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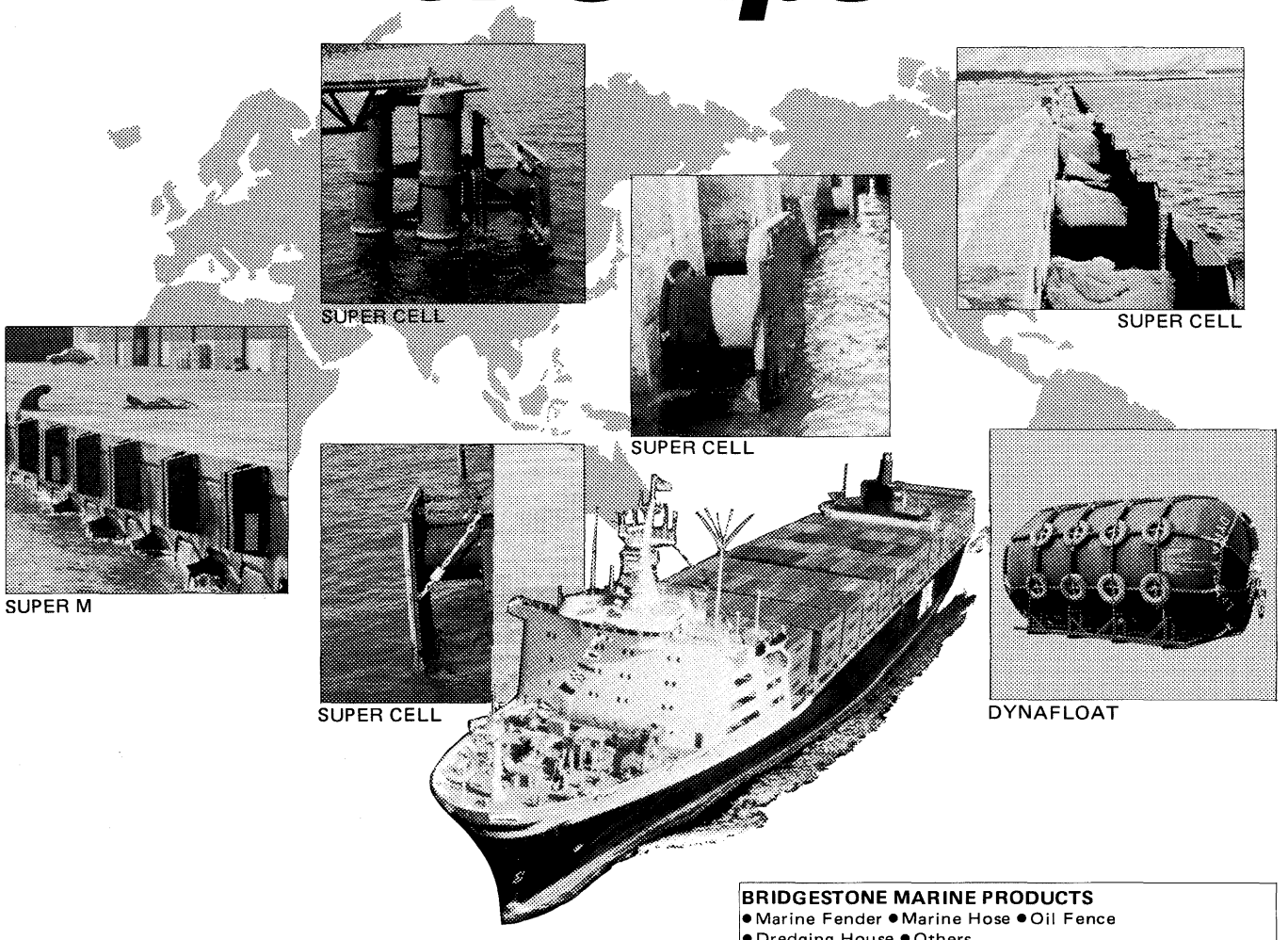

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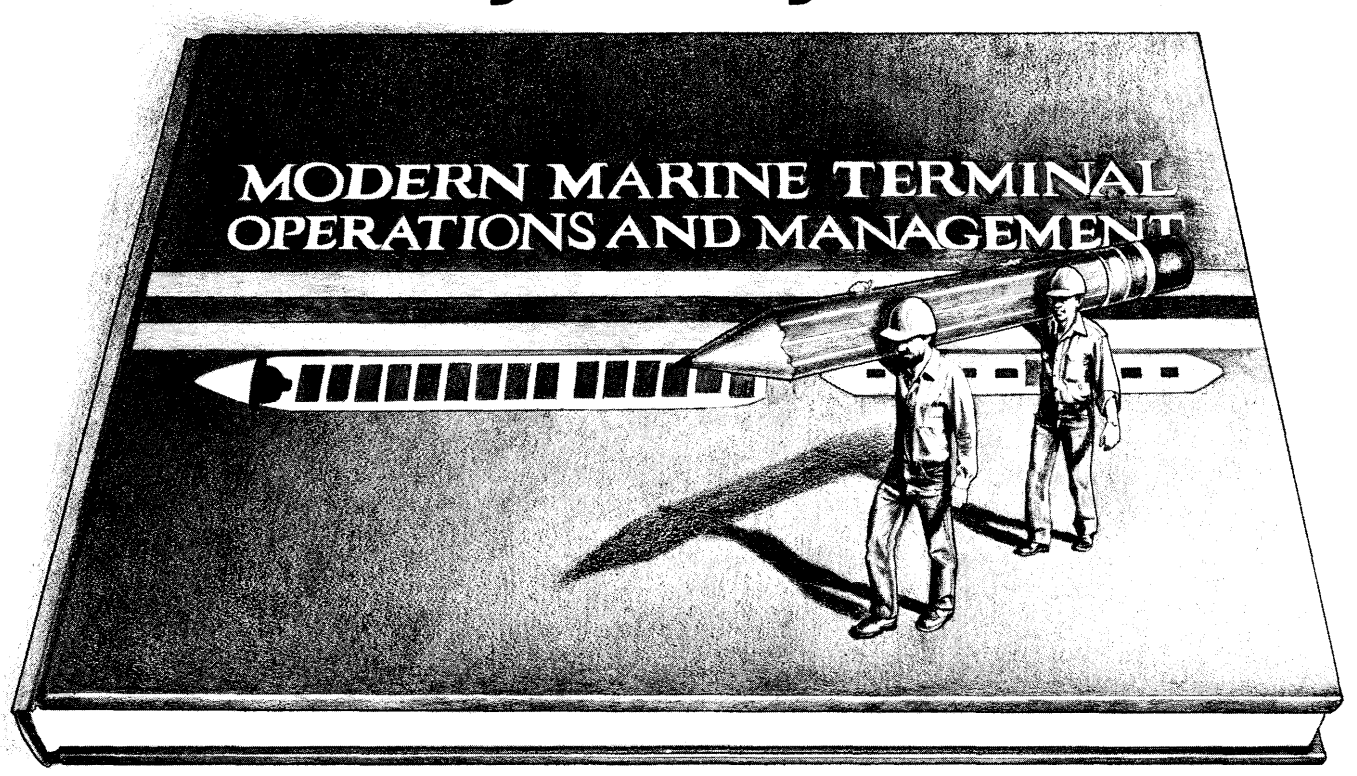

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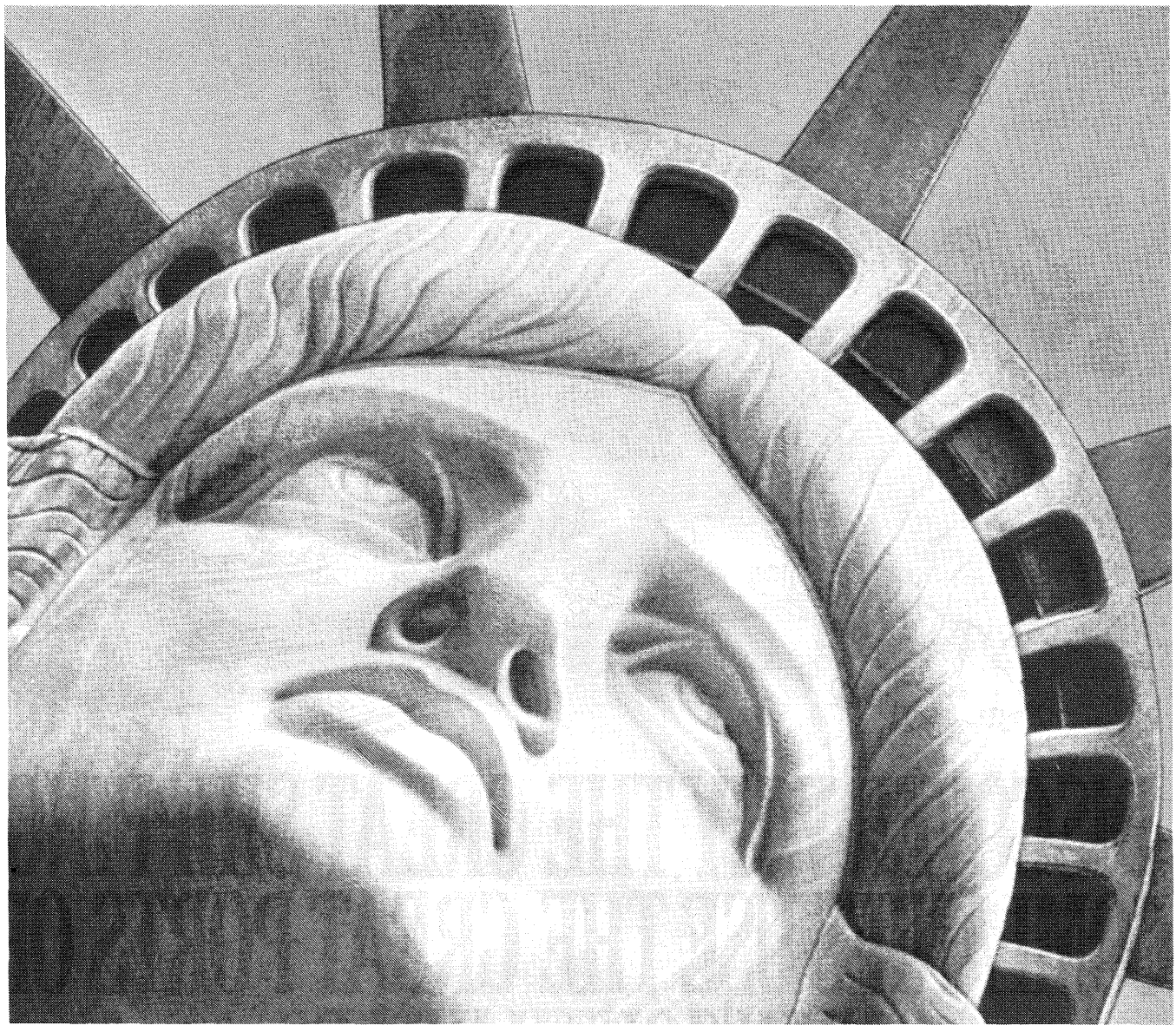

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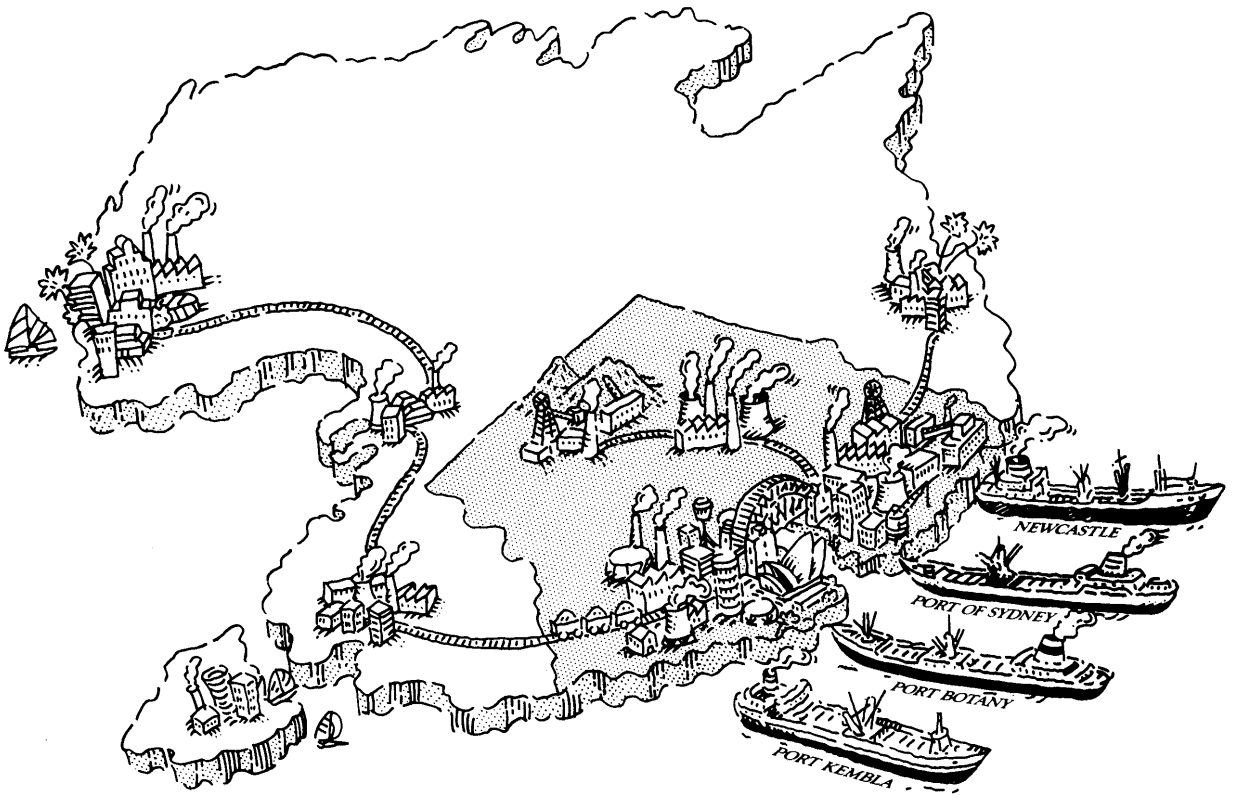

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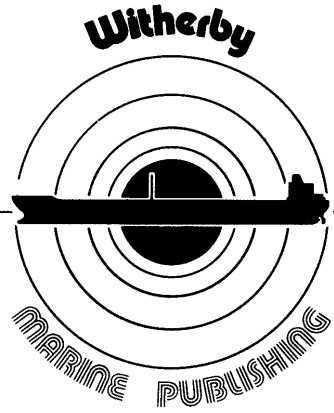

International Safety Guide for Oil Tankers & Terminals

Second Edition ~ 1984

A new edition of the International Safety Guide for Oil Tankers and Terminals has been produced jointly by ICS (International Chamber of Shipping), OCIMF (Oil Companies International Marine Forum) and IAPH (International Association of Ports and Harbors).

This detailed safety guide, produced originally by the International Chamber of Shipping and the Oil Companies International Marine Forum, was first published in 1978 (and reprinted in 1979) by Witherby & Co. Limited of London. The first edition became the acknowledged guide on safety for oil tankers and terminals and achieved very wide acceptance not only within the industry but also on the part of governments. The guide also received international recognition from IMO (International Maritime Organization).

Over two years of detailed work by experts from the international oil, tanker and ports industries has gone into the production of the second edition of the guide. With the exception of chapters 18 (Electrical Equipment and Installations) and 21 (Fire Fighting), which are essentially unchanged, the text has been extensively revised and updated to take into account IMO conventions, industry guidance and tanker casualty information issued since publication of the first edition. Particular attention has been given to the chapters relating to inert gas systems, crude oil washing and tank washing atmospheres, and additional information has been included on management of moorings, electrical equipment, cargo handling and radar energy emission hazards. The second edition also contains a new chapter (22) on the hazards associated with pyrophoric iron sulphide, and three new Appendices.

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ISBN 0 900886 88 9. Size A4. Number of pages 220. Bound Hard Back. Price U.K. £21.00 (inc. p & p) surface mail Extra for Airmail Postage.

IAPH announcements and news

Board Members' Cooperation requested concerning IAPH Position Papers for IMO

In connection with the two position papers which IAPH has recently prepared for presentation to the IMO's Diplomatic Conference, Dr. Sato, IAPH Secretary General, has circulated some explanatory material to all members of the Board of Directors.

The Secretary General in his letter of March 14, 1984, requested the members of the Board to give their attention to the matter and to take appropriate action in accordance with the suggestions contained in the explanatory papers.

As previously reported, the IMO's Diplomatic Conference will be held in London from April 30 to May 25, 1984. It will focus attention on various topics, including the following two, which are of particular relevance to ports:

1. a review of the 1969 and 1971 Conventions dealing with compensation for oil pollution damage (Oil Conventions); and
2. a draft convention covering liability and compensation in connection with the carriage of noxious and harzardous substances by sea (HNS Convention).

Preliminary meetings for the 14th Conference

Dr. Karl-Ludwig Mönkemeier, Director of the Port, City of Hamburg, received Mr. R. Kondoh of the Head Office for three days on 13, 15 and 16 March to discuss the preparatory work for the 14th Conference in which the Organizing Committee in Hamburg is actively engaged.

Participating in the preparatory meetings were Dr. Mönkemeier and Ms. Struck Beimel (Conference Coordinator), representing the Host Port, and Dr. Hans Joachim Hoerenz (Chairman) and Mr. Matthias Rieger, Manager of the Congress Organization, Hamburg Messe and Congress GmbH which will join the Host Port in organizing the 14th IAPH Conference.

The Host Port expressed its determination to ensure that those attending the 14th IAPH Conference find it a fruitful and enjoyable experience. The Ports of Bremen-Bremerhaven and Lubeck and the many supporting organizations, such as the Chamber of Commerce, Association of Hamburg Port Operators, German Shipowners' Association, are all declared their readiness to cooperate toward this goal.

Included in the programme, on top of the plenary sessions and the working sessions on the major areas of common interests, will be a full day technical & educational tour to Bremen-Bremerhaven and a half-day visit to the Port of Lubeck. There will also be an exhibition, to be known as PORTEX 85, featuring harbor construction and organization as well as showing the latest trend in port-related technology.

Details of the conference programmes will be discussed by the Executive Committee of the Association at its scheduled meeting in Glasgow in May and will be publicized accordingly.

Mr. Pollock, ABP represents IAPH at the World Port Development Conference Press Conference

On March 7, 1984, a press conference was held in London, at which details were given about the World Port Development Conference and Exhibition, which are scheduled to be held in Amsterdam on May 2–4, 1984.

Mr. Eric E. Pollock, Marketing Manager, Associated British Ports, took part in the press conference in London and gave on behalf of IAPH presentations on the role of IAPH and the Committee on International Port Development, as well as on the Committee's various programs covering such topics as technical monographs, bursaries, awards and sister ports. IAPH is planning to participate in the event in Amsterdam to publicize the Association's manifold activities with a view to boosting the membership campaign. A special stand has been reserved for the organization at the RAI Centre, the conference site.

Details of the World Port Development Conference and Exhibition are shown on pages 30–31 of this issue.

Two bursary recipients announced

Mr. J.K. Stuart, Chairman of the IAPH Committee on International Port Development, has recently announced the names of the bursary recipients and the courses for them to attend as follows:

1. Mr. D. Phallas, Chief of Accountants, Cyprus Port Authority
2. Mr. L.J. Mwangola, Finance Manager, Kenya Ports Authority

Both the recipients will attend the UNCTAD/IPER course on "Port Finance" at Le Havre, France, from 18 to 29, June, 1984.

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Changes

Keelung Harbor Bureau (Taiwan, R.O.C.)
Mr. S.C. Teng has taken over from **Mr. T.C. Yuan** as Director
Port of Geelong Authority (Australia)
Mr. G.D. Murray has taken over from Mr. H.P. Blakiston as Chairman

Report upon IAPH Attendance at the Eighth Consultative Meeting of Contracting Parties to the London Dumping Convention

By Mr. Herbert R. Haar, Jr.
Assistsnt Executive Port Director
Port of New Orleans
Chairman, Dredging Task Force
IAPH

I am taking this opportunity to summarize the outcome of IAPH's recent attendance at the Eighth Consultative Meeting of the LDC during 20 ~ 24 February 1984.

(1) In the consideration of Agenda Item 3 (Report of the Scientific Group), IAPH presented its recommendation to the Meeting (as set forth in greater detail in the IAPH written submission) that dredged material containing Annex I substances should *not* be subject to the strict prohibitions of Annex I but should be regulated under the "special permit" provisions of Annex II. In making this presentation, I called the attention of the Meeting to the comprehensive work done by our consultant, Dr. Willis Pequegnat, in examining the advances in scientific knowledge of dredged material since the original drafting of the Convention in 1972. Marine sediments are now known to possess unique mitigative properties which tightly bind and hold Annex I substances so that they are not available to the marine biota and do not produce the adverse effects that are the reason for applying the strict prohibitions of Annex I.

The Meeting took note of the IAPH presentation and agreed that it should be considered by an intersessional working group which was established to continue the work of developing criteria for the classification, addition, and deletion of substances to the Annexes. This working group is tentatively scheduled to meet from 18 ~ 20 July 1984 and will report to the Scientific Group at its next intersessional meeting.

(2) In its consideration of Agenda Item 3, the Meeting also took note of the findings of the Scientific Group that an interim evaluation of the "special care" technique of "clean material capping" had demonstrated that it is a feasible and effective technique that shows promise as part of a long term management strategy. The Meeting endorsed the continuing use of capping on a research basis. IAPH has made extensive submissions to Contracting Parties and the Scientific Group over the past 3 years in support of "capping," and the action by the Eighth Meeting reflects a growing acceptance of this IAPH technique.

(3) Agenda Item 3 also included a proposal by the Scientific Group for the adoption of Guidelines for Implementation of Annex III (this includes factors to be considered in granting general and special permits). In the course of the discussion, the French delegation expressed the view that many provisions of the Guidelines could not be applied to dredged material, there was, therefore, a need for development of separate guidelines for dredged material. IAPH expressed its support for the development of such guidelines and offered, subject to receiving authorization and funding from its sources, to assist in such work. The Meeting noted the IAPH offer with appreciation and agreed that the question of separate guidelines for dredged material should be considered by the Scientific Group during the intersessional period.

(4) Agenda Item 5 dealt with the sub-seabed disposal of radioactive wastes. The views expressed were divided between those asserting that this disposal technique *was* covered and prohibited by present provisions of the Convention, and those delegations which felt that it was not (while nevertheless conceding that the Convention should be the appropriate international vehicle for the control of such activities). In this regard, the Nordic countries reintroduced the resolution which they presented to the recent Meeting of Ad Hoc Legal Experts on Dumping (12 ~ 14 December 1983), which proposed a strict ban upon sub-seabed disposal, declared it to be "incompatible" with the Convention, and extended the ban to all other wastes listed in Annex I. Because of analogies that have been drawn between "capping" and sub-seabed disposal, this presented a direct threat to the continued capping of contaminated dredged material as a means of allowing disposal at sea. IAPH renewed its objections to the resolution and achieved a major success in having the language relating to "other wastes" deleted. Dredged material was thereby excluded from the intense debate regarding the sub-seabed disposal of high level radioactive wastes.

* * *

The IAPH attendance at the Eighth Meeting was able to not only prevent action adverse to port interests, but was also able to assure continuing consideration of the IAPH proposals for a separate and more realistic treatment of dredged material. The substantive items to be included on the agenda for the next meeting of the Scientific Group include the following matters upon which IAPH should continue to participate during the intersessional period. The Group will consider:

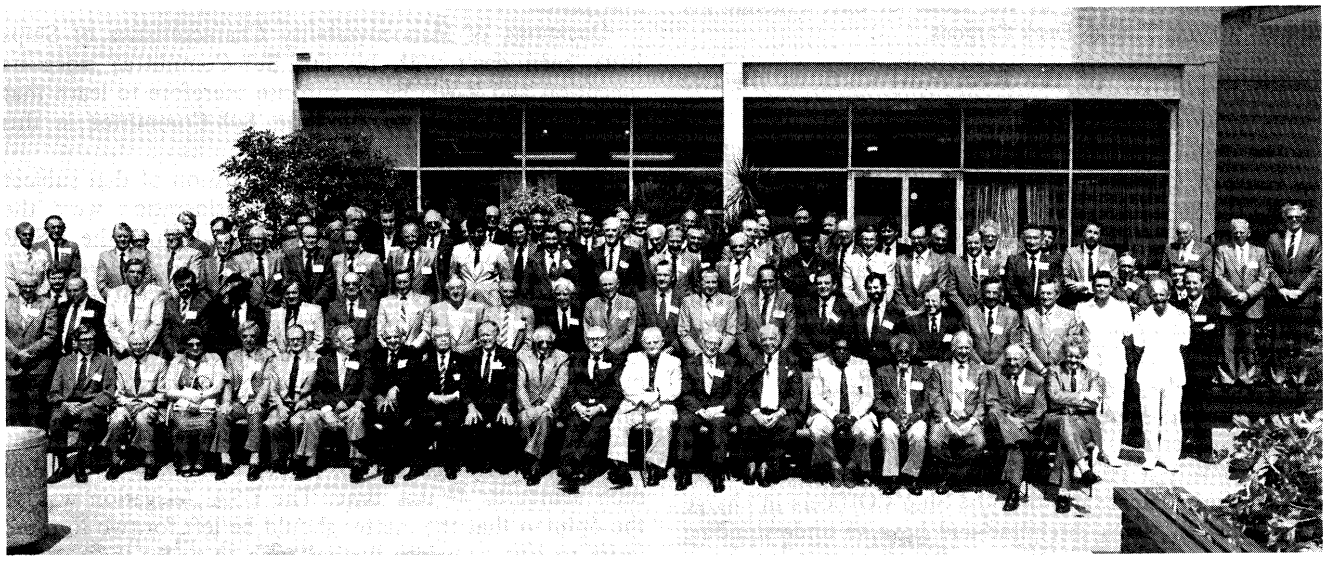
(a) the purposes and concepts of the Annexes in the context of classification criteria;
(b) practical and technical criteria for determining assignment to the Annexes;
(c) interpretation of additional "special care" techniques for Annex II substances (to be included in the Annex III Guidelines);
(d) consideration of the need for separate guidelines for dredged material disposal; and
(e) relationship between laboratory toxicity tests and field study assessments.

