast ports, and the future of the Port's container terminals. A series of seminars, promoting Vancouver as an import and export point for commodity shippers, will be held in major cities across Canada this spring.

"The erection of two new, 40-tonne gantry cranes last year gives us sufficient capacity to handle projected container growth for the next few years," said Mr. Tofsrud.

"Now we have to go to work aggressively marketing the Port of Vancouver throughout the world to see that those cranes are kept busy generating revenues for the Port."

As has been the pattern at Vancouver, foreign container movements continued to dominate container handling activities during 1983. The total number of foreign container movements were 125,704 TEUs, up 21.7 per cent over 1982, representing a total of 891,000 tonnes of cargo, up 22.6 per cent. (Port News)

#### Cargo volumes set new records: Port of Vancouver

Cargo moved through the Port of Vancouver in record volumes in 1983.

International demand for some Canadian export commodities, buoyed by the recovery of major national economies, saw port traffic burst through the 50 million tonne threshhold for the first time.

Final statistics for 1983 show that total tonnage through the port reached 51,648,000 tonnes. This represents an increase of 2,568,000 tonnes, or 5.2 per cent.

The record performance was accomplished partly by sharp growth in some principal exports, including grain, potash, woodpulp and pulpwood chips.

Port General Manager Erik Tofsrud said he was encouraged by the achievements of the past year. But the makes it clear he views the levels only as a springboard for significant, future growth.

He already has task forces exploring possible initiatives to encourage and plan for expanded specialty grain and container movements, and talks are planned with producers about expanded petro-chemical storage and terminal facilities

"Projections contained in the Port's master plan indicate that traffic through the port could hit 61 million tonnes by 1990. That's 10 million tonnes more than today," said Mr. Tofsrud.

"We know that there's enormous potential for growth, especially with all the increasing activity in Pacific Rim nations. Vancouver is Canada's principal Pacific Coast port, and we have to plan now to be in a position to satisfy the expectations of importers and exporters." (Port News)

#### President of K-Line receives Long **Beach Port Pilot Award**



Kiyoshi Kumagai, President of Kawasaki Kisen Kaisha, Ltd. (Associate Member of IAPH), has been named the 57th individual to receive the Honorary Port Pilot Award from the City and Port of Long Beach.

so wn in picture is, at left, Jim Gray, Vice President of the .ong Beach Board of Harbor Commissioners presenting the award – the Harbor's highest tribute – to Mr. K / nagai at the recent ceremony held in Tokyo.

During his 42-year career with K-line, Mr. Kumagai has tecome one of the industry's most knowledgeable and effective administrators. Last year he was elected Chairman of the Japanese Shipowners Association.

Several hundred guests gathered for the recent Port Pilot ceremony in Tokyo to pay tribute to Mr. Kumagai whose distinguished leadership in the field of maritime transportation has had a positive effect on trade relations between Japan and the Port of Long Beach.

#### Port of Los Angeles welcomes Kaohsiung, Tai Chung Port mission



Container facilities and other port services in Los Angeles Harbor were examined by a Republic of China delegation while on a three-week tour of the United States to promote the transshipment capabilities of two Taiwan harbors, Kaohsiung and Tai Chung. Here Jack Wells, fourth from left, Chief Deputy Executive Director and Steven Paul Resnick, third from right, Marketing Director, Port of Los Angeles, welcome the staff accompanying the port mission: T.W. Hung, Tai Chung Harbor; L.W. Lee, Department of Navigation and Aviation, Ministry of Communications, ROC; Capt. George Chang, Evergreen Lines; P.C. Kann, Kaohsiung Harbor; J.F. Liu, Kaohsiung Harbor, Capt. K. Lee, Evergreen Lines.

#### Port of Los Angeles presents official Harbor Commission resolution to Mitsui-O.S.K. Lines\*

(\*Associate Member of IAPH)



In commemoration of Mitsui-O.S.K. Lines' 100th Anniversary the Port of Los Angeles, here represented by Los Angeles Harbor Commission President Gene Kaplan, right, presents an official Harbor Commission resolution to T. Saito, Mitsui-O.S.K. senior representative. Applauding the action and Mitsui-O.S.K.'s extraordinary success is Los Angeles City Councilwoman Joan Milke Flores, whose 15th Councilmanic District includes Los Angeles Harbor.

#### Dundalk Marine Terminal marks cargo increases : Maryland Port Administration

Cargo handled at the port of Baltimore's Dundalk Marine Terminal increased 55.8 percent in January-February 1984 over a comparable two-month period in 1983.

A total of 902,982 tons of cargo was handled at the 550acre terminal, the port of Baltimore's largest general cargo handling facility, in January-February 1984. Just 579,654 tons of cargo was handled at Dundalk in January-February 1983.

Container cargo handled at Dundalk in the two-month period stood at 595,861 tons as compared to just 450,180 tons for the same period a year earlier.

In the important category of automobile imports, the terminal experienced a 2,247 increase in the number of vehicles this January-February as compared to the same period in 1983. A total of 30,148 automobiles were unloaded at Dundalk Marine Terminal during this year's two-month period while 27,901 were unloaded during the same two months last year.

General cargo handled at Dundalk for the two months reached 63,571 tons in 1984 as compared to just 44,344 tons handled in the same period 1983.

# Negative impact of user fees reported: Reed cites U.S. study

Citing findings of a U.S. Department of Commerce study published in September, 1983, Edward S. Reed, executive director, Port of New Orleans, told a Congressional hearing that while the imposition of a user fee "would indeed return some revenue to the federal government, there would be perceptibly negative impacts not only on ports and shipping but on port hinterlands and the government itself." Reed testified at a hearing of the U.S. House Subcommittee on Merchant Marine headed by Congressman Mario Biaggi in a session in New Orleans.

Reed referred to a report entitled, "Economic Efforts of Levying a User Charge on U.S. Foreign and Domestic Commerce to Finance Harbor Maintenance" prepared by Bushnell, Pearsall, and Trazzo for the Department of Commerce. The study analyzed the economic effects of levying a 25 cent per ton charge on such commerce to finance Corps of Engineers operations and maintenance costs at U.S. ports.

The effect of levying a user charge on the various industries involved, Reed said, "would mean declines in sales, employment, income, and cargo." He also noted that the report indicated that customs would decrease as well as federal, state, and local income taxes and direct and indirect business taxes. He further pointed out that since U.S. exports would suffer to a greater extent than U.S. imports, the user fee would also have a negative impact on the U.S. balance of trade.

The study, using 1979 data, reported that the 25-cent charge would generate \$337 million to cover operations maintenance costs incurred by the Corps. However, it also found that the charge would cause a decline in traffic of approximately 10 million tons. This, in turn, would lead to a decline in employment of 10,000 jobs and in incomes of approximately \$260 million. Other losses stemming from

**38** PORTS and HARBORS — JUNE 1984

the drop in tonnage would be \$165.3 million in direct sales, \$12.1 million in Customs revenue, and \$67.1 million in taxes. Reed also pointed out that while ports and hinterland in every region would suffer, the most severe impacts would fall on the Gulf region.

Although the study was not a benefit-cost analysis and did not take into consideration how the user charge revenues might be used in the context of the federal budget, Reed warned that the Bushnell, Pearsall and Trazzo report "should cause all of us to tread more lightly before reaching the position of being overzealous advocates of user fees as the answer to all budgetary problems."

