

# PORTS *and* HARBORS

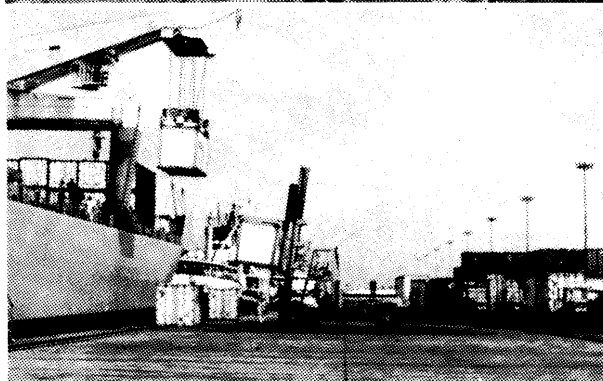
October, 1983 Vol. 28, No. 10



Port of Lisbon

**The Publisher: The International Association of Ports and Harbors**

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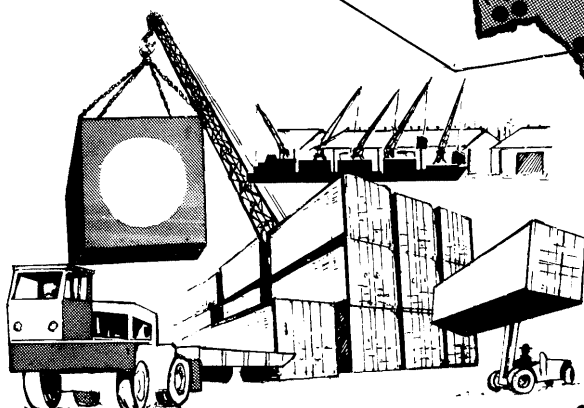
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SAPELE PORT

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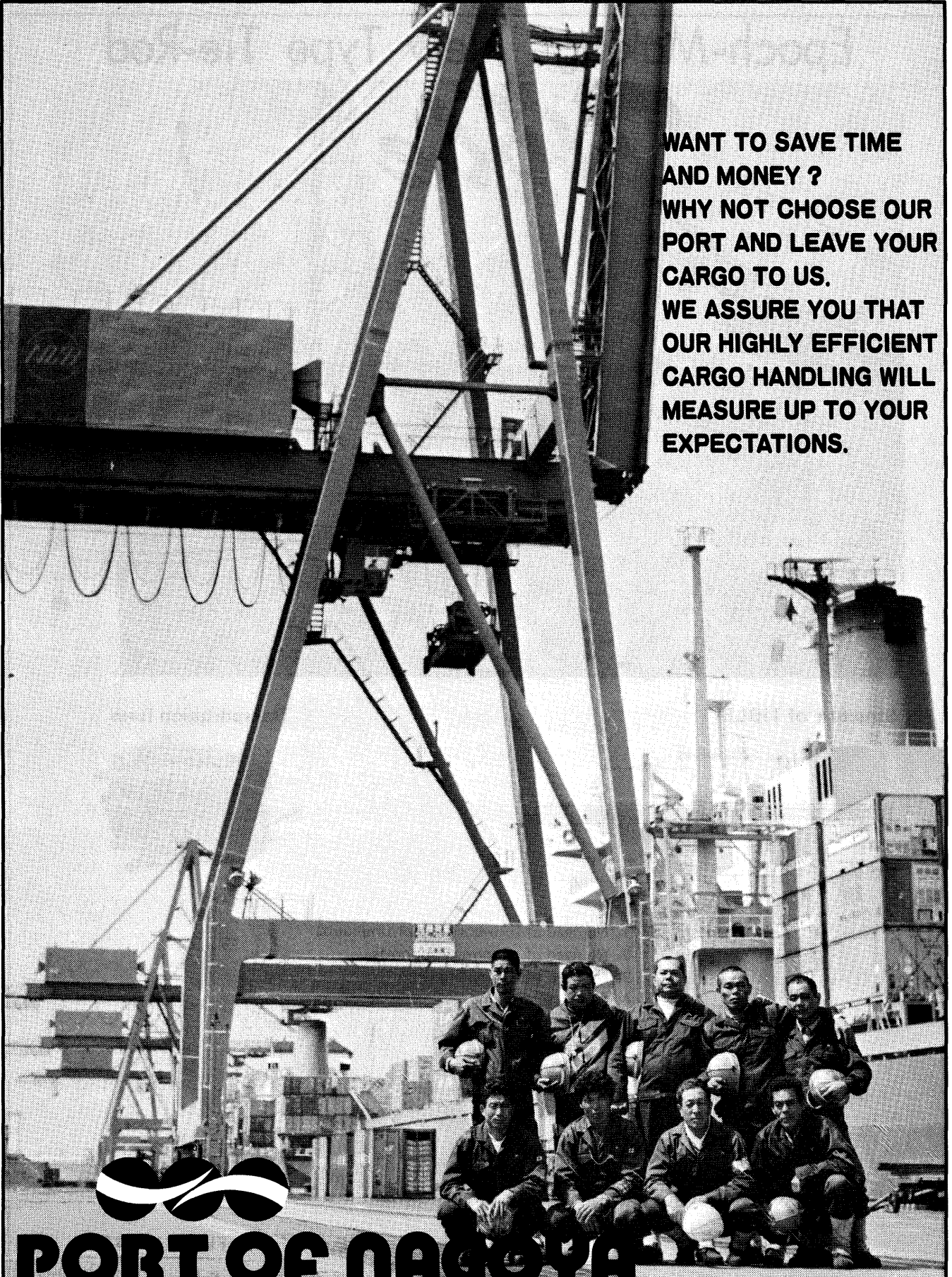
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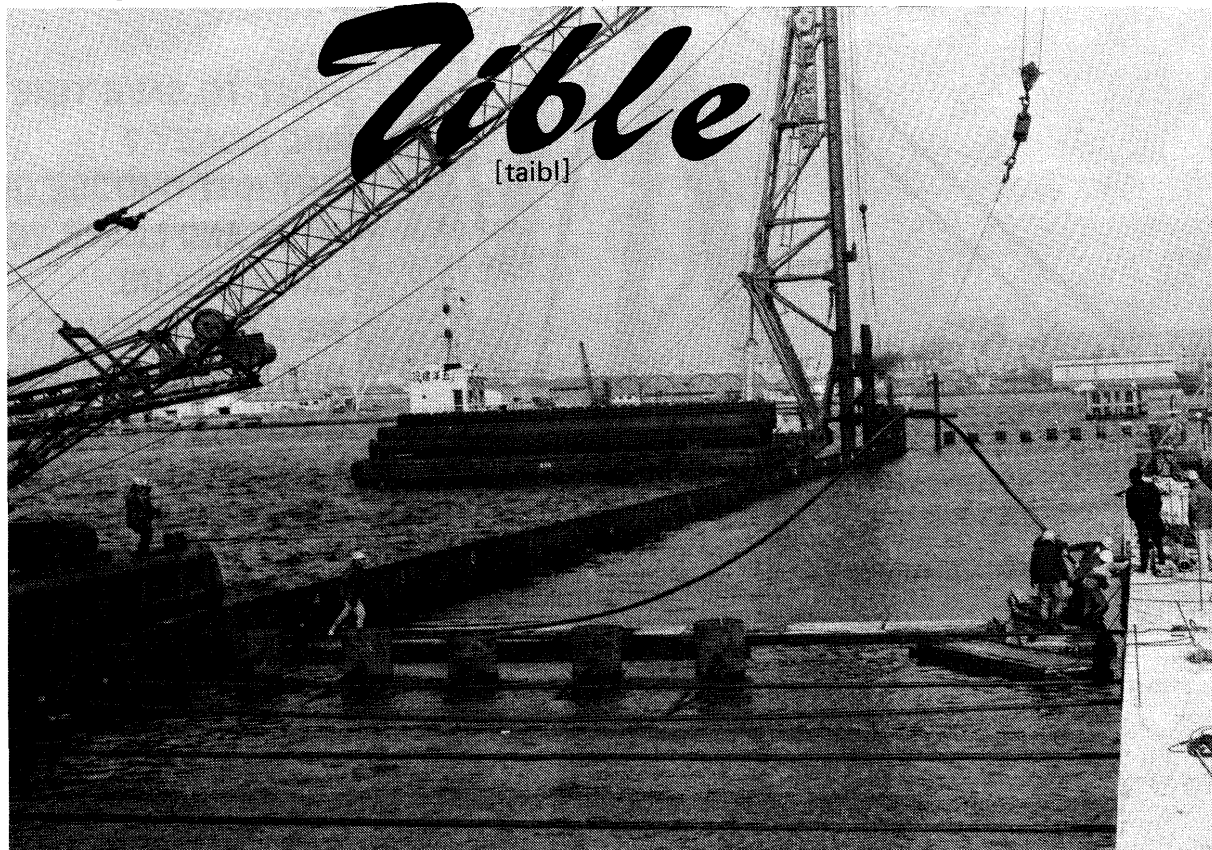
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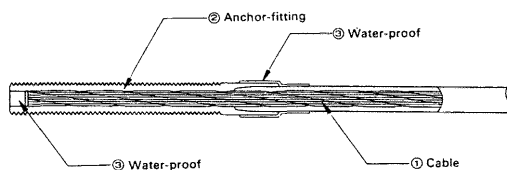
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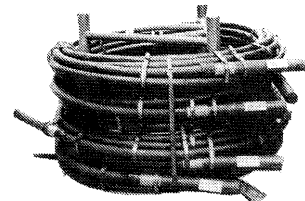
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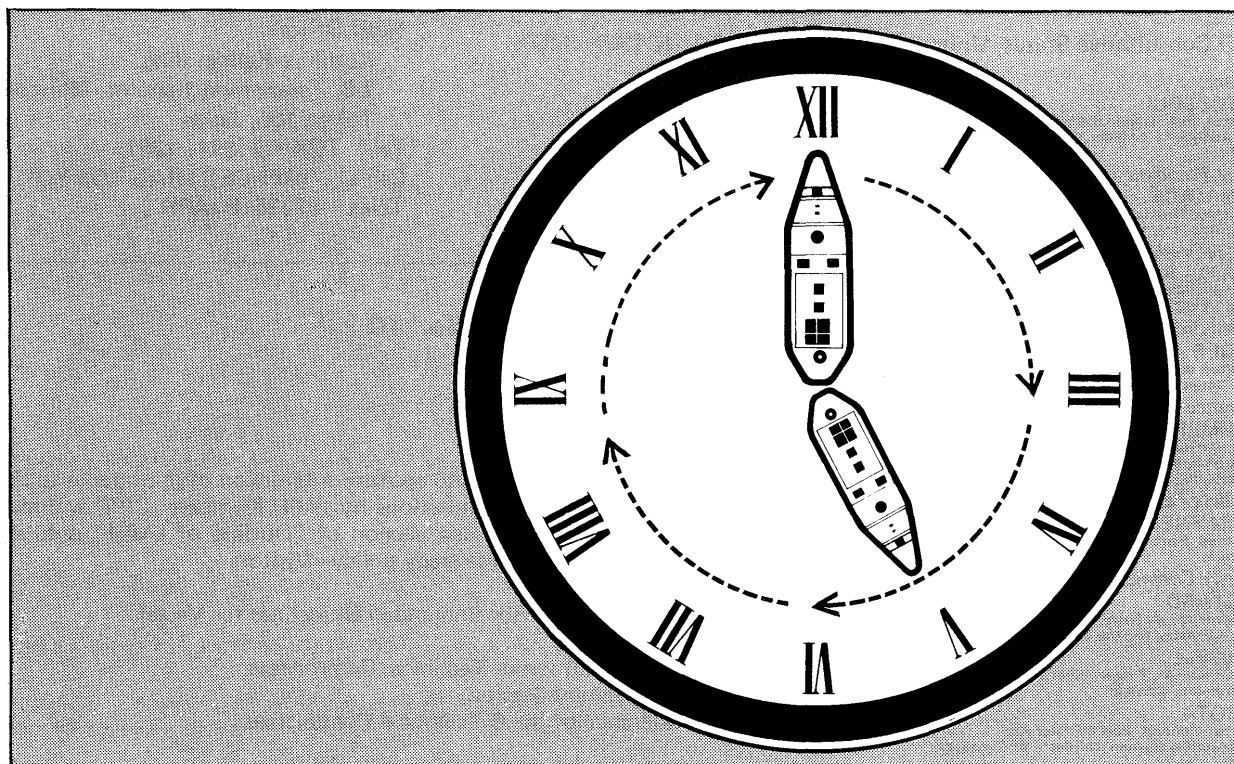
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**The Cover:** Port of Lisbon—A general view of the Tagus' estuary, showing port facilities developed in recent years.