These are all areas of major importance to IAPH, and we have an excellent opportunity to address them during the intersessional period with a view to influencing the recommendations made by the Scientific Group to the next Ninth Consultative Meeting (tentatively scheduled for September 1985).

Dr. Sato visits New Zealand

Dr. Hajime Sato, Secretary General, visited New Zealand to attend the 50th Conference of the Harbour Association of New Zealand held in Auckland from 7 to March 1984.

On Friday, March 9th, Secretary General Sato was given a chance to address the audience as a foreign guest at the invitation of Mr. J. King, President of the Harbours Association of New Zealand (Chairman, Wellington Harbour Board). Dr. Sato in his address expressed his sincere appreciation to the New Zealand members for their enthusiastic participation in various activities of IAPH. The picture below shows the conference participants. (Dr. Sato is in the front row, 8th from the left.)



IMO Reports by Mr. A. J. Smith

IMO Sub-Committee on Containers and Cargoes

The Sub-Committee on Containers and Cargoes held its twenty-fifth session from 13 ~ 17 February 1984 under the Chairmanship of Mr. G. Edelmann (Finland).

The session was attended by thirty-four representatives from Member States and nine observers from inter-governmental and non-governmental organizations.

The Agenda included the following:

Matters related to the carriage of grain
Matters related to the Code of Safe Practice for Ships carrying
Timber Deck Cargoes

Other items of some interest to ports included:

International Convention for Safe Containers (CSC)

With Norway's accession since the 24th session of the Sub-Committee the total number of Contracting States is now thirty-seven.

With regard to container standards the Sub-Committee noted that the International Organization for Standardization (ISO) Working Group responsible for them had recommended that the maximum gross mass capability rating should be increased to 24 tons. No further action was considered necessary.

Of particular interest to ports was a statement from the International Confederation of Free Trade Unions that the docker's Union were unanimous in the view that the CSC itself is gravely flawed by the weakness of its provisions concerning the safety checking of containers already in use and suggested that IMO should urgently re-assess its attitude towards testing of containers instead of the current prescribed examination procedure.

Updating of the IMO/ILO Guidelines for Training in the Packing of Cargo in Freight Containers

The Sub-Committee agreed to recommend for adoption the draft Guidelines with the revised title "IMO/ILO Guidelines for Packing of Cargo in Freight Containers or Vehicles." The Guidelines will also be submitted to ILO and the Secretariat was instructed to take the necessary action.

The Sub-Committee also agreed that it would improve Safety Standards if the revised draft could be published by IMO for general use as soon as possible and stressed the need of urgency in this matter.

Sweden informed the Sub-Committee of a survey in which cargo carrying vehicles leaving Swedish Ro/Ro terminals had been spot-checked as to the securing of their cargoes. Out of 535 loaded vehicles, less than 300 had been found to conform with the Swedish regulations concerning cargo securing on road vehicles, thus highlighting the importance of applying the provisions of the Guidelines to vehicles.

It is generally conceded that the updated revised Guidelines would make a valuable contribution to the importance of safety standards in the ports and in the transport industry generally.

Safe Stowage and Securing of Cargo, Cargo Units and Vehicles

It was noted that the Maritime Safety Committee had

asked the Sub-Committee to simplify provisions it had earlier proposed for inclusion in the Cargo Securing Manual. It was stressed that to ensure its general use the Manual had to be as simple and as practical as possible.

The majority of delegates agreed that at future sessions of the Sub-Committee, it should concentrate on developing a Code of Safe Practice in the form of a comprehensive guide providing internationally accepted standards. The Australian delegation emphasized that in developing such a Code, care should be taken to harmonize it with other relevant measures such as the Code of Safe Practice for Ships Carrying Timber Deck Cargoes.

Implementation of the Recommendations on the Safe Use of Pesticides in Ships

The Sub-Committee considered a report prepared by its Panel of Experts on the Safe Use of Pesticides in Ships during the Sub-Committee's twenty-fourth session.

The Greek delegation expressed the opinion that in-transit fumigation of ships other than tankers and bulk carriers should only be allowed with specific permission of the competent authority.

Australia stated quite categorically that they would not agree under any circumstances to fumigation without certification of Administration.

The Netherlands pointed out that their proposal was by no means a relaxation of the recommendations but rather a refinement, and that the Ship's Officers in charge must maintain strict discipline and have an understanding lightly.

Safety problems with Methyl Bromide and Hydrogen Cyanide were also noted.

Relations with Other Organizations

The Sub-Committee is kept fully informed of related work within the International Labour Organization (ILO), the Economic Committee for Europe (ECE), and the International Organization for Standardization (ISO).

Future Work Programme

The Sub-Committee agreed to the proposed agenda for its twenty-sixth session noting that no date for that session had yet been established. It was hoped that this would be within twelve months giving sufficient time to comply with the deadline for the submission of documents to the fifty-first session of the Committee.

The Sub-Committee unanimously elected Mr. Edelmann as its Chairman and Capt. Nowak as its Vice-Chairman for the calendar year 1985.

IMO Sub-Committee on Ship Design and Equipment

The Sub-Committee on Ship Design and Equipment held its twenty-seventh session from 27 February to 2 March 1984 under the Chairmanship of Professor J.W. Doerffer (Poland).

The session was attended by thirty representatives from Member States and twelve observers from inter-governmental and non-governmental organizations.

There was not a lot of direct interest to Ports in the Sub-Committee's discussions which covered the following agenda items:

Requirements for Machinery and Electrical Installations
Manoeuvrability Characteristics of Ships
Diving Systems
Review of the Modu Code
Helicopter Facilities for All Types of Ships

A number of countries had submitted discussion papers and detailed consideration of these took place in working groups. The reports of these groups were then considered and dealt with in Plenary session.

There is necessarily a close relationship between the work of this Sub-Committee and that of the Safety of Navigation.

Questions of Manoeuvrability Characteristics of Ships have been dealt with by this Sub-Committee since its inception and it will be no surprise therefore to learn that it will continue to be the lead Sub-Committee in this regard.

The countries most active in discussion of that subject and who submitted papers for consideration were the German Democratic Republic, Japan, Poland the USSR and the International Chamber of Shipping.

The Sub-Committee finalized the development of recommendations on standardization of equipment for diving systems. There was extensive discussion by the delegates of the Federal Republic of Germany, Norway, Sweden and Japan, and the USA on the possible need for developing additional safety standards for portable diving systems but it was generally agreed that it was premature to develop such standards at this time. The USA delegation was of the opinion that the matter should be left for two to three years to give countries further time to assess the benefits or any problems accruing from the code.

It was recommended that Members consider ways in which problems could be overcome and submit them to a session of the Sub-Committee in 1986.

Future Work Programme

A number of delegations, particularly the French delegation expressed strong views on the effectiveness of the Sub-Committee and the need to keep to the circulated agenda.

The Sub-Committee took note of the request of the Sub-Committee on Bulk Chemicals on the development of criteria for extension of hazardous zones in the IBC Code. However, owing to shortage of time, this item will be considered at the twenty-eighth session.

Consideration was also given to the need for applying additional technical requirements to seagoing ships navigating on the River Rhine. The ECE representative informed the Sub-Committee that the recent meeting of the Economic Commission for Europe expert group agreed that sea-going ships having safety certificates in accordance with SOLAS 74 would be allowed to navigate the "Maritime" part of the inland waterways but would be expected to comply with any additional technical requirements for such inland waterways when entering the "Non-maritime" parts.

The Sub-Committee noted that the Central Commission for the River Rhine was studying the problem of sea-going ships navigating on the River Rhine with a view to revising their additional standards.

The Secretariat was requested to continue monitoring the work being done by the ECE and to keep the Sub-Committee informed accordingly.

The twenty-eighth session of the Sub-Committee has been tentatively scheduled for early 1985.

Open forum:

New Means of Combating the Smuggling of Drugs by Containers

By G.D.Gotschlich
Director
Customs Technique Directorate
Customs Co-operation Council

The last years have seen an enormous rise in containerized cargo traffic which although beneficial to the economies worldwide has also created nightmares for Customs administrations. This new method of transportation enables goods to be transported directly from door to door. It is impossible, however, for Customs to control and open every container or even a large number of them at the moment when they pass the frontier, whatever the mode of transport used.

As the newest technical developments show, however, a technique has been developed very recently by which a container can be examined thoroughly in a matter of minutes. The Customs Co-operation Council in Brussels is very active in bringing any information about new means of detection of smuggling to the knowledge of Customs administrations. It does so by publicizing regularly such details for Member countries, by organizing exhibitions, where it brings together Customs and manufacturers from all regions of the world, giving both sides the opportunity to demonstrate their respective needs and products, and by inviting manufacturers to show and explain their material through presentations before enforcement personnel.

The new control machinery through which the container is passed at considerable speed and which has been explained in detail during a recent presentation is equipped with a very effective x-ray system, with in-built computer and management systems to find irregularities in container loads and with an efficient sniffer system. It had been shown that with this machine it was possible to detect drugs concealed, for example, in steel drums within the container.

At present, however, this system seems to be too expensive to be installed at every port of entry, even though some are already in use. The cost will certainly be reduced in the future when the machines are produced in larger numbers, but this will take much more time.

Drug traffickers, large and small, have realized that there is an opportunity for them to profit from the worldwide Customs efforts to facilitate trade. Modern Customs philosophy is on the one hand to move passengers and cargo as expeditiously as possible, but on the other hand it is not forgotten that Customs is responsible for enforcing the law.

When the US Commissioner of Customs, Mr. William von Raab, came into office, he believed he had to accept as an article of faith that the Customs dilemma asserts that these two objectives are irreconcilable. But he soon realized – and his successful actions show this – that no discrepancy exists between fast cargo movements across the border and efficient enforcement of the law.

The problem is : how is the law to be enforced?

In the beginning, each Customs administration had to gain its own experiences as to how the law could be enforced in the best and most efficient way in respect of container traffic. The individual experiences of many countries were brought together by the Customs Co-operation Council, which now comprises the Customs administrations of 95 member countries.

The first result of its work concerning action against Customs fraud relating to containers was a Recommendation which containes nine points of specific advice to Customs administrations. It suggests, inter alia, that since it is impossible to open every container at the moment of the crossing of the border:

- it is important to use the principle of selectivity and to develop effective systems for selection of containers for detailed examination;
- post facto controls should be used more often; and
- that there is the absolute necessity of co-operation between Customs administrations on the one hand and between Customs and professional bodies and authorities concerned with container operations on the other.

The main goal of this Recommendation is not to expand the scope of inspection but to narrow the field of suspicion. The choice should be selective and not at random. Narrowing the field of suspicion not only allows the Customs to use their resources more efficiently, but also increases the number of containers which are not subject to examinations.

Every Customs administration has over the years – and will continue to do so in the future – amassed knowledge from many sources: from intelligence; from truck records; from patterns and practices of exporting countries; from characteristics of importers, commodities and seizure records. This knowledge assembled by one country must be made available to other countries; the legal basis for such action already exists at the international level (Recommendations of the Customs Co-operation Council of 1967 and 1975 and the Convention on mutual administrative assistance for the prevention, investigation and repression of Customs offences – the so-called Nairobi Convention). Many efforts are being made to transform these international legal instruments into national laws.

To help Customs administrations to establish a system of selectivity, using for instance all this knowledge they have, the CCC has established a Manual on container control which will be regularly updated with the latest

information available.

The information contained in the Manual should ultimately be used by every Customs officer controlling or investigating container traffic in his daily work. It is based on the co-operation of Customs administrations in exchanging information on specific items and it calls for more co-operation in specific cases.

The production of this Manual is also visual proof of the excellent collaboration which now exists between business, trade and transport circles on the one hand and the Customs on the other. The ICB (International Container Bureau), for instance, has participated actively in its compilation. These circles have realized that they are in a pertnership situation with the Customs and not as in the past their adversaries. They have also come to realize that they have to co-operate with the Customs not only in the fight against the illicit traffic of drugs but also against the smuggling of other goods since in this latter situation it is the honest trader who suffers and ultimately therefore the country as a whole.

The CCC realizes that its task is not yet completed and that the problem is not solved by its efforts so far. Countries remain to be informed about the results of these efforts and must be persuaded to apply modern measures. It is envisaged, therefore, to organize seminars in all parts of the world (the first will be held, in French, in the Cameroon this fall) and to familiarize officers of Customs administrations with the possibilities and means available.

Since the enemy changes its tactics all the time Customs has to be flexible. One of the means of fighting against such illicit traffic is to promote the effective use of all the information contained in the Manual. Of course, if such information is to be really useful it is essential that Customs administrations forward to the Council as soon as possible any new information which becomes available. Furthermore, as recommended in the Manual, it is imperative that Customs administrations of importing and exporting countries exchange information readily between themselves.

Harbour Towage—Providing Cost Effective Services for Modern Shipping Requirements

By Captain K.H. Ross
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(Paper presented at the Fiftieth Conference of the Harbours Association of New Zealand, Auckland, New Zealand, March 7 ~ 9, 1984)

Introduction

In this paper harbour towage is defined as that branch of the towage industry which is provided and maintained specifically for the ship handling function within a port.

Harbour towage as such is looked upon universally by shipowners, operators and their agents as either a necessary, or quite often in their opinion as an unnecessary evil. Whichever way it is viewed you may rest assured of a common denominator which rarely varies – towage is always seen to be too expensive.

All costs are important and it is not a valid argument to merely dismiss towage as a fractional amount when it is considered in the total context of a ship's operating costs. As a disbursement the amount paid out can at times constitute a relatively major proportion of the port costs incurred per ship call. Therefore, every effort must be made to ensure that this service industry is viable, efficient and at the same time as economic as is possible.

The cost of providing towage services has escalated somewhat dramatically over the last few years and although the actual extent varies from port to port, depending on actual circumstances, the general trend has been clearly evident on a global basis as far as developed countries are concerned.

I can clearly recall the warning sounded by one prominent U.K. operator at a Conference some five or six years ago. At that time he signalled that the future must bring enormous escalations in charges, to the extent of 250%, if companies were to remain solvent. This seemed at the time a most pessimistic prediction, the benefit of hindsight shows that even this estimate was conservative.

We tend to sometimes think of ourselves in isolation in this part of the world and could be excused for being induced to believe that our towage costs are in fact amongst the highest in the world. However, this is not so. For reasons I will outline later in this paper it is impractical to attempt to compare towage costs between different ports on the erroneous assumption that there should be somewhat similar costs between, say even adjacent ports in the same country.

You will invariably find, almost without exception, that when individual ship operators or their representative associations refer to comparative towage costs elsewhere, that sweeping generalizations are usually made on the basis of inadequate research.

When a proper analysis is made it is quite revealing just how costly some overseas ports can be, this is in spite of the fact that they generally have large volumes of shipping which is not the case in Australia and New Zealand.

It is futile to merely compare published schedules and the only equitable method is to take individual vessels trading to ports where an overall cost comparison is sought and obtain the actual invoiced towage costs per ship call. Due allowance and adjustments must be made if overtime surcharges were incurred in say one port as against another if these figures are to be accurate and meaningful.

Major Cost Factors

Tug owning is capital and labour intensive and can be subject to cash flow problems if there are no ships to service. The overheads go on irrespective of the level of activity and as a consequence of the conditions generally enjoyed in the maritime industry the crew overheads alone

in isolation are onerous if there is little or no income being received.

The three most significant factors influencing the cost of towage can be identified as follows:–

(1) Capital investment.
(2) Crew costs.
(In Australia these vary from 60 ~ 80% of operating costs depending on the manning and overtime component.)
(3) Utilization.

Maintenance, fuel and other operating costs tend to be overshadowed by crew and capital costs and whereas measures can be taken to minimize the former, an operator must have in the first instance, the necessary equipment. In the second instance industrial constraints and reality invariably do not make it possible to vary the workforce on an ad hoc basis, nor their working conditions. It is safe to say that the days are gone in most ports whereby tugs could be manned on a part time basis and the resultant crew costs incurred were only for the time actually engaged on towage. Although private operators have perhaps never had this facility, many Port Authorities, particularly in under utilized ports were able to operate cost effectively in this fashion.

Utilization is the most significant variable factor and probably the one causing the most heartburn today for operators and their clients.

In both Australia and New Zealand we have in common a relatively low volume of shipping through our ports and this exacerbates the problem of offsetting high standing costs in providing towage.

An operator requires a minimum annual revenue to cover investment, operating costs, tax and profit. These combined with the utilization factor determine the rates. In practice we as operators do not work on seasonal or other short term factors in regard to utilization, but establish any definite trend by referral to annual statistics as a minimum sample. If the utilization is low the unit cost must rise.

In actual practice there is no other significant or regular income available to the harbour towage operator other than that obtained from the ship assist function.

Therefore, as I stated earlier, it is totally impractical to compare the relative costs of towage at different ports unless they have identical operating costs, capital investment and most importantly utilization.

It would be opportune to mention at this stage the subject of "subsidised" towage. Undoubtedly this exists in one form or another in certain instances. Such a subsidy is in many cases a cosmetic exercise and the short-fall is recouped elsewhere in port revenue collection or funded by the shipper. Payment of any subsidy has to come from somewhere and ultimately someone has to come to terms with the final account. Therefore it must be considered a self defeating and expensive exercise if it is done purely to insulate a user from a necessary service i.e. unless a tangible benefit is identified and positively flows back to the party providing the subsidy.

Current and Future Shipping – Effects on Utilization

There is undoubtedly a trend to fewer but larger ships and this is evidenced by the lack of any growth factor in the number of tug jobs over the last few years. There is in fact an actual decrease in many ports and this has no direct relation to the economic trough which has occurred most recently. The trend and pattern has been evident over a longer period prior to the present malaise. Expanded trade will in the future continue to be offset by larger and fewer ships and inasmuch as towage is concerned, side thruster assistance also reduces overall utilization. The latter is not an overriding factor but nevertheless has an effect on the unit cost of each service.

Ironically the larger ships referred to above actually increase the demand for towage availability and are the pacesetters for power and the numerical strength of a particular port tug fleet as many of these ships use more than two tugs per movement.

Again such vessels actually place a burden on the smaller and more simplistic ships which could normally get by adequately on less power and sophistication i.e. using tugs built 10 ~ 20 years ago. Therefore, the median or smaller vessel of say 500 ~ 550 OAL 10,000 tons GROSS is often contributing to a port tug fleet geared to the pacesetting multi-tug vessel. Due allowance should therefore be made when structuring the tariff schedule to ensure that the user pay principle operates and vessel charges contribute equitably to the revenue pool required.

Larger, thruster assisted ships do not reduce the need to maintain a minimum standard of towage service. Malfunctions of these units are numerous (reliable European statistics derived from a lengthy survey report an average 30% failure rate overall).

Adverse weather is yet another factor which occurs. The net result is that these influences, either singularly or combined, inevitably lead to additional external assistance being sought from port tugs. Therefore the need to maintain a certain level of service does not diminish but there is a decrease in overall potential utilization and the unit cost rises amongst the remaining regular users.

It is interesting to note that thrusters aboard individual vessels which are found to be adequate from experience are generally accepted in Australian ports in lieu of a tug, however this is not the case in many other parts of the world, most notably Japan.

Operational Requirements

Harbour towage is in the main required and provided to meet the following needs and criteria:–

(1) Ability to manoeuvre vessels safely into and out of various berths under most weather conditions.
(2) Protection of adjacent vessels and installations from damage when manoeuvring. All too often this singularly important point is overlooked, particularly by ships who do not want to use tugs.
(3) Depending on the sheer physical size of vessels calling, they are sometimes precluded entirely from manoeuvring into a berth without assistance, even under perfect weather conditions.
(4) Sufficient towage capacity to cater for simultaneous movements in ports which are relatively busy, are spread over a large area or which have to meet tidal constraints. I realize this requirement may not be pertinent generally to New Zealand ports.

A very significant and important benefit derived from towage which also goes largely unrecognized is the time factor in completing a number of movements. This expedites vessels in most weathers and ensures that labour etc.

is not waiting unduly, more often than not at great expense.

Ship dimensions over the last ten to fifteen years have generally exploded but there has not been a corresponding increase in the size of ports. Basic geography always remains the same and swinging basins, channel widths and depths are only expanded sufficiently to permit the largest vessels calling to navigate with minimum clearances.

One of the more undesirable trends which has manifested itself over the last twenty years or so has been the multi-tug requirement and the dependence which has evolved as a consequence. It is necessary to explain how and why this developed to enable a full appreciation.

For those who may not fully understand what is meant by multi-tug requirements, I am referring to those ships which manoeuvre with more than two tugs i.e. 3, 4 or even 5 simultaneously.

Years ago with the exception of the large passenger liners which were always seen with a number of tugs in attendance, it was not until the advent of the supertanker followed by the VLCC and latterly container ships, car carriers and large bulk carriers that more than two tugs were generally required when manoeuvring in confined waterways.

Apart from shortcomings earlier on in tug design and capability, lack of consultation, forward planning and experience meant that these ships and their demands were suddenly upon us. In the large ports in Europe and Japan in particular, it was of no consequence in the then operating environment to overcome immediate problems and call for additional tugs to:—

(a) Substitute for the lack of manoeuvrability and versatility of the existing tugs (which is largely overcome today) and
(b) Ensure that sufficient power and aggregate bollard pull was provided for the operation.

This was easily obtained in a busy port where utilization was already high and there was a correspondingly high numerical port tug strength. However, where these particular circumstances did not exist and other ports followed suit, this has been a recipe for either very expensive towage or economic disaster.

Pilots had to respond with understandable caution by utilizing additional assistance, at least in some cases until experience was gained, however despite claims to the contrary, and there will always be exceptions, those who handle ships as a general rule take pride and satisfaction in being able to exhibit individual skill and as a consequence do not tend to "over-tugging". There is in fact a reverse trend to rationalizing the number of tugs allocated to a particular movement. I believe this trend is irrevocable and should be acknowledged for the underlying reasons given and any future planning be based on this premise.

Far from being a prophecy of doom and despair for tug operators, adaption to this evolution will ensure better utilization and resultant economics of a smaller but higher quality fleet. Ships will not get smaller and likewise the geography of ports will not change.

There is a finite amount of power which can be installed and used in a harbour tug. This is related to point loadings when pushing on hulls or towing on lines which can be readily handled and are practical for harbour work. This limitation would not, to the best of my knowledge have to be considered in New Zealand as the problem only arises when considering the power required for a minimum number of tugs required to service very large ships e.g. in excess of 200,000 tons deadweight.

There is no doubt that provided sufficient flexibility and power is built into a tug, most operations which use more than two tugs, could be reduced to two. I stress two as a single tug on a job can be more hazardous than none at all and no-one has come up with a tug which can be at each end of a ship simultaneously! A rather obvious fact, but one which most operators have to, from time to time, impress upon clients, who in their pursuit of economy are always looking for the impossible.

Finally, every port has separate individual requirements, weather conditions and tugs need to be tailored accordingly. There is no such thing as a standard tug. This assessment can only be made by proper consultation between the tug operator and the Harbour Master's Department in the first instance to establish the physical requirements and then in the second instance all the options must be considered by the Port Authority to achieve a balance according to the economic and cost factors involved.