In his testimony Reed stated that the Port of New Orleans is philosophically opposed to imposition of any user charge or cost-sharing scheme on the inland waterways system or its terminus deep-draft ports. "We do, however, recognize that some form of cost-sharing/cost-recovery scheme is inevitable."

In regard to the two proposals now before Congress, H.R. 3678 (Roe Bill) and S. 1739 (Abdnor Bill), Reed said that the Port of New Orleans is strongly in favor of the Roe Bill with certain modifications. A major feature lacking in the Roe Bill, which appears in the Abdnor Bill, is a "fast-track" provision establishing a time limit within which permit proceedings must be completed.

Concerning the Roe Bill provision that for projects over 45 feet there would be a 50-50 cost-sharing on both the differential maintenance and new construction costs, Reed indicated he hoped that would be a maximum proposal and would be even less in the final legislation.

Reed described to the Subcommittee how Louisiana deep-draft ports have played an ever-increasing role in the growth of the United States' share of the international markets. In 1971, the ports of the state handled 52 million tons valued at 55 billion. By 1981, this figure had risen to 190.7 million short tons. The percentage share of the nation's foreign waterborne trade for Louisiana ports went from 9.6% in 1871 to 21.5% in 1981.

Reed translated the economic impact of that tonnage into jobs, noting that throughout the Mid-America states approximately 207,000 jobs were related to foreign, oceangoing trade. "The four ports of Louisiana, located in the regional complex stretching from Baton Rouge to the Gulf, trans-shipped approximately 183 million tons, equating to about 195,000 jobs of those 207,000 jobs," he added.

Reed reported that the Port of New Orleans "intends to retain its individual, vital role in the local, state, and Mid-America economy and fully intends to continue its ongoing \$500 million plus, 30-year capital improvement and modernization facility program. On the other hand, we do see need for the federal government to continue its traditional participating role in navigation improvements and maintenance." (Port Record)

#### Rise in 1983 general cargo tonnage: Port of New Orleans

Aided by a 21% increase during the last six months of the year, the Port of New Orleans recorded an overall 5% net increase in the handling of foreign waterborne general cargo in 1983. General cargo tonnage in 1983 totaled 5.3 million short tons compared with 5.1 million tons in 1982. Trends in general cargo are considered important because general cargo consists of high-value commodities and provides high economic impact on the community.

The Port reported a 16% increase in total container tonnage in 1983. A total of 2.5 million short tons of containerized cargo moved over Port wharves in 1983 compared with 2.1 million tons in 1982. While this continues an upward trend in containers handled at the Port since 1973, it was the largest annual increase since 1979. Imported container cargo was up 27% while exported cargo in boxes rose 10%.

Cargo shipped on roll-on/roll-off vessels via the Port increased substantially for the fifth consecutive year. Ro/ro cargo rose 49% in 1983. The growth in ro/ro exports was 45%, which was double the import volume. Ro/ro imports rose 58% but in a smaller market.

Commenting on these figures, Edward S. Reed, executive director, Port of New Orleans, said, "I am pleased to see a significant increase in these important types of cargo in 1983. The rise in general cargo, in particular, bodes well for the future of the local maritime industry."

(Port Record)

# Oakland's Howard Terminal completes major improvement phase

A new gate complex that will create direct freeway access and provide automated scales for four truck shipments at one time are among improvements that will complete the second phase of the Port of Oakland's development plan for the Charles Howard Terminal when they are put into operation for the first time on April 2, 1984.

Located at the foot of Market Street in the Port of Oakland's Inner Harbor area, the gate complex will replace the temporary queuing lanes and weigh station at the foot of Grove Street that have served the Howard Terminal since its opening in 1982. The Grove Street gate will revert to a secondary entrance for additional access to the terminal as required.

The permanent gate enables truck shipments moving northbound on Highway 17 to exit directly onto Market Street two blocks from the terminal, and reduces from five to three blocks the distance between the terminal and the entrance to Highway 17 southbound.

A total of ten lanes, six inbound and four outbound, have been built for the receipt and delivery of cargo. Four of the inbound lanes are equipped with a 120,000 pound capacity drive-on scale for weighing tractor-trailer combinations that is remotely controlled from within the gatehouse structure. Readouts from the scales can be processed simultaneously through a computerized system to speed documentation and storage of cargo in the terminal yard.

Related improvements in the gate area include new fencing and lighting and a secured parking lot for employees. Expanded paving provides a broad apron for the terminal's rail siding for transfer of open top and heavy lift cargoes.

Altogether the improvements bring to 42 the acres of yard now developed at Howard Terminal, or 80 percent of the 50 acres the facility will occupy when completed. Upon completion the container yard will have capacity for more than 2,900 TEU's one high, including outlets for 144 refrigerated containers. Facilities now in operation at the Howard Terminal include two continuous berths with an overall length of 1,642 feet, served by two, 40-ton gantry container cranes. A third adjacent berth of 566 feet in length serves conventional, combination and roll-on/roll-off ships. Covered storage on the wharf is provided by two transit sheds of 56,000 and 60,000 square feet, the latter a clear span structure having been completed in February 1983.

#### Record container volume places Charleston at top of Sun Belt Ports

The Port of Charleston has leaped ahead of seaports competing for recognition as the load center in the South Atlantic and Gulf ranges of the United States.

A survey by a tabulating research institute called "Physical Advantages-Port Authorities" has found Charleston to be the logical port in the South Atlantic for steamship lines to call. Among its advantages, the study cited its access to the open sea as primary. Further, bridge heights, depth restrictions, turning basins and tidal action posed no problems. But the clincher showed up in the institute's comparison of average container moves per hour. Their tabulations revealed that, not only was the South Carolina port a leader in the South Atlantic, but also in the United States.

Since that finding was released, *Containerisation International*, in its July, 1983 issue reported that Charleston was the first southeastern port to reach the two-million-ton container volume level in a single year. Indeed, container volume at the Port of Charleston soared to an all-time high of more than 2.4 million tons for Calendar 1983, up a solid 32 percent over the previous year.

This record performance beats even the combined efforts of the Virginia ports; it puts Charleston in the lead in container business from Baltimore to Los Angeles.

In terms of 20-foot equivalent units (TEUs), Charleston container terminals had a throughput of 370,805 TEUs. This figure exceeded the Calendar 1982 tally by 13,409 TEUs, or about four percent.

The port also showed a strong recovery in its breakbulk cargo movements during Calendar 1983. At 988,017 tons, breakbulk volume was up three percent, or 28,796 tons, from the 1982 total of 959,221 tons.

General cargo for 1983 totaled 3,459,860 tons, which is up 22 percent, or 633,310 tons, from the previous year.

Significantly contributing to Port of Charleston's tonnage gains during the past year was the expanded activity at the Wando Terminal, where four cranes and a growing paved back-up area provide service for six pure container lines.

Sixteen containership lines regularly call at all four Charleston terminals: They are: COSCO, Sea-Land Service, United States Lines, Maersk Line, Evergreen Line, ACT/ Pace Line, Orient Overseas Container Line, Navieras de Puerto Rico, Columbus Line, Trans Freight Line, CMA, ABC, K.S. Line, Dart, Neptune Orient Line and Delta Line.