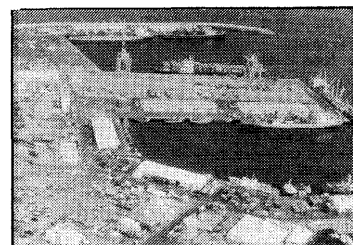
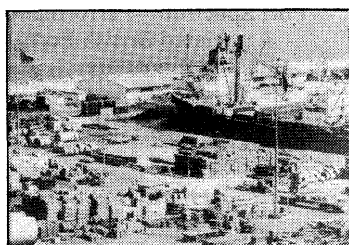
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PORTS and HARBORS — OCTOBER 1983 5

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# IAPH announcements and news

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## **Board meeting held on July 30 to approve submission of joint paper to IMO**

At its meeting by correspondence of the Board of Directors, called for on July 30, 1983, the proposal to submit to IMO "Recommended Guidelines for Vessel Traffic Services" was approved.

The paper entitled "Ship Reporting Systems — Recommended Guidelines for Vessel Traffic Services" has been submitted jointly with three other international maritime organizations, namely the International Association of Lighthouse Authorities (IALA), the International Maritime Pilots' Association (IMPA) and the International Federation of Ship Masters' Association (IFSMA).

The full text of the recommended guidelines is reproduced on the next page.

## **CLPPI Questionnaire on the functions maintained by IAPH Members**

A questionnaire composed of 11 major items related to the functions of port was circulated to all IAPH port members on August 15, with replies to reach the head office for compilation by the end of October this year.

The questionnaire, prepared by the Committee on Legal Protection of Port Interests (Chairman: Mr. Andre Pages) is intended to collect data on the scope of port organizational structures, responsibilities and operational activities in order that a better understanding of port problems which vary from one country to another and even within countries, may be obtained.

Starting with a question on the analytical categorisation of a port's institutional characteristics, the questionnaire explores such items as "responsibility for the port's infrastructures and superstructures, covering operational service activities including port related commercial activities, police, security and safety controls".

It is sincerely hoped that members will give their support to the questionnaire and contribute their replies to the head office so that the data collected can be compiled for submission to the Committee before the results are reported to the forthcoming meeting of the Executive Committee, scheduled for next May.

## **CIPD will meet in Geneva in October**

According to a recent communication from Mr. J.K. Stuart, Chairman, Committee on International Port Development, a Committee meeting will be held for two days, namely 20th and 21st October, at the Penta Hotel, Geneva.

## **The revised version of "Outline of IAPH" published**

The revised version of the brochure "Outline of IAPH"

was published in English in August 1983 for the purpose of promoting our membership campaign and providing a better introduction of IAPH to a wider range of people.

Copies are now available from the Tokyo Head Office on request.

## **AAPA's position paper on free trade policy**

Mr. A.J. Tozzoli, President of IAPH and Director, Port Department, Port Authority of New York & New Jersey, recently submitted a paper on "America in the World Economy" to the Secretary General for publication in this journal.

President Tozzoli, in his covering letter of August 30, explains that "this position paper was prepared by two technical committees of the American Association of Port Authorities". According to him, it was generated by the concerns of the United States for more restrictive trade policies aimed at limiting the flow of foreign-made goods. "Such trade barriers, however," he comments, "would lead to retaliatory actions by America's trading partners resulting in reciprocal reductions in United States exports".

Mr. Tozzoli further comments on the crucial importance, both to the United States and the international economic system and world ports, of the promotion of trade. "Unfair trade practices," he goes on to say, "are not the solution to domestic economic problems. It is in the interest of ports to demonstrate that free and fair trade holds opportunities for economic development to all nations."

He concludes the letter with his hope that this position paper of the AAPA will provide members of IAPH with relevant and useful ideas on trade policy. (See the article on page 30).

## **Visitors**

— On August 2, 1983, Mr. Tom Baxter, Assistant General Manager, Planning & Development, Port of Brisbane Authority, visited the head office and met Dr. Hajime Sato, Secretary-General, and his staff. Mr. Baxter was visiting Tokyo for two working days for the purpose of familiarising himself with the port situation in the Tokyo area. Under the care of the Tokyo Office of the Queensland Government (Mr. John Kenny, Dy. Commissioner), he visited the Port of Tokyo and the Ohi Container Terminal Complex, as well as calling on shipping companies serving the Port of Brisbane.

— On August 18, 1983, Dr. Peter Rimmer, Senior Researcher, Department of Human Geography, the Australian National University, Canberra, visited the head office, during his recent three-week study trip to Japan. It was his second visit to the head office after 1979. On August 12, he visited the Ministry of Transport and met Mr. S. Doi, Director-General of Coastal Shipping, Shipping Bureau.

# Ship Reporting Systems Recommended Guidelines for Vessel Traffic Services

**Note by the International Association of Lighthouse Authorities (IALA)  
the International Association of Ports and Harbors (IAPH)  
the International Maritime Pilots' Association (IMPA)  
the International Federation of Ship Masters' Association (IFSMA)**

**SUB-COMMITTEE ON SAFETY  
OF NAVIGATION – 28th SESSION**

**NAV/28/**

## **1 – Introduction**

IALA and IAPH having recognized that there was an urgent need to harmonise VTS procedures for their members and, that between them they represented virtually all VTS operators world-wide, decided that they should establish Technical Committees and jointly prepare Guidelines for VTS. As the Maritime Safety Committee has now instructed the Sub-Committee on Safety of Navigation to study VTS, IALA and IAPH wish to make the results of their work to date available to the Sub-Committee.

This note describes the method of working in preparing the text, Recommended Guidelines” and the Annex is the draft that the Sub-Committee may wish to use as a first draft in its work.

Some aspects such as Personnel Qualifications need further consideration. It is to be emphasized that the attached Guidelines on VTS are principally dealing with technical and procedural matters and are not addressing their legal implications, although it is recognized that these matters need to be considered.

## **2 – The IALA-IAPH Technical Studies**

The joint IALA-IAPH technical studies comprised participants from the international organizations IMPA, IFSMA, ICS, IAIN, International Yacht Racing Union (IYRU), national administrations and port administrations.