The Options available to provide Cost Effective Services

(1) Rationalization of existing port fleets and reductions to be made where possible. Ideally the everyday operational tug fleet should comprise of no more than two "super" tugs (if these are sufficient to attend traffic and meet tidal constraints) otherwise the fleet has to increase in multiples of two.
(2) Sufficient installed bollard pull is essential and in this regard anything less than say 100 tons aggregate pull shared between two hulls is an unwise investment if one is building and looking 15 years or more down the track. Tugs do not as a rule wear out, they become obsolete and therefore very prudent foresight and planning is required.
(3) Although initially the substantial capital investment required to rationalize a port may seem to bring no immediate benefit in the first year or two, if an analysis is made of the alternative i.e. to retain a larger fleet and workforce it will soon become evident that there is a wide divergence in comparative costs in the future and the reduction in workforce overheads alone makes such an exercise desirable. Otherwise the day of reckoning is merely postponed at even greater cost.
(4) It is not possible or practical, given the vagaries of shipping to work in adjacent ports unless the steaming distance is within about 10 miles. The exception being if the work is on a supplementary basis and on relatively rare occasions. However, it is possible and more economical to either keep a tug unmanned in reserve or share reliefs between ports within reasonable steaming distances. This way idle plant and investment is kept to a minimum with obvious resultant economics and emergencies are catered for. This is done extensively in Australia, even between different operators if the need arises.
(5) Overhauls should be strictly supervised and completed in the minimum time frame and within a planned budgeted amount. This ensures that other plant is not required to cover lengthy periods out of service. I am well aware of the practice of many Port Authorities in

this regard and suffice to say that no commercial operator could indulge in the frequency (which is incidentally not required) nor the length of time out of service and resultant cost which if I might hazard a guess is probably not fully identified.

(6) Other economies which are probably more confined to the large operator, result from a spread of overheads related to expertise in fleet operations, superintendence, development, design and building. For instance bulk buying of machinery packages and carrying of spares on consignment are all significant savings. For example we alone through our interests had a building programme in 1983 worth A$20 million. Large fleet insurance rates and membership of a P & I Club also contribute to reduced costs.

Technical Considerations

I have deliberately refrained in this paper from entering into any in depth technical discussion and evaluation of towage plant as it is inappropriate to this audience. However, New Zealand was well advanced in moving towards new developments in propulsion and there is in fact a broader spectrum of alternatives to view and assess in this country than is the case in Australia.

It is largely a matter of individual choice but whatever system is preferred for shiphandling, omni-directional propulsion is essential in any harbour tug today, whether it be cycloidal or steerable right angle drive. There is a place for either system provided both initial cost and reliability are taken into account.

There is also no substitute for bollard pull in the final analysis when handling large and deep vessels.

There are a number of fine tugs afloat in New Zealand today which have long potential hull lives but which are unfortunately grossly underpowered. This is indeed a great pity as there are physical limitations and considerable expense involved if one embarks on a programme aimed at re-engining etc.

Our personal preference has been to select Japanese right angle drive units and in the 13 odd years of operational experience since the first units entered service we and other operators have never had to remove a unit with the exception of a unit which received external damage as a consequence of a grounding incident at Botany Bay some years ago.

The latest generation of tugs built during 1983 are amongst the most powerful omni-directional tugs afloat today and in two dissimilar ports in Australia, namely Westernport and Abbot Point, two highly powered omni-directional tugs handle vessels up to 160,000 tons deadweight with perhaps the median average ship being 80,000 to 100,000 tons. These same tugs can just as adequately be used to handle much smaller vessels.

Conclusion

Introduction of any rationalization programme requires the Harbour Master concerned to be convinced of both the practicality and viability of any proposal. This is from the point of view of safe navigation and also operational peaks.

This needs exposure to view as broad a spectrum as possible of other ports and situations where relative comparison can be made. It is far less expensive to provide this exposure and experience etc. than to provide grossly under utilized and expensive alternative services.

Seeing is believing is a truism and in this day and age adequate film or video can be obtained to show working pilots alternative systems as part of the process.

Secondly, there has to be a proper appraisal and understanding included in regard to the economics and alternative cost structures and their true ramifications. In short we cannot all afford to drive a Rolls Royce. Therefore a compromise often has to be reached as to what we would like and what we can afford. In this case it literally boils down to what can reasonably be translated in towage rates to the end user.

Finally, to achieve any success when rationalizing towage services, it is essential that thorough planning and decisions be made and implemented with regard to every sphere involved.

It is not recommended to attempt a piecemeal approach as the problems and costs which exist with an underutilized fleet and workforce today only tend to be magnified in the future and as I stated earlier, the day of reckoning is merely postponed at even greater cost in regard to capital replacements and ongoing expense in the intervening period.

Port of Brisbane

(Extracts from "Annual Report 1982/83, Port of Brisbane Authority")

Chairman's report(extract)

The most pleasant duty that can fall to a chairman is to report a successful year to his "shareholders" and, so saying, I'm pleased to tell the people of Queensland that it has been a year of solid progress for the Port of Brisbane. In the midst of international trade "talk" of gloom and doom the port's performance has been one of remarkable consistency. Total cargo throughput was 11,977,000 revenue tonnes which is only 4.8 percent down on the record high figure (12,548,000) of 1981/82. Comparative mass tonne results were as follows:

8,976,000 (1982/83) 9,391,000 (1981/82)

It is my personal belief that the port's overall trading appeal remains strong because the Authority has provided the financial muscle and the facilities to encourage and promote business.

And – neither do we overlook the courage and confidence of those private enterprise groups which have emerged as the modern champions of the port . . . firms like Queensland Bulk Handling Pty Ltd which with the backing of the West Moreton (Ipswich) miners has been responsible for Brisbane's re-emergence as a major coal port . . . like Consolidated Fertilizers Ltd, one of the port's major industries for 20 years or so and which, in a slack trading situation, went out and "sold" its products to new market buyers in Western Australia and Asia. As a result, fertilizer exports last year rose 155 percent to 117,000 tonnes.

There were other worthwhile contributions to our trade which remained buoyant in spite of – first – severe drought and – then – major floods. Full details can be obtained in the "Trade and Commerce" section of this report.

Perhaps, it is timely to record that by June 30, 1983, the Authority's investment in the development of the Fisherman Islands as a critical activity of the Port of Brisbane had reached $66.5 million. And – I would again emphasize that this is not taxpayers' money in the generally accepted sense of that phrase. It has not and does not come from consolidated revenue!

Whilst it is true that the Queensland Government guarantees our financial borrowings, all operational funds and the like come from the Authority's own reserves or are raised on the open loan market. All loans are serviced by the Authority. In short, the Authority has been . . . is . . . and should remain . . . a financially independent organization and not a drain on the public purse. That is how the government expects us to operate and that's what we intend to do.

Development

The most noteworthy developmental achievements of the year were:

- ☐ the completion of the bulk coal export facility (operated by Queensland Bulk Handling Pty Ltd);
- ☐ the completion of the bulk cement import installation (operated by Sunstate Cement Ltd).

Both facilities are operating efficiently and making very useful contributions to the port's trade.

Of more than average importance are the current and continuing investigations into the feasibility of opening up the North East Channel to cope with 200,000 d.w.t. ships.

The channel skirts the northern end of Moreton Island. What our people are endeavouring to discover is whether the channel can be deepened to a depth of about 20 metres; and, will it remain constant at that depth with a reasonable amount of maintenance dredging?

Such an entrance would have attractive economic and practical advantages for north bound ships. They would save many hours of steaming in not having to enter Moreton Bay via the North West Channel.

However, a more immediate and pressing reason to hope for a positive conclusion to the investigation is that the Port of Brisbane is one of several places being considered as the outlet for the Darling Downs' open cut coal deposits. To be able to assure miners and shipowners of our capacity to handle vessels up to 200,000 d.w.t. would be a plus mark in our favour.

In addition, other trades have expressed interest in bringing large bulk carriers into the port.

I'm pleased to report that tenders for the construction of the bulk sugar export terminal, at Colmslie, are due to be called before the end of 1983. Initially, the terminal will handle production from northern New South Wales and south-east Queensland for shipment to other Australian states. The trade will use the smaller coastal bulk carriers and, thus, will not require expensive developmental dredging of the Brisbane River channels.

The Authority's responsibility will be to design the wharf, carry out the dredging, and supervise construction. Other general project works are being undertaken by the Sugar Board. Exports are expected to commence in 1985.

Another big project in the pipeline is the deep water grain handling terminal at the Fisherman Islands. Total cost is expected to be about $36.5 million – with the State Wheat Board contributing about $28 million (for shore facilities) and the Authority about $8.5 million (for services, reclamation and wharf construction).

Site reclamation has been completed and terminal construction work is expected to begin in March 1984.

Standard gauge railway

The issue of the standard gauge rail to the Fisherman Islands is very much alive.

Recently the Queensland Government advanced a dual

proposal to the Australian Transport Advisory Council, i.e. that Queensland Railways should be extended from Goondiwindi to Boggabilla (N.S.W.), and that standard gauge rail should be extended from the container interchange at Acacia Ridge to the Fisherman Islands port. These propositions have the complete support of the Authority and we congratulate the State Government for such initiative. The questions are being examined at the level of railways commissioners.

Oil

There also are implications for the port's trade in the situation created by the Jackson Moonie pipeline which is due to start "delivering" crude oil to Brisbane. The most immediate effect will be a small reduction in the amount of crude oil imported for the Brisbane refineries by sea.

Containers

It is disappointing that the year has closed and we are unable to report the full utilization of the No. 2 container terminal, Fisherman Islands.

However, I'm pleased to reveal that as the year concluded the Authority was in the midst of negotiations with an organization which wants to utilize T.2 for container handling purposes.

Hon. A. M. Hodges
Chairman

Consolidated statement of income & expenditure

for the year ended June 30, 1983

	1983 $'000	1982 $'000
Income		
Harbour, dock, wharf, river dues and mooring fees	14,178	13,572
Dock services	2,936	3,454
Rental	2,845	1,906
Interest	911	386
Dredging services	1,930	3,498
Maintenance, construction & other service	717	547
Fisherman Islands expenditure recoveries	770	365
Profit on sale of fixed assets	65	375
Miscellaneous	96	157
Total Income	24,453	24,264
Expenditure		
Direct labour and expense	9,696	8,509
Salaries	3,839	3,360
Indirect labour and expenses	5,100	4,332
Interest	4,745	3,540
Depreciation	2,739	2,716
Other expenses	23	(91)
Capitalized cost of internal development work	(4,264)	(764)
Doubtful debts	62	95
Total Expenditure	21,942	21,698
Net income before appropriations	2,510	2,565
Transfer to Capital Works Reserve	–	(2,000)
Surplus for the year	2,510	565
Accumulated funds at beginning of year	20,397	19,831
Accumulated funds at year end	22,907	20,397

Consolidated balance sheet

as at June 30, 1983

	1983 $'000	1982 $'000
Current Assets		
Cash	242	238
Debtors	1,587	1,660
Investments	6,070	3,749
Inventories	621	118
Work in progress	961	1,443
Other debtors and prepayments	236	214
Total Current Assets	9,719	7,424
Non-Current Assets		
Long term receivables	130	–
Sinking Fund investment (at cost)	962	594
Fixed assets	73,233	66,397
Total Assets	84,045	74,416
Current Liabilities		
Creditors and accruals	3,076	3,885
Trust Fund	41	78
Total Current Liabilities	3,117	3,963
Non-Current Liabilities		
Employee provisions	1,913	1,783
Provision for major repairs & maintenance	200	–
Financial debt	46,107	38,472
Total Non-Current Liabilities	48,220	40,255
Accumulated Funds and Reserves		
Capital Works Reserve	9,800	9,800
Accumulated funds	22,907	20,397
Total Accumulated Funds and Reserves	32,707	30,197
Total Liabilities & Reserves	84,045	74,416

Department of Marine and Harbors

(Extracts from "Department of Marine and Harbors 82-83 Annual Report")

Director-General's report(extract)

The 1982-83 trading year has been one of the most difficult on record, due chiefly to the effects of the world's most severe recession in half a century, the nation's worst drought in memory and inflationary pressures.

South Australian ports revenue dropped 3.6 per cent below that of 1981-82, a fall substantially higher in real financial terms. Operating expenditures increased significantly, as did investment costs associated with the ports infrastructure.

A net contribution from Consolidated Account of $9.5 M was required following appreciably higher interest, debt redemption and superannuation contributions of $13.3 M. This compared with a contribution of $3.6 M in 1981-82. The actual surplus on operations before the above charges were met was $3.8 M, a drop of $4.4 M on the 1981-82 operating surplus.

Close study of the accompanying detailed Financial and Trading Statements provides renewed justification and urgency from the State Government's industrial diversification program, and particularly as it relates to the development of the large-scale industrial estate lands within the Port of Adelaide. With all-ports cargo tonnage down 2.9 m tonnes to 12.5 m tonnes, the major reduction was a 1.5 m

tonnes fall-off in grain shipments, down from 2.3 m tonnes to 0.8 m.

The total cargo tonnage also reflected a drop of 1.7 m tonnes in movements through the private ports of Whyalla (down 1.1 m tonnes), Port Stanvac, Ardrossan, Ballast Head and Proper Bay.

The new port of Port Bonython, to be handed over to Departmental ownership during the 1983-84 financial year, recorded its first export throughput of 0.2 m tonnes from the Cooper Basin oil field. In future, Cooper Basin exports can be expected to make a substantial contribution to the State economy on a continuing and regular basis.

They will also assist the port authority, to an extent, in countering the recurrent cyclical downturns caused mainly by the effects of drought on rural export production. However, it is obvious that the significant role of the ports system in helping to maintain equilibrium in State economic affairs will be greatly enhanced by the attraction of new port-related industry to the 800 hectares of existing industrial estate lands within the Port of Adelaide.

To this end, the Department has worked closely with the Department of State Development and other government instrumentalities, and has forged strong working links with the South Australian Chamber of Commerce and Industry Inc., in advancing a program of overseas and national marketing for the estates in relation to general and specific projects.

As the year closed, the Department was actively involved in consultations with the above and with the Australian Government and both Australian and international companies in regard to the possibility of a submarine construction project. Specialized industry already attracted to the Port of Adelaide by the Department may be involved in any such program, which centres on replacement units for the Australian Navy's submarine fleet.

Additionally, the Department's efforts to attract new port related industry have been extended to Europe and North America.

Under a trial scheme, direct marketing is being carried out in conjunction with the State Government's commercial representatives in North America and by the Department's own agency in Europe, as well as by intensive direct contact with overseas companies under normal trading circumstances. These are, of necessity, long-term activities, but they considerably broaden existing industrial links, including those with the United Kingdom and such Asian countries as Japan.

The Port of Adelaide's strong placement at the centre of both the Australian national rail and road systems, plus its close proximity to major consumer growth centres in South East Asia, Greater Asia and the Pacific, are major considerations in the industrial estates program.

Despite difficult world trading conditions, imports through the Port of Adelaide rose by 4.1 pc during the year, although the fall of 33.9 pc in exports reflected more truly the extent of recession and drought. This was further seen in a decrease of 39.38 pc in movements through the container terminal at No. 6 Outer Harbor. Only one shipment of barley and no wheat shipments left the port during the year because of reduced production. However, all-port grain export predictions for 1983-84, based on likely record production following excellent rains, give an encouraging picture for the future.

Although no breakthrough was achieved in relation to a direct container shipping service with Japan/South Korea, additional negotiations and the preparation and submission of new case material were undertaken. These efforts involved the Minister of Marine and the South Australian Shipping User Group, as well as senior Departmental officers. Agreement in principle on the need for, and economic justification of, the service was reached at meetings in Tokyo and Adelaide with Japanese and Australian principals, but hopes of a favourable decision during the course of the year were again frustrated. At the same time, South Australia's reasons for seeking direct service remain compelling in economic terms and positive resolution is a major priority in the next financial year.

Beyond that, the only key container service not yet achieved on a direct basis concerns SA's trade with the East Coast North America. Again, the case for this service has been further revised and the Conference involved has been kept aware of our need. The economic justification for the service is not challenged and a major Outside Line – the Atlanttrafik Express Service – has indicated it is considering including the Port of Adelaide as a regular call on its around-the-world container service in 1983-84. This would include East Coast North America ports of primary importance to SA meat exporters.

Although March, 1983, saw the end of BHP's Australian coastal service for steel product, in favour of land transport, Adelaide Brighton Cement Ltd. increased its intrastate imports of limestone by 40.5 per cent to a record 989,000 tonnes. The Department co-operated with the company in upgrading port facilities at Klein Point, from where the raw material is shipped to the Port of Adelaide for manufacture and re-export interstate and overseas as cement clinker or bulk cement. A further portworks project in the Port of Adelaide in relation to larger vessels entering the cement trade is also underway.

Recurrent receipts and payments

for the year ended 30 June 1983

	1983 $'000	1982 $'000
Receipts:		
From commercial ports operations by way of charges on ships and cargo, bulk handling and other facilities and for other services in port and marine functions amounted to	24,165	25,095
Wharfage	11,947	11,945
Tonnage rates	2,315	2,848
Conservancy dues	1,092	1,149
Pilotage fees	924	846
Bulk handling charges	4,148	4,759
Agreements leases and licences	1,431	1,323
Other port services	2,086	2,038
Fishing industry charges	222	187
Payments:		
For management, administrative, operating and maintenance costs and other payments incurred in the discharge of the Department's port, marine and other obligations amount to	20,401	16,938
Management:		
Salaries, wages and related payments	6,462	5,413
Office, travelling and sundry expenses	1,089	954
Operating and maintenance:		
Harbor services	4,107	3,788
Harbor works	5,467	3,835
Bulk handling installation	2,677	2,424

(Continued on next page bottom)

Gladstone Harbour Board

(Extracts from "Annual Report 1982 ~ 1983, Gladstone Harbour Board")

Chairman's report

For many years, the Gladstone Harbour Board aimed at providing a port which could handle vessels in excess of 120,000 D.W.T.

It is with great satisfaction that I can commence this report by stating this aim was achieved during 1982/83.

A massive dredging programme involving the removal of approximately 18 million cubic metres of material, with a final cost of $86 million, was completed on 24th December, 1982, after being underway for 2 months.

Vessels of 16 metre draft can now be handled at the Port on any day of the year. The deeper water has allowed greater flexibility in the movement of shipping – a benefit to all port users.

The Board recognizes the efforts of the contractor, Gladstone Dredging Joint Venture, and all associated with the project, in performing the work in such an expert manner.

In association with the Port Dredging Project, initial development of a major Marina Project was undertaken. This involved the dredging of the Marina basin and reclamation of shore areas. Further planning and development is now underway on this long term project.

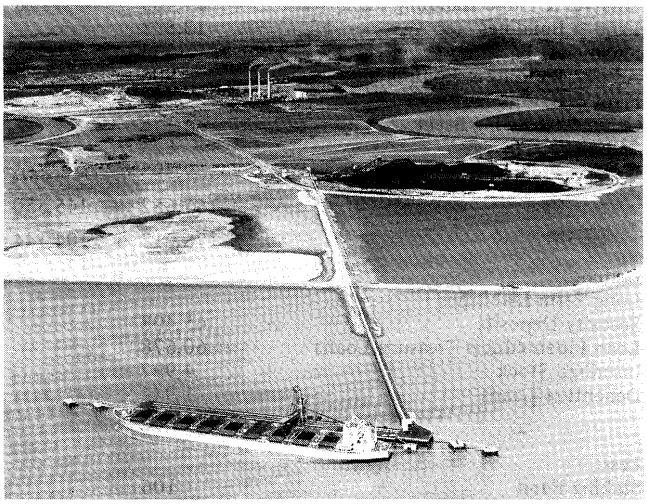
Whilst the year under review was marked by a world-wide recession in the mineral industry, the Board indicated its faith in the future of the Central Queensland Coal Industry by further expanding the Clinton Coal Facility. The sixth 300,000 tonne stockpile was completed, and contracts were awarded for Stockpile No. 7. This new stockpile scheduled for completion by November, 1983 will incorporate two storage areas, thus further enhancing the versatility of this world class Facility.

Central Queensland's traditional role as a major provider of pastoral and agricultural products has been strengthened by the projected increases in grain production during the remainder of this century. In conjunction with the State Wheat Board, the Gladstone Harbour Board has been actively engaged in planning a major redevelopment of the export grain handling facilities at Auckland Point. At year's end, work had commenced on the shore based grain storage facilities, and during the coming year, redevelopment of the shiploading facilities will be put underway.

Trade through the Port for year ended 30th June 1983 totalled 18.56 million tonnes, about 2.8% less than the previous year. This cargo was handled in 444 vessels of 13.44 million gross registered tonnage.

Coal exports were 10.9 million tonnes, about 18.9% higher than the previous year.

Auckland Point Facilities



Clinton Coal Facilities

The first shipment of aluminium from Boyne Smelters Limited left Boyne Wharf in the M.V. "Calliope Maru" 11th April, 1983.

Imports for the year totalled 5.16 million tonnes, and exports were 13.4 million tonnes.

The Board's finances remained in a sound position. Whilst every effort is made to keep port charges as low as possible, additional charges were imposed during the year to assist in the amortization of the cost of deepening the harbour as aforementioned.

A.W. O'Rourke, M.B.E.
Chairman

(Continued from page 18)

Fishing industry:		
Operating and maintenance expenses	599	524
Excess of receipts over payments:	3,764	8,157
Interest on Capital Funds, Sinking Contribution and Superannuation Contribution	13,303	11,806
Balance being recurrent cost of Marine and Harbors Department met from Consolidated Account	9,539	3,649

Balance sheet

as at 30th June, 1983

	1983 $'000	1982 $'000
Accumulated Funds:		
Balance as at 1st July 1982	47,685	
Transfer from Appropriation A/c	15,410	
	63,095	47,685

Represented by:		
Current Assets		
Cash at Bank & Investments	11,034	
Debtors	3,686	
	14,720	6,078
Deduct Current Liabilities		
Creditors	2,041	
Rent in Advance	270	
Provision for Long Service Leave	338	
Provision for Sick Leave	167	
Provision for Annual Leave	286	
Provision for Deferred Maintenance	3,250	
	6,354	3,084
	8,366	2,993
Working Capital		
Less:		
Short Term Loans		
Queensland Treasury	–	44,400
	8,366	(41,406)
Add:		
Non-Current Assets		
Investments	222	
Stores (at average cost)	668	
Wharves & Cargo Handling Facilities	54,463	
Land & Buildings	13,893	
Small craft Facilities	576	
Admin. Building & Equipment	906	
Plant & Equipment	1,740	
Channels & Swing Basin	85,158	
Causeway & Bridge	629	
Work in Progress	9,393	
	167,652	145,550
	176,018	104,144
Deduct:		
Long Term Liabilities		
Security Deposits	45,408	
Loan Indebtedness Treasury Loans	60,678	
Inscribed Stock	4,997	
Debenture Loans	1,944	
	113,029	
Less:		
Sinking Fund	106	
	112,923	56,459
	63,095	47,685

Income & expenditure account

for the year ending 30th June, 1983

	1983 $'000	1982 $'000
Income:		
Wharves & Cargo Handling Facilities		
Harbour Dues	4,170	
Cargo Handling Charges	19,258	
Tonnage Rates	796	
Rental	646	
Miscellaneous	198	
	25,070	15,980
Improved Harbour Charge	12,020	
Land & Buildings		
Rental	485	381
Smallcraft Facilities		
Mooring & Berthing Fees	96	56
	37,673	16,418
Deduct Direct Expenses:		
Wharves & Cargo Handling Facilities		
Operation & Maintenance	7,152	
Depreciation	5,024	
	12,177	10,196
Land & Buildings		
Operation & Maintenance	148	
Depreciation	58	
	207	172
Smallcraft Facilities		
Operation & Maintenance	117	
Depreciation	33	
	151	82
	12,535	10,450
	25,137	5,968
Gross Operating Surplus:		
Deduct Indirect Expenses:		
Administration	1,105	
Interest	11,582	
Provision for Deferred Maintenance	2,000	
	14,687	2,433
	10,450	3,535
Net Operating Surplus:		
Add Non-Operating Income:		
Interest on Investments	1,144	
Sundry Income	96	
Profit on Sale of Fixed Assets	118	
	1,360	1,007
Surplus transferred to Appropriation Account:	11,810	4,542

Maritime Services Board of New South Wales

(Extracts from "Annual Report 1982 ~ 83, the Maritime Services Board of New South Wales")

President's review(extract)

This 1982/83 Annual Report contains considerable detail on the Board's activities, its aims and objectives, structure, policies, plans and prospects for the future. The Report attempts to present relevant information in a clear and objective way so that the Board's performance can be more readily evaluated. The Board is committed to improvement in the type of information provided – a process which will continue progressively over several years. In keeping with this intention, the opportunity has been taken in small number of appropriate cases to include reference to events which have occurred since 30 June 1983, thereby enabling presentation of a record which is as complete and useful as possible.

It is well known that 1982/83 saw considerable difficulties for the economy. These problems weighed as heavily on the ports' customer industries as on any others, with consequential effects on the Board's operations. Imports of bulk crude oil, timber, machinery, chemicals and motor vehicles and parts suffered marked reductions.

The severe drought also played its part with declines in wheat and wool exports.

The overall tonnage of cargo handled through the State's ports dropped by 5.6% from last year's level. For the Sydney Ports (Port Jackson and Botany Bay) the reduction was 9.1% and for Port Kembla it was 14.7%. These were offset by an increase of 5.8% at Newcastle and of 6.6% in the trade handled by the State's minor ports at Clarence River, Trial Bay and Twofold Bay.