The Wando Container Terminal, a 561-acre site, lies across Charleston Harbor from other SPA facilities on the mouth of the Wando River and 12 miles from the open sea. The ideal location offers the potential to meet future demand for port services into the 1990s and is expected to have a highly favorable impact on the South Carolina economy. (Port News)

# The South Louisiana Port entering a new era

#### by Ray J. Matherne, Ph.D., Port Director

The greatness of Louisiana and, to a large degree, the greatness of the United States is due to the existence of the Mississippi River.

The river forms a major part of the largest inland waterways system in the world, draining more than 40 per cent of the U.S. It is principally responsible for the lushness of Louisiana and much of the Mississippi Valley, depositing 350 million cubic yards of topsoil annually over the valley, enough to cover the entire state of Connecticut with one inch of rich topsoil.

The Mississippi was the backbone of the 1803 Louisiana Purchase, the largest land purchase in the history of our nation. It doubled the size of the new republic in a single transaction.

The South Louisiana Port Exists because of the Mississippi River. Part of the tremendous potential it offers was highlighted by the action of the Port Commission in announcing negotiations for the purchase of property for its cargo facility, part of its proposed Foreign Trade Zone. Details of the facility form the lead story in this edition of "Port View."

Without doubt, the proposed cargo facility will be one of the most significant economic developments in the history of South Louisiana. Business that should go to Louisiana is today going to other ports that offer more flexibility in handling cargo.

Moreover, the situation will get worse before it gets better unless something is done, since we are looking to a time not very far off when some 85% of all cargo will be shipped in containers and will need an intermodal containerization facility such as the one being proposed.

The cargo site deserves recognition if, for no other reason, than the engineering involved. It will be one of the nation's largest container facilities, offering about a mile of dock space. It will open the nation's heartland and both its coasts to high speed, dependable cargo movement from South Louisiana.

It will provide new jobs for local residents. It will diversify our economy, attracting business that presently have no reason to come to our area. It will spread a measure of prosperity to every parish in southeast Louisiana.

But even more important is the vision that went into proposing this incredible development. We have taken one of the most vital resources we have at our disposal, the Mississippi, and are using it to make a better life for all our people. And, in the process, we have demonstrated that the Father of Waters is just as viable, virile and essential as it was almost 200 years ago when our nation was growing to maturity. (Port View)

#### Port helps industry with bonds: South Louisiana Port

With the economy on the upswing and inflation at its lowest rate in years, the climate is ideal for business reloca-

tion and expansion. And the South Louisiana Port is ready to help industrial and commercial tenants with financial aids to ease the costly burden of a new project.

In its creation of the nine-member South Louisiana Port Commission, the Louisiana Legislature gave the Commission the power to grant tax-free bonds for construction of port and related facilities within its jurisdiction. This allows business to release corporate capital for use for operating capital, without tying up funds in long-term investment.

Since its first issue, the Commission has granted \$185.3 million in industrial revenue bonds. Eleven River Parish industries have benefitted from these bonds, resulting in thousands of jobs for area residents.

"The Port uses revenue bonds as an inducement to develop the South Louisiana Port area into one of the largest in the nation," said Earl White, Assistant Director for Port Development.

The first recipient of Port-issued bonds was the Reserve Grain Terminal, which received \$11 million in bonds in 1967.

Most recently, the Commission approved an issuance of \$3.5 million for Hall-Buck Marine Services. Hall-Buck will use the funds for construction of a barge-loading terminal in Mt. Airy, St. John the Baptist Parish, and will work under contract with Kaiser Aluminum and Chemical, located nearby.

The largest single industrial revenue bond of \$33 million was issued to Peavey Grain Terminal.

The large amount of Port investment in grain facilities correlates with the quantity of grain handled by the South Louisiana Port. Three-fifths of the Port's total exports are grain-related, and over 90% consist of agricultural products.

In addition to the Commission's financing ability, the three parishes it covers (St. Charles, St. James and St. John) are authorized to issue general obligation bonds to build and equip industrial and commercial facilities. Pollution abatement projects can receive unlimited funding.

Other financial inducements are available to attract business. The state of Louisiana, through the Department of Commerce, can also give commerce and industry a helping hand through its ten-year tax exemption program.

And with the creation of a foreign trade zone at the South Louisiana Port, duties will be deferred on products being assembled or containerized within the Port Zone.

Has the South Louisiana Port been successful in its economic development efforts? Port officials will say that there is still much to be done. But the fact that the three parishes in the Port area are in the top five in the state in median income, and are well above the national average, is certainly a positive indicator.

Three out of five isn't bad. But the South Louisiana Port Commission won't rest until it's three out of three. (Port View)

#### Port of Antwerp in 1983

In an economic world where the immediate future is beginning to reveal a few rays of light – which also applies to Belgium where government policy has led to a considerable improvement in the balance of trade and payments – the port of Antwerp can on the whole look back on the year 1983 with some satisfaction.

The principal reason for this satisfaction is undoubtedly the strengthened competitive position of the port, mainly due to the introduction of new infrastructure and installations, as well as to a realistic tariff policy pursued throughout the year.

A further reason was the continuing positive trend in most traffic flows, a result which is undoubtedly bound up with the port's increased competitiveness.

#### Movement of shipping characterized by increase in size

In the course of 1983 some 16.214 seagoing vessels called at the port with a global tonnage of 108 million GRT (Gross Register Tons). Although the number of vessels lies slightly below that of 1982, the number of large seagoing vessels calling at the port has increased.

Thanks to continuing efforts to increase the depth of the Scheldt the number of vessels carrying over 100,000 t of cargo increased by a quarter in spite of a decrease in bulk cargo traffic.

The greatest draught recorded was 48'3" and the largest complete cargo was 116,000 t of coal.

#### General cargo traffic reaches new record

The preliminary calculations made by the Harbour Master's Office reveal that the port of Antwerp's maritime cargo traffic amounted to some 80 million tons in 1983.

In comparison with 1982 this means a 6% increase in general cargo traffic so it is expected that a new absolute record will be achieved with over 32 million tons.

The decline in the iron and steel traffic was mainly compensated for by a large increase in unit-load traffic. The growth in container traffic was considerable – over 18% – and reached the 1,000,000 TEU mark. The principal reason for this is the first successful year of operations at the installations in the new Delwaide Dock.

However, bulk cargo traffic in 1983 suffered from the impact of the recession, which had already made itself felt much earlier in competing ports (1). As a result bulk cargo traffic fell to below the 50 million ton mark and overall traffic in 1983 was 4.8% below the record total of 1982.

However, with its increase in the volume of labourintensive and high-value general cargo the port of Antwerp has proved to be one of the sectors of the Belgian economy which can withstand any foreign competition. Partly because in general the level of employment has been maintained and because the public authorities and the private sector have invested billions to ensure the future of the port, Antwerp has maintained its position as one of the largest general cargo ports of Europe.

This is shown by the large volume of traffic handled in certain general cargo sectors (2):

- containerized general cargo amounted to c. 8.5 million tons;
- ro/ro traffic continues to rise and passed the 2 million ton mark, an increase of some 14% over 1982;
- the iron and steel traffic still amounts to about 8 million tons;
- the traffic of forest products (timber, paper and pulp) progressed considerably and rose to 2 million tons.