As a first step a questionnaire was circulated to all members of IALA and IAPH. One hundred and sixty authorities already operating VTS from forty six countries returned a completed questionnaire. These replies were analysed in detail by the Maritime Research Institute Netherlands (MARIN).

## **3 – The Drafting of VTS Recommended Guidelines**

A joint IALA-IAPH working group when preparing the draft IALA-IAPH Recommended Guidelines for VTS based its work on:

- a) Existing relevant IMO documents
- b) Existing common practice as disclosed by the questionnaire and analysis
- c) The conclusions reached by IAIN 3 yearly symposia.

A first draft document was discussed by IALA and IAPH members and modified in the light of these discussions. The Guidelines attached therefore represent the views of a wide cross section of Authorities operating VTS, and users both at national and international levels.

## **4 – Conclusions**

IALA and IAPH together with IFSMA, IMPA and IYRU submit these Recommended Guidelines for VTS for use as a significant working document by the Sub-Committee in its deliberations on the internationally harmonized guidelines for VTS as instructed by the Committee (Report of the 48th session of the Maritime Safety Committee).

## **Recommended Guidelines for VTS**

### **1. PREAMBLE**

This document aims at defining guidelines for designing and operating VTS once it has been decided that such a system, whether very simple or highly sophisticated is necessary, and to harmonize them internationally.

It addresses the communication based means used by VTS and takes into account current practices.

It is based on IMO Recommendations and Resolutions on this subject in particular “Ship Reporting Systems”.

VTS Authorities or those planning VTS are recommended to follow these guidelines, as appropriate to their needs, in the interests of achieving harmonization internationally and improving maritime safety.

### **2. OBJECTIVES OF VTS**

A Vessel Traffic Service (VTS) is 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.

#### **2.1 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,
- Coordination of actions in case of accident,
- Support of allied activities.

#### **2.2 VTS is 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.

### **3. VTS AUTHORITY**

#### **3.1 “VTS Authority” is the Authority operating a VTS. It may be a single port authority, a governmental**



maritime administration, a pilotage organization or any combination of them.

- 3.1.1 The Authority establishing a Vessel Traffic Service should delineate its area of coverage, declare it as a Vessel Traffic Service area, and disseminate to mariners full details concerning the service provided and the procedures to be followed (see Section 8). It should state the classes of ship which are required or recommended to participate in a Vessel Traffic Service and indicate the VTS Centres responsible for the VTS tasks.
- 3.1.2 The Authority should establish appropriate qualifications and training requirements for the licensing of VTS operators in accordance with section 7.
- 3.1.3 The VTS Authority should ensure that the effects of vessel traffic services, routing, aids to navigation, pilotage, etc. . . are fully interrelated.
- 3.1.4 When ships are required to participate in a VTS, appropriate legislation should exist or be enacted.
- 3.1.5 Care should be taken to ensure that traffic regulations do not encroach upon the Master's responsibility for the safe navigation of his vessel, or disturb the traditional relationship between Master and Pilot.
- 3.1.6 When planning or designing a Vessel Traffic Service, the Authority should take into account the factors and criteria of the Appendix.

#### 4. ELEMENTS OF A VTS

A Vessel Traffic Service consists of the following elements:

- Shore based organization
- Vessels using VTS
- Communications
- Common language

##### 4.1 Shore based organization

- 4.1.1 The shore based organization should be equipped with communication facilities and may have radar surveillance equipment and other equipment in accordance with the tasks to be performed by the VTS. Shore based organizations should be equipped with the appropriate frequencies as prescribed in Appendix 18 of the Radio Regulations including the international distress, safety and calling frequencies.
- 4.1.2 "VTS Centres" are centres from which vessel traffic services are operated.
- 4.1.3 "VTS Operators" are the persons who perform the functions of the VTS (see Section 5).

##### 4.2 Vessels using a VTS

- 4.2.1 Vessels participating in a VTS are assumed to be fitted with the navigational and communications equipment in accordance with SOLAS chapters IV and V.
- 4.2.2 The decisions concerning the effective navigation and manoeuvring of the vessel remain with the Master. Neither the sailing plan (see paragraph 6.3.1) nor requested or instructed changes to the sailing plan can supersede these decisions.
- 4.2.3 If voluntary or compulsory pilotage exists in the VTS area, the pilot will, in a manner agreed with the Master, take part in the navigation and manoeuvring of the ship.  
Pilotage is an important element in a VTS, particularly since the pilot can often be the first person the ship's Master meets before entering the VTS area.

The function of a pilot is to provide:

- the Master with assistance in manoeuvring his vessel
- the Master with local knowledge both concerning navigation and national/local regulations
- assistance with communicating between ship and shore particularly where there are language difficulties

##### 4.3 Communications

Communications between the VTS Centre and the ship must exist and should follow the prescribed communications rules.

These communications generally involve VHF/UHF radio links which however can be duplicated or complemented, for example, with traffic signals. The number of VHF/UHF channels required will depend upon the amount of radio traffic.

##### 4.4 Common language

The language used must enable the VTS Authority and the ship to understand each other clearly.

##### 4.4.1 In international waters communication in a Vessel Traffic Service should take place primarily in the English language.

When in addition to the English language a local language is used to communicate with a specific vessel, navigational information relevant to other vessels should be repeated in English.

##### 4.4.2 In national waters the primary language should be the appropriate working language of the country where the system is established and English should be used where language difficulties exist. Systems established in areas where there are many international ships may designate English as the primary language.

##### 4.4.3 The IMO Standard Marine Navigational Vocabulary should be used where possible.

#### 5. FUNCTIONS OF VTS

The functions of a Vessel Traffic Service may broadly be divided into "passive" and "active". These functions may include those detailed in paragraphs 5.1 and 5.2 below.

##### 5.1 Functions considered as passive:

- 5.1.1 Maintaining a listening watch on the designated marine safety and distress frequencies.
- 5.1.2 Monitoring the manoeuvres of ships for compliance with international, national and local requirements and regulations.
- 5.1.3 Interpreting the total traffic situation and its developments.
- 5.1.4 Broadcasting information about the movements of traffic, visibility or the intentions of other vessels, to assist all vessels including small craft that are only participating in the VTS by listening.
- 5.1.5 Exchanging information with vessels on all relevant safety matters (notices to mariners, status of aids to navigation, meteorological and hydrological information, etc. . .).
- 5.1.6 Exchanging information with vessels on relevant traffic conditions and situations (movements and intentions of approaching traffic or traffic being overtaken).
- 5.1.7 Obtaining reports ensuring that ships are not defective or deficient with regard to hull, machinery, equipment or manning, or to provide any such ship with appropriate information.

- 5.1.8 Coordinating the information flow and distributing the relevant messages to the participants or organizations concerned.
- 5.1.9 Supporting activities allied to those of the VTS Authority such as Pilotage Services, Port Services, Marine Safety, Pollution Control and Search and Rescue.
- 5.1.10 Collecting information for statistical purposes.
- 5.2 Functions considered as active
  - 5.2.1 Assisting vessels in difficult navigational or meteorological circumstances or in case of defects or deficiencies.
  - 5.2.2 Warning vessels about hindrances to navigation such as hampered vessels, concentrations of fishing vessels, small craft, other vessels on special operations, and giving information on alternative routing.
  - 5.2.3 Establishing and/or operating a system of traffic clearance and reports for specific manoeuvres and conditions.
  - 5.2.4 Scheduling vessel movements through special areas such as where one-way traffic is established.
  - 5.2.5 Regulating the traffic by means of advice or instructions requiring a vessel to remain in or proceed to a safe position, whenever the safety of life or protection of environment or property warrants it.
  - 5.2.6 Calling upon and requesting action by rescue and emergency services, and if appropriate coordinating and directing the actions of these services.

## 6. PROCEDURES

- 6.1 General
 

Every VTS should follow procedures based on these guidelines to the extent required by its functions and needs.

  - 6.1.1 Reporting procedures should be clear, simple and contain only the information consistent with maintaining to a minimum, the additional bridge duties of masters, officers of the watch and pilots.
  - 6.1.2 When detailed and extensive information has to be exchanged which is not relevant to all ships, the VTS operator may decide to communicate with a ship on an alternative VHF channel.
  - 6.1.3 To avoid an unnecessary repetition of information by the ship, basic information should be reported once, be retained in the system and be complemented or updated according to the requirements and should be made available to shore services as appropriate.
  - 6.1.4 All classes of ships participating in a vessel traffic service should unless otherwise permitted by the authorities maintain a continuous listening watch on the appropriate frequency of the VTS. This listening watch shall be carried out from the position from which the ship is navigated.
  - 6.1.5 Status of the Message
 

Any message to a vessel should make it clear whether it is information, advice or instruction.
  - 6.1.6 Information by VTS
 

The times for regular bulletins should be clearly published in relevant nautical documents and should take account of transmission times of neighbouring VTS Centres. They should be drawn up in a standard format and only contain essential information (see Section 8).

Bulletins in special circumstances should be pre-

announced in an appropriate way.  
Information can also be requested by a vessel.