Contrary to the general trend in trade, coal export tonnage reached a record level this year with loading facilities at Newcastle and Balmain performing well. At Port Kembla the situation is less favourable. The new coal loader, commissioned in November 1982, is experiencing some continuing design, construction and operating difficulties although they are gradually being rectified and are not affecting the shipping programme. The marketing problems experienced by the coal producers shipping through the Port Kembla loader have reduced contracts to a level considerably below the industry's original expectations, with the result that the loader is running at less than break even point, thus incurring a loss. Hopefully this will be only a transitory setback.

As outlined elsewhere in this Report, the need to handle increased roadborne coal at Port Kembla has presented the Board with a significant challenge in meeting practical operating requirements and, at the same time, complying with the relevant environmental conditions.

These and other proposed solutions are currently under intensive discussion between the various arms of Government involved.

The depressed level of trade overall was reflected in the Board's finances which, despite substantial measures to reduce costs, resulted in a deficit of $320,990 after appropriations. The Board's reserves available for port development works are minimal, thus limiting works of this nature significantly during the year. These factors present the Board with difficult decisions on its future pricing policies which must strike a balance between the need for restraint and the need to finance the investment in port development which experience shows is so vital for the long term strength of the State's economy and for industrial growth. Earlier port development investments in areas such as coal loading and other cargo handling facilities, in container terminals, in harbour deepening and in improved navigation systems have served the State well. However whilst the State at present has adequate cargo handling facilities, in view of the long lead times which are inherent in major port works, the Board is of the view that a continuing capital works programme is essential to ensure the State remains the leading industrial centre of Australia.

During the year the Board decided that a comprehensive review of its management structure was necessary. This was based on studies undertaken in previous years, and implementation is now proceeding with the objective of having the major features of the new structure well in place by the end of the 1983/84 fiscal year. Although there are a number of problems yet to be resolved, implementation is proceeding progressively and the benefits are already being felt, giving the Board confidence that the new structure will result in a more commercially oriented organization in the future, providing improved service to its customers and greater effectiveness in all areas.

It is pleasing to note that the level of industrial disputation was low this year, with time lost on stoppages dropping by 64% from last year's level. To some extent this result can be attributed to the new management structure at Newcastle and Pork Kembla, and greater concentration on consultative procedures. However, the major factor was acceptance by the unions of the difficulties faced by the Board and its customers in the prevailing economic conditions. A responsible recognition by unions of the effects of port stoppages on employment in industry generally also assisted. The Board appreciates the attitude adopted by its employees in this regard and freely acknowledges that without this co-operation a difficult year would have been much worse.

J. M. Wallace
President

Charter

The Maritime Services Board of N.S.W. was constituted under the provisions of the Maritime Services Act, 1935, on 1 February 1936. It was formed to integrate the activities of the former Sydney Harbour Trust and the Department of Navigation – activities which were then highly interdependent and are even more so today.

The Board is responsible to the Minister for Public Works and Minister for Ports – a dual portfolio in the State Government. Except in relation to the content of a report or recommendation made by it, the Board is, in the exercise and performance of its powers, authorities, duties and functions, under the direction and control of the Minister.

In the State of New South Wales, the Board has the role of Port and Navigation Authority and it considers that combination of these two roles results in effective and efficient administration of the maritime services which the State requires. Recognizing that there is room for improvement in any field of endeavour, the Board is constantly revising its policies and operations to take advantage of opportunities for improvement.

The Board is responsible for the development of ports and port facilities, the control of shipping movements within the ports, and the efficient flow of cargoes through those ports.

It also has a statutory obligation to administer and control the commercial and recreational use of the State's waterways, and to protect the marine environment from oil pollution.

Principal legislation administered comprises the Maritime Services Act, 1935; the Port Rates Act, 1975; the Prevention of Oil Pollution of Navigable Waters Act, 1960; the Commercial Vessels Act, 1979; the Sydney Harbour Trust Act, 1900; and the Navigation Act, 1901.

THE PORT AUTHORITY ROLE includes responsibility for all the State's ports which comprise four major ports – Port Jackson, Botany Bay, Newcastle and Port Kembla, and five minor ports. The minor ports are situated at Eden, Trial Bay, the Clarence River, the Richmond River and at Coffs Harbour.

The Board plans, designs and develops commercial shipping and port facilities, operates bulk facilities such as coal loaders, unloaders, etc., and carries out other cargo handling operations.

THE NAVIGATION AUTHORITY ROLE encompasses pilotage, navigation aids; the dredging, deepening and widening of all shipping channels; control of pleasure boating; registration of recreational craft; and control of the State's navigable waterways.

Balance sheet

as at 30 June, 1983

	1982~83 $'000	1981~82 $'000
Capital and Retained Earnings		
Capital Debt –		
Loan Liability to the Treasurer	189,402	192,318
Loans Raised by the Board	195,396	165,534
Loan Liability – Port Kembla Further Development Act – 1971	5,229	5,751
	390,028	363,603
Other Capital –		
Commonwealth Sinking Fund Contributions and Coal Loading Works Grant	9,271	1,192
Newcastle Harbour Deepening Levy	85,575	80,000
Earnings Expended on Assets	144,990	144,990
	239,837	226,182
Retained Earnings –		
Loans Repayment Reserve	6,251	5,027
Accumulated Funds	307	628
	6,558	5,655
	636,424	595,441
Represented by		
Fixed Assets –		
Property Plant etc. (At Cost)	676,467	637,728
Less Accumulated Depreciation	70,510	60,278
	605,957	577,450
Investments –		
Shares in Kooragang Coal Loader Limited	2,125	1,050
Current Assets –		
Stores and Materials	2,028	1,948
Debtors	25,056	22,359
Less Provision for Doubtful Debts	364	209
	24,691	22,150
Interest Bearing Deposits	49,544	25,724
Cash and Cash in Transit	6,661	12,843
	82,925	62,666
	691,008	641,167
Less –		
Current Liabilities –		
Creditors	23,968	21,175
Trust – Newcastle Harbour Deepening Account	5,301	9,254
	29,269	30,429
Provisions –		
Annual Leave	3,050	–
Extended Leave	5,868	4,436
Retirement Benefits	8,931	4,114
Dredging	2,744	3,061
Future Maintenance Coal Loading and Other Plant	4,720	3,683
	25,313	15,295
	54,583	45,725
Total	636,424	595,441

Statement of income and expenditure

for the year ended 30 June, 1983

	1982~83 $'000	1981~82 $'000
Income		
Port Management	184,931	173,442
Charges on Cargo	77,983	92,383
Charges on Vessels	21,558	21,391
Commercial Charges	14,953	12,399
Coal Loading Charges	70,435	47,267
Waterways Management	4,765	3,762
Interest on Deposits	6,012	5,839
Miscellaneous Sources	1,373	1,348
Total Operating Income	197,082	184,392
Expenditure		
Port Management	83,102	64,536
Operations	23,216	20,327
Sundry Services	12,403	11,066
Coal Loading Facilities	47,482	33,142
Waterways Management	4,271	3,124
Maintenance of Properties and Equipment	18,911	16,480
Provision for Depreciation	10,934	10,247
Administrative Expenses	22,563	19,271
Management and Administration	21,197	17,833
General Charges	1,240	1,377
Audit Fee	125	60
Financial Charges	37,224	32,249
Interest – Capital Debt	19,942	18,247
Interest – Private Borrowings	16,730	13,456
Loan Management & Flotation	351	346
Provision for Doubtful Debts	200	200
Total Operating Expenditure	177,008	145,910
Balance of Income Available for Renewal of Assets and Other Expenses	20,074	38,481
Add – Newcastle Harbour Deepening –		
Interest on Deposits	1,394	2,279
– Profit on Sale of Fixed Assets	255	2,570
	1,650	4,849
	21,725	43,331
Deduct – Abnormal Items		
Prior Period Adjustments	2,143	–
	19,581	
Applied To:		
Contribution to Consolidated Fund	11,075	9,671
Transfer – Newcastle Harbour Deepening Account	1,622	17,642
Repayment – Port Kembla Harbour Deepening	–	690
Agreement		
Provision for Annual Leave	3,050	–
Provision for Extended Leave	850	–
Provision for Retirement Benefits	1,850	–
Sinking Fund Contributions –		
Private Borrowings	1,454	1,519
Renewal of Assets	–	7,000
	19,902	36,523
Surplus/Deficiency to Accumulated Funds	320	6,807

Ports Authority of Fiji

(Extracts from "Annual Report & Accounts 1982, Ports Authority of Fiji")

Chairman's report(extract)

The year was a landmark for the PAF, since it saw the start of work on a $16 million contract for repairs, major modifications and improvements to Suva's Wharves. Due to be completed by early 1985, the project will serve Suva's international cargo handling needs until at least the year 2000.

PAF's revenues were lower and this was mainly due to the amount of cargo handled being significantly lower than in 1981, a reflection of the general world-wide reduction in trade caused by the international recession.

Results were nevertheless satisfactory, in spite of the difficult economic climate.

Total operating revenue was $7,182,966 (1981: $7,553,990) and profit, before appropriations, was $1,133,637 (1981: $1,347,751).

The PAF is keeping pace with the shift to container operations and will continue to do so. The Ports of Suva and Lautoka handled a total of 17,541 containers during the year compared with 16,614 in 1981.

The completion of the Suva Port Project will enable containers to be moved more quickly and efficiently and will achieve more effective utilization of port labour and equipment.

Inflation and increases in the cost of labour, fuel, and maintenance together with the port capital projects, made a review of port tariffs necessary. During the year consultants were engaged to review the PAF's tariff structure, and to recommend new port charges. Higher charges are unavoidable, but in implementing them the Authority will remain conscious of the need to preserve Fiji's status as one of the South Pacific's premier ports and transhipment points.

G.W.S. Barrack
Chairman

Shipping and port operations

Ports Authority of Fiji ports handled slightly less cargo and nearly 100 fewer ships in 1982 compared with 1981, yet they continued to be among the country's busiest centres of trade, commerce and employment.

The launching of the $16 million Suva Port Project in October 1982 created jobs and other economic benefits at a time when other large capital projects elsewhere in Fiji were nearing completion.

Completion of the Suva Port Project towards the end of 1984 will preserve Suva's position as one of the South Pacific's leading Ports and transhipment centres and will be a guarantee of fast, efficient, reliable cargo operations for the capital, and the country, until the end of this century.

The number of overseas vessels using PAF ports dropped to 867 with a total gross registered tonnage of 6,512,697 compared to 960 with a total of 6,799,778 the previous year.

Sugar (297,407 tonnes), mineral oil (425,748 tonnes), molasses (131,417 tonnes) and general cargo (517,992 tonnes) formed the total of 1,372,564 tonnes of cargo handled at PAF ports during the year.

The port of Suva handled a total of 531,780 tonnes of cargo in 1982, as compared to 587,101 tonnes in 1981.

Suva's status as the capital city and the centre of commerce and industry is drawing to it a steadily larger volume of container-borne cargo. 12,323 containers were handled during the year compared with 12,104 in 1981. Container and Ro-Ro vessels usually carry their own heavy equipment to discharge cargoes. It is this, together with the size and complexity of container and Ro-Ro operations, which led to the decision to upgrade and rehabilitate the wharves in Suva. Funded by an Asian Development Bank loan of US$7 million, and from PAF's own resources, the Project is being executed in three contracts.

As one of the country's largest employers of labour, the PAF is constantly concerned with maintaining good relations between management, staff and trade unions. At the end of the year PAF had 448 permanent employees of whom 151 were salaried staff, 90 were hourly paid employees and 207 were registered dockworkers.

During the year 45 permanent dockworkers retired under an agreement reached with the Fiji Port Workers' Union in 1981.

Industrial relations were stable and amicable throughout the year, assisted by constant meetings with the Fiji Port Workers' Union and Fiji Public Service Association.

PAF has continued to provide various services for the port users including pilotage, warehousing, tug services, safety and security, stevedoring and provision of port equipment.

Training

In accordance with the training policy of the PAF, the Training Department continued to initiate, organize and co-ordinate courses for its staff. A total of 89 officers took part in training programmes which included overseas courses, in-house training, and courses offered by the Fiji Institute of Technology, Fiji National Training Council and the University of the South Pacific.

Training Courses and Seminars Attended During 1982

Courses	Venue	No. of Participants
OVERSEAS:		
Port Engineering and Project Management	Singapore	1
Port Operations and Administration	Singapore	2
Project Implementation Management Seminar	Manila	1
Improving Port Performance/Management of General Cargo Operations	Cardiff	2
LOCAL:		
U.S.P. –		
Mid Management	Suva	4
Audit Training	Suva	1
F.N.T.C. –		
Personnel Management	Lautoka	1
Industrial Relations	Lautoka	1

Office Administration	Suva	5
Heavy Auto/Clutches and Transmission	Suva	2
Heavy Auto/Brake System	Suva	1
Accounting	Suva	1
Filing	Suva	1
Senior Secretary	Lautoka	1
In-House –		
Supervision	Suva	9
Supervision	Lautoka	6
Winch/Ship's Crane Training	Suva	10
Riggers Training	Suva	19
Heavy Forktruck Operators	Suva	11
Mobile Crane Operators	Suva	6
Others –		
Cadet Pilog	FIT and Pacific Islands Sea-Going Vessels	3
Computer Control	Price Waterhouse and Company	1

Balance sheet

as at 31 December, 1982

	1982 $'000	1981 $'000
The Funds employed were –		
Capital Fund	2,968	2,968
Development Reserve	4,005	3,675
General Reserve	2,800	2,470
Unappropriated Surplus	8	4
Revaluation Reserve	21,442	21,453
Long Term Liabilities		
A.D.B. Loan	820	375
Total Funds	32,045	30,947
These Funds were represented by –		
Share Capital	4	4
Fixed Assets Less Depreciation	23,240	24,232
Work-in-Progress	783	351
	24,027	24,588
Current Assets		
Cash	7,296	6,601
Stock	31	7
Accounts Receivable and Payments Made in Advance	1,249	457
Refundable Deposits	1	6
Accrued Interest	379	206
Staff Loans	78	96
	9,036	7,376
Less:		
Current Liabilities		
Accounts Payable and Payments Received in Advance	507	505
Provisions	10	11
Government of Fiji – Consolidated Fund	500	500
	1,018	1,016
	8,018	6,359
Total Net Assets	32,045	30,947

Revenue and appropriation account

for the year ended 31 December, 1982

	1982 $'000	1981 $'000
Revenue		
Ship Charges	1,400	1,449
Cargo Charges	5,718	6,043
Other Charges	63	60
Total operating revenue	7,182	7,553
Expenses		
Total Employment Costs	3,827	3,649
Direct Operating Costs	788	901
Depreciation	1,268	1,361
Administration	731	699
Total operating expenses	6,616	6,612
Surplus/(deficit) from port operations	566	941
Add: Net Non Operating Income	72	76
Surplus/(Deficit) from all operations	638	1,017
Add: Other Income	717	499
	1,356	1,517
Less: Finance Cost	32	124
Surplus before extraordinary items	1,323	1,392
Less: Abandoned Works	143	–
Less: Commitment fee (Asian Development Bank)	46	44
	190	44
	1,133	1,347
Add/(less) Prior Year's Adjustment	30	(226)
Surplus for current year	1,164	1,120
Add: Unappropriated Surplus Brought Forward	4	8
Profit before Appropriation	1,168	1,129
Less: appropriation		
Transfer to Government of Fiji Consolidated Fund	500	500
Transfer to Development Reserve	330	325
Transfer to General Reserve	330	300
Unappropriated surplus	8	4

Kenya Ports Authority

(Extracts from "Annual Report and Accounts for the period 1st January to 31st December, 1981")

Port operations

Traffic throughput, shipping and passenger traffic

The port of Mombasa was ushered into the decade of the 80s with the record traffic level of 8,436,000 tonnes handled in 1981. This tonnage was 12.3 percent higher than the previous record of 7,511,000 tonnes handled in 1980.

Notable increases in traffic were registered in exports of dry bulk cargo which rose by 30.3 per cent from 573,785 tonnes handled in 1980 to 747,619 tonnes in 1981 and in the exports of bulk petroleum oils which rose by 159.47 per cent from 361,323 tonnes to 937,537 tonnes during the same period. The volume of bunker oils also rose by 45.27 per cent from 158,387 tonnes to 230,094 tonnes. Exports of bulk liquids had an over-all increase of 112.9 per cent between 1980 and 1981. In contrast, however, dry general cargo imports and exports declined by 9.3 per cent and 0.34 per cent respectively. There was also a significant decline in transhipment traffic which went down from 4,125 tonnes handled in 1980 to 3,378 tonnes

handled in 1981 – a drop of 18.11 per cent.

The number of ship arrivals which had dropped from 1,493 in 1979 to 1,449 in 1980 registered a further decline of 5.76 per cent to 1,407 in 1981. The Net Registered Tonnage, however, showed a slight increase of 0.21 per cent indicating that ships with larger cargo capacities visited the port in 1981.

In the year under review the number of passengers who disembarked or embarked at the port of Mombasa increased from 182 in 1980 to 371 in 1981 – a rise of 103.85 per cent.

Traffic trends

The trend of traffic handled through the port of Mombasa is as depicted by the graph which covers the ten year period from 1972 to 1981.

Total traffic, over the ten years, rose from 5.89 million tonnes to 8.44 million tonnes which reflects a significant growth of 4.3 per cent per annum. Exports grew by 3.4 per cent per annum from 2.09 million tonnes in 1972 to 2.81 million tonnes in 1981. Imports achieved a higher growth of 4.7 per cent per annum from 3.8 million tonnes to 5.6 million tonnes over the same period.

The five year period registered an annual growth of 8.96 per cent in total traffic which rose from 5.8 million tonnes in 1977 to 8.4 million tonnes in 1981. Imports rose from 3.9 million tonnes to 5.6 million tonnes, thus reflecting a rise of 8.7 per cent per annum. Exports, on the other hand, rose by 9.5 per cent per annum from 1.9 million tonnes to 2.8 million tonnes.

The growth in imports is attributed to increased importations of grains (principally maize and wheat) and fertilizers. With regard to exports, the growth is attributable to increased exportation of such commodities as Molasses and bulk oils. The former rose from 41,000 tonnes in 1977 to 107,000 tonnes in 1981 – a rise of 32.2 per cent per annum – while the latter increased from 40,000 tonnes to 937,000 tonnes over the same period.

Dry general cargo handling

In 1981 dry general cargo handled (including transhipment) amounted to 2,129,000 tonnes as against a total of 2,215,000 tonnes handled in 1980 thus giving a decline of 3.9 per cent. Significant declines in this respect were recorded in imports of rice (from 25,000 tonnes to 9,000 tonnes), Iron and Steel (from 216,000 tonnes to 136,000 tonnes) Vehicle Tyres and Spares (from 72,000 tonnes to 34,000 tonnes) and Wheat in bags (from 15,000 to 10,000 tonnes). Other declines but of less magnitude were recorded in the exports of beans, peas and pulses, lubricating oils in drums and cotton.

The volume of dry general cargo accounted for 25.2 per cent of total cargo handled while dry bulk cargo and bulk liquid cargo accounted for 17.4 per cent and 57.4 per cent respectively.

Dry general cargo imports (excluding transhipment) accounted for 15.9 per cent of total cargo and 23.85 per cent of total imports. Exports of dry general cargo, however, represented only 9.3 per cent of total traffic and 27.9 per cent of total exports.

Container traffic

Container traffic which had registered a growth of 102.4 per cent from 15,146 TEUs (Twenty Foot Equivalent Units) in 1979 to 30,660 TEUs in 1980 rose by only 43.8 per cent from the 1980 level to 44,083 TEUs in 1981. It is fairly evident that the Stage II traffic level of 60,000 TEUs which had been forecast for 1990 in the Containerization Development Programme may, in fact, be reached by the end of 1982.

The year under review saw the handling of the 100,000th container on 11th December, 1981 and a ceremony was held to mark this important occasion in the growth of container traffic.

Income and expenditure account

for the year ended 31st December, 1981

	1981 K. Shs. '000	1980 K. Shs. '000
Operating Revenue		
Shipping	71,027	71,608
Stevedoring	188,505	168,461
Wharfage	379,219	372,461
Handling Cargo	124,205	134,190
Penalty Storage	90,100	87,242
Other Operating Revenue	40,531	42,975
Net Revenue Account Receipts	86,714	54,165
Total Operating Revenue	980,304	931,104
Operating Expenditure		
Abstract 'A' Shipping	75,668	40,174
Abstract 'B' Stevedoring	276,820	213,490
Abstract 'C' Wharfage	97,861	75,548
Abstract 'D' Handling Cargo	116,166	105,740
Abstract 'E' Storage	1,839	1,512
Abstract 'F' General Charges	152,183	86,933
Abstract 'G' Miscellaneous Expenditure	55,599	43,089
Net Revenue Account Charges	1,737	1,544
Total Operating Expenditure	777,877	568,033
Surplus for the year	202,426	363,070

Balance sheet

as at 31st December, 1981

	1981 K. Shs. '000	1980 K. Shs. '000
ASSETS EMPLOYED:		
Fixed Assets – Berths, Wharves & Jetties, Shore Plant Equipment, Buildings, Floating Craft and Other Assets.	1,999,873	1,837,174
Less Accumulated Depreciation	784,633	742,903
Net Fixed Assets in Operation	1,215,239	1,094,270
Add Works in Progress	189,743	90,393
Total Fixed Assets	1,404,982	1,184,664
Investments		
Short Term Investment	560,000	570,000
Trade Investment	4,572	4,572
General Investment	288,999	140,000
Pension Fund Investment	100,310	95,048
Total Investments	953,882	809,620
Current Assets		
Stores Stocks	27,253	20,813
Less Provision for Obsolescence	1,565	1,758
Net Value of Stores Stocks	25,687	19,055
Cash Balances:		
Cash and Bank Balances	55,981	132,288
Cash with Crown Agents	17,694	14,509
Total Cash Balances	73,676	146,797

	1981 K. Shs. '000	1980 K. Shs. '000
Sundry Debtors:		
Traffic Account Outstanding	77,134	71,810
Less Provision for Bad & Doubtful Debts	4,716	4,334
Net Traffic Account Outstanding	72,417	67,476
Accrued Interest on Investments	28,459	36,385
Other Debtors	98,973	57,894
Total Debtors:	199,850	161,756
Total Current Assets	299,215	327,609
Less Current Liabilities:		
Creditors and Accrued Charges	123,159	54,706
Net Current Assets	176,055	272,903
Total Assets Employed	2,534,921	2,267,188
FINANCED FROM:		
Public Debt:		
Loans	366,531	331,027
Less Invested Sinking Fund	14,125	11,359
Net Public Debt	352,406	319,667
Grants and Aids	64,292	
Provisions:		
Staff Pensions	115,580	103,756
Loans Redemption	14,125	11,359
Gratuities and Provident Fund	3,258	3,289
Fixed Assets Obsolescence	287	1,041
Insurance Provisions	6,511	6,061
Total Provisions	139,762	125,509
Reserves:		
General	1,677,609	1,527,928
Assets Revaluation	293,086	288,744
Appropriation Account	7,764	5,338
Total Reserves	1,978,459	1,822,011
Total Funds Employed	2,534,921	2,267,188

Department of Transportation State of Hawaii

Overview

Hawaii is a special place in many respects – and our transportation needs are special, too.

Hawaii is the most remote land area on earth, so we are more dependent on air travel than anywhere else in the world. In no other state is an island-hop by air necessary to travel to another country.

Most of Hawaii's goods arrive by sea. To accommodate our growing population and changing demands, our harbors must be sufficient in quantity and quality to meet these needs. People who enjoy boating, fishing and other water sports take particular pleasure in our well-designed small boat facilities.

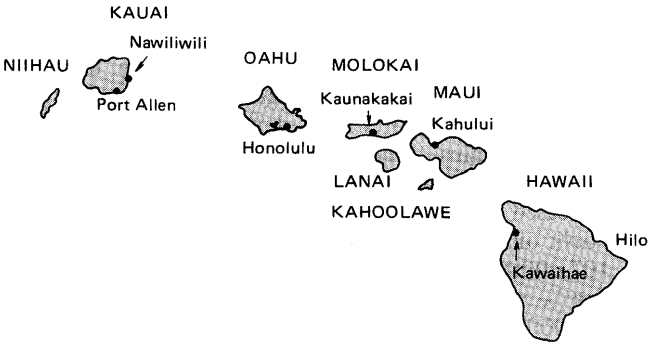
Hawaii's mountainous terrain, special soil conditions and increasingly suburban population require highways that are well-planned and expertly engineered.

The Department of Transportation has responsibility for seeing that all of these special needs are met, that facilities are safe and efficient, and that Hawaii stays on the move.