With regard to bulk cargo traffic, beside the decline in minerals (especially coal, ores and mineral oil products) there was a strong increase of over 20% in fertilizer traffic.

#### Delwaide Dock: first complete year of operations a success

The especially good results with regard to general cargo traffic can to a considerable extent be ascribed to cargo operations at the Delwaide Dock. The results achieved by the terminals beside the 4.7 km of quay at the dock during their first complete year of operations speak for themselves.

Together they handled in 1983 over 370,000 containers as well as considerable tonnages of Ro/Ro cargo, iron and steel products and forest products. 2.75 million tons of ores and coal were handled at the bulk cargo terminal which began operations in March 1983.

- (1) The Study Centre for the Expansion of Antwerp has recorded the following figures for the North Sea ports which handled over 20 million tons: Amsterdam : + 8.3%, Bremen/Bremerhaven : 0.4%, Dunkirk : 8.8%, Ghent : + 4.5%, Hamburg : 18.5%, Le Havre : 6.1%, Marseille : 7%, Rotterdam: 7.2%, Rouen : + 6.7%.
- (2) Preliminary figures based on the period January-November, 1983.

#### **1983's traffic results: Port of Dunkerque**

Just as with other northern ports, there was an overall drop due to decreasing bulk cargo while general cargo showed better results. In a way, Dunkerque's results are more in keeping with those of the north European ports than those of the French ports.

In 1983, traffic went down for the third year running. With an overall tonnage of 30.2 Mt (shipchandling excluded) it went down by 8.4% on the previous year.

The level of 1983, which was first experienced in 1975 following the oil crisis, can be explained by the continuing slump in the steel industry which caused heavy bulk to plummet while fast growing supply from the nuclear plants meant that coal import for EdF took a tumble.

In spite of a gloomy context, Dunkerque managed to assert its claim to be a large french trading port on the North Sea.

General cargo – which carries high added value – moved upward on regular deepsea lines, container lines, grain traffic lines or cross-channel lines for which it was truly a record year.

	-	~
1	1.0	nel
١.	1 0	113
•		

			(10hs)
	1982	1983	%
Ships arrivals Net registered tonnage	6,062 25,666,727	6,122 23 495 775	+ 0.9
INWARD TRAFFIC	20,000,121	20,190,110	0,1
TOTAL	25,805,467	23,349,776	- 9.5
Incl. liquid bulk Incl. solid bulk General cargo	8,425,967 16,320,733 1,058,767	8,232,786 13,908,873 1,208,117	- 2.3 -14.7 + 14.1
OUTWARD TRAFFIC			
TOTAL	7,112,140	6,810,767	- 4.2
Incl. liquid bulk Incl. solid bulk General cargo	1,914,868 1,141,747 4,055,525	1,688,469 1,045,266 4,077,032	-11.8 - 8.4 + 0.5
OVERALL TRAFFIC	32,917,607	30,160,543	- 8.3
Incl. liquid bulk Incl. solid bulk General cargo	10,340,835 17,462,480 5,114,292	9,921,255 14,954,139 5,285,149	- 4.0 -14.3 + 3.3

Africa-Europe

#### Container boom at the Western Harbour

Deep sea container traffic made a spectacular leap forward at the western harbour; thanks to the existing lines but also to new traffic brought by less regular lines. The increase however was less perceptible at he eastern harbour.

As regards cross-Channel traffic, the uncertainty as to the future of the Felixstowe line had averse effects on the service.

Western	Num	ber of T	EU's	Gr	oss tonnag	e
port Cross-	1982	1983	% 83/82	1982	1983	% 83/82
(x) Eastern port	33,376 12,905 21,101	39,800 7,300 22,200	+ 19% 43% + 5%	369,420 181,576 249,190	430,000 99,600 286,000	+ 16% 45% + 15%

(x) Western port

#### Outlook

In spite of an overall negative trend, essentially due to the state of world economy and in particular to the steel crisis, Dunkerque could boast flattering results in sectors carrying high added value: regular lines, cross-Channel and passenger traffic, and the most remarkable result was the rise recorded in various goods while all the other french ports incurred losses, severe at times, in this field.

In 1984, there might be yet another increase in these sectors considering the existing potential, while the low level of activity in the steel industry in 1983 should keep alive hopes of a recovery.

Finally, no dramatic shift is expected in the oil sector, except may be from crude oil entries to those of finished products, which ought to benefit overall traffic.

Consequently, the 30.2 Mt forecast for 1984, roughly level with 1983's seems likely to be met.

#### Multipurpose Bulk Terminal – Port of Le Havre/CIPHA concession signed

CIPHA (Compagnie Industrielle des Pondéreux du Havre) was set up to install and operate the storage, processing and onward dispatch facilities at the Multipurpose Bulk Terminal now being built in the port/industry zone at Le Havre. It is based in law on a concession by the Port of Le Havre and the final documents were signed on December 7th by the Chairman, Mr. Jean-Pierre Bonon, and the Director-General of the Port Authority, Mr. Jacques Dubois. The ceremony took place at the Havre World Trade Centre, where CIPHA has its head office.

The company at present has a capital of 8 million francs and is a consortium of various public and privately owned firms with an interest in bulk traffics. They are:

	Compagnie Français de Raffinage	22.	5%
_	Compagnie Industrielle Maritime	10	%
	Compagnie Parisienne des Asphaltes	10	%
	Elf France	10	%
-	Charbons et Pondéreux du Havre	10	%
	AGIP Carbone	8	%
	Société Havraise de Gestion et de Transport	8	%

 Charbonnages de France-Energie	7.5	5%
 Service et Transports	5	%
 SAMIA	4	%
 Fina France	4	%
 Docks Industriels.	1	%

The ministerial decision authorizing the government's share in the financing of the terminal, and formally approving the project, was also signed on December 7th. A few days later the Director-General of the Port of Le Havre, Mr. Dubois, signed the contract with the Quillery group for the construction of the wharf.

The Multipurpose Bulk Terminal, more fully described in our last issue, is therefore now a reality in course of construction. If all goes well, it will come into service in July 1985. (*Flashes*)

#### Another increase in Bremen goodshandling and transit traffic

The upwards-trend of cargo handling in the Bremen ports for January (2.19 million tons) and February (2.41 mil. tons), has continued into March 1984. Characteristic for the favourable development in Bremen and Bremerhaven, is the regular increase in the container-proportion of the general-cargoes which, alone in 1983, improved from 41 to 44 percent — and continues to climb in 1984. An overaverage increase was also recorded in the Bremen ports in recent months in transit-movements to Eastern, Central and Western Europe — and in the feeder-traffic to Scandinavia.

# EUROKAI handles the millionth: Port of Hamburg

EUROKAI, Hamburg, West Germany's largest privately owned terminal has handled one million boxes since the facility went into operation in 1970. The 1,000,000th container was loaded with high-value chemicals from Hoechst of Frankfurt to be shipped to Japan for the manufacture of articles in plastic. The shipping was handled by lexzau, Scharbau & Co.

The anniversary container was carried by the ScanDutch vessel 'NIHON' that has a 2,546 TEU capacity. The special significance of the 'NIHON' is that the 'NIHON' opened the ScanDutch full container service operating from EUROKAI for the Far East on June 2nd, 1972. The agents for this service are VLA-Vereinigte Linienagenturen GmbH.