- 6.2 Initial contact — Identification
  - 6.2.1 Generally, the ship contacts the VTS Centre by VHF and this is the first direct link between the ship and the VTS Authority.  
This initial exchange of data enables the ship to confirm certain preliminary advice, if any (see paragraph 6.2.2). It also enables the ship to request certain specific data from the VTS Authority.  
In most cases, a ship, through its dialogue with the VTS Authority provides its identification. This identification may be assisted by technical means such as shore based radar and/or VHF DF.
  - 6.2.2 A vessel's arrival in a port area is normally anticipated as the agent will have given an Estimated Time of Arrival (ETA) and requested a berth or anchorage.  
In the case of vessels carrying dangerous substances, IMO Circular MSC 299 dated December 1980 "Safe transport, handling and storage of dangerous substances in port areas" which recommends notification of specific information, should be followed.
- 6.3 Application of "Ship Reporting Systems"
 

Ships participating in a VTS should report, if required, at the designated positions and times and in accordance with the agreed reporting format. The Master should as far as practicable ensure correct and timely reporting.

Other vessels not required to report but wishing to avail themselves of the services offered by the VTS should follow the relevant procedures.

The types of reports described in the IMO "General Principles for Ship Reporting Systems" should be used as follows within the VTS procedures:

  - 6.3.1 Sailing plan
 

It should be sent before departure from a berth or entering the area covered by the VTS. The VTS Authority should specify the information required in the sailing plan for all or for special ships according to local circumstances.

In exceptional circumstances the sailing plan may on request of the VTS operator be amplified.

    - 6.3.1.1 On account of the traffic situation or of special circumstance the VTS operator may advise changes to the sailing plan.
    - 6.3.1.2 After the sailing plan is accepted by the VTS operator, the vessel may participate in the VTS, and should as far as practicable, try to maintain the plan.
    - 6.3.1.3 If special circumstances so require and for the purpose of the safety of the marine traffic the VTS operator after indicating the reason may request the vessel to follow a changed sailing plan. Such changes should be limited as far as practicable and may include:
      - time of passing the next reporting point or another specific point
      - extra position reports
      - a new destination
      - remaining at a specified location
      - request not to enter the VTS area
      - request to stay alongside the berth
      - request to follow a certain route.
    - 6.3.1.4 When special circumstances or the safety of the



maritime traffic so requires and when the VTS operator has the authority, a vessel can be instructed to maintain a specific sailing plan or implement changes to the sailing plan in accordance with paragraphs 6.3.1.3 and 4.2.2.

- 6.3.1.5 If the vessel does not comply with the requested action the reasons should be reported to the VTS operator.

6.3.2 Position report

When there is no automatic tracking after reception of sailing plan and identification of the ship, position reports are necessary to update the movement data of a ship. Ships may be required to send position reports at the prescribed positions.

6.3.3 Deviation report

If the sailing plan cannot be maintained the vessel should send a deviation report to the VTS operator, and an amended sailing plan agreed between the vessel and the VTS operator.

6.3.4 Final report

When leaving the VTS area or arriving at the final destination of the sailing plan, the vessel should send a final report.

6.3.5 Any other reports

Any other report prescribed by the VTS Authority should be made in accordance with IMO principles. For example a "deficiency report" is one which should be made to inform the VTS Centre of defects, damage, deficiencies or other limitations.

6.4 Assistance to navigation

When a vessel requests navigational assistance the VTS operator should ensure positive identification and location of the vessel by reliable means and obtain other relevant information.

After the identification and location is established the messages on navigational assistance should be sent at short intervals. These advisory messages need not be acknowledged by the vessel.

When the vessel needs no further navigational assistance, clear notice should be given to the VTS operator.

In open waters navigational assistance will mainly contain a description of surrounding traffic and warnings with respect to the "Closest Point of Approach" (CPA) and "Time of Closest Approach" (TCA) of other ships and, if necessary, advice on course.

In confined waters navigational assistance will usually contain also position data (e.g. distance to "reference line" and to "way point").

6.5 Traffic rules

In certain places traffic rules may be needed. Such rules may cover the movement of special ships, limitations in a channel or passing or overtaking situations.

Where such rules exist, the VTS operator may need to issue instructions to ensure that these traffic rules are complied with.

## 7. PERSONNEL

It should be ensured that VTS operators authorized to issue traffic instructions and to give navigational assistance have appropriate specialised training, [based on navigational experience]\*, and meet the language requirements as mentioned in paragraph 4.4.

The other personnel should have qualifications appropri-

ate to their functions.

## 8. VTS PUBLICATION FOR USERS

This publication should state the rules and regulations in force, detail the services offered and the area concerned.

Where possible the publication should include chartlets showing area and sector boundaries, general navigational information about the area together with procedures radio frequencies or channels, reporting lines and reporting points.

Comprehensive publications, available to all users, should be produced to cover all VTS.

\* The words in between square brackets represent the views of IMPA and IFSMA.

## APPENDIX Planning a VTS

The safety of maritime traffic in a VTS is necessarily a co-operative activity between those ashore and those at sea. It is therefore important, wherever a VTS is being planned, and designed that amongst others the mariner's views on the need for and operation of the service are taken into account. The level of need should also be considered. This will assist in the effective implementation of VTS and facilitate the co-operation and the confidence of all the future participants in procedures to be followed.

When planning a VTS, the VTS Authority should be guided by criteria such as:

- the general risk of marine accidents and their possible consequences, and the density of traffic in the area.
- the need to protect the public and safety of the environment, particularly where dangerous cargoes are handled,
- the operation and economic impact on users of the system and the Marine Industry as a whole, as well as the availability of technical equipment, preferably based on a cost/effective analysis,
- existing or planned vessel traffic services in adjacent waters, and the need for co-operation between neighbouring states,
- existing or proposed traffic patterns or routeing systems in the area, including the presence of fishing grounds and the volume of small craft,
- existing or foreseeable changes in the traffic pattern resulting from port or offshore terminal developments or offshore exploration in the area,
- the adequacy of existing communication systems and aids to navigation in the area,
- meteorological factors such as weather and ice conditions,
- hydrological factors such as tides, tidal ranges and currents,
- narrow channels, port configuration, bridges and similar areas where the progress of vessels may be restricted.

A VTS area can be divided into sectors but these should be as few as possible. The boundaries should be indicated in appropriate nautical documents.

Area and sector boundaries should not be in places where vessels normally alter course or manoeuvre or where they are approaching convergence areas, route junctions, or where there is crossing traffic.

VTS Centres in an area or sector should use a name identifier.

Reporting points should be clearly identified for example by number, sector, name and a geographical position or description. They should be kept to a minimum and as widely separated as possible.

# Reports by the Chairmen of Technical Committees to the First Plenary Session

In addition to the written reports submitted to the 13th Conference, the Chairmen of the six Technical Committees made the following reports verbally on the activities of their respective committees at the First Plenary Session of the Conference held on June 6, 1983 in Vancouver.

Since the Vancouver Conference, some committees have been led by new Chairman. Mr. B.A. Ekstrom, Acting General Manager, Port of Vancouver, has taken over from Mr. R.P. Leach, in the Cargo Handling Operations Committee, and Mr. J. Dubois, General Manager, Port of Le Havre Authority, France has succeeded Mr. J.M. Wallace in the Committee on Port Safety, Environment and Construction.

Terms of Reference of the respective committees as approved by the Board of Directors at its meeting held on June 11, 1983 in Vancouver, are introduced on page 17.

## Report By Mr. J.K. Stuart, International Port Development



Mr. President, ladies and gentlemen. I am very pleased indeed to have this opportunity of reporting briefly on the activities of the Committee on International Port Development. For those of you who are not completely aware of the work of that committee, its main concern is the transfer of information and assistance between the developed and developing members of the Association, and as such we have quite a large representation from the developing countries on our committee, and that is a source of a particular satisfaction to me because without that, of course, the work of the committee would be very difficult to achieve. I would also like to say, Mr. President, that the support which I have had both from Mr. Bayada, the Vice-Chairman of the committee, and from all members has been quite outstanding in the last two year period, and I would like to pay tribute to all my colleagues on the committee for the work which they have done.

The report on the work of the committee is available to you. It is a rather slim volume. We have tried to keep it short in order that you would read it and I don't propose to go over all the aspects of it now.

I would just like to mention one or two highlights, and in particular the outstanding success over the last two years of the Bursary Scheme which is administered by this Committee. This is the scheme through which funds are made available to the staff personnel from developing ports to attend courses or go into schemes of training in developed ports, and to make this possible in the situation where, without assistance from IAPH, this training might not take place at all. The bursaries are confined to developing ports, members of the Association, and the great feature in the last two years has been the strong and growing demand from member ports for these bursaries, and these

are listed, or some are listed, on page 5 of my report, and since the report was actually printed there were another six or seven bursaries applied for and granted. It is the proposal of my Committee that we should continue the Bursary Scheme. It is quite expensive, one has to say that. It is one of the more expensive activities of the Association, but we are quite convinced it is also one of the most worthwhile. And the proposal will be that we should once again give a total of 15 bursaries over the next two year period, with a maximum of US\$3,500 for each bursary.

Those of you who were present at the Le Havre Conference will remember that an idea was launched there called "A Sister Port Scheme" on which a good deal of work has been done not least by Mr. Peter ten Arve of the Port of Rotterdam. One has to say, and this is the view of my Committee as a whole, that the success of the scheme has been somewhat mixed. There have been sister port arrangements set up under the scheme, but there have not been very large in number. On the other hand, over the last four years or so since the idea was first mooted, a number of, large number of, informal sister port type relationships have been established between developed and developing ports. And it could be that the success of that scheme is rather an informal arrangement rather than through the formal sister port projects.