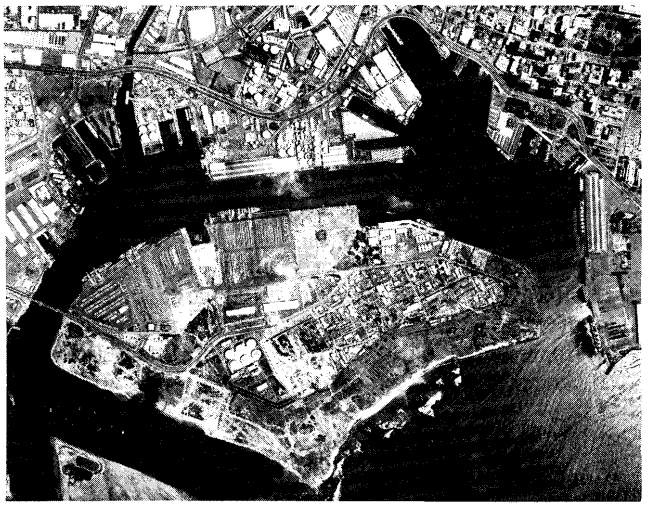
For the past twenty years, the department has been building and reconstructing airport, harbor and highway facilities to keep pace with the economic growth of the State. Much of our transportation infrastructure is already in place – Honolulu International Airport (HIA), improved Honolulu Harbor and H-1 and H-2 Interstate Highways. Other major construction projects for the near future are Barber's Point Harbor, a remaining 10.5 miles of Interstate H-3 Highway, Lihue Airport terminal, Kahului Airport terminal and an HIA inter-island terminal.

Much of the economic boom which Hawaii has experienced in the last 15 years could not have happened without the support of modern and increasingly economical transportation facilities. In a relatively short time, the State has been called upon to develop a transportation program to accommodate the pressing demands of growth in Hawaii.

On the other hand, our resources are limited and our constraints are numerous. As we progress into the eighties, the direction of the department will change from a construction oriented organization to one which will emphasize operations and maintenance of existing facilities. To effectively meet the challenge posed by the change of direction, the DOT is reassessing its objectives and reorganizing.



Hawaii State Commercial Harbors



Aerial view of Honolulu Harbor

HONOLULU HARBOR – The economic springboard to the vast pacific basin is situated on the south coast of the Island of Oahu. It is serviced by two channels and has over 30 major berth facilities available for the handling of passengers traveling by sea, and cargo arriving from seaports all over the world. Presently, Honolulu Harbor has over 17,000 linear feet of pier, 2,280,000 square feet of shedded area and 3,074,000 square feet of open storage areas. The main entrance channel has a project depth of 40 ft. while the rest of the harbor has project depth of 35 ft.

HILO – Located on the northeast coast of the island of Hawaii is Hilo Harbor, the second-ranking port in the State. The entrance channel has a project depth of 35 ft. and leads to a harbor basin 1,400 ft. wide by 2,300 ft. long which also has a project depth of 35 ft. Harbor facilities include over 2,600 linear feet of piers, 174,000 square feet of shedded areas and 230,000 square feet of open storage areas.

KAWAIHAE – Kawaihae is the newest and fastest growing port in the Hawaiian chain. Initial construction completed in 1959, this port provides shipping facilities for the south and west coast of Hawaii, thus eliminating the costly transportation of goods and supplies from Hilo which is 71 miles away. The accelerated growth in the Kona resort area is reflected in Kawaihae. The entrance channel has a project depth of 40 ft. A turning basin, roughly 1,450 ft. by 1,500 ft. with a project depth of 35 ft. Harbor facilities include 1,015 linear feet of piers, 8,000 square feet of shedded areas and 73,000 square feet of open storage areas.

KAHULUI – Kahului Harbor is located on the northeast coast of the island of Maui and is the only deep water port which serves this island. The harbor is accessible through a 660 ft. wide entrance which leads to a harbor basin 2,050 ft. wide by 2,400 ft. long. Project depth within this basin is 35 ft. Harbor facilities include 2,300 linear ft. of piers, 148,000 square feet of shedded areas and 184,000 square ft. of open storage areas.

KAUNAKAKAI – Molokai is the only major Island which is not served directly by overseas vessels. The community depends on interisland barge shipments, primarily from Honolulu, for various goods and supplies. Kaunakakai Harbor is located on the leeward southern coast of Molokai. It has an entrance channel and harbor basin 600 ft. wide by 1,500 ft. long, which is 23 ft. deep. Harbor facilities include 687 ft. of barge pier, 5,300 square feet of shedded storage area and 288,000 square feet of open storage area.

NAWILIWILI – Nawiliwili is the principal port of Kauai, the Garden Isle, and is located on the southeast coast. Its entrance channel is 600 ft. wide by 2,400 ft. long by 40 ft. deep. A 1,540 ft. by 1,950 ft. harbor basin has a project depth of 35 ft. Harbor facilities include 1,140 linear feet of piers, 49,000 square feet of shedded areas and 104,000 square feet of open storage areas.

PORT ALLEN – Port Allen is located mid-way on the south coast of Kauai. Its entrance channel is 500 feet wide and 35 feet deep. The harbor basin is 1,200 feet wide, 1,500 feet long and is also 35 feet deep. Harbor facilities include two 600 feet piers, 24,000 square feet of shedded storage area and 41,362 square feet of open storage area.

Financial Summary/Harbors

Statement of Operations of the Public Undertaking
Years Ended June 30, 1982 and 1981

	1982 $'000	1981 $'000
Operationg revenues:		
Services	9,579	9,036
Rentals	9,082	6,600
Others	576	536
	19,239	16,173
Operating expenses before depreciation:		
Personal services	3,786	3,406
Maintenance	1,429	1,807
Harbor operations	1,290	1,096
General administrative	669	539
Fireboat operations	692	687
State of Hawaii, surcharge for central service expenses	655	548
Department of Transportation, administrative expenses	326	612
Loss on disposal of harbor facilities	58	18
	8,909	8,717
Income from operations before depreciation	10,330	7,455
Depreciation:		
On assets acquired with own funds	1,967	1,892
On assets acquired from contributions	116	116
	2,084	2,009
Income from operations	8,245	5,445
Non-operating income (expenses):		
Interest income	4,327	2,919
Interest on revenue bonds	(3,612)	(1,952)
Interest on State of Hawaii general obligation bonds	(1,404)	(1,289)
Interest on revenue bond anticipation notes	(1,208)	(293)
Amortization of bond discount and bond and note issue costs	(403)	(113)
Other	65	60
	(2,236)	(669)
Net income	6,009	4,776

The Port Authority of New York and New Jersey

(Extracts from "The ABC's ... of the Port Authority of New York and New Jersey")

Financing. How The Port Authority Is Funded

The Port Authority has the power neither to levy taxes nor to make assessments. As a financially self-sustaining agency, it has no power to borrow on the credit of either state or of any municipality.

To raise capital for its projects the Port Authority borrows from banks or issues bonds secured only by its revenues.

The loans are repaid and the bonds redeemed only from the revenues and reserves the Port Authority generates from its facilities.

Port Authority facilities generate revenues and reserves from users – in tolls to cross its bridges and tunnels, fees and charges to operate from its airports and terminals, and rents from offices, consumer services and retail stores.

The Port Authority's present assets, including bridges, tunnels, airports and trade and transportation centers, are in excess of $4 billion.

Governance. Who Governs The Port Authority

The governor of each state appoints six commissioners to the Port Authority's Board of Commissioners, each appointment subject to the approval of the state senate.

The governor retains the right to veto the actions of the commissioners from his state. The Port Authority may proceed with only those projects the two states authorize.

The twelve commissioners serve as public officials without pay.

The Board of Commissioners appoints an executive director to effect its policies and a general counsel to advise it on legal matters.

The board's meetings are public. The Port Authority has a voluntarily assumed freedom of information policy.

Some 270,000 New York and New Jersey residents work at permanent jobs related directly and indirectly to Port Authority operations and to transport operators and commercial tenants at its facilities. Temporary jobs in construction and other fields, related to building and improving Port Authority projects, range around 5,000 per year.

The executive director manages day-to-day operations through the Aviation, Economic Development, Port, Rail Transportation, Tunnels-Bridges-Terminals and World Trade line departments and such staff departments as Engineering and Finance.

The breadth of Port Authority tasks and its commitment to efficiency and public safety require a highly diversified staff of career personnel, many of whom have become world experts in their fields. Port Authority personnel have a history of volunteer participation in regional improvement, both as creative employees and as neighbors in the larger community.

Origin. Why The Port Authority Was Formed

The states of New York and New Jersey created the Port Authority in 1921, with Congress' consent, to undertake port and regional improvements which private enterprise was unlikely to invest in nor either state likely to undertake alone – a modern wharfage for the harbor the two states share, tunnel and bridge connections across the Hudson River and, in general, trade and transportation projects to prosper the New York-New Jersey Metropolitan Region.

To advance the New York-New Jersey Metropolitan Region, the Port Authority explores new directions and assists in new regional enterprises – rehabilitating the region's waterfront and infrastructure, developing resource recovery plants and industrial parks, constructing a worldwide satellite communications center, creating a processing center for the port's fishing industry and innovating regional uses of energy and technology.

History. When The Port Authority Was Young

New York and New Jersey quarreled throughout the 19th Century over their common harbor and waterways. A dispute over the boundary line through the harbor and the Hudson, finally settled by the Treaty of 1834, once led state police to exchange shots in the middle of the river.

The coming of the railroads was a source of bitter litigation between the two states. New Jersey interests saw an advantage in charging one set of rail freight rates to the New Jersey railheads and another higher set to the New York side.

The area around the port was finally agreed to be, in effect, all one community and the factionalism of the states was seen as wasting the port's potentiality. The states sought a governmental form to administer port affairs and found a model in the Port of London, administered by what was then the only public authority in the world.

On April 30, 1921, as the first of its kind in the Western Hemisphere, the New York-New Jersey Port Authority was born. It was also the first interstate agency ever created under that clause of the Constitution permitting compacts between states with Congressional consent. The area the new agency was given to work in was called the "Port District," a roughly defined circle with a 25-mile radius, centered on the Statue of Liberty.

In those days the transatlantic liners were the darlings

of the port and the press. Newspaper reporters met the ships and took cheesecake photographs of stage and screen stars returning from abroad. Lighters laden with freight dotted the harbor all day long, under tow between the railheads and the piers. The shift to interstate trucking and international flight came only after World War II, when trailer truck fleets and jet aircraft came of age.

Sent into the world with only start-up funds for administration, the Port Authority struggled through its first few years. Then in 1930 the stages gave it control of the Holland Tunnel as a financial cornerstone and the Port Authority began to make landmark contributions to the region.

As a governmental form new to this continent, the Port Authority found itself blazing new paths in transportation, engineering, law and administration. Its bridges and tunnels were constructed in the late 20's and into the 30's. Three airports were leased from the cities of Newark and New York in 1948 and made ready for the jet age. LaGuardia and Newark airports, along with an infant airport on a large meadow destined to become Kennedy International, were linked into a regional air terminal system. In the late 50's, with its piers along the Brooklyn waterfront completely rebuilt, the Port Authority began constructing the world's first containerport on the New Jersey marshes.

The Port Authority does not operate:
- ☐ *The New York City subway system*
- ☐ *Verrazano-Narrows Bridge*
- ☐ *Long Island Rail Road*
- ☐ *Brooklyn Bridge*
- ☐ *Triborough Bridge*
- ☐ *Queens Midtown Tunnel*
- ☐ *Any public buses*
  (The Port Authority bus terminals serve bus operators.)

In the meantime the Port Authority had begun advancing the region's interests in unanticipated ways. Factors affecting the port and its commerce extended far beyond its waters and shoreline. Eventually, to obey its mandate, the Port Authority found itself involved in the region's full economic tapestry – participating in statewide mass transportation programs, encouraging foreign investment, building industrial parks, sharing in regional marketing and tourism programs, promoting the redevelopment of the region's 750-mile waterfront, helping to program the regional use of energy and working to improve the regional environment.

Today the Port Authority is one of the region's most important economic generators.

Firsts and Foremosts. Where The Port Authority Pioneered.

The airports, bridges, towers and tunnels the Port Authority built for the region are among the world's engineering marvels.

Little known are its many inventions, innovations and discoveries with national or worldwide application:

... Developing the concept of container shipping, even to the design of the first containers, and building the world's first containerport before the first containership was ready for service. The competitive advantages of containerizing cargo – speed, in-transit security and greater quantities per shipload – prompted shipping companies to invest in the new ships. With its containerport in place before the shipping revolution began, the Port Authority not only established a world precedent, but gave the port and the region a ten-year headstart.

... Designing the taxiway lighting and signing that have become the approved standard for airport operators around the world.

... Building the exclusive bus lane, the first reversed highway lane to accommodate peak-hour bus traffic. Installed on the westbound side of the highway approaching the Lincoln Tunnel, the lane speeds eastbound morning commuter buses to New York City.

... Centralizing the administration of world trade in a World Trade Center and organizing the World Trade Centers Association for trade promotion among the key markets of the world.

... Pioneering the application of microfiche technology to medical records.

... Innovating in the field of computer simulation.

... Initiating a method of traffic planning called "Skycount," the first such use of helicopter surveys and photography of traffic in motion.

... Building the world's first over-water runways.

... Isolating polyurethane foam as a source of explosive fires and starting a national campaign to make all plastic furniture fire-resistant.

... Compacting marshland by covering it with plastic liner, enclosing it in dikes and, in lieu of expensive sand, pumping in sea water as the compacting weight.

... Adapting the "slurry wall" technique to building the foundations of a major project.

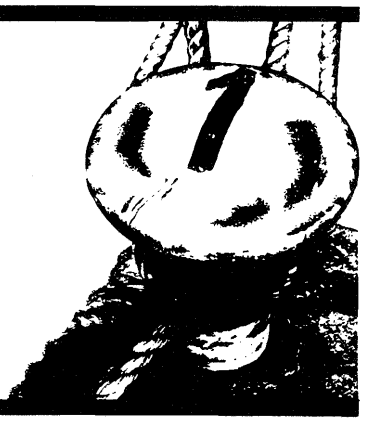
... Pioneering the Windsor Probe and other innovations for nondestructive testing.

... Building miniature fire-fighting equipment for training purposes, for use with miniature practice fires, to achieve the highest possible standards of fire-fighting training with no pollution and at less cost.

Three Port Authority facilities have been designated as National Historic Civil Engineering Landmarks:
- ... *The George Washington Bridge, whose span doubled that of its largest predecessor when it was completed in 1931.*
- ... *The Hudson and Manhattan underwater railroad tunnels, the first under a major U.S. river, opened in 1908 and still serving PATH.*
- ... *Newark International Airport, built as Newark Airport by the city in 1928, the first U.S. commercial airport with a hard-surfaced landing strip.*

WORLD PORT DEVELOPMENT

CONFERENCE & EXHIBITION



There is a risk in the world in which we live, that the more developed countries will tend to work together, and the less developed countries can become integrated only with great difficulty. One way in which we can help is technology, and in relation to ports there is a great deal of expertise available. There are also financial means available which need to be explored. With all these things, I believe the developed world has a lot to offer the developing world. The aim of this conference is to review the ways in which the transport and ports can be developed.

Who should be the participants of the conference? We hope that they will be from both sides. From the side which requires port development and from the side which has the experience. The United Nations, the World Bank and various other international organizations will all be supporting this conference. We will bring together Port Authorities from all parts of the world, representatives of organizations involved in planning, financing, operating, maintaining and training as well as members of international lending institutions, United Nations and other international organizations involved in port development.

The conference is a practical effort to develop more effective trading relationships between North and South. Unless we get down to the practical things such as the port conference, we are not really going to be able to solve the problems of those countries which are still in economic difficulty.

Lord Ezra of Horsham
Chairman of the Advisory Committee

Conference

The primary aim of the conference is to develop better understanding between developing and other nations in order to facilitate the exchange of know-how on the subject matter of the conference.

The conference will consist of opening and closing Plenary Sessions and three parallel Study Sessions:

Session A:
Port Project Requirements

Session B:
Economics, Planning and Financing

Session C:
Operations, Maintenance-Management and Training.

Exhibition

An exhibition of services and equipment used in port development will be held in the foyer area of the Rai Congress Centre.
All conference delegates will have free access to the exhibits, and **will be actively encouraged** to view the displays during the session breaks.
For more information please complete and return the attached reply-card:

2-4 May 1984
Rai-Amsterdam

Organizers:

Industrial Presentations

Industrial Presentations (Europe) B.V.
's-Gravelandseweg 284-286
3125 BK Schiedam
The Netherlands
Tel.: 010-158244 Telex: 21423

WORLD PORT DEVELOPMENT
CONFERENCE & EXHIBITION

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Please send me details of the World Port Development ☐ Conference ☐ Exhibition.
(Tick where applicable)

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Please send in sealed envelope to: Industrial Presentations • 's-Gravelandseweg 284-296 • 3125 BK Schiedam • The Netherlands

Plenary Sessions

Wednesday 2 May 1984 - Morning

Official Opening
Minister of Transport for The Netherlands

Plenary Session
Chairman:
Lord Ezra of Horsham

Keynote Presentation 1
Minister Habibie
Minister of Technology for Indonesia

Keynote Presentation 2
Professor E. Frankel
World Bank, U.S.A.

Keynote Presentation 3
Mr. J.K. Stuart
Chairman
Associated British Ports, U.K.

WORLD PORT DEVELOPMENT
CONFERENCE & EXHIBITION

Friday 4 May 1984 - Morning

Summaries Sessions A/B/C

Plenary Closing/ Session
Chairman:
Lord Ezra of Horsham

Session A - Port Project Requirements

Session Co-ordinator:
Dr. D. Hilling -
Bedford College

Wednesday 2 May 1984 - Afternoon

"The Port Planning Problem"
Chairman: Sir Peter Austin
Vice-Admiral

Mr. Danko Koludrovic
Chief Shipping Ports and Inland Waterways Division,
ESCAP

Dr. Fayed Badr
President,
Saudi Arabian Ports Authority
Saudi Arabia

Mr. Hashir H. Abdullah
Director General,
Kelang Port Authority
Malaysia

Thursday 3 May 1984 - Morning

"Development Constraints"
Chairman: Mr. G.R. Govan
Man. Dir./Babcock Moxey Ltd.

Mr. K.K. Uppal I.A.S.
General Manager,
Bombay Port Trust,
India

Mr. S. Ngann Yonn
General Manager,
Ports of Cameroon

Dr. Arno Q. Markus
President,
Portos do Brasil,
Brazil

Thursday 3 May 1984 - Afternoon

"External Influences"
Chairman: Mr. A.C. Frood
Man. Dir./Crown Agents

Speaker from Korea to be announced

Mr. J.D. Mturi
Managing Director,
Kenya Ports Authority

Mr. A. Stone
Vice President Engineering,
International Engineering Co. Inc.,
San Francisco,
U.S.A.

Session B - Economics, Planning & Financing

Session Co-ordinator:
Mr. J.F. Toppler -
PRC Engineering Inc.

Wednesday 2 May 1984 - Afternoon

"Economics"
Chairman: Mr. C.E. Dean
Director Petroleum Economics

Dr. Esra Bennathan
Economic Adviser
Transportation Dept.
World Bank,
U.S.A.

Mr. E.E. Pollock
Economist
Associated British Ports,
U.K.

Dr. J.M. Serrao
Ports of Sines,
Portugal

Thursday 3 May 1984 - Morning

"Planning"
Chairman: Mr. P. Soros
President - Soros Associates

Mr. Loewy
Sir William Halcrow & Partners,
U.K.

Dr. J.E. Ricklefs
PRC Engineering Inc.
U.S.A.

Mr. J. Rommerskirchen
Port of Hamburg Authorities.
W. Germany

Thursday 3 May 1984 - Afternoon

"Financing"
Chairman: Member of the Board
Algemene Bank Nederland

Mr. Frank F. Martin
Vice-President,
Capital Markets Group
Citibank N.A.
New York
U.S.A.

Mr. D. Suratgar
Director
Morgan Grenfell & Co.,
U.K.

Mr. Roberto Salvorani
European Development Fund

Session C - Operations, Maintenance Management & Training

Session Co-ordinator:
Ir. C. Stigter -
Hydronamic B.V.

Wednesday 2 May 1984 - Afternoon

"Operations"
Chairman: Mr. J.T. Warburton
Secretary General I.C.H.C.A.

Mr. Yan - Runtian
Director of the Bureau of Port Management of Shanghai
P.R. of China

Mr. Wong Hung Khim
General Manager
Port of Singapore Authority

Mr. P.T. van der Tol
General Manager Marketing,
Multi-Terminals Rotterdam B.V.
The Netherlands

Thursday 3 May 1984 - Morning

"Maintenance Management"
Chairman: Mr. J.H. Sargent
General Manager,
Boskalis Westminster Ltd.

Mr. Fouad B. Hashem
Chairman of the Board,
United Arab Stevedoring Co.,
Alexandria,
Egypt

Mr. D. Allison O.B.E.
Managing Director,
Purfleet Deep Wharf and Storage Co. Ltd.,
U.K.

The Maritime Committee
(speaker to be announced)

Thursday 3 May 1984 - Afternoon

"Training"
Chairman: Mr. S.J. Reeves
PRC Engineering Inc.

Drs. P.Y. ten Arve
Head External and Commercial Affairs,
Port of Rotterdam,
The Netherlands

Mr. J. Theaker
Crown Agents,
U.K.

Captain D. Gandy
Sydney Maritime Private College
Australia

WORLD PORT DEVELOPMENT
CONFERENCE & EXHIBITION
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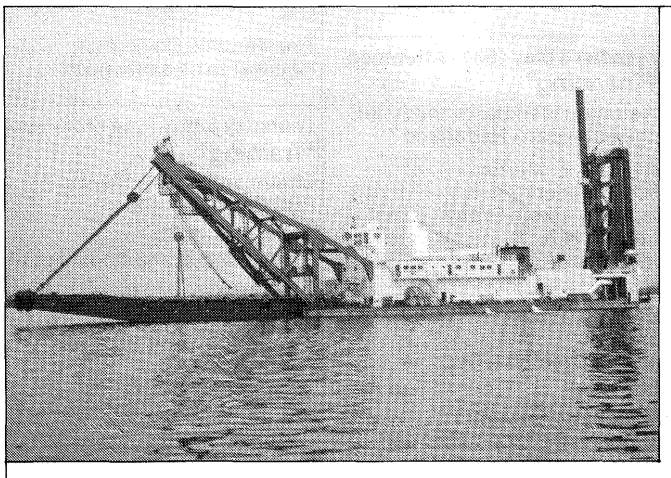

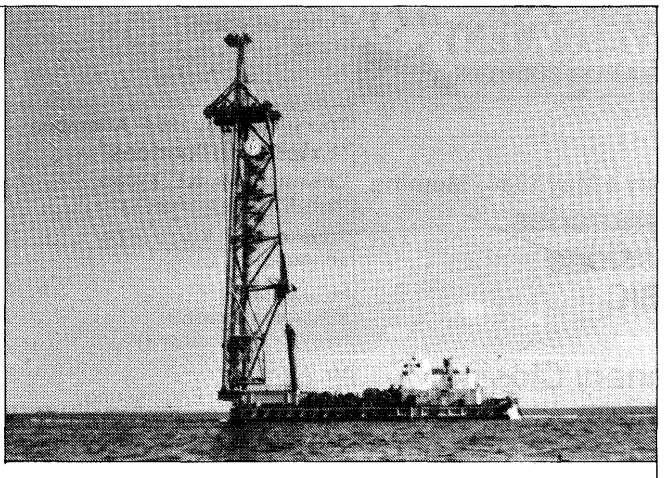

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International maritime information: World port news:

Vessel traffic services guidelines discussed: IMO

Preliminary consideration was given by the sub-committee to the preparation of draft guidelines on vessel traffic services (VTS). A report prepared by a working group was discussed and Member Governments were invited to submit comments to the next session, which is scheduled for next June.

The working group defines a vessel traffic service as any service implemented by a relevant Authority primarily designed to improve safety and efficiency of traffic and the protection of the environment. It may range from simple information messages, to extensive organization of the traffic involving national or regional schemes.

The reasons for establishing a VTS may include:

- Assistance to navigation in appropriate areas.
- Regulation of movements to facilitate an efficient traffic flow in the VTS area.
- Handling of data relating to ships involved.
- Co-ordination of actions in case of accident.
- Support of allied activities.

VTSs are particularly appropriate in the approaches and access channels of a port and in areas having one or more of the following characteristics:

- High traffic density.
- Traffic with noxious or dangerous cargoes.
- Navigational difficulties.
- Narrow channels.
- Environmental sensitivity.

The sub-committee concurred with proposals that the 'Seaspeak' system, extended to include VTS requirements, should be used to alleviate any difficulties in VTS communications. Seaspeak is based on IMO's Standard Marine Navigational Vocabulary and has been developed for VHF communication procedures. The MSC was requested to consider the Seaspeak system with a view to formulating a possible recommendation regarding its use. *(IMO News)*

Preparation of three treaty instruments completed: IMO Legal Committee 51st session

The Committee completed its work on the preparation of two draft protocols for reviewing the limits of liability and compensation and related provisions in two IMO conventions – the International Convention on Civil Liability for Oil Pollution Damage, 1969 (1969 CLC), and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971 (1971 Fund Convention). Both draft protocols will be considered at a diplomatic conference to be convened by IMO.

The main purpose of the two protocols is to raise the limits of compensation currently payable under the two conventions. Under the 1969 CLC the onus for providing compensation for damage caused by oil pollution is placed on the shipowner. The maximum payable by a shipowner is about $15 million for each incident.