#### New traffic control system at Harbor Operation Center: Port of Amsterdam

The Harbor Operations Center in IJmuiden, at the entrance to the North Sea Canal and the Port of Amsterdam, has been equipped with a new radar and automated traffic control system. This system, designed by Philips, makes the North Sea Canal Ports, from IJmuiden to Amsterdam, both safer and more convenient for shipping.

All data of both incoming and outward bound vessels is stored in the Center's computer. These "passage plans" – all information concerning a ship, its size, Estimated Time of Arrival, cargo and berth – are accessible to interested parties, including the Amsterdam Harbormaster's Office. Particulars of vessels remain in the traffic control system from the moment they call for a pilot inbound until they berth and then until they drop off the pilot on the way out of the area.

Vessels can be picked up by the new radar equipment 40 kilometers from the coast and vessel movements are observed simultaneously on two radar screens set at a 12 and a 20 kilometer radius. The authorities as well as the government pilots who guide ships from the harbor mouth to the berth and reverse this process on the passage out are thus informed of all shipping movements in the area.

Every year, about 15,000 cargo and fishing vessels – or 40 to 50 a day – enter or leave the harbor mouth; of these, about 4,000 cargo ships enter the North Sea Canal and go on to Amsterdam. Therefore, the traffic control and radar systems play an important role in getting ships in and out of the port in all weather conditions. (*Report*)

#### Transhipment in the Port of Rotterdam rose in this year's first quarter

#### Rotterdam-Europoort 1st quarter 1984/1983

Figures based on innings of port charges:

	1st quarter 1984	1st quarter 1983	%
Total (bunker excl.)	60,421	56,093	+ 7.7
Bulk goods	48,966	47,010	+ 4.2
Incl.			
Crude oil	20,995	18,924	+ 10.9
Mineral oil products	7,641	9,459	-19.2
Ore	8.084	7.003	+ 15.4
Coal	2,783	2,019	+ 37.8
Other bulk goods	9,463	9,605	- 1.5
General cargo	11,455	9,083	+ 26.1
Incl.			
Lash	459	232	+ 98.3
Ro/Ro	1,280	1,033	+ 23.8
Containers	6,893	5,305	+ 29.9
Others	2,823	2,513	+ 12.3

Transhipment in the port of Rotterdam shows an upward tendency. Over 60 million tonnes of sea-borne goods were transhipped during the first quarter of 1984. This is nearly 8% more than during the corresponding period of the past year, when port activities in Rotterdam were relatively poor. This was concluded by the Rotterdam Port Administration from the innings of the port charges for the first quarter of this year. Bulk commodities rose by 4% and general cargo by 26%. Crude oil, ores, coal, lash, roll on/ roll off, containers and other general cargo rose (compared with the first quarter of 1983); mineral oil products and "other general cargoes" (among which cereals and derivatives) dropped.

#### ABP to move to Holborn

Associated British Ports is moving its London Headquarters from Marylebone to a newly completed building at 150 Holborn, London EC1N 2LR. The move is scheduled for 29th May 1984.

ABP say that the move is necessary to keep pace with the development of their business, and that by moving to Holborn they will be closer to their shipping industry customers.

The new telephone number will be 01-430 1177, the facsimile 01-430 1384 and the telex 23913.

#### **Passengers boost Southampton**



Southampton is once again making its mark in the ocean liner passenger trade. 8,000 passengers have used the port in the space of just 11 days on 5 major cruise liners.

Safmarine's M.S. "ASTOR" 18,000 GRT (pictured) recently sailed on her maiden voyage to South Africa, restoring the old passenger link with the Cape.

P & O Cruises' "SEA PRINCESS" (27,000 GRT), returning from a world cruise, and "CANBERRA" (45,000 GRT), back from Australia, disembarked over 2,000 passengers and embarked 2,430 on cruises to the Mediterranean and Atlantic Islands respectively.

Cunard's flagship "QUEEN ELIZABETH 2" embarked over 1,000 passengers each way from and to New York.

Finally, over 600 West German tourists visited the port on an around-Britain cruise on the Russian liner "MIKHALL LER MONTOV," (20,000 GRT.)

Southampton is the leading container port on the English Channel, but these sailings show a revival in the port's traditional role as a major passenger terminal.

Southampton is within easy reach of 25 million people living in the South of England, and over 2 million passengers a year pass through the port's reception halls onto scheduled ferry sailings, liner services and cruise ships.

#### Offer for sale by tender of 19,400,000 shares in Associated British Ports Holdings P.L.C.

J. Henry Schroder Wagg & Co. Limited, on behalf of the Secretary of State for Transport, is arranging the Offer for Sale by Tender of 19,400,000 ordinary shares of 25p each in Associated British Ports Holdings P.L.C. ("ABPH") at a minimum tender price of 250p per share. 100p will be payable on application. The balance of the purchase price will be payable by 3:00 p.m. on 13th July, 1984. The shares are being sold ex the right to receive the proposed final dividend of 5.5p net per share which is recommended for payment on 29th May, 1984.

The Offer for Sale has been underwritten by J. Henry Schroder Wagg & Co. Limited. The brokers to the Offer for Sale are W. Greenwell & Co., Cazenove & Co. and Kitcat & Aitken.

In February 1983 H.M. Government reduced its 100 per cent holding in ABPH by means of a public Offer for Sale of 19,600,000 shares. It has also provided a total of 1,000,000 shares in ABPH to the Trustees of ABPH's Employee Share Ownership Scheme free of charge. H.M. Government now holds 19,400,000 ordinary shares, representing 48.5 per cent of the issued share capital of ABPH. Under this Offer for Sale, H.M. Government is disposing of the remainder of its interest in the share capital ABPH.

In the proposed text of the Chairman's Review for the year ended 31st December, 1983, which is included in the Prospectus which will be published in the national press on Thursday, 12th April, 1984, Keith Stuart, Chairman of ABPH, stated that:

"The outstanding event of 1983 was, of course, the privatisation of the Company, including a major involvement of employees as shareholders. Privatisation has brought greater commercial freedom, allowing fuller use of our assets and expertise. This new freedom is already being turned to good account by our participation in a number of joint ventures: Mayflower Container Terminal Limited at Southampton, Southampton Freeport Limited, Lowestoft Container Terminal Limited, and Universal Pipe Coaters Limited at Immingham.

#### Further substantial improvement

Following the strong recovery in the Company's performance in 1982, I am pleased to report a further substantial improvement in 1983. Pre-tax profit increased to  $\pounds 14.5$  million in 1983 from  $\pounds 5.5$  million in 1982 (equivalent to approximately  $\pounds 8.9$  million if the new capital structure and the revised contractual and other arrangements coincident with privatisation had applied throughout 1982). After tax, the profit improved to  $\pounds 9.6$  million from  $\pounds 5.8$  million ( $\pounds 5.0$  million on the basis of the revised arrangements).

Towards the end of the year there were welcome signs of an improvement in overall trading conditions although some sectors such as steel remained depressed. The nineteen ABP ports again succeeded in raising their total volume of business, which reached 82.6 million tonnes, an increase of 5.7 million tonnes on 1982 and the highest total throughput since 1976. Container and roll on/roll off traffic reached a new record level and there was increased activity from the offshore energy industries, for which several of our ports provided a variety of services.