Another point I just want to mention briefly is the monograph scheme under which papers are produced and circulated through the auspices of UNCTAD on subjects of interest to developing ports and although this has been rather long in its gestation the results are now coming through, and the first two or three papers will be available over the next few weeks.

The one further point, Mr. President, that I would like to make from my committee is their feeling expressed quite strongly by members from the developing ports, of the need for the Association to continue to pay due attention to the needs of the developing ports, and it is our hope, for example, that when we come to the Hamburg Conference that there will be a special session devoted to the problems of the developing ports. I realize that at any conference there has to be a compromise between the requirements and wishes of many aspects of the Association, but that is something which we would like to come back to when the planning of that conference gets under way.

Finally I would like to turn to the Award Scheme and, of course, my first duty this afternoon is to express on behalf of my Committee our extreme gratitude to Mr. Akiyama for the surprising and extremely generous gift which he made this morning, which ensures the continued availability of funds for the Award Scheme. This is the scheme under which, again from developing countries, developing ports, members of staff are able, encouraged to submit papers on a chosen theme, usually around the subject on how to increase efficiency in port operations. And the gift which has been made by Mr. Akiyama now ensures that there will be funds available for the first prize which as you heard this morning, is to be named the "Akiyama Prize". The one interesting and encouraging feature of the recent Award Scheme, the

one that took place in 81-82, was that for the first time we received a significant number of entries in Spanish and in French as well as in the English language, and indeed as you have seen from my report among the prize winners were Spanish and French entries, and I think this was a very important step forward.

Finally, Mr. President, I would like to say this that all the judges of this year's Award Scheme were unanimous in their view that there was one entry which was of outstanding quality and which deserved the first prize, and this was the entry submitted by Dr. Kirincic, I hope I pronounce his name correctly, from Yugoslavia. And those of you who read his paper in "Ports and Harbors" will, I think, agree with me that it was an extremely competent and very interesting paper, from which a great deal of benefit may be obtained by many who read it. So I would like to ask you, Mr. President, if you would be willing to present to Dr. Kirincic the silver medal which accompanies his prize. And, of course, the other aspect of the prize is that Dr. Kirincic has been able to attend the conference, and is with us this afternoon. Perhaps you would like to come forward.

(Dr. Josip Kirincic received a silver medal from President Mayne following this report by Chairman Stuart.)

## **Report By Mr. J.M. Wallace, Port Safety, Environment and Construction**



Mr. Chairman, Ladies and Gentlemen: I am here to report in relation to the Port Safety, Environment & Construction Committee, and, as delegates would remember, going back to the Nagoya Conference, there was a major change made in the Technical Committees, and their ability to report to the international organizations throughout the world such as IMO, and in relation to the committee which I chaired at that stage which was the committee on Large Ships, we changed it over to Port Safety, Environment & Construction Committee, which we termed PSEC. This committee has had the responsibility for construction, maintenance and safe marine operation of ports and harbours and the protection of port environment, including vessel traffic services, the control of dangerous substances, pollution control, and crisis management.

Because of the very broad responsibility, of course, which is in this area, the committee was divided into 5 sub-committees. And if you would bear with me just for a few moments, I wish to go through some of the work that those 5 sub-committees have done during the past 2 years. The Marine Safety Sub-committee, which perhaps has been the most active one during the past two years, has been chaired by Jacques Dubois from Le Havre, and basically three major activities have been undertaken by that committee during the period.

The first was that in June 1982 the committee in conjunction with IALA produced recommendations on ports traffic signals, and it is my understanding that all members of this Association have a copy of that recommendation,

which not only is associated with IALA and IAPH, but also PIANC. The major work done by the committee has been in relation to all traffic services. And in your bags for the conference, you had that report which has been further discussed at our meetings last Saturday and Sunday, and were there any minor amendments, it is our intention to put a resolution to the next plenary session, adopting the committee's report as a policy decision in relation to vessel traffic services for this Association. Further to that, of course, the third major item has been associated with IALA, and a recommendation which is in the course of preparations for a combined paper going to IALA as a recommendation in relation also to vessel traffic services. As I suppose most people here would appreciate, the role of IALA is somewhat different to the role of IAPH but there is a real need, the committee believes, to put a joint paper to the IMO so that we will be able to get the voice of the port, or the ports of this world, heard in IMO, particularly in relation to aspects of Vessel Traffic Services. We anticipate that this will be done during this year, and to the IMO Marine Safety Sub-committee there will be a paper going to them some time in October of this year.

The second sub-committee was the Terminal Safety Sub-committee, and this is headed up by Chris van Krimpen and I suppose members that are closely associated with the international scene would know that the International Chamber of Shipping and the Oil Companies International Marine Forum in 1978 were offered to produce an International Safety Guide for Oil Tankers and Terminals, which was commonly called ISGOTT. In 1981, these two groups decided to revise that document and they asked if IAPH would assist them in the revision, particularly those matters associated with port activities. This has been done, and Mr. Oosterbaan of Rotterdam chaired the sub-committee on that issue, and I am certain that when this document is published — I understand in the very near future — you will find that the interests of ports have been taken care of far greater than they were in the past.

The third sub-committee is the Ships Sub-committee, and this was headed up by Arthur Young of Glasgow until he retired in 1982, and then I was at a loss to find the second committee chairman until I convinced Alex Smith, who heads the British Ports Association, into taking this over. Alex, of course, as you know, is very busy on matters of IAPH and IMO and other areas, but Alex was kind enough to take it over until this conference. This sub-committee has in fact produced a document called "Trends and Characteristics of Ships", and at their meetings yesterday and the day before, Saturday and Sunday, were after some minor amendments to these documents, the general thrust of the document has now been agreed to. The final meeting, which we will have of the full committee which is on Thursday next, 9 a.m., and there will be an announcement for those members on that Committee in the near future of the actual room that the meeting will be held in, but at that meeting I am certain we will get agreement to the revised or minor revisions to the document and that also will go to members as a general information paper so that the knowledge which has been accumulated within the committee during the past two years is dispersed throughout the whole of our membership.

Fourth Sub-committee is that of the Engineering Sub-committee and it was headed up by Gordon Mouland of

Canada, from Canada here, and this sub-committee basically was designed to ensure that experienced personnel, particularly in relation to civil engineering, were available to the other members of the committee so that aspects associated with engineering could be looked at specifically should it be necessary. The sub-committee is currently considering aspects which we believe will be of advice, or assistance, to the United Nations, particularly in relation to aspects of civil engineering and coastal port positions.

The fifth sub-committee is the Dredging Task Force, and we already heard reference to that during the course of this plenary session. Dredging Task Force produced a booklet which you have in your bags for this conference which is headed up "Ports & Dredging in the Developing Countries". This is really a reference book to indicate the extent of work and knowledge that is available throughout the whole membership of this Association and other associations, and I think it will be of value particularly to developing organizations who might have major dredging problems. But I think more importantly, as far as the Association as a whole is concerned, is the work it has done in relation to the London Dumping Convention. Those that have ports that need dredging will know that the London Dumping Convention almost stopped dumping of dredged material at sea, and it is, I believe a very important aspect of our work, of the PSEC committee that we have a voice in the London Dumping Convention arena and Herbert Haar, who was the chairman of this committee, has been very active in producing, in conjunction with scientific advice and other technical advice and legal advice, a case to the London Dumping Convention and also their scientific group.

So, ladies and gentlemen, it is certainly my view that the arrangements which we revised at Nagoya for this Association to be able to give information and seek information from international bodies and respond to international bodies quickly has been a tremendous success. I would like to thank very sincerely the five committee chairmen that had the sub-committees and also all members of the PSEC committee, because they all have worked very diligently and, I believe, in producing the report that they have for this conference, show the ability of an organization such as this to be self-helpful to not only those developed and developing ports but other parts of the world. Thank you, Chairman.

## **Report By Mr. R.P. Leach, Cargo Handling Operations**



Mr. President, ladies and gentlemen. It is a pleasure to give the report of the Committee on Cargo Handling Operations. During the past two years, the main effort of our committee has continued to be the collection, analysis, and distribution of container handling statistics. The report has been distributed by the Head Office on a quarterly basis. However, there has been a feeling that the report as distributed has failed to meet its objectives

entirely. And a sub-committee has been appointed to study the matter of revising the format to make it more useful and to ensure uniformity of data, that is, to ensure that the report compares apples with apples. We plan a series of questionnaires in the near future to solicit the views of the membership with regard to the report format. We earnestly solicit your consideration of these questionnaires so that we can make reports that are meaningful.

At the committee's meeting in Aruba, it was determined that we should obtain and distribute reports and data on structural fatigue problems with container cranes. A report prepared by the Port of Oakland was received and distributed to members of the committee on Saturday at its meeting here in Vancouver. The committee determined that that report was so important that it should be distributed to the entire membership and that will be done.

Without knowing that we will have a representative of the World Bank we did determine that we would make two lists: one a list of ports that will be willing to receive guests from developing ports in order to let them study cargo handling in our ports; and a second list of ports that will be willing to send representatives to the developing ports to help them in cargo handling operations. We recognize that this has some overlap with the Committee on International Port Development, but we propose to coordinate our effort to avoid duplication. The early responses to our request for a list of representatives as you might expect, have been favourable, and we believe that we can develop a method by which we can cooperate with ports that seek our help.