If the damage in any incident exceeds this figure, additional compensation may be claimed from the IOPC Fund established by the 1971 Fund Convention. Contributions to this Fund are paid by oil importers in the States Parties to the Convention. This source enables compensation to reach a maximum of about $50 million.

Another subject to be considered by the diplomatic conference is the adoption of a convention on liability and compensation in connexion with the carriage of noxious and hazardous substances by sea. The draft of this convention was also prepared by the Legal Committee.

These two subjects have occupied the Legal Committee for the last two years. With the conclusion of work of them, the Committee will turn its attention to two other subjects at subsequent sessions.

The first of these is the question of salvage, in particular the revision of the 1910 Convention on Salvage and Assistance at Sea. The Committee's discussions on salvage will be based on a draft convention which was prepared by the Comité Maritime International and previously submitted to the Committee, together with related proposals from Governments and interested organizations. Work on the subject will be commenced at the Committee's 52nd session to be held in September 1984.

The second subject on the work programme of the Legal Committee is concerned with maritime liens and mortgages and related issues. The Committee will give preliminary consideration to this subject at its 52nd session. On the basis of this and in the light of consultations which are currently being held between IMO and UNCTAD on the subject, the Legal Committee will determine the scope and procedure of its work on the subject. *(IMO News)*

International port traffic signals considered: IMO

Initial consideration was given to recommendations for new internationally standardized port traffic signals developed by the international Association of Lighthouse Authorities (IALA), the International Association of Ports and Harbors (IAPH) and the Permanent International Association of Navigation Congresses (PIANC). They are intended to replace the signals prescribed by the 1930 Lisbon Agreement on unification of port signals, which no longer meet modern port requirements and have led to a large variety of different signals being used. *(IMO News)*

MARPOL 73/78 enters into force

The International Convention for the Prevention of

Pollution from Ships, 1973, as modified by its Protocol of 1978 (MARPOL 73/78) entered into force on 2 October.

The combined instrument is generally regarded as the most important international treaty ever adopted in the struggle against pollution of the sea.

The Secretary-General of IMO, Mr. C.P. Srivastava, said: 'The entry into force of MARPOL 73/78 is a major triumph for international efforts to eliminate marine pollution from ships. There is evidence that it has already made a contribution and I am confident that in the years to come the improvement will be even greater.'

As far as Contracting Parties are concerned, MARPOL 73/78 will supersede a convention adopted in 1954 and updated by IMO several times since then. The 1954 convention, however, is concerned only with the prevention of oil pollution arising from routine shipping operations, such as the cleaning of cargo tanks.

MARPOL 73/78, on the other hand, not only strengthens regulations dealing with operational pollution but also introduces for the first time measures to mitigate the effects of oil pollution resulting from tanker accidents, as well as tackling pollution by other substances.

Oil pollution is dealt with in the first of five technical annexes to the Convention. New measures to prevent operational oil pollution include the following:

- All new oil tankers of 20,000 deadweight tons and above built since 1979 must have sufficient segregated ballast tanks to operate safely on ballast voyages without using cargo tanks for ballasting. This prevents the mixture of water and residues of the oil cargo and thereby eliminates the problem of dirty ballast disposal.
- New tankers must be fitted with a crude oil washing system. This is a system in which the walls of cargo tanks are cleaned of oil sediments by jets using crude oil rather than sea water. Although a final rinse is usually carried out using water, the proportion of oil in the resultant mixture of oil and water is greatly reduced. For existing tankers this is accepted as an alternative to the segregation of ballast tanks.
- The total amount of oil which can be discharged from a tanker during the ballast voyage as compared with the 1954 convention is halved – to 1/30,000 of the previous cargo – and discharge from tankers is completely banned within 50 miles of land. Discharge of oil from all ships is prohibited in certain 'special areas'. Initially these include the Mediterranean, Black and Baltic Seas but there is a potential for including other areas where the ecology is endangered.
- Contracting Parties to the Convention must provide facilities for the reception of oily wastes.
- Oil tankers must be fitted with special anti-pollution equipment such as slop tanks, oil discharge monitoring and control systems, and oil/water separating equipment. Non-tankers must be fitted with equipment to control the discharge of wastes from machinery space bilges.
- Strict inspection, documentation and control procedures have been incorporated. *(IMO News)*

IMO programme of meetings 30 April –31 December 1984

30 April – 25 May	International Conference on Liability and Compensation for Damage in connexion with the Carriage of Certain Substances by Sea
4–8 June	Sub-Committee on Bulk Chemicals – 13th session
11–15 June	Council – 52nd session Committee on Technical Co-operation – 24th session, Assembly Working Group on the Maritime University – 2nd session
18–22 June	Sub-Committee on Safety of Navigation – 29th session
25–29 June	Sub-Committee on the Carriage of Dangerous Goods – 36th session
9–13 July	Sub-Committee on Standards of Training and Watchkeeping – 17th session
16 July	Assembly Working Group on the World Maritime University, Standing Committee – 3rd session
3–7 September	Marine Environment Protection Committee – 20th session
10–14 September	Legal Committee – 52nd session
17–21 September	Sub-Committee on Radiocommunications – 28th session
24–28 September	International Oil Pollution Compensation Fund – Assembly, 7th session
1–5 October	*Facilitation Committee – 15th session
12–16 November	*Council – 53rd session *Assembly Working Group on the World Maritime University – 3rd session
26–30 November	*Maritime Safety Committee – 50th session
3–7 December	Sub-Committee on Bulk Chemicals – 14th session
10–14 December	Legal Committee – 53rd session
17–21 December	Sub-Committee on Safety of Navigation – 30th session

*: Tentative

LSIS receives EEC contract for on-line shipping data

The EEC Commission has awarded a contract for the development and provision of an on-line shipping data base to Lloyd's Shipping Information Services (LSIS), which markets the combined computerised shipping data of Lloyd's Register of Shipping and Lloyd's of London Press.

This contract marks the beginning of a new phase in shipping information services, giving a boost to LSIS plans to develop a worldwide integrated information system which would serve the shipping community for decades to come. It could also have far-reaching implications for the

industry in that an international network of computers fed by a variety of information services is envisaged, with LSIS acting as a nerve centre for this network.

For LSIS, this ambitious project is a logical extension of services provided at present. The initial development phase for the design and implementation of the first stage of the on-line system will take two-years.

Publication

"Marinas: A Guide to their Development and Design" by Donald W. Adie

Extensively illustrated with photographs, diagrams, charts, tables and lists, the text provides comprehensive information on the construction, maintenance and management of inland and marine boating facilities, including such fundamentals as site selection, design principles, engineering needs, boat handling and storage, bunkering facilities and pollution control. The book is thorough, written in engaging style and practical in its approach. The price is $79.50. Order from Nichols Publishing Co., W.G. Nichols, Inc., P.O. Box 96, New York, NY 10024. *(AAPA Advisory)*

International seaborne trade statistics: UNCTAD

(Extracts from "Review of maritime transport, 1980" (TD/B/C.4/222/Rev. 1))

World seaborne trade in 1965, 1970, 1975 and 1977–1980, by types of cargo (Billions of ton-miles)

Year	*Crude oil*	*Oil products*	*Iron ore*	*Coal*	*Grain**	*Other cargo*	*Total trade*
1965	2,480	640	527	216	449	1,537	5,849
1970	5,597	890	1,093	481	475	2,118	10,654
1975	8,882	845	1,471	621	734	2,810	15,363
1977	10,472	995	1,386	643	801	3,220	17,517
1978	9,661	985	1,384	604	945	3,455	17,034
1979	9,614	1,045	1,599	786	1,026	3,605	17,675
1980 (estimated) . .	8,650	920	1,510	870	1,070	3,690	16,710

Development of international seaborne trade, 1965, 1970, 1975 and 1977–1979 (Goods loaded)

Year	*Tanker cargo*		*Dry cargo*				*Total (all goods)*	
			Total		Of which: *main bulk commodities*[b]			
	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*
1965.	862	9	812	13	327	6	1,674	11
1970.	1,440	13	1,165	13	488	16	2,605	13
1975.	1,644	–10	1,428	–3	635	–5	3,072	–4
1977.	1,891	2.6	1,577	3.5	645	0.2	3,468	3.0
1978.	1,850	–2.2	1,620	2.7	667	3.4	3,470	0.1
1979.	2,003	8.3	1,775	9.6	762	14.2	3,778	8.9

Nanaimo's unique waterfront park opens in August

Last Phase of $1,000,000. Project underway

The $1,000,000. lagoon park on Nanaimo waterfront, is moving ahead right on schedule and will be opened to the public this summer. Men and equipment are now at work on the final phase of the project.

"We are looking at a possible date in August for the opening of the park," Port Manager Lloyd Bingham says.

The last three contracts were awarded early February. One went to Robinson Construction and the other two went to Hub Excavating. The current phase of construction requires the building of the weir, walkways, retaining walls, and installation of the lagoon intake pipe. In conjunction with this construction, excavating, filling and levelling will be going on.

Attractive landscaping

The final job will be the landscaping which has been carefully planned to create an exceptionally attractive waterfront garden park surrounding the lagoon. The end result will be a year round recreation area in a seashore environment with a marvellous harbour view, all close to the heart of the city.

A model of the finished lagoon and park has just been completed. The above photograph of the model gives a general idea of what it will look like. The landscaping will include a wide variety of evergreen and deciduous shrubs and trees. Lighting both low level and standard will enhance the area after dark.

Water Curtain around Walls

An interesting feature of the lagoon will be a water curtain spilling from water pools along the top of the retaining walls to the lagoon. Pools are also to be build at different levels between the weir and the sea. The walkway over the weir will be part of the path pattern connecting with Maffer-Sutton Park.

A sandy beach, also having two small pools, will be on the shoreward side of the lagoon. Large boulders at either end of the beach will give the whole area a "natural" look. Also helping achieve the natural beach appearance will be shellfish, starfish and other tidal creatures.

Becomes a Large Tidal Pool

A large pipe, laid underground from a zero tide area of the foreshore near the small dock at Maffer-Sutton Park, to the bottom of the lagoon, will supply fresh seawater. Daily tidal changes will provide all the seawater for the lagoon.

Project engineer Richard Read explains, "There will be a one-way valve at the lagoon end of the pipe. This will permit the rising tide to fill the lagoon. The valve will close to prevent the water flowing back when the tide drops.

Instead, the falling tide allows the water to go over the weir, cascading into the multi-level pools. When the tide rises again, the lagoon is filled and the natural flushing action cycle repeated," Mr. Read says.

With the opening of the new park this summer, Nanaimo will gain a very unique as well as attractive recreational spot to be enjoyed by young and old. In April last year when the project was announced, Nanaimo Harbour Commission Chairman Don Rawlins said, "The citizens of Nanaimo and visitors will experience an exciting concept of waterfront gardens and walkways which will provide a dramatic gateway to the city centre." Within a few months the truth of his statement will be evident. *(Nanaimo Harbour News)*

1983 Seaway tonnage

Cargo moving through the St. Lawrence Seaway's Lake Ontario/Montreal Section during the 1983 season increased 5.25 percent compared to 1982, reaching a total 45.1 million metric tons (mmt). By contrast, last year's volume was down 15 percent from 1981. Tonnage increases were registerd in both the bulk and general cargo categories. Bulk cargo such as grain, iron ore, coal and other commodities – which together comprise 92 percent of total tonnage – was up 5.5 percent. The other category, general cargo, including iron, steel, containers and government aid, showed a 2.4 percent rise. The largest increase was registered by iron ore shipments, which jumped 38 percent. The 70 percent drop in coal shipments was the largest decline. Grain continued to be the Seaway's largest commodity by volume (24.3 mmt), comprising 54 percent of total tonnage. A complete statistical summary is shown below:

Tonnage through the St. Lawrence Seaway's Montreal – Lake Ontario Section –
(Thousands of Metric Tons)

Bulk		
Grains	24,247	24,263
Iron Ore	7,430	10,280
Coal	1,154	350
Other Bulk	6,430	6,529
Total Bulk	39,261	41,422
General		
Iron & Steel	2,840	2,896
Container	79	59
Government Aid	292	295
Other	343	389
Total General	2,554	3,639
Grand Total	42,815	45,601

(AAPA Advisory)

Latin American trade—1983

Latin America showed a record merchandise trade surplus of $31.2 billion in 1983. That follows a 1982 net balance of $9.7 billion and contrasts with a picture of chronic trade deficits that have historically plagued the region. This turn about, according to a United Nations report, reflects the continuing contraction of domestic Latin American economic activity and strictly applied import controls by many countries. Imports, by value, dropped by 20 percent in 1982 and 29 percent last year. Since unit prices did not vary much in 1983, the decline was equally drastic in imported volumes. In 1983 the volume of imports fell by more than 10 percent, says the report, in every Latin American country except Bolivia, Costa Rica, Guatemala, Haiti, Honduras, Nicaragua and the Dominican Republic. In some instances, the drop was nothing less than spectacular, clearly revealing "the enormous magnitude of the adjustment effort that had been made." Venezuela's imports (by volume) were down by 60 percent, Uruguay's by 39 percent, Mexico's by 36 percent, Peru's by 27 percent and Argentina's and Chile's both by 17 percent. For Uruguay, Mexico, Argentina and Chile, it was the second year of drastic import declines. Exports, on the other hand, rose seven percent by volume for the region as a whole and by nine percent for the non-oil exporting Latin countries. *(AAPA Advisory)*

U.S. coal exports

Bituminous coal exports from the United States dropped 27 percent in 1983 to a three-year low of 76.9 million tons, with most of the loss concentrated in the overseas market. Both met. and steam coal exports suffered, the former largely due to the economically depressed world steel industry in general and to sharply reduced Japanese purchases in particular. Overseas met. coal exports were the lowest they have been since the strike-impacted year of 1978. Unsatisfactory as they may appear, this year's tonnages look bad only when compared to the boom times of the early 1980s. They still remain substantially ahead of any prior year. The main difference is that substantial additional terminal capacity has been added since 1981, in anticipation of continued record exports. What has happened, of course, is that the pie has been shrinking, meaning smaller slices for the terminals. Exports to Canada fell by eight percent for the year, but appear to be picking up in the late fall.

As for the future, the experts are saying that with a little luck, the United States may fare a little better this year. But, the basic problems remain an overvalued dollar, tough competition, and a basically indifferent market.

A summary of overseas export market performance is shown below:

U.S. Overseas Bituminous Coal Exports 1979–1983
(Short Tons)

	1983	1982	1981	1980	1979
Jan.–Dec.	60,060,327	87,039,636	92,387,860	72,842,901	45,624,250
	Metallurgical Coal				
Jan.–Dec.	42,993,144	59,684,498	59,421,008	56,825,257	43,145,257
	Steam Coal				
Jan.–Dec.	17,067,183	27,355,138	32,966,852	16,017,644	2,478,823

(AAPA Advisory)

New monthly tonnage mark for containerport Savannah

Calendar year 1983 marked the first time that tonnages for CONTAINERPORT Savannah exceeded the two million mark. If returns for January 1984 are any indication, figures for this year will erase that milestone in eleven short months.

Some 204,122 tons of cargo crossed CONTAINERPORT docks during the first month of the year. This was the first time that monthly figures eclipsed the 200,000 ton level in the history of the facility. This represents a 15,000 ton increase over the previous monthly standard. A simple extension of the figures shows that, with no continued growth, 1984 totals will approach 2.5 million tons. Given the recent growth history of the facility and the large number of new lines now calling, it is reasonable to describe this prediction as conservative.

Georgia Ports Authority's reaction to this trend takes the form of container berth five. Construction of this latest phase of CONTAINERPORT is sheduled to begin this summer toward a completion date in late 1985. To be located immediately adjacent to existing container facilities, number five will measure 1,000 lineal feet, will be served by two 45 ton capacity, high speed cranes (units nos. 7 and 8), and will be backed up by a 60 acre storage yard (total paved marshalling area – 242 acres).

"State of the Port": Georgia Ports Authority

"1983 was an encouraging year, it set the pattern and base for 1984," stated George J. Nichols, Executive Director of the Georgia Ports Authority in his annual "State of the Port" address to Savannah's Propeller Club.

Nichols predicted that when figures come in for the total port, there will be an increase over 1982. He pointed to a 35% increase in container tonnage in 1983 over 1982 adding, "encouragingly, breakbulk cargo came back substantially."

"In this first half of our fiscal year we're on target with all of our projections," Nichols reported. "Three million tons of cargo has moved across GPA facilities. At this point, over a million tons of container traffic and over a million tons of breakbulk cargo has traversed this port." According to Nichols, bulk liquids are still down due to the softness of the import oil market.

The decision to go full container at Garden City and turn Ocean Terminal into GPA's breakbulk terminal for Savannah was discussed. "The fact that there is still a large breakbulk base of cargo to be containerized in Savannah puts this port in a good position in the future as far as competition with its sister ports to the north and south." stated Nichols.

Nichols highlighted substantial increases in the number of scheduled steamship visits to the port during the year. He reported that 22 new or expanded services came on stream in 1983.

Nichols pointed out that as the economy continues on the upturn, there will still remain a shortage of warehouse space within the Chatham County area related to port activity. "We're in the process of acquiring the GSA warehouse that's on our facility. The GSA facility will back up our breakbulk operations and provide space for our container customers coming into the port," he added.

Federal funding for the Talmadge Bridge project has been discussed with Governor Joe Frank Harris, and the Governor was optimistic about accessing of the funds, Nichols reported. "This port will not grow without replacement of the Talmadge Bridge," stated Nichols.

Discussing the Brunswick scene, Nichols pointed out that there are facilities in place there that cannot be found elsewhere on the east coast. Detailing GPA's construction of a dry bulk facility in the port he stated, "There is more bulk cargo available for movement, both import and export, than the facilities on the east coast in the U.S. can handle."

Nichols concluded by predicting a future that looks good. He observed that the entire southern region is export oriented and that exports will begin to rise as we get into the latter part of the year. "We need that balance of exports for the steamship lines to be healthy and also attracted to this part of the U.S.," said Nichols.

His remarks concluded with projections of continued growth founded in the service and facility improvements made over the past few years. *(Georgia AnchorAge)*

Port of Savannah's new COBRA system

co·bra (kō'bra) *n.*

1. A comprehensive computerized network to coordinate cargo clearance through customs and exchange of information among maritime entities.
2. A paperless entry system to satisfy the requirements of the transportation industry users and their customers.
3. A system for the electronic coordination of import/export cargo movement.
4. A system to simplify and automate cargo processing and entry documentation.
5. A computer system that addresses the needs of the entire shipping community.

These five definitions of the Port of Savannah's new COBRA system were provided by a cross section of the many transportation and regulatory entities utilizing it. They describe a revolutionary advance in the port's electronic processing capability which is resulting in significant, identifiable cost reductions for shippers, carriers, and

service agencies. Of the five, the last provided the best insight into the rationale that spawned COBRA.

Since the introduction of GPACS (Georgia Ports Authority Container System) four years ago, numerous refinements had been made. Included were addition of regulatory agencies to the network and on-line information exchange with service agencies and carriers. As the maritime industry became increasingly aware of the potential cost and service advantages of computer utilization, the stream of requests for enhancements to the system continued to swell. The need for port and statewide coordination of the development of electronic processing, coupled with the rapid transition to administrative automation in the shipping industry, led to the formation of the Automation Advisory Group.

The minutes of the first meeting of the group provide a clear statement of its purpose, "The group was formed to assure that future development in data processing will meet the needs of all the various interests involved in international trade." To guarantee balanced input, AAG membership is composed of brokers, forwarders, regulatory agencies, and GPA. In addition, meetings are open to any other interested party to make suggestions or requests.

During its early meetings, the advisory group identified several areas of basic wants and needs – reduction of paperwork, multiple entry capability, and automation of breakbulk cargo processing. Georgia Ports Authority combined this input with its ongoing data processing development plans to produce the sophisticated COBRA system.

A prerequisite for COBRA's success was the availability of a centralized clearing house for the large volumes of information it seeks to collect, collate, and distribute. Georgia Ports Authority's mainframe computer was just what the doctor ordered "We look at the GPA computer as the computer for the whole state of Georgia," explains Savannah District Customs Director and advisory group Chairman Gerald McManus. He continues, "The port authority is making its computer available not only for GPA business, but to service total transportation needs for all of Georgia." Mike Leech of W.G. Carroll & Company points out that GPA's contribution must and does exceed offering its hardware. "The port authority accepts responsibility for the coordination of cargo movement." This assumption of a leadership role was the building block required to complete the foundation for COBRA.

Extending The Net

It is important to remember that COBRA is the culmination of a growth process that has been taking place for a number of years. This continual reevaluation and improvement of data systems is dictated by three factors: 1. the need to provide the finest processing capability technology will permit, 2. almost daily advances in computer design and software applications; and 3. the rapid increase in computer utilization throughout the transportation and shipping sectors. Mike Leach of W.G. Carroll describes this ongoing fine tuning of EDP as a critical competitive element for today's port, saying, "If you don't excel in automation, in the long run, it will reduce your overall port activity."

A number of important improvements to COBRA are receiving analysis and programming attention at this time. Under examination is an enhancement which would permit Atlanta area shippers to transmit Shipper's Export Declarations (S.E.D.'s) direct to the point of export in Savannah. This procedure would get the information to the port more quickly, eliminating delays, penalties, and shipbacks due to S.E.D.s arriving after vessel departure. Broker issuance of shipping orders direct to steamship lines, OBL inquiry capability, and control of exports by booking number are also on the drawing board.

The user net has grown astronomically in only four years. Inclusion of breakbulk was the impetus for many of the remaining holdouts to jump on the bandwagon. Future membership will come from the ranks of more out-of-town service agencies, truckers, steamship operators (international equipment inventory), GPA Trade Development offices, and air carriers.

Long term applications for COBRA and its offspring are virtually unlimited. Looking into his crystal ball, Jim Sledge carries the process to an ideal and logical conclusion, describing a system which would afford the utmost in efficiency and economy to shipper and carriers alike. He states, "The ultimate target would be a comprehensive system which coordinates export bookings with available equipment."

Obviously, such a program would permit business and industry to derive maximum benefit from intermodalism. The key to the success of such a network would be the ability of the computers of the shipping and service sectors to communicate among themselves. This type of crosstalk capability is a high priority item with COBRA's designers.

COBRA is at once a response to the needs of the maritime/shipping community, and an impetus for them to participate. They now have in the ports of Savannah and Brunswick a paperless system which guarantees the utmost in both the processing and physical dispatch of cargo. Lofty claims aside, the bottom line is the time factor from cargo arrival to departure from the terminal. A released container is not a delivered container, and COBRA is designed to expedite the entire transportation process.

Several broker/forwarders indicate that a COBRA-type system could not become a reality just anywhere. Jim Sledge explains, "The cooperation within the port makes the system possible. There are very few ports in the country where it could work." In short, the "port team" concepts is very much alive in Savannah and Brunswick, and the newest member of the team is a COBRA. *(Georgia AnchorAge)*

Educator sees trade as key to easing tensions: Houston World Trade Association

Academia and the international business community can set a course for economic integration among nations and thereby stave off international political confrontations that could lead to nuclear war.

Dr. Charles E. Bishop, president of the University of Houston System, made this observation in a recent speech to the Houston World Trade Association.

Before developing his theme, Bishop discussed the context for what he feels is a new era in relations between international business and the university. "That context is marked by one phenomenon–change,' he said.

Bishop cited five areas of profound changes. In the international arena, he said, the volume of trade has tripled in the past 20 years. For the U.S., the share of the gross national product attributable to trade doubled during that time.

Secondly, such an expansion of trade was the result of simplifying production processes and standardizing production technologies throughout the world.

The emergence of the multi-national corporation is the third area of change. "In efforts to minimize costs and gain access to markets, many corporations have found it to their advantage to develop plants in several nations," Bishop said.

Linked with changes in plant locations are substantial structural changes in the economies of various countries. Bishop noted the U.S. economy has shifted towards a growth of knowledge-intensive services and information industries while other countries have begun concentrating on manufacturing instead of on primary industries such as agriculture, fishing and mining.

Finally, such developments have resulted from the increased flow of capital among nations.

Changes in these five areas, as well as others, have led to increased interdependency among nations, Bishop said. Such a growing dependence has affected not just international business, but academia as well. Bishop said, "The university's ability to create new knowledge, to translate that knowledge into technology, and to apply it across national boundaries has become vastly more significant."

Integrating knowledge, which eventually is shared with the business community, is one of the most important functions of the university. "The university has the unique capability of melding language, cultural studies, research and technical assistance into a unified dynamic force," Bishop said.

With education and economic growth so inextricably linked, each can benefit the other. "Each sector provides for the other unique resources, which, when combined, work toward the benefit of each. Just as the university has much to offer business, as I have discussed, there are a number of ways in which business can assist the universities," Bishop said.

With businesses providing universities with adjunct professors, consultants, internships and funding for professorial chairs, students can be better trained for international business.

Bishop noted that Houston is a world leader in energy research, petrochemical production, management, finance, health care, space science, architecture and other fields.