#### Dividends

An interim dividend of 3p was declared on 15th September, 1983 and the Directors are recommending a final dividend of 5.5p, making a total of 8.5p net per share in respect of 1983. A total dividend of not less than 7p per share was foreshadowed in the Offer for Sale at the time of the privatisation of the Company.

#### Southampton

At Southampton, the joint venture with the C.Y. Tung Group of Hong Kong, Mayflower Container Terminal Limited, began operation and has quickly established itself by attracting important new business in the North Atlantic and South American trades. Substantial tonnages were handled through the two new grain terminals at the port.

An important development since the end of the year was the selection of Southampton as the site for one of Britain's first freeports. Southampton Freeport Limited is another of the new joint ventures which were initiated during 1983. Our partners are Trafalgar House, Ocean Cory and Kleinwort Benson. Preparations are in hand for freeport operations to start during the second half of 1984, but of course it will be some time before the full potential of the freeports is realized.

#### **Humber Ports**

Our Humber Ports, with the exception of Hull, had another excellent year. At Grimsby and Immingham traffic reached record levels. At Immingham we established a new joint venture with Humberside Sea and Land Services Limited, which is partly owned by Powell Duffryn. The new company, Universal Pipe Coaters Limited, has expertise in the coating of onshore and offshore pipelines, and is strategically positioned to benefit from the expected renewal of activity in the southern part of the North Sea. Goole continued to attract new business, and we are pursuing an active investment programme to improve facilities at the port.

The trading situation at Hull was adversely affected by an industrial dispute, which led to a significant reduction in revenue. The dispute ended in September with the acceptance of improvements in productivity as the basis for a pay increase, but inevitably it is taking some time for the port's business to be rebuilt. By the end of the year there were encouraging signs of trade returning to the port.

#### South Wales Ports

Comparison of results for our South Wales Ports is complicated by the settlement of revised terms for the commercial agreement with the British Steel Corporation which took effect in January, 1983. Reduced revenue of approximately  $\pounds 2$  million per annum from the facilities at Port Talbot has to be set against the cash receipt of  $\pounds 24.5$ million which is dealt with in the extraordinary items in the 1983 accounts. Excluding Port Talbot, the South Wales Ports showed welcome progress in both financial and traffic terms. Newport benefited from increased exports of cars to the Middle East and increased imports of cars from Japan, and from an expansion of operations at the timber terminal. Although the position at Barry remained difficult, steady progress was made at Cardiff in expanding the port's traffic base. For the longer term there are prospects of additional revenue from the use of some 70 acres of the Company's land at Cardiff under the Dockland Development Scheme. In January 1984 the Company, together with The Land Authority for Wales and South Glamorgan County Council, announced that Tarmac had been selected as the developer for this £50 million scheme. In addition, freeport facilities in Cardiff should provide a stimulus to trade at the port.

#### **Other Ports**

The Group's nine Other Ports had another successful and profitable year. At Lowestoft, a new container terminal was established in a joint venture with the Coastal Container Holdings Group, a company with which we have had a long association at our port of Garston on Merseyside.

#### **Board of Directors**

In January 1984 I was pleased to welcome Mr. Maxwell Creasey as a new non-executive Director of the Company. He is Deputy Managing Director of MEPC and has long experience in the world of property.

#### **Employee Share Ownership Scheme**

The current Employee Share Ownership Scheme has been widely welcomed by our employees and the Directors are convinced that a significant employee shareholding is an excellent means of encouraging a positive involvement in the success of our enterprise throughout the organization. A further issue of shares to employees is to be made in May on the "matching offer" principle, under which employees are issued with one free share by the Company for every share for which they subscribe at market value.

The Directors will seek approval at the Annual General Meeting for an extension of the Employee Share Ownership Scheme in future years.

#### Employees

Our good progress was achieved despite continued recession in some of our markets, and reflects the high degree of commitment from employees at all levels to the Company's success.

#### Outlook

The overall level of business in the early months of 1984 has been satisfactory except that the present dispute within the coal industry is resulting in reduced coal exports through our ports. The impact of the coal industry's problems on our business will depend primarily on how long the dispute continues.

Otherwise, the outlook for the year as a whole offers prospects of a further expansion in the Company's business. Over the longer term, developments during the past year have strengthened and broadened the Company's potential for growth."

#### Thames refuse barges to be 'Magrorolled' : MacGregor Navire

MacGregor-Navire (Associate Member of IAPH) has won the order to equip a fleet of 41 barges with hatch covers of the light alloy, roll up type, well-known by the name 'Magroroll'. The barges – building at Smith's Dock on Teesside and Blackwell Engineering on the Thames, both subsidiary companies of British Shipbuilders – are specifically designed to transport London's domestic refuse from wharves within the city, down the River Thames to a landfill site on its eastern reaches. The owner is Cleanaway Ltd. of Rayleigh, one of the U.K.'s leading waste disposal companies.

The river transport of refuse through cities is usually subject to certain regulations laid down to prevent environmental pollution. In this case they include the requirement that, during transit, the barge be totally contained to prevent spillage, e.g. by high winds, and that the contents be invisible to the public. A further requirement designed to render the barges pilfer-proof, is that it be possible for authorized personnel only, to operate the covers.

Due to its roll-up action the Magroroll cover, constructed of a single 'panel', will permit total exposure of the hatch - a useful feature for grab discharge operations. Covering a single hatch of clear opening sizes 23.40 m long  $\times$  5.90 m wide, it will be opened/closed by an air powered motor.

The Magroroll principle of operation is similar to that of a geared rack and pinion. During opening, the cover -aspecially corrugated (or toothed) alloy sheet analogous to the rack - is drawn back to roll round a drum situated outside the hatch opening, the corrugations in the cover meshing closely with mating 'teeth' or cogs around the drum's periphery; after the first full revolution, the following cover corrugations mesh into each other, close contact being ensured by the spring-loaded arms.

The space required for stowage is, therefore, minimal. In the case of the Cleanaway barges, each cover - in excess of 23.4 m long - will stow on a drum which, when fully wound, measures well under 1.5 m in diameter, thus enabling the ratio of hatch opening to overall length to be maximized. The relevant figures are 23.4 m to 29.38 m which represents an opening occupying 80 per cent of the barge's overall length with only one quarter of the remaining 20 per cent being occupied by the stowage drum. The width of opening as a proportion of the vessel's beam, is also 80 per cent.



Among the advantages of MGN's 'Magroroll' roll-up type

PORTS and HARBORS - JUNE 1984 45

hatch cover for refuse barges is its ability to expose the whole of the hatch opening - yet, as shown on this general arrangement drawing of barges that will soon be plying London's river, the space required for its stowage is minimal - in this case only 6 per cent of the hatch opening.

#### Principal Particulars Cleanaway refuse barges

Length (o.a)	29.38 m
Breadth	7.29 m
Depth (o.a)	4.57 m
Draught (loaded)	1.91 m
Deadweight	140 tonnes
Cargo capacity	620 m <sup>3</sup>

# Dec. quarter trade up on previous three months: Port of Melbourne

Trade through the Port of Melbourne in the quarter ended 31 December 1983, increased 11% when compared with the September quarter. However, cargo throughput for the six months ended December was 5% below the same period in 1982, leaving further room for improvement into 1984.

Signs of improvement were evident in the December quarter with overseas imports and exports increasing 4% and 12% respectively. There was also considerable improvement in coastal exports which recorded a 36% increase following a very depressed September quarter performance.