Lastly, Mr. President, the committee feels that it could be more beneficial to the Association than its past activities might indicate, and in this regard we have sent another questionnaire asking the membership to give us their thoughts on the activities that we should undertake that would be beneficial. When you receive the questionnaire we again solicit your consideration, and your response, we hope, will give us guidance for the future. Thank you.

## **Report By Mr. R.L.M. Vleugels, Trade Facilitation**



Mr. President, ladies and gentlemen, fellow delegates. On behalf of the Committee on Trade Facilitation, I would first of all like to thank the President and the Executive Committee for having favourably received the recommendation of our committee to include in this 13th IAPH Conference program a working session dedicated to problems and solutions concerning data communications between ports and their users. Needless to say, this matter is of prime importance to all ports in an era marked by the fact that physical movement of ships and goods often seems to be more rapid than only the data and documents which govern the traffic flow. I would like to pay tribute to the members of the panel for their preparedness to present their most instructive papers. I am confident that they build up an excellent basis for efficient discussion and exchange of views. It may be underlined that the



composition of the panel proves that effective international cooperation in matters of common interest is possible.

I shall indeed have, next Thursday, on occasion of the second working session, the honour and privilege to introduce spokesmen of the port of Yokohama, the United States Department of Transportation, the Maritime Administration of the Commission of the European Communities and delegates of the EVHA, a European, or the European Data Processing Association, represented on this occasion in the panel by port authorities of Bremen, Bremerhaven, Clydeport, Cork, Genoa, Rotterdam. Furthermore, the Lloyd Shipping Information Services and the consortium of technicians led by ERNO Raumfahrttechnik of aerospace techniques which is leader of a consortium contracted by EVHA and further composed of companies like Kamsax, Danish, Captec, Irish and KLM Royal Dutch Airlines. From all that, you will state that indeed the activity of the committee was mainly pointed to methods of data communication between ports and users, with an accent on the application of electronic data processing.

As the second, and not less important, aim we continued to strengthen relations of our Association with the Customs Co-operation Council, which has its seat in Brussels, and regularly a delegate from the Port of Antwerp attends the meeting of this council which thanks to the support of its Secretary-General Sir Ronald Radford keeps us informed about the proceedings of this highly influential and efficient world-wide organization, and from time to time short reports were sent in for publication in "Ports and Harbors". Furthermore, we are much indebted to the Director of the Customs Technic Directory of the CCC, Customs Co-operation Council, Mr. Gotschlich, for the contribution he never failed to ground to committee aims. I recall the publication in "Ports and Harbors", the July-August issue of 1982, of his elaborate and excellent study on customs procedures related to ports, specifically after the so called Kyoto convention.

I also want to pay tribute to Mr. John Raven, who was a member of our committee. I understand that he retired from his function, namely as Chief Executive and Vice-Chairman of the SITPRO, United Kingdom Board which is a simplification and trade facilitation organization in the United Kingdom. John Raven, indeed, has widely supported the objectives of our committee since its installation.

We have to be aware that the field that facilitation and simplification's covering is very extended and, in fact, hard to work upon. Many organizations are active in it, and we must try to keep ourselves informed about all new developments with the limited means that our committee has available. We shall try to continue to disseminate useful port related information to the membership.

Finally, I might say that so far the activity of our Trade Facilitation Committee has been carried out only by a limited number of members. Therefore, I may call for assistance of a greater participation of IAPH members to join their effective efforts to ours. Their suggestions and contributions will be appreciated. Thank you.

## **Report By Mr. F.M. Wilson, Public Affairs**



Thank you, Mr. Chairman, ladies and gentlemen. You have before you, what has been distributed, our draft report of the Committee on Public Affairs. I do not intend to get right through that study or anything like that, but to make the most important points that have been raised. You will recall that under the chairmanship of Mr. Jack Bax from Rotterdam, the first stage and the first phase of such a study was completed.

And one of the recommendations was that ports should understand what the community thinks of them, what the community requirements are and how best to solve mutual problems. And that has led to a recommendation in this report that a study should be undertaken, and we have taken up discussions with appropriate consultants in Australia who would undertake this study. It will involve three ports in Australia, and the reason why we put only three ports in Australia and not three ports in the world is because of convenience of supervision.

To control a study of this nature, you just cannot be in three different places at one time. But what would this study do? It would do a study on these ports, of what the community attitudes are and the port authority in the mind of the community. That would certainly be of great value to the 3 Australian ports, there is no doubt.

Another part of the study is to develop a methodology that can be used by other developing countries, in particular that they can modify to suit their own needs, and to try to understand the problems that they might be confronted with, even if it is in future. This study that will be undertaken, it will be ensured in any contract that is entered into that the copyright of the results remains with IAPH and they can be distributed by IAPH to every member that so wishes. It will be the sole right of the IAPH. No copyright will remain with the consultants. As you can read from the report, we ran into some financial difficulties, but due to the generosity of the Board of Directors yesterday, who have recommended to the budget committee that they should include an item of \$30,000 in the budget for this year, 1983, to complete this study, we are very happy about it, and assure you that we are going to get on with the job.

There is one other point that I would like to raise, and Dr. Scheiner has outlined to you pretty well, I don't think I will do any better, but he sort of said we should share our knowledge with other ports, particularly with underdeveloped countries. This brings me to the situation I tried to warn you of the dangers of the "You Jack" philosophy. Now you know the "You Jack" philosophy is "I'm all right, Jack, I'm not worried about you". But there are inherent dangers in this. And the Port of Los Angeles Authority quite rightly brought it to my attention, that a port authority can develop a car terminal, for instance, to export cars to another country. But in the other country the cars eventually could be held at the port up due to environmental, industrial and other problems. So it is all right

to say "I'm all right, Jack", but you have to consider the other person too. It is a very important aspect that we share our knowledge, as Dr. Scheiner said, and cooperate with other countries and do our best to develop the ports of the world to be productive, efficient, and in the interest of the community they serve. Thanks very much.

## Report By Mr. Andre Pages, Legal Protection of Port Interests



Mr. President, Ladies and Gentlemen:

The Honorable Paul Cosgrove, Minister of State in the Government of Canada, reminded us, this morning, that Canada was discovered nearly 250 years ago by a French man named Jacques Cartier.

And since then, the populations of the British and the French descent, as well, have cooperated in developing this beautiful country.

So, today, I feel entitled to take full advantage of the simultaneous translation services which are provided for us, and I ask your permission to leave my broken English and to proceed in my native French.

*(From this part on the original was given in French)*

Ports are servicing vessels, their passengers and cargo. Shipowners, shippers, and insurers are our permanent partners, and our great friends' O.K. But that doesn't mean that our interests cannot differ from time to time. Everybody for oneself, and God for all!

The International Maritime Organization, a UN Agency with a direct responsibility for international maritime law, maritime safety and the protection of the marine environment is one of the most important bodies with which IAPH must continue to maintain close relations. That in fact was the reason why your association decided, 12 years ago, at its 7th Conference, to create your "Committee on Legal Protection of Port Interests".

As you will appreciate, from an examination of our Committee's report quite a lot of issues of fundamental importance are presently under consideration by IMO, for example:

- The 69 and 71 oil conventions review
- A Draft Convention to deal with the transport of hazardous and noxious substance (HNS Convention)
- We are still awaiting the entry into force of some very important conventions, such as the 1976 London Convention on Maritime Claims.

Our main concerns in that regard are that:

Damage occurring in port areas may be very extensive — pollution, explosion, destruction of harbour works, grounding of vessel blocking the traffic, etc.; the victims, and port authorities among them, ought to be always provided with adequate compensation. Unfortunately, this is not always the case — many limitation amounts of liability are ridiculously low. The limitation amounts ought to be frequently and quickly reviewed, in order to provide against monetary erosion. Further, the responsible person ought to be easily identified, and back by an adequate insurance cover. We believe therefore that International

Conventions ought to be rapidly ratified by all the maritime countries, and then quickly brought into force.

Unfortunately, these are only expectations; permanent pressure of the IAPH at the IMO is required.

I'll also mention the entry into force, by the end of next year, of the 73 Marpol Convention/78 Convention — Ports will have to be provided with reception facilities for residues of liquid noxious chemical materials. But must this be at the expense of Port Authorities? A too easy solution already worldwide developed for the reception of oily residues. Or at the expense of other participants: Committees, cities, states, industries . . .

— Consideration is being given by UNIDROIT and UNICITRAL, of a draft Convention (or Standard form), on the liability of International Terminal Operators.

— More and more Port Authorities are developing Vessel Traffic services; that does not raise only technical problems, but also legal ones.

You will easily realize that your CLPPI has to keep in close contact with the other technical committees of the Association, for example, in our contact with COPSEC, we have referred to the legal implications of guidance on V.T.S.; and also many other international maritime associations, such as ICS, CMI, IUMI; however, contact has to be maintained first of all, with the main Agencies of the United Nations, and especially with the IMO.

All these goals could not have been fully attained, or approached, but for the entry into force of the representation agreement between BPA and the IAPH, and but for the devotion and skill of your liaison officer with the IMO, namely Alex Smith.

A few draft resolutions will be submitted to your Assembly on behalf of our Committee — may I mention:

- the definition of the broad lines of the IAPH action at an IMO Diplomatic Conference, next year, when some very important draft Conventions will be under consideration.
- a draft questionnaire, the aim of which is to know who does what in our Ports, and what our Port Authorities are in fact. Every one of us, as well as our technical Committees, can expect quite a lot of valuable information, when all the answers will be analyzed.