"Moreover, the city's potential for further development appears unchecked. But that, I submit to you, is up to us. The city's potential is as strong as our initiative, as great as our ability to build for this city a knowledge base equal to its needs and the needs of people elsewhere," Bishop said. *(Port of Houston Magazine)*

Port of Long Beach extends general cargo tonnage lead

Cargo tonnage figures released recently by the Long Beach Harbor Commission covering fiscal year 1982–83 shows that the Port of Long Beach last year handled near record amounts of cargo in every major category and once again demonstrated its dominance as the busiest of all U.S. West Coast ports.

During the 12 months ended June 30, 1983, Long Beach hosted 4,439 ships carrying 47,989,799 metric revenue tons to and from its 67 cargo berths, including an all-time record 16,206,056 tons of general cargo. This is the most general cargo ever record by an Pacific Coast port and is a 10.4 percent tonnage increase over the previous fiscal year.

Long Beach Harbor last year handled an all-time record high of 13,422,979 metric tons of containerized cargo, for an 11.6 percent increase over the year previous. Container movements through Long Beach have registered a staggering 450 percent gain in the last decade.

Long Beach is among the ten busiest container cargo ports in the world, as well as the undisputed Pacific Coast container leader.

Long Beach is presently planning a joint venture with neighboring Port of Los Angeles to provide shippers in both harbors with a 104-acre Intermodal Container Transfer Facility designed to reduce freeway truck traffic and to minimize the expense of trucking containers from berth to railroad yard. This will be located equidistant to container berths in both harbors, near the Los Angeles/Long Beach border.

Major projects planned for start of construction later this year include a major dredge and fill project to add 26 additional acres to Pier F for conversion to another container terminal. The World Trade Center on 6-½ square blocks in downtown Long Beach will proceed following selection of the project developer this spring.

The Port of Long Beach is operated entirely by revenues from cargo handling charges and receives neither tax support nor oil revenues. All such earnings are budgeted to expand and modernize the $450-million complex.

Capital expenditures from 1982–83 totalled $64.5 million. Projected new construction this fiscal year through 1990 will reach $250-million, thus creating thousands of additional jobs in the southern California community.

Long Beach Harbor hosts July 4th Olympic Parade of Sail

"TOPSail '84," the Tallship Olympic Parade of Sail saluting the XXIII Summer Olympiad and scheduled for the Fourth of July, 1984 is rapidly rounding into the largest such event ever staged in Southern California.

The 32-mile noon to 6 p.m. parade of sail and motor training ships and other large sailing vessels, accompanied by thousands of smaller sail and power craft is being sponsored by the Port of Long Beach. It precedes the opening of the Los Angeles games by 3½ weeks and is designed to honor the first Summer Olympiad to be held in America in over half a century.

Long Beach's TOPSail '84 project has been endorsed by the Los Angeles Olympic Organizing Committee as an official Olympic Cultural Event and is listed as one of the Olympic Art Festival's largest free "happenings".

Long Beach is playing host to all the many Olympic Yachting events, including for the first time Board Sailing, plus Archery, Fencing and Volleyball. Next to the host city of Los Angeles, Long Beach is the site for more venues than any other community.

"Long Beach Harbor will be alive with sails during the 1984 Summer Olympics", Harbor Commission President C. Robert Langslet noted, "so we are inviting sailing ships and training motor vessels to join the largest flotilla ever assembled on the West Coast to take part in a spectacular six-hour long Olympic Salute of Sail".

Upwards of one million spectators will be able to view TOPSail '84 from along the 32 miles of shoreline on the parade route, extending from the South Bay to Orange County.

South Locust Point Terminal records 1983 cargo increases: Maryland Port Administration

The port of Baltimore's South Locust Point Marine Terminal, the newest general cargo facility here, registered major cargo increases in 1983.

Total cargo handled at the 3-berth terminal last year reached 676,183 tons, a 5.17 percent increase over cargo handled in 1982. General cargo jumped 28.3 percent, from 68,258 tons in 1982 to 87,576 tons. Steel cargo marked a 39.02 percent increase, from 40,359 tons in 1982 to 56,106 tons.

Container cargo at South Locust Point in 1983 reached 394,737 tons, a 1.2 percent increase over comparable tonnage reported in 1982. The terminal's truck traffic jumped 17.05 percent, from 74,413 vehicles in 1982 to 87,099 vehicles last year.

The South Locust Point Marine Terminal, a 37-acre facility has heavy-lift, breakbulk, LASH and container cargo handling capabilities. The terminal is owned by the Maryland Port Administration and is operated under a lease arrangement by the I.T.O. Corp. of Baltimore.

Trans Freight Lines returns to the Port of Boston

Trans Freight Lines (TFL) will be returning to the Port of Boston effective immediately, Massport Maritime Director Anne D. Aylward announced recently.

TFL, Boston's major steamship line, will be the flag carrier at the port's new container facility at South Boston's Conley Terminal.

"We are delighted to make this announcement," Aylward said. "This agreement with TFL marks a beginning for the new and revitalized Port of Boston. We have all waited a long time for this day. The opening of the new terminal at Conley will give us a port with three container terminals and the ability to provide cost-effective competitive service to New England's business community."

Transportation know-how at Bi-State Port can provide invaluable assistance to international shipping community

Economic changes; technological advances; fluctuating oil prices; deregulation; multi-modal mergers; interior point pricing; micro-, mini-, and land-bridge tariffs; the 1980 Motor Carrier Act; new rules and regulations of the Interstate Commerce and Federal Maritime Commissions; and a host of other factors impinging on the trade community can be quite frustrating to decision-makers involved in routing international cargoes. Questions such as – Which mode of transportation or mix of modes should be used? To what extent should contracts be used instead of carrier services under tariff terms and conditions? When and under what circumstances should intermediaries be used? – should all receive careful consideration. This is particularly true when the shipper is concerned about total landed cost, transit time, reliability and consistency of service, and the availability of modern marine facilities and specialized port equipment.

Port Sales Program

Advising shippers on these complex matters is the business of The Port Authority of New York and New Jersey's Port Sales Division. Port sales offices in Cleveland, Chicago, New York, London, Zurich, and Tokyo are staffed with transportation executives who offer a highly professional advisory service to assist shippers in their difficult task of executing international shipping programs.

"Often, shippers are not fully aware of all the options available to them in the transportation chain," says John E. Savage, General Manager of Port Sales. "Our staff has the capability of analyzing the overall process in the interest of maximizing transportation opportunities and is dedicated to sharing that knowledge with shippers throughout the world."

Daily contact with decision-makers of steamship lines, stevedoring firms, terminal operating companies, forwarders, brokers, railroads, motor carriers, governmental agencies and a broad range of other transportation industries servicing the international shipping community enables these professionals to offer shippers expert assistance in the development of logistical systems best suited to meet individual shipper requirements.

"Our marketing objective has always been to identify opportunities that will improve the New York-New Jersey Port's competitive posture and increase our market share of export and import cargoes," Savage continues, "but recently our focus has shifted from principally promoting port facilities and services to helping shippers analyze alternative routings and modes of transportation. We recognize that recent and rapid changes in the transportation environment have altered the decision-making process when shippers are choosing a port of entry or exit for their cargo. This change in focus has led to the introduction of creative cost/service packages for shippers by offering them opportunities to broaden their port routing alternatives."

Worldwide Sales Offices

Fully familiar with transportation specialists throughout their assigned areas, executives at port sales offices in New York, Chicago and Cleveland serve the shipping community in the United States and Canada by keeping its members abreast of the latest developments in transportation services from origin to destination. "We are especially interested in assuring shippers that they have an additional resource to call upon," says Savage, "and we are prepared to do all we can to merit their business."

Personnel of the Port's sales offices in London, Zurich, Tokyo, and the New York-based Latin American Office are

similarly engaged in helping foreign exporters, importers and carriers in their respective regions. These overseas offices are staffed with international trade specialists who are knowledgeable about the myriad services, facilities and opportunities at the New York-New Jersey Port. They focus their efforts on a variety of programs designed to promote new business and investment in the bi-state port, while expanding already established U.S. import and investment business. They identify markets and monitor worldwide import/export trends; they are cognizant of the latest developments in international trade, travel and investment; and they function as bridges between suppliers and markets, and consumers and resources in the U.S. and abroad.

In addition to their foreign trade intelligence-gathering, these trade specialists regularly participate in trade and travel exhibitions and speak before groups to promote new products, investments and tourism for the excellent markets that make the bi-state port region the world's most important business and entertainment center.

"Much of the expertise these individuals have developed comes from their perceptive cultural awareness of the regions they serve," suggests Savage. "They are multilingual, familiar with the people, customs and business practices, which differ from country to country."

As a result of these efforts, shippers – wherever located – have immediate access to current and accurate information on the services and facilities of the Port of New York and New Jersey. The services provided by the port sales team listed on this magazine's title page can prove to be of great value in the design of an economical and efficient transportation program. *(VIA Port of NY-NJ)*

46.6 million tons of oceanborne cargo in 1983, valued at $43 billion: Port of NY & NJ

The Port of New York-New Jersey in 1983 handled a total of approximately 46.6 million long tons of oceanborne foreign trade, both general and bulk cargo, valued at $43 billion, highest in the nation, Port Authority Chairman Alan Sagner announced recently. Of this total, $35.7 billion represented the value of general cargoes and the remaining $7.3 billion, bulk cargoes.

The New York-New Jersey Port handled a total of 11.2 million long tons of oceanborne general cargo in 1983, up 7.6 percent from the recession-depressed level of 1982. The moderate increase in cargo volumes masked a sharp divergence between outbound cargo, which fell sharply, and inbound cargo, which rose.

General cargo exports at the Port of New York-New Jersey fell 11.2 percent from 1982 to 2.7 million long tons last year. At the same time, general cargo imports advanced 15.5 percent to 8.5 million long tons.

"Significantly, the 2.7 million long tons of outbound general cargo that moved through the Port last year was the lowest level of outbound general cargo in the last 15 years," Chairman Sagner said. "Also, the 8.5 million long tons of inbound general cargo handled at the Port in 1983 was the highest level of general cargo imports at the bi-State Port in 15 years."

The Port of New York and New Jersey's oceanborne bulk cargo trade, comprising primarily petroleum imports, climbed 8.4 percent in 1983 to 35.4 million long tons.

In 1982, the bi-State Port handled 43 million long tons of oceanborne foreign trade cargoes valued at $42.2 billion, of which $35.1 billion represented general cargoes and $7.1 billion, bulk cargoes.

Contributions of the North Carolina Ports to the State's economy

by Bill Stover

The North Carolina State Ports Authority generates nearly 50,000 jobs and over $700 million annually in personal income according to a recently released study by the Research Triangle Institute.

State and local taxes generated at both Wilmington and Morehead City state ports is in excess of $93 million each year, states the report, which was requested by the N.C. Department of Commerce. The last such study was done in 1974.

At that time, jobs generated by the two ports numbered 32,000; annual income was $209 million; and taxes generated totaled $21 million.

Impact measures for employment and salaries and benefits for the new study were based on 1982 calendar year, while tax revenues were estimated for the 1982 state and local government fiscal year – July 1, 1981 to June 30, 1982.

The impact of port activities on firms whose operations were required, attracted, or induced by the two ports was 49,600 full-time equivalent jobs in 1982. These jobs paid a total of $736 million in salaries and benefits to these workers and a total of $93.5 million in state and local taxes.

Slightly over 70 percent of both jobs, salaries and benefits were attributed to port activities at Wilmington in 1982.

The study showed that 35,207 jobs could be attributed to the Wilmington facility in 1982 in businesses related either directly or indirectly to the maritime industry.

Salaries and benefits at the port totaled $544,766,000 and state and local taxes were $73,702,000.

The breakdown for Morehead City's port was as follows: employment, 14,419 jobs; salaries and benefits, $191,727,000; and, state and local tax revenues, $19,890,000.

In regards to cargo tonnage growth, the Research Triangle Institute concludes that the two state ports at Wilmington and Morehead City are growing at a rate nearly double that of their competition in Virginia and South Carolina.

Annual growth rates calculated from 1971 to 1981 show that the combined North Carolina Ports have grown more rapidly than Hampton Roads and Charleston in terms of total tonnage – 4.7 percent.

Exports led the combined ports' growth at 13.1 percent, followed by domestic shipments at 4.8 percent and 1.0 percent for exports.

More specifically, the report states, Morehead City's growth has surpassed both aforementioned ports in each category except Charleston's exports (1.2 percent versus 13.0 percent) while Wilmington was able to exceed Charles-

ton's export growth at 15 percent.

Morehead City led all four growth rates in domestic shipments at 12.1 percent and Wilmington was the second growth port in domestic shipments with a 2.7 percent increase.

In another part of the study RTI broke down the four port total tonnage shares.

The North Carolina Ports increased their share from 9.9 percent in 1971 to 12.8 percent in 1981. Both imports and exports grew at a rate of 28.1 and 3.7 percent while the domestic shipments grew to a 31.6 percent share. This surpasses Charleston's 17.1 percent share and approaches Hampton Roads' 51.3 percent share.

In fact, according to the study, North Carolina's combined ports have a greater share than Charleston in each category except exports.

In addition, the two North Carolina Ports combined are capturing one fourth of imports over the four ports.

Wilmington and Morehead City State Ports have enjoyed strong growth since their beginning. From an initial volume of 24,000 tons in 1952, traffic has grown to a level 4.9 million tons. This represents an average annual compounded growth rate of 17.7 percent.

Growth of port volume was extremely strong proportionately in the early years, the study noted. The annual compounded rate of growth was 37 percent between 1952 and 1960. This slowed to 15.8 percent between 1960 and 1970, and 7.2 percent between 1970 and 1980.

During the 1970s, the growth rates in traffic volume at both Wilmington and Morehead City declined from the comparable rates in the 1960s.

Morehead City volume increased by 58 percent annually between 1952 and 1960, 22 percent between 1960 and 1970, and 7.4 percent between 1970 and 1980.

Freight moving through Wilmington grew by 34 percent compounded annually between 1952 and 1960, 11.6 percent between 1960 and 1970 and to 7.9 percent between 1970 and 1980.

Total cargo volume at both ports is projected to increase at an annual rate of 8.4 percent between 1980 and 1990, the RTI study notes. At this rate, total annual volume across the state docks at Wilmington and Morehead City would grow from 4.9 million tons in 1982 to about 10.7 million tons in 1990.

The report went on to say, "Traffic through Wilmington has been strongly affected by container volume and it is possible that these facilities will be expanded, which will contribute to further port growth.

"Morehead City volume is heavily affected by phosphate exports... it is possible that other mining operations may push phosphate production to higher levels than anticipated in the baseline projections.

"The net result of each of these factors (container expansion and phosphate growth) is that total volume may exceed the projections indicated for both 1990 and 2000," the RTI study concluded.

In regards to this final assessment, State Ports Authority Executive Director William M.A. Greene, said that the growth potential at both facilities should meet and "would most probably exceed" the Research Triangle's projections.

"Container volumes continue to grow at the Port of Wilmington at a dramatic rate and the possibility of an inland port operation on the horizon will certainly increase those numbers substantially.

"At Morehead City, North Carolina Phosphate Corporation is moving ahead with its plans for a multi-million dollar operation with yearly tonnage throughput to reach in excess of three million tons," Adm. Greene said. "And, Texasgulf, Inc. continues to increase its annual phosphate product movements through the bulk handling facility as well."

In regards to the RTI Study, as a whole, the executive director said he was gratified by the findings and noted the results correspond with the goals and policies set forth by the authority's board of directors.

"The North Carolina Ports are continuing a slow but steady growth... cognizant of present economic trends and the needs of the maritime industry.

"We are meeting the requirements of our present customers with facilities at hand, and are preparing for those of our future customers with precise, methodical expansion programs. This will continue to be our policy," Adm. Greene said. *(Carolina Cargo)*

Port of Portland to seek bond support to rebuild Terminal 2

The Port of Portland Commission has approved putting a $40 million general obligation bond proposal before the tri-county Port district voters at the primary election May 15, 1984.

Proceeds of the bond measure would be used to modernize the northern half of Terminal 2 on the west side of the Willamette River in the northwest section of Portland.

The southern half of Terminal 2 was modernized in 1969, following approval by Portland voters of a proposal to update this part of the facility.

The portion the Port Commission now recommends be modernized is the old Oceanic Terminals built in 1927. Its design is obsolete, and its physical condition is poor.

Specific improvements planned at Terminal 2 would provide two modern ship berths, a new warehouse, a crane and 18 acres of paved backup storage. This work would result in a fully modern multipurpose facility which would effectively accommodate current modes of ocean transportation: containers, roll-on/roll-off, pass/pass, breakbulk and neobulk vessels.

In addition to serving many regional firms, this terminal provides import and export services for nearly 500 local Port district companies and generates some 1,000 marine-related jobs.

Modernization of the northern half of Terminal 2 is also needed to relieve the burgeoning tonnage volume growth at the Port's modern container complex, Terminal 6, on the Columbia River. *(portside)*

Terminal 18 to be updated: Port of Seattle

By consolidating the processing of cargo documents at one efficient entry point, the new facility will boost the Port's container-handling capacity more than 70 percent

without adding substantial yard acreage to the existing terminal. After demolition and regrading are completed, project construction will include building and gate construction, along with extensive paving.

The new truck entrance will include 10 to 12 lanes to speed truck processing. An office building will handle preclearance of the cargo, using a system unique among U.S. ports. In addition, the facility will be equipped with truck scales, checker booths, overhead programmable signs, a guardhouse and gatehouse. Construction will be completed by the end of 1984.

Under the new system, trucks carrying containers bound for one of the steamship lines that call at Terminal 18 will get their paperwork cleared at the new facility, then proceed without delay.

The Port's Terminal 18 container facility is operated by Stevedoring Services of America, which serves 14 steamship lines there. Serving several lines at one location is highly unusual. It is far more common for one steamship line to have exclusive use of one terminal. Joint use allows smaller steamship lines to share in the efficiency and cost effectiveness of a large container terminal.

By using Terminal 18 in this way, the Port and the entire region benefit from diversified steamship service and increased capacity. Because much of the cargo moving through Terminal 18 consists of containerized exports, the new truck entrance facility aids regional exporters and contributes to improved U.S. balance of payments, bringing new dollars to the area from overseas. *(Tradelines)*

Improved finances of SPA

Through its austerity program, the South Carolina State Ports Authority was able to overcome a potential $4-million deficit during fiscal year 1982–83.

Because of the recession, SPA revenues declined about $3 million in the 12-months' period which ended last June 30. Another $1 million was listed for depreciation on the new Wando Terminal.

By cutting operating expenses, however, the Authority was able to compensate for the potential loss and end the year showing an operating profit of $111,718. This assessment was made at the December board meeting by David N. Vannort, representative of the auditing firm Deloitte Haskins & Sells. He complimented the Authority for steps taken to keep agency operations at a profitable level. *(Port News)*

Port of Tacoma welcomes Taiwan Port Promotion Mission

The Port of Tacoma recently hosted a prominent group of government and shipping officials who comprised the Taiwan Port Promotion Mission. Members of the 12-man delegation included Lin Shen, director of the Taichung Harbor Bureau, and Chang-Yen Yuan, director of the Kaohsiung Harbor Bureau. Kaohsiung ranks as the fifth largest container port in the world.

Various shipping lines were represented by Sun-San Lin, president of Evergreen Marine Corporation, Benjamin N.K. Ho, regional manager of Yang Ming Marine Transport Corporation, and Christopher T.C. Lou, assistant to president of Chinese Marine Transport Ltd., (OOCL).

The group was given a tour of the Port's major container handling facilities and a full demonstration of its intermodal rail facility. The rail facility, coupled with the Port's MTAMS computer system for tracking container cargo, and a highly productive longshore labor force, make it possible for the Port to unload a container from a vessel, place it on a railcar, and have it heading across the country all in the same day. The Port was the first on the West Coast to build such an ondock rail facility. The facility serves Terminals 4 and 7, and is adjacent to over 10 acres of container parking.

According to Assistant Executive Director Charles Doan, "The Port of Tacoma was very pleased to have the chance to meet with the Taiwan group and show them our facilities. As more and more emphasis is put on containerized shipping, Tacoma stands ready to meet the containerized shipping challenges posed by increased trade with Taiwan and other Pacific Rim countries."

Bordeaux and the West African Coast

Although the Port of Bordeaux's African vocation no longer needs to be proved, it seems worthwhile to take stock of the relationships and ties which although ancient have been maintained and hold promise for the future.

It was in the mid-19th century that trade really began to develop between Bordeaux and West Africa, when it centred around gum Arabic.

The French Navy had organized an exploration of the West African Coast from Gallinas to Gabon in 1839, which involved the Bordeaux Chamber of Commerce who wanted to collect all useful information on trade and to study the various products found there, notably, construction timber, camwood and palm oil.

Trade expanded from 3 MF to 17 MF between 1831 and 1841, mainly because of ground nuts and oil cake (already), used as cattle fodder. Thus with the rapid expansion continuing, in 1859, MAUREL & PROM opened Bordeaux's first oil mill, which was followed by a second built by CALVE & Co. at Abzac in 1867. These two companies, together with Marc MERLE and Nephew, dominated the African trading scene throughout this period. They were joined by DELMAS later, when it was founded towards the end of the century.

First Regular Line Service

On the 24th May, 1860, Messageries imperiales introduced Bordeaux's first regular line service to Africa, with the vessel LA GUIENNE, which sailed for South America via Dakar. A year later, four ships were needed to maintain the service. Trade was expanding. In 1884, for example, imports from Senegal stood at 27,000 t and exports at 38,000 t. By the turn of the 20th century, the African trade accounted for 3% of the port's throughput with 85,000 t.

Bordeaux: The Metropolis of Africa

After the first world war, the Bordeaux Chamber of Commerce actively cultivated its trading activities with Africa. Coffee and cacao beans, (especially) sent imports

soring, while Bordeaux's quays became the quasi-exclusive market for gum.

The timber bureau opened in 1925 and still remains unique in Europe today for the identification and measuring of wood.

The Chamber of Commerce was rightly able to claim, "Our town has become the metropolis for Africa", since by 1929, the African market accounted for 580,000 t of the port's import trade and for 220,000 t in the export field. Even the economic slump in the thirties did not effect it and out of Bordeaux's 27 regular lines, 6 services went to Africa.

Trade with Africa was rapidly re-established after the second world war and by 1954 accounted for 30% of the Port's throughput.

As Mr. Jacques CHABAN-DELMAS, Bordeaux's Deputy and Mayor said, "These ties are the corner stone of Bordeaux's economy. Their development owes much to the traditions of the Men of Aquitaine, who are seafarers even before being Bordelais and to the port's dynamic management team".

In 1982, the Port's trade with the West African countries from Mauritania to Angola, amounted to 841,000 t, or 8% of the total throughput. Although oil imports declined, trade other than the petroleum products to and from West Africa in 1982, accounted for 650,000 t, (over 400,000 t imports and 245,000 t exports). Throughput figures for Bordeaux's regular line services show a drop of 4% in imports between 1975 and 1982, but a 27% increase in exports over the same period.

To some extent, these figures reflect the general economic climate in Europe, which has been less favourable to imports of certain raw materials. However, because of its particular geographical position, many exporters opt for Bordeaux as their transit port in Europe, since it is the last port of call for African bound shipping. Herein lies Bordeaux's greatest attraction for its range or regular line services: of the thirty which serve all the continents, more than one third link it to West Africa, and provide a sailing every day for Africa from the port.

It was symbolic therefore that the first container service, (1970), out of Bordeaux was to Africa and that the first containership to call at the newly opened Verdon Terminal, in 1976, was collecting general cargo for Senegal, Ivory Coast, Cameroon and Gabon.

Development of African Shipping Lines

The African shipowners occupy an enviable place in the fixed scheduled services out of Bordeaux, steming from the desire of their Governments to develop overseas trade under their own flags. In this respect the SOCIETE IVOIRIENNE DE TRANSPORTS MARITIMES, SOCIETE TOGOLAISE DE NAVIGATION MARITIME, Gabon's national line, SONATRAM, COMPAGNIE BENINOISE DE NAVIGATION MARITIME and CAMEROON SHIPPING LINES must be mentioned, since all have ships calling in Bordeaux.

Thanks to them, Bordeaux has become "one of the largest European ports of Africa" as President Léopold-Sédar SENGHOR, said. Their ultra-modern vessels, (SONATRAM's m/v LA M'PASSA, called only 10 days after she had been delivered), make the two continents seem closer together: Dakar is now only 5 days by sea from Bordeaux, Abidjan, 7. Their ships are ideally suited to the Euro-African trade, especially the polyvalent containerships.

"Containerization," Mr. Mamadou COULIBALY, stressed last year during OCEANEXPO-OCEANTROPIQUE, held in Bordeaux in October, "Was inexistant prior to 1970. It now accounts for 50% of the North South general cargo and nearly 30% of the South North trade between Europe and West Africa". This statement is reflected in Bordeaux's traffic, with exports using this mode having increased by 50% between 1980 and 1982. The Secretary General of SITRAM continued, "Shipowners' concerns for balancing container traffic flows have led to the diversification of the container, adapting it to the particular transport needs of the major African products, so that now, with the exception of timber, bulks and tropical fruit, containers can carry the essential West African exports".