The improved trade figures in the December quarter were due to the better general economic conditions and the rebuilding of stocks, which was an important factor in the import sector.

#### **USA Trade Drop**

While trade with most regions in the six months ended 1983 was below the levels of the same period in the previous year, trade with Japan and New Zealand rose 4% and 8% respectively. Despite the resurgence in the USA economy North American trade decreased 26% with its share of total trade falling from 11% to 10.4%.

Overseas imports of general cargo were 9% higher than the September quarter with noticeable gains being new vehicles (18%), vehicle parts (49%), textiles (45%), machinery (44%) and paperboard and fibreboard (127%).

#### **Bulk Imports**

Overseas imports of chemicals decreased by 33%, contributing to the overall fall in bulk imports of 42% when compared with the September quarter.

Exports of general cargo overseas, excluding empty containers, were slightly below the September quarter and were 6.4% down on the comparative six-month year-end figures for 1982.

Total bulk cargo exported overseas in the quarter rose by 93% due to increased exports of petroleum products. For the half year bulk cargo was 6% below the 1982 figure.

Export trade in most major commodities increased during the December quarter with wool (49%), petroleum products (165%) and dairy products (23%) being the most noticeable. Malt (16%) and fruit and vegetables (33%) were principal commodities to record a decrease.

#### **Exports Up**

Exports to most trading partners exceeded those of the September quarter.

In the coastal sector imports, totalling 650,000 tonnes, were 7% above the September quarter and exports, due mainly to a 208,000 tonne increase in petroleum products, rose by 36%.

#### **Container Traffic**

Container traffic through the Port in the December quarter totalled 120,800 TEU's, an increase of 3.8% over the September quarter. By comparison container traffic for the half year ended December was down by 6.8%.

Trade by sector for the December quarter, with percentage comparisons with the September quarter in brackets, was: -

Total Trade
4,711,376 Tonnes (+ 11.3%)
Overseas imports
1,823,028 Tonnes (+ 3.8%)
Overseas exports
1,440,894 Tonnes (+ 12.4%)
Coastal imports
650,271 Tonnes (+ 6.9%)
Coastal exports
788,174 Tonnes (+ 36.4%)
Container traffic
120,800 TEU's (+ 3.8%)

(Port Gazette)

# Privatisation: Transport Minister assures KPA workers

Minister of Transport Tan Sri Chong Hon Nyan has assured Kelang Port Authority's employees that their future will not be jeopardized by privatization of port services.

Tan Sri Chong in his address at the biennial general meeting of the Port Authority Staff Union (PASU) said that the government would not take any action which would result in hardship for its employees. The four companies which have expressed interest in taking over certain sectors of port operations in Port Kelang have been told that the future of the present employees must not be jeopardized should they take over the desired sector.

The Minister added that he had met representatives of the companies concerned and told them that all proposals must be framed with existing KPA personnel in mind.

However the government has not decided yet on the form and extent of privatization as it is awaiting concrete proposals from those who have indicated interest in the container and stevedoring services.

Tan Sri Chong added: "I know you are particularly sensitive to the fact that the container terminal and the stevedoring services appear to be the only sectors of the port that are attracting private sector interest.

"You feel you have developed it to such a point of efficiency and profitability that it is unfair for these services to be privatized". "Our experience over the last two years in the face of world economic slowdown has shown beyond doubt that the private sector should be encouraged to invest in public services".

Tan Sri Chong said that the government could not continue to expand its services with substantial investments of public funds without feeling financial strain. He urged all categories of staff to co-operate with the companies which are making studies of port operations so that concrete proporsals can be made by them.

The various categories of employees in the KPA are represented by three unions. Stevedoring and wharf workers are represented by the Harbour Workers Union; clerks, drivers, maintenance, marine and fire prevention personnel by PASU; and officers up to a certain grade by the Senior Officers Association. Security personnel of various ranks are represented by their respective associations.

(Warta LPK)

#### Substantial increase in port tonnage: Port of Penang

Once again the Port of Penang attained a positive growth in the total tonnage handled. Cargo traffic that moved through the port for the first nine months of the year exceeded previous figures by 10.1%. Some 5.67 million tonnes of cargo were handled from January to September 1983 compared to 5.14 million tonnes over the same period a year ago.

For the first nine months of the year, the Port obtained 65% or 3.73 million tonnes of its throughput form imports and the rest or 1.94 million tonnes from exports. During the corresponding period in 1982 imports totalled 3.50 million tonnes whilst exports were only 1.64 million tonnes.

Imports were up by a minimal 6% while exports for the period went up by 18% with the gradual picking up of the nation's economy. The major import commodities that recorded substantial increases were maize, petroleum products, crude palm oil, iron and steel billets and cement.

Commodity	1982	1983
Maize	9,575	55,998
Petroleum Products	12,206	179,656
Iron & Steel Billets	51,050	94,521
Crude Palm Oil	30,693	59,369
Cement	21,691	71,351

The commodities which contributed to the substantial increase in exports were ilmenite ore, tin ore and palm kernel waste/expellers.

Commodity	1982	1983
Ilmenite Ore	25,960	55,015
Tin Ore	2,102	9,857
Palm Kernel Waste/Expellers		50,489

On the container scene, the port achieved a 30% growth in traffic to record a throughput of 61,599 TEU's from January to September 1983. During the same period in 1982, 47,160 TEU's were handled. The Port of Penang is expected to handle at least 82,000 TEU's by the end of 1983. (Berita Pelabuhan)

#### Seminar to discuss Penang Port Commission's training programmes

A seminar on the "Identification of Training Requirements in Penang Port Commission" was held here on January 30 and 31. The two-day seminar, organized by the Personnel Department was also aimed to develop new training strategies which will benefit the Penang Port Commission.

Four working papers on training programmes were presented by serving officers and external experts in the field. The speakers were Encik Ruslan Khatib, the Assistant Director of the National Productivity Centre (NPC), Encik Abdul Halim bin Abdul Karim, Programme Coordinator at the National Institute of Public Administration (INTAN), Tuan Haji Ishak bin Haji Yahya and Encik Shabir bin Sulaiman, both of whom are Assistant Personnel Managers with the Penang Port Commission.

Some 50 Heads of Department and senior officers of the Port Commission attended the seminar. Participants of Workshop I discussed the types of training required to improve and upgrade port performance while the relevance of courses conducted by NPC and INTAN to the Penang Port Commission was the topic of discussion in Workshop II.

Several recommendations were spelt out at the end of the two-day seminar.

- The proposals were: –
- a masterplan for manpower training.
- identification of training needs.
- implementation of training programmes.
- departmental evaluation committee.

In drawing up a master plan for manpower training, it was proposed that departmental heads of the organization determine the training needs of their departments, with the assistance of the Personnel Department and hence, develop a manpower training plan for new skills and upgrading existing skills.

In this contexts, it was suggested that basic management training and inhouse training be provided at all levels of management, supervisory skilled training for 'C' and 'D' categories and specialized training wherever required.

In the process of evaluating the courses conducted by the National Productivity Centre and the National Institute of Public Administration, participants of the seminar found some of the courses like accounting, management computer studies, maintenance management and industrial relations relevant to the Commission.