I hope to have shown that the activities of your CLPPI Committee have many facets, and are quite fascinating; all of you, members of the Association, who may be willing to take part in the work to come, during the next years, will be very heartily welcomed in the CLPPI.

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Note: These speeches have been transcribed from recordings. The recordings are varying quality, and certain parts of the speeches are inaudible. In the majority of such cases, the meaning is clear from the context. However, a few short segments have had to be omitted.

# Terms of Reference of the 6 Technical Committees

## International Port Development

This Committee was established to find ways in which ports in the developed countries can assist ports in the developing countries to improve the latter's operations, facilities and administration through collaboration with world organizations such as the United Nations, the World Bank and international organizations.

The main aspects which the Committee on International Port Development concentrates on are as follows:—

1. Proposing and administering schemes that may encourage the education and/or training of ports' staff, with a view to improving the efficiency of the ports in the developing countries.
2. Stimulating port authorities in both the developed and developing countries to enable them to achieve closer collaboration in exchanging their experiences in the field of port administration and port operations in such aspects as port facilities and port procedures for the benefit of all the port operations and port users throughout the world.
3. Ensuring that details of training and technical assistance for ports are made available to managements of developing ports.

## Port Safety, Environment & Construction

To consider matters relating to the construction, maintenance and safe marine operation of ports and harbours and the protection of the port environment, including vessel traffic services, the control of dangerous substances, pollution control and crisis management.

To report, advise and make recommendations thereon, as appropriate or as may be requested, from time to time, by the Association.

To establish Sub-Committees, and to include the Dredging Task Force.

To take such action, alone or jointly, with the representatives of inter-governmental and other international maritime organizations, to further the interests of ports and harbors, as may be authorized from time to time by the Association, the Board of Directors, or Officers authorized to act on the subject on behalf of the Association; and to undertake day to day liaison with other international and national organizations as necessary.

### Sub-Committee on Terminal Safety (CTS)

In accordance with the terms of reference of the Port Safety, Environment and Construction Committee, the Sub-Committee on Terminal Safety is to consider matters relating to safe practices in port terminals and on board ships moored in port terminals including:

- transport, handling and storage of dangerous substances,
- storage and disposal of substances that may affect the environment,
- security,
- contingency planning and crisis management.

The Sub-Committee shall formulate proposals for policies regarding these matters. It shall also establish contact and cooperation with other international organizations in order to facilitate inter-industry solutions to problems within the capacity of the Sub-Committee. Such cooperative work shall, if possible, result in guidelines or recommendations to ports and other related bodies.

### Sub-Committee on Marine Safety

In accordance with the terms of reference of the Port Safety, Environment and Construction Committee, the Sub-Committee is to consider matters relating to marine safety, including the following items:

- Vessel Traffic Services
  - Pilots and Pilotage
  - Ships/Harbour Navigation Rules
  - Aids to Navigation
  - Accident Analysis (in the field of marine operations)
- Its main tasks will include:
- to present to IMO, in relation with concerned and appropriate organizations, proposals or recommendations which concern the principles of designing and operating the VTS,
  - to assert the point of view of IAPH on this subject, in IMO as well as any other appropriate "forum",
  - to undertake any action, within IAPH, to promote VTS,
  - to review the need for improvement in Harbour Navigation Rules including pre-entry inspection of ships,
  - to keep under review general developments with regard to the marine aspect of matters related to port safety and environment protection.

### Sub-Committee on Engineering

In accordance with the terms of reference of the Port Safety, Environment and Construction Committee, to consider matters relating to engineering especially those dealing with "Civil Works" and "Port and Harbour Appraisal" as generally outlined in the handbook "Guidelines for Safety and Environment Protection of Ports", in particular with regards:

- to updating rationalizing and proposing criterion of safe-planning design and construction for port and harbour works including appropriate environmental standards,
- to report, advise and make recommendations as may be required from time to time.

### Sub-Committee on Ships

In accordance with the terms of reference of the Port Safety, Environment and Construction Committee, the Sub-Committee is:

- to review and comment, as appropriate, on trends in the characteristics of ships; the standards of manning; the incidence of ship equipment failures,
- to consider port requirements for ship design and equipment.

In relation to these matters to make recommendations as appropriate or as requested from time to time.

## **Dredging Task Force**

In accordance with the terms of reference of the Port Safety, Environment and Construction Committee to keep under review, major matters relating to seaport and inland port dredging and dredging equipment including the following:

- continue interface meetings and coordination with the LDC (IMO) and the Ad Hoc Scientific Group of the LDC. In addition, liaison should be maintained with United Nations Environmental Program Headquarters in Geneva,
- publish periodic IAPH information alerts pertaining to potential port problems in permitting of inland water operations,
- maintain a log of all recommended corrections, changes, additions or modifications to the new "Port and Dredging in the Developing Countries" IAPH Booklet and arrange for second printing at appropriate time intervals in coordination with IAPH leadership,
- keep the IAPH membership informed on all of the activities above by providing appropriate news articles, letters, and information alerts to Dr. Sato for dissemination to the membership as he deems suitable. In most cases, this will involve publication in "PORTS AND HARBORS".

The Sub-Committee shall formulate policies regarding these matters. It shall also establish contact and cooperation with other international organizations in order to facilitate inter-industry solutions to problems within the capacity of the Sub-Committee. Such cooperative work shall, if possible, result in guidelines or recommendations to ports and other related bodies.

## **Cargo Handling Operations**

To examine and keep under review matters relating to the planning, development and operation of cargo handling facilities and systems including:—

- general cargo
- containerization
- Ro/Ro
- Barging
- Equipment
- Manpower training

To report, advise and make recommendations thereon, as appropriate or as may be requested, from time to time, by the Association;

To establish sub-committees;

To take such action, alone or jointly with the representatives of inter-governmental and other international maritime organizations to further the interests of ports and harbors, as may be authorized from time to time by the Association, the Board of Directors, or Officers authorized to act on the subject on behalf of the Association; and to undertake day to day liaison with other international and national organizations as necessary.

## **Trade Facilitation**

To consider procedures and documentation relating to the facilitation of trade through ports and harbors including the communication and processing of data locally, nationally and internationally, as appropriate;

To report, advise and make recommendations thereon, as appropriate or as may be requested, from time to time,

by the Association:

To establish sub-committees:

To take such action, alone or jointly with the representatives of inter-governmental and other international organizations, to further the interests of ports and harbors, as may be authorized from time to time by the Association, the Board of Directors, or Officers authorized to act on the subject on behalf of the Association; and to undertake day to day liaison with other international and national organizations as necessary, including the Customs Cooperation Council, the International Chamber of Shipping and the International Chamber of Commerce.

## **Public Affairs**

To outline suitable practices for implementing port development plans.

To consider the effects of changes in shipping technology and cargo handling practices on the community.

To identify community attitudes to port development, port operations and industrial development in port areas.

To identify areas and sources of public concern.

To assess the economic impact of the port on the community, and.

To develop a public relations strategy to cope with the problems of the community.

To establish sub-committees:

To report, advise or make recommendations thereon, as appropriate, or as may be requested, from time to time, by the Association.

## **Legal Protection of Port Interests**

To examine and keep under review the provisions of international law affecting the interests of port:

To report and make recommendations thereon from time to time as may be appropriate or requested by the Association dealing with the following subjects:

- the examination of the legal aspects of Vessel Traffic Services,
- the analysis of the Enquiry into the functions maintained by Port Authorities and the discussion of the results.
- the examination of the conditions in which Disabled Vessels, not having scheduled a call in our ports, may be received for humanity's sake or for technical reasons . . . without the risk that the interests of Port Authorities be compromised by too low a limitation of liability . . . should the acceptance of such a vessel lead to serious damage, (explosion, pollution, grounding).

To take such action, alone or jointly with the representatives of inter-governmental and other international maritime organizations to further the interests of ports and harbors, as may be authorized from time to time by the Association, the Board of Directors, or Officers authorized to act on the subject on behalf of the Association; and to undertake day to day liaison with other international and national organizations as necessary.

In consultation with the IAASP and the IMB (International Maritime Bureau) on order and security and other related matters affecting the interests of ports; and

To establish sub-committees to consult with and advise other Committees on matters arising from their terms of reference and which impinge upon or may affect the legal protection of ports interests.



## Open forum:

# Port Planning in Relation to Technological Changes in Transshipment

## Some Considerations with examples of Antwerp and Rotterdam

**By Professor Dr. W.Winkelmans**  
**Faculty of Applied Economics**  
**State University Centre**  
**University of Antwerp**

### Contents

1. Ports as parts of transport chains
  2. Integration of goods appearance into transshipment
  3. Modern transshipment and modern port planning
  4. Feedback of changing world trade patterns
- Bibliographic references

### 1. Ports as parts of transport chains

Sea ports are not only terminals of conveyance, they provide many facilities, which enable to link beginning and/or ending of the hauls.

As product chains span origin-destination processes of a product, transport activities are self-evidently important links in every chain. Production and transport indeed form together the main elements of any technological system in which transformation (i.e. production) and transportation (i.e. displacement) of mass-energy and information is realized (1).

A transport chain is only theoretically composed of three kinds of transport activities, viz. storage, conveyance and transshipment, because in fact it has no existence on its own. As such, quite the same is true w.r.t. a sea port: as a complex of terminals it is an element of both transport and production systems. Any sea port can be characterized therefore by making a cross-section of the most relevant product chains in relation to the sea port concerned.

This of course is not so easy a task for multi-purpose sea ports like Antwerp and Rotterdam, where numerous product chains show different levels of completion (see Chart 1).

Now, it becomes straightforward that the port of Antwerp, for instance, in order to cope with quite variable structures of crossing product chains, always shall try to provide even flexible and variable transshipment equipments.

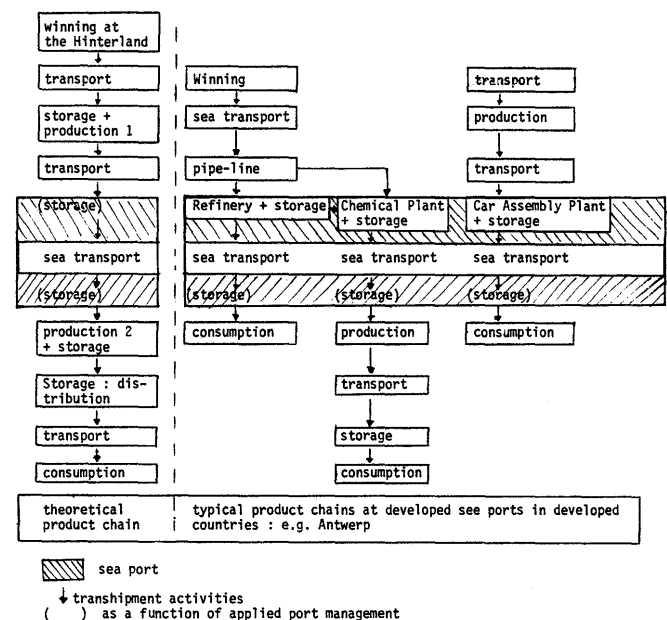
Shifts in product columns (chains) as to their level of cross-section with the sea port are indeed to be watched very carefully.

The relative importance of sea ports as a function of national income, i.e. the sum of added values generated by port activities, might well be an indication of the average level of cross-section of product chains passing through that sea port. The higher this technological percentage

the higher the level of cross-section and the more important the relationship between production and transport. We must not forget too, that the closer one comes to final consumption in the product chain, the less homogeneous is the transport flow, which has plenty of consequences on sea port planning and management.

(1) Cf. M. VAN DEN DOEL, et. al. (1977), p. 72

**Chart 1: Example of product chains "crossing" the Port of Antwerp.**



According to EUROSTAT statistiques (1) following approximation of gross added values of sea ports w.r.t. the GNP at market prices (in %) can be made:

	1970	1976	1980
— France	1.4	1.6	1.7
— Germany	.4	.5	?
— Italy	.9	1.0	1.2
— Holland	1.4	1.1	1.1
— Belgium	2.1	3.0	3.5

It should be remarked that the above mentioned ratio's concern shows the totality of the auxiliary transport services per country. The actual contribution of any sea port to the national income however is much higher, if one takes into account the various production activities which are

more or less tied to the sea port. The industries in Rijnmond e.g. force up the relative contribution of the port of Rotterdam to ca. 13% of the Dutch G.N.P.

The same contribution possibly exist in Antwerp, unfortunately no regional input-output statistics at that level are available there. Nevertheless it is striking that in Belgium the relative importance of sea ports is quite more pronounced than in larger countries, which might indeed be a consequence of higher-levelled cross-sections of various product chains meeting sea ports.

(1) EUROSTAT, National Accounts ESA, Detailed Tables by Branch 1970-1980, Luxemburg 1983.

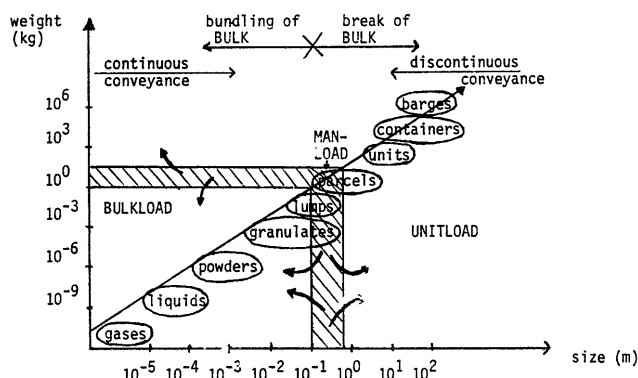
## 2. Integration of goods appearance into transshipment

Transshipment is undoubtedly a basic sea port activity, as it comprises any loading and discharging operation. In order to synchronize as much as possible the various transport means, which meet each other in a sea port, storage, as well, is very basically nowadays (1).

According to modern transport systems time and volume specifications need not any longer be considered as fully exogenous. In other words merchandise too can be adapted for optimizing both transformation and transportation processes.

As a function of weight and volume (physical characteristics) the appearance of the goods can be determined in relation to transport system needs (see Chart 2).

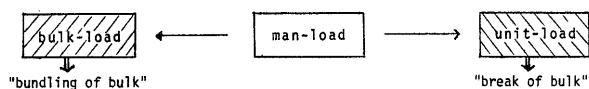
Chart 2: Goods Explosion Representation.



Source : C. MEEUSE & J. NOORTMAN (1977)

- (1) One and the other should be understood in the frame work of today's large scale transportation and consequently specialization: indeed as soon as a certain volume of goods to be carried is exceeded, a clear tendency towards specialized carrier systems can be remarked anytime.

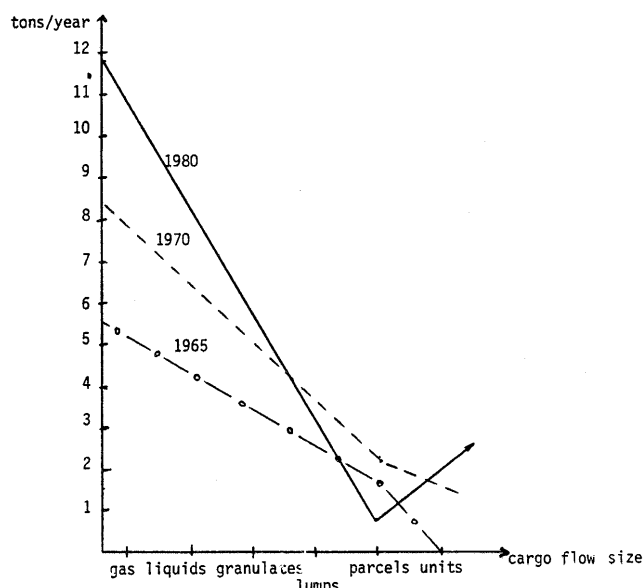
First of all this chart confines clearly the position of some very important concepts w.r.t. sea ports:



For many good reasons a kind of "goods explosion", as indicated by the arrows in Chart 2, is appearing in several modern sea ports.

Prof. Meeuse (T.H.Delft) tried to represent this striking evolution for the port of Rotterdam (Chart 3).

Chart 3: Cargo flows as a function of their appearance through the port of Rotterdam.



Source : C. Meeuse & J. Noortman (1977).

As such, Chart 3 is a keen demonstration of the shift in appearance of goods transhipped towards bulk cargoes on the one side and unit loads on the other side. (1)

Unfortunately adequate statistics are still lacking for getting accurate data.

It is even worse than that, because actually no kind of packing statistics at all are available in the Benelux, spite the so-called "General Certificate" (Document Benelux 20 and 21).

Indeed, whereas in the explanation to these documents the appearance of goods, defined as the form in which the goods are transhipped, is explicitly asked under code 27 (2), no use of it can be made. Persons who have to fill up these "trade" documents are not really motivated. Consequently the output does not correspond to reality. Finally the results are statistics of port traffic barely distinguished in three raw categories, viz. liquid bulk, dry bulk and remaining (sic) (3). On the other hand a meaningful conversion of commodities into goods appearances is not feasibly any longer. Container statistics do not allow to get known what is inside, in other words container data acutally cannot be added to and/or subtracted from official port traffic statistics. Notwithstanding these remarks we prefer to represent also the Antwerp port traffic as a function of size and appearance of cargo flows (see Chart 4). As the new BNL-Statistics started only at 1979 we can only present the last years.

- (1) Here we wish to stress that the traditional distinction between bulk and general cargo in transport goods statistics does not have much meaning anylonger. General cargo e.g. is to be distinguished in at least five categories according to the goods appearance nowadays:

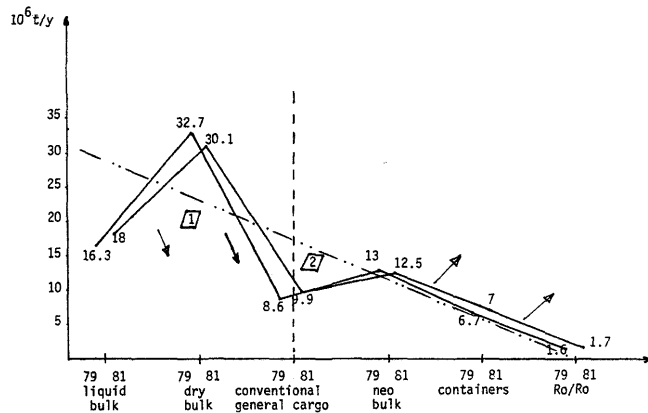
1. containers/flats
2. ro-ro
3. lash/seabee
4. neo-bulk (unit loads of timber, cellulose, fruit, steel, metals)
5. conventional general cargo (pallets, bales, bage, boxes, barrels