This conversion to containers is expected to continue, as efforts are directed to improving efficiency throughout the transport chain, of which the container and ro-ro terminal at Le Verdon is an example. In West and Central Africa, port improvement projects have also been expanding over the last five years such as: the extension of storage zones and the acquisition of container cranes in Mauritania, the expansion of the container yards at Freet own (Sierra-Leone) and Monrovia, (Liberia), the completion of the Vridi Container Terminal and the extension of the Locodjoro quays plus the introduction of gantry cranes in Abidjan, (Ivory Coast), the construction of storage areas at Tema, (Ghana), further storage area development in Togo, Dahomey's ro-ro berth, the completion of the River State Terminal and the extension of Apapa in Nigeria, additional improvements to Douala, (Cameroon) and Owend, (Gabon) and finally, the construction of a terminal at Pointe-Noire, (Congo).

Strengthening Ties

Such facilities can only strengthen the ties which link Bordeaux and West Africa. For the West African States are already among the Port Authority's best customers, Bordeaux being the closest French Atlantic Port to West Africa, which reduces the transit time for freight, sometimes by several days. It is also the first European port of call for North bound vessels and the last one on the return voyage for African ships.

This close geographical position has helped to maintain and develop trade. Mr. Lamine FADIKA, the Minister of the Marine for the Ivory Coast, stressed this "intimacy" recently, when he mentioned that "more that 80% of the parcel post and periodicals sent from France to the Ivory Coast went out from France through Bordeaux's Port".

Such anecdotes are indicative of the cultural and friendly attachments between Bordeaux and Africa. Our town receives some 3,000 African students each year in its universities, plus hundreds of trainees in the various businesses throughout the region, mainly through BOFORE (Bordeaux-Aquitaine's International Training and Research Bureau) and in particular at the International Timber Bureau.

Trade Expansion

Trade between the West African Coast and the Port of Bordeaux increased by 5% compared with the previous year. In the present international economic climate, this result bodes well for the future, particularly since the figures for the first half of 1983 confirm this trend.

"Maritime traffic between Bordeaux and the Ivory Coast is far more important than the global weight would indicate" Mr. FADIKA said, continuing, "The geographical position of Bordeaux demands the expansion of its maritime links with us". It is certain that the same is true for all the West and Central African countries. "Development policies aim at promoting industrialization in order to reduce excessive dependance and improve the balance of payments. And Europe certainly remains the principal trading partner both for imports and exports and the closest attention will therefore be given to developing maritime links" stated Mr. J.S. WALLA, Secretary General of the Ministerial Conference of West and Central African States on Maritime Transport.

Strengthened by its relationships both past and present with Africa, Bordeaux is well equipped to further expand a 'community of common interest' with all the West African countries.

1983 throughput figures for the Port of Bordeaux-Le Verdon

With a total of 9.5 Mt in 1983, as against 10.5 Mt in 1982, the port of Bordeaux-Le Verdon's throughput fell by 10% last year.

As was the case in 1982, it was once again the oil trade sector that accounted for this drop in 1983. In fact, the Port of Bordeaux's oil traffic fell by 1.2 Mt in 1983, compared with the previous year's figure.

200,000 t were added to the figures for traffic other than oil, which brought throughput up for the first time in the history of the port to over the 4 Mt mark.

This figure reflects the Port of Bordeaux's efforts to diversify its throughput by providing facilities which have been substantially modified over the past decade. In 1973, 3/4 of the port's throughput was composed of oil products, whilst in 1983, it accounted for only 57% of the throughput.

Multipurpose bulk centre to be opened by mid-1985: Port of Le Havre

The Minister in charge of the Sea Division at the Ministry of Transport, Mr. Guy Lengagne, announced during his visit to Le Havre that the various decisions relative to the government's share in the financing of the multipurpose bulk centre were being implemented and that work could therefore begin. The new facility will be highly competitive and will be brought into service in 1985, filling a much-felt gap in the services we offer. As Mr. Lengagne said, "Unlike its North European competitors, Le Havre has not hitherto had the equipment and back-up areas needed for the development of a wide-ranging traffic in bulk products. This is both the reason and the justification for building a multipurpose bulk terminal in the alluvial plain stretching along the north bank of the Seine".

The Centre will be located in the industrial zone, beside the Havre Ship Canal. Work on the access roads, financed by the Port of Le Havre Authority, started on November 21st. In its first phase, the terminal will be able to accommodate vessels of 85,000 dwt fully laden or up to 150,000 dwt after lightening, and will be gradually expanded as traffic builds up until in its final stage it will be able to handle vessels of up to 250,000 dwt. The berth will be 250 m/820 ft long and will have high-speed loading and discharging equipment linking it directly to the storage areas. These will be constructed by CIPHA (Compagnie Industrielle des Pondéreux du Havre), a body composed of a number of public and private firms operating in the field of bulk traffics who joined together in order to partner the port authority in this major undertaking.

The Multipurpose Bulk Centre will enable the port authority to provide a really worthwhile new service for both importers and exporters of bulk products and the end result should be a return to France of traffics at present routed through foreign ports, with Le Havre playing a role in international transit comparable to that of its major Belgian and Dutch competitors.

'Taldos' closes the gap—all cargo interests are now linked by EDP systems: Port of Hamburg

Improved infrastructure and the introduction of modern transport technology have rationalized and speeded up the flow of cargo to and from seaports. Accompanying documents, the 'paper war', cannot hold out against this development. Hamburg has now for the first time succeeded in linking together technically all the various sectors of cargo handling in the port via an EDP system, thereby realizing a speedy and largely automated data flow within the transport sector.

This inter-company communication has been affected via 'Dakosy', the Port of Hamburg data communications system that went into operation in July 1983. Following the lead given by freight forwarders, ship's agents and quay operators, a considerable part of the tally companies have decided to introduce their own EDP application so as to be able to participate in the exchange of data via Dakosy.

At the end of February this year 'DIHL-Dakosy-Interessengemeinschaft Hamburger Ladungskontrollunternehmen' was established for this purpose and for this the 'Taldos-Tally-Dokumentations-System' was set up by Dakosy, at a cost of approximately DM 300,000. The cost per shipping order will be about DM 1.50 per sheet. The investment costs were raised by the 'DIHL'-partners Hansa Umschlagsgesellschaft mbH, Hanse-Tally-Kontor, Linertally Ladungskontroll GmbH, Capt. Walter Müller (GmbH & Co.), Penzhorn Hafenbetriebe KG, GmbH & Co., and August Wigger (GmbH & Co.).

Administration takes up close to 60 per cent of the work done by tally firms. A considerable proportion of the paper work had to be done by typewriter.

The most important task tally firms perform is to control incoming and outgoing general cargo by order of the shipping company. Apart from checking quantity, external condition and markings on packages they record primarily

the volume of the cargo that is the basic information from which freight costs are reckoned. Furthermore they do all the paper work, that is they prepare manifests in conventional cargo or container packing lists in box traffic as well as special statements such as deck and heavy lift cargo lists, container packing certificates, measurement certificates and Interchange reports. Stowage plans are also drawn up and/or supplied by the tallymen.

The information obtained from the tally firms will in future be fed directly into the 'Taldos' system. By avoiding duplicate listing optimal processing of shipping data will be achieved, parallel to the actual shipping. This shortens the wait between the completion of ship's loading and the handing over to the ship's officers of the required accompanying documents for cargo.

Dakosy collects together data from all parties concerned making them available to all those entitled to have the information – basically shipping order data must be passed on from the forwarder to the quay operator, the bill of lading from the forwarder to the liner agent as well as measure and stowage notes from the tally firm to the liner agent.

'Taldos' will go into operation late summer this year. In the first instance only export cargo transported by semi and full containerships will be listed: in the second phase it is planned to take in conventional cargo.

Hamburg's tally firms have again shown, by deciding for 'Taldos', their readiness to meet market demands. They safeguard as well their position as neutral observers on the spot. This is another milestone for the port's services. It shows that in the port's economic activity, operated by private enterprises, forward-looking developments have been taken up and integrated into operational procedures.

Container Terminal Bremerhaven—largest single container facility of Europe

Since the inauguration of the northern extension of the Container Terminal Bremerhaven in August last year Bremer Lagerhaus-Gesellschaft (BLG), the terminal operator of all freeport facilities of Bremen and Bremerhaven, disposes over a container terminal whose dimensions and capacity exceed those of any other installation of this kind in Europe. 1.6 million square metres of traffic and stacking area, 3,200 metres berthing facilities on the river and in the north harbour, 19 container gantry cranes, about 60 van-carriers, and many other items of mechanical equipment for the handling of ISO containers together with a work force of nearly 1,100 persons guarantee the quick discharging and loading of the expensive container vessels, which maintain the liner services between all the larger ports of the world, and whose dispatch must not be delayed.

It was in 1965 when the political and economical administrators of the ports of Bremen and Bremerhaven realized the opportunities involved in the container system developed by the American Sea-Land organization, and paved the way for its introduction to Bremen in spite of the criticism of certain circles concerned who did not believe in the future of this system or were afraid of it. Already in May 1966 the first container vessel, the SS "FAIRLAND", called at Bremen and inaugurated the container age here. Very soon the expectations became true when the volume of this traffic increased considerably encouraging the smallest state of the Federal Republic of Germany to authorize with determination the funds to build the facilities required by this new development. It was decided to concentrate this investment at Bremerhaven because it was realized that the trend would lead to container vessels of such dimensions that the attractiveness of container ports would depend on their easy accessibility and location near the open sea. The geographical situation of Bremerhaven and the berth on the river are saving the vessles many hours of difficult navigation – as required by other ports – and are very much appreciated by the owners of these expensive ships. In April 1971 the first berth on the river was put into operation. Until then container vessels depended on the facilities in north harbour at Bremerhaven or on those in Neustädter Hafen at Bremen-City.

The breathtaking development of the container traffic is revealed by the following figures. In 1966 a total of 17,000 TEU (20 foot equivalent units) was handled at Bremen. This figure increased to 325,000 in 1972. The forecasts regarding this development have not only been confirmed but even surpassed by the actual figures. Therefore it was not difficult to decide in 1978 on the extension of the 700 metre long river berth by 500 metres to the south, and to increase the stacking area by 200,000 square metres. 500 million D-Marks were invested by the City of Bremen and by the Bremer Lagerhaus-Gesellschaft. While the city maintains the infrastructure the port operating company is responsible for the superstructure of the entire freeport area. One of the most courageous decisions in the history of the ports of Bremen and Bremerhaven was the approval of a further 500 million D-Marks for the northern extension of the river berth, which was completed within three years. The total traffic and stacking area was almost doubled, and the berthing facilities were lengthened to a total of 3,200 metres providing room for a total of 19 container gantry cranes. Their special construction makes it possible to serve on ship with up to four cranes. Under favourable circumstances 50 containers can be moved by one crane per hour allowing the completion of handling of most vessels in one 8-hour-shift. This attraction of Bremerhaven is of great importance considering the highly competitive situation in the Hamburg-Antwerp-Range. Export containers are lifted by van-carrier onto terminal owned trailers and brought alongside the vessel. Import containers are lifted from the vessel onto trailers and immediately forwarded to the stacking area to be lifted by van-carrier. This system avoids interference and congestion alongside the vessel and is designed to speed up the dispatch of the ships. The drivers of trucks and van-carriers are directed by VHF radio from the control centre. All arrivals and departures of containers as well as all movements on the terminal are controlled and registered by the computer system COMPASS, which was develop in Bremen in the early seventies as the first comprehensive port information system in the world embracing all trades participating in the operation of the ports. In view of the progressive nature of COMPASS the Federal Ministry of Research and Technology supported its development with government funds.

When the northern extension was planned consideration was given not only to the avoidance of pollution but also to the reduction of noise. In accordance with expert opinion 11.5 million D-Marks were invested in protective measures. Along the entrance a dyke was built. At the same time the noise produced by mechanical equipment, such as van-carriers, trucks and gantry cranes was greatly reduced. These efforts have not only affected the noise emitted by the entire terminal but also alleviated the working conditions of the personnel employed on the terminal. At the same time great consideration was given to the consumption of energy. As a result of investigations the electricity required for the illumination of the terminal was reduced to 40 per cent per square metre. New van-carriers require three litres of diesel oil per hour less than older types. The oil thus saved in 1983 alone would permit the heating of the home of a single family for about 20 years. A part of the considerable increase of energy costs was absorbed by these measures.

Altogether the City of Bremen and the Bremer Lagerhaus-Gesellschaft have invested one billion D-Marks in the construction of the "terminal on the sea" since 1968, representing a great financial burden to the smallest state of the Federal Republic. However, money invested in harbour constructions, in a city where every third job depends directly or indirectly on harbour activities, has always been justified. It is the container traffic in particular which, even under unfavourable economical circumstances, has proved to be stable. Almost 820,000 TEU were handled in the ports of Bremen and Bremerhaven in 1983. The present target is one million TEU which is expected to be reached in the middle of the present decade. The dimensions of the Container Terminal Bremerhaven are designed for this target.

Rotterdam plans early start on construction of communication system with worldwide reach

Rotterdam is hoping it can start next year building a port and freight flow informatics system of worldwide reach. A large number of working parties, representing all regional business sectors, is currently formulating the requirements for a system which will not only speed up many operations within the port of Rotterdam but will also serve international business by supplying it with up-to-date information on freight flows moving across the oceans, stocks available in western Europe and anticipated raw-material needs of this continent, which is in large part served by the port of Rotterdam.

The Rotterdam region has been greatly interested throughout the years in the technological possibilities of the computer and related electronics. Many companies in and around the port have adopted modern systems that have enabled them to boost the efficiency of their management and operations.

Recently scientists connected with the Technological University of Delft came up with a suggestion to link all these systems through a comprehensive information centre. Or in other words: to build an infrastructure linking the electronic systems which already exist in the port of Rotterdam.

Professors G.G.J.M. Poeth and H.J. van Dongen of the Delft Graduate School of Management, in putting forward the suggestion, pointed out that such a step could produce wholly new opportunities for the port of Rotterdam and for international business, because of Rotterdam's central role in western Europe's raw material supply.

Research carried out by the two professors in the United States, Japan and several European countries over the last few years had shown them that there was a need for an information centre capable of answering immediately (or in real time as they say in computer jargon) questions put by raw-material suppliers in, say, the United States, Brazil or Australia, and by potential buyers elsewhere.

As Rotterdam is by far the busiest West European port and handles huge freight flows for the Federal Republic of Germany, France and other European hinterland countries, this port on the mouth of the River Rhine is better than any other able to assume this service function.

The professors and the postgraduate students who assisted them in their research, laid down their findings in a series of reports. At the end they compiled a highly interesting 112-page synopsis, added a number of conclusions and wound up with dozens of practical suggestions.

Most of these suggestions are being worked out by working parties which are reducing them to system requirements and are conducting feasibility studies on some special cases. *(Rotterdam Europoort Delta)*

Increased freedom boosts efficiency at the ports: ABP

"Competition has strengthened the British ports industry and made it more efficient." That is the view of Mr. Keith Stuart, Chairman of Associated British Ports, the country's largest ports business. Mr. Stuart, whose group owns and operates 19 British ports – including Southampton, Immingham and Cardiff – was speaking in Liverpool at the Annual Dinner of the Institute of Freight Forwarders.

Comparing 1984 with 1948, Mr. Stuart said that for the ports industry the most significant change was the new freedom to operate on commercial principles – the opposite of Orwell's totalitarian nightmare. A reduction in bureaucratic interference, the phasing out of public subsidies, and better road and rail links – all these factors had produced greater competiton between our ports, added Mr. Stuart.

Welcoming the change, Mr. Stuart said: "We are serving the nation with increasing efficiency. As an industry, like the Freight Forwarding industry itself, we can face the world with some pride in our achievements." He presented statistics showing that since 1948 the ports industry had coped with major changes in trading patterns and in technology. For example, the proportion of general cargo in containers had gone from nil to 84%, and over the same period, Britain's trade with Europe had grown from 15% to over 42% of the total. "We have now earned the right to freedom from bureaucratic interference, which used to be excused by the absence of real competition. None of Britain's ports has any real monopoly of trade nowadays and none is indispensable. Each must stand on its own feet."

Mr. Stuart pointed to the recent success achieved by Merseyside ports, including Seaforth and Garston: "There are some encouraging signs of renewed health here on Merseyside. In the port and transport industries we are seeing new ground for confidence. But only by self-help can Merseyside achieve long term health – we cannot look to London or Brussels for a lasting solution." We need the same spirit of enterprise and the search for the highest standards of customer service which have been so clearly demonstrated by the Institute of Freight Forwarders."

Mr. Stuart also welcomed the Government's recent go-ahead for freeports, which, he said, provide a further example of increased freedom as a foundation for improved efficiency in the ports and the whole of our transport industry. But it was now primarily the responsibility of the six selected freeports to make a success of the opportunity which they had been given.

Grain galore at Southampton

In the past eighteen months grain exports have become one of Southampton's biggest bulk trades and the volumes currently being handled at the port's two silos have established it as one of Britain's leading grain export outlets.

Southampton, part of the Associated British Ports group, is sited close to some of the UK's best agricultural land and in the last two years two leading grain distributors have built silos in the port to handle the growing trade.

The Continental Grain (UK) Ltd. facility, in operation since August 1982, recently loaded over 30,000 tonnes of wheat aboard the 20,000 grt 'Fort Nelson'. This was bound for Bangladesh as part of the UK's National Food Aid Action Programme. Continental expect to load their one millionth tonne later this year.

The ohter distributor is Southampton Grain Silos Ltd. who have operated their silo in the Port's Eastern Docks since September 1983. They have been receiving an average 5,000 tonnes of mainly feed barley daily from road transport.

This recent activity highlights the advantages Southampton can offer the bulk shipper with tidal berths, quays adjacent to deep water, a location near to major markets and skilled staff.

Trade upturn: Port of Launceston

The Port of Launceston Authority entered 1984 buoyed by the knowledge that trade over its wharves during the first six months of the 1983–84 financial year was 21% higher than for the previous corresponding period.

'A very pleasing result', was the comment from PLA Master Warden Keith Meredith, upon releasing the half yearly trade statistics.

He added that the results compensated to some extent for the rather disappointing tonnages recorded in 1982–83 when the economic downturn was having its worst effect.

An examination of the trade figures shows that general cargo handled during the six months was up 12% on the same period last year and woodchip exports were up some 27%. Ferro Manganese, Timber, Fuel Oil and Trade Vehicles passing through the port were also well up on last year's figures.

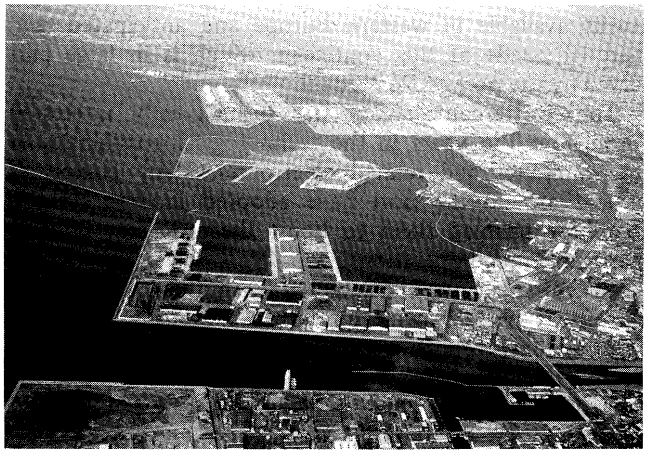
Commensurate with the cargo upturn, gross shipping tonnage totalling 2608104 tonnes entered the port, which was a new record for the port for the period.

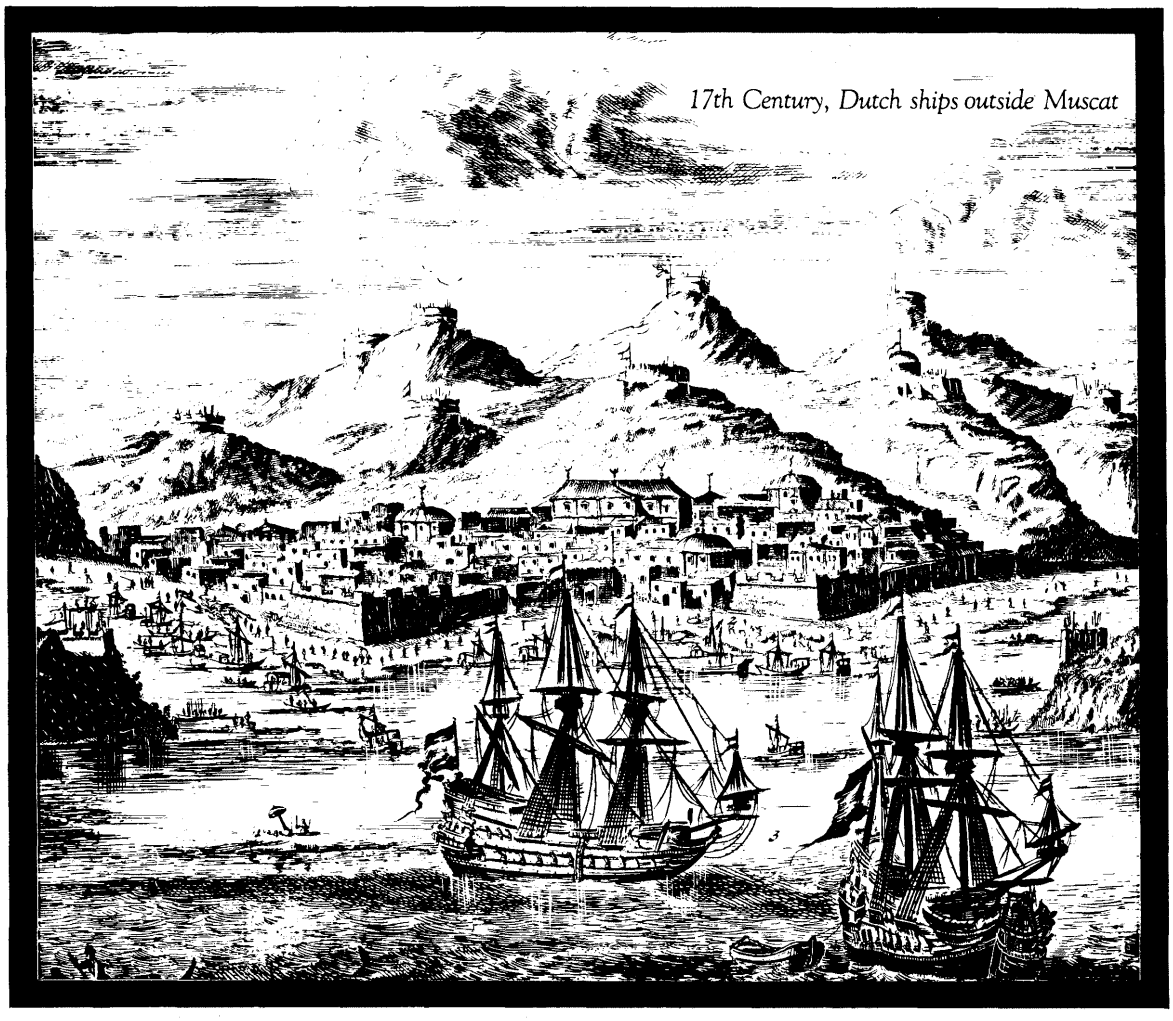
With predictions abounding that the economic resurgence will continue through 1984 and the possibility of new trades being directed through its port, the Authority is looking forward confidently to excellent trade figures for the full 1983–84 year *(PLA News)*

Introducing the symbol mark of the Port of Sakai Senboku, Osaka Prefecture, Japan

Description

1. Round enclosure symbolizes the "Port of Sakaisenboku being connected with the global oceans." "Progress & Harmony" is the motto of the Port.
2. A tall ship is a "Go-Shuin-Bune" (In the 16th century, those authorized to carry on trade with foreign countries received a patent sealed with the red seal of the Shogun, hence the name given to such vessels). Sakai was one of the major trading ports. A lighthouse is the Japan's oldest western-style but wood-made lighthouse erected in 1877 which was designated as a national historical monument since 1972. Both symbolizes the Port.
3. Seven waving patterns depicts the seven oceans.
4. The Emblem of Osaka Prefecture (being the port management body) is situated on both sides in between the port name and the motto.
5. A diagonal belt (green in color) containing seven leaves of ginko tree illustrates green belts and parks within the port which are intended to attract citizens.





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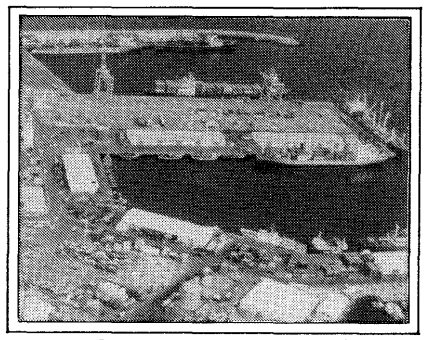

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