It was agreed in the workshop that the setting up of a Departmental Evaluation Committee to evaluate and implement the recommendations of the post training reports will help streamline the training programmes of the organization. (Berita)

# Expansion of the container back-up facilities: Port of Penang

Moves are afoot to improve the capacity of the container yard facilities at the Penang Port Commission's Container Terminal at Butterworth Wharves. This is in view of the substantial growth in container traffic in recent years. Container traffic at the port is presently increasing at an average of 15% per annum.

To cater for this growth, the Commission has embarked on the first phase of its expansion programme. The existing timber shed is to be demolished and converted into a container stacking area. The timber yard, with an area of 1.01 hectares (2.5 acres) is capable of storing 1,300 TEU's of containers. With its completion next year, the container yard will be able to hold 5,700 TEU's at any one time, compared to the present holding capacity of 4,400 TEU's. The present timber operations is at its new site at godown G1 which was altered for the purpose.

The second phase of expansion entails the removal and conversion of godowns A6 (Lot Godwn), A7 (Godown for import cargo) and A8 (Godown for export cargo) into a marshalling yard, thus enabling an additional 2,700 TEU's to be stored. This project is expected to be carried out in mid 1985. Thus by early 1986, the container yard will have a total holding capacity of 8,000 TEU's.

Presently the Port handles an average ratio of 60:40 F.C.L. to L.C.L. containers. This ratio of LCL traffic is considerably high, as under ideal conditions, the level LCL traffic should only be in the region of 10% to 20% of the total volume handled.

Towards this end, the Commission has stepped up its efforts to promote a higher level of FCL traffic through the Port of Penang. This will allow more space at the terminal and will further reduce the labour-intensive LCL operations of stuffing and unstuffing. The Port has implemented a ruling that with effect from next year, all import containers with cargo meant for only one consignee will have to be taken FCL. Similarly, exporters who have a full container load must ship FCL.

In anticipation of the higher FCL traffic, the Commission has purchased additional handling equipment. The fourth transfer crane was commissioned in September 1983. To ensure greater efficiency in the loading and offloading to and from trailers, the Penang Port Commission has placed order for the fifth transtainer which is to be delivered in 1985. It has also taken delivery of nine fortyfooter trailers for transporting containers to and from ship's side and the container yard. Another six prime movers will be received before the year draws to a close.

(Berita Pelabuhan)

# Certificate ceremony at KPT Staff College

The Chairman, Karachi Port Trust, Rear Admiral M.I. Arshad, H.I. (M), S. Bt. awarded Certificates to the successful participants of the course on Management of the General Cargo Operation, developed and organized by UNCTAD/ SIDA in the course series of Improving Port Performance at K.P.T. Staff College on 6th February, 1984. Addressing the gathering on the occasion he expressed his extreme happiness over the satisfactory completion of this International Course. He said that port efficiency has increased many fold during the last six years but still there is a room for more improvement. He said that in Port Operation, main battle is being fought on berths where cargo is loaded and un-loaded from the ships efficiently and cleared from the Port without any delay, which results to improve the living standard of common man. To keep the port operation more smooth and efficient special attention must be given on future development projects and maintenance of the mechanical equipment and cleanliness of sheds.

Chairman advised the participants of the course to apply the latest knowledge acquired by them during training of this course on the port's operation. He said that during implementation they may had to face some difficulties which must be overcome. He also asked the shipping agents, Stevedors and Cargo handling agencies to participate in such courses in future so that the port operation could be made more smooth. He said that implementation of new techniques and technology would certainly bring lurals to the port he added that new things and ideas must be appreciated because it is thinking process which makes things practiceable.

#### Vessel movements & cargo imported to Qatari Ports during 1st quarter 1984

The total number of Vessels called at Doha and Ummsaid Ports for discharging and loading during the first quarter of 1984 were 128, a decrease of 32% over the 187 called during the same period of 1983. The difference in the number of vessels called for discharge during 1st quarter of 1984 and 1983 is 57, a decrease of 37%, but number of vessels called for loading has practically not been affected much, as 30 vessels called for loading against 32 vessels during the same period of 1983.

The import through the two Qatari Ports shows decline of 41% from 568,601 tons to 333,506 tons.

#### Expansion at Jebel Ali

Expansion is under way at Jebel Ali Port to meet increasing demand.

The port authority has said that leases with 11 companies were signed recently for land sites in the industrial zone, bringing the total of industrial tenants based at Jebel Ali to 23.

Seven additional leases are expected to be signed in the first quarter of this year.

Mr. Charles Heath, marketing director of the authority, has said total tonnage handled in 1983 was 3.27 million, compared to 2.67 million the previous year, representing 36 per cent of all Dubai cargo moving through Jebel Ali and Port Rashid.

Total general cargo rose to 983,255 tonnes in 1983, a 9 per cent increase on 1982.

Mr. Heath added: "One of the most exciting and challenging developments in 1983 was the opening of the new cold store, the largest in the UAE and the only one certified by Lloyds." (Gulf News)



# Our services are not just a decade old.

Ancient Muscat for centuries was the prominent market place in the Gulf for merchants all over the world.

At the entrance to the Gulf, today, once again Oman is a major trading centre for the modern world. Port Qaboos is the epi-centre of the trading activities in Oman.

Port Qaboos was the first port in the Gulf to be clear of congestion. Geared with the modern cargo handling facilities and round-the- clock operation, Port Qaboos offers fastest turnaround and excellent transhipment service by land and sea for the entire Gulf region. The container terminal offers big area for storage and handles container vessels with two 35 tons Gantry Cranes and modern supporting quay equipment. Less time spent at a Port means more value for your money and Port Qaboos offers this to you.



# A tradition of Modern Port Qaboos service that goes back to centuries.





Port Services Corporation Limited P.O. Box 133, Muscat, Sultanate of Oman Tel : 734001 Telex : 5233 MQABOOS ON

六月号

# 120 0 APAN J LIN **II** Automated M Contai r Terminal

#### Masses of data! But how to process it for efficient handling of containers?

The Mitsui System can speed up and rationalize container handling to give increased benefits from container transportation. Developed in 1972, this system has proved its efficiency at the busy Ohi Pier, Port of Tokyo, and it could be working for you in solving your container terminal problems, particularly those in the fields of cargo information and operations systems.

#### MITSUI Automated Container Terminal System Consists of 6 sub-systems.

- 1. Yard Plan Computer System
- 2. Yard Operation Computer System
- 3. Data Transmission and Oral Communication System
- Transtainer<sup>®</sup> Automatic Steering System
   Transtainer<sup>®</sup> Operation Supervising
- System
- 6. Portainer® Operation Supervising System

Computer Room Ø Gate Office Operation Room

Sv

 Portainer<sup>®</sup>
 Bail-Mounted Transtainer<sup>®</sup> **6**Rubber-Tired Transtainer®

**sten** 



Head Office: 6-4, Tsukiji 5-chome, Chuo-ku, Tokyo, 104 Japan Cable: "MITUIZOSEN TOKYO", Telex: J22924, J22821 Material Handling Machinery Sales Department Tel. (03) 544-3677 Systems Headquarters Marketing Dept. Tel (03) 544-3272 Overseas Office: New York, Los Angeles, Mexico, London, Duesseldorf, Vienna, Singapore, Hong Kong, Rio de Janeiro

定価六 0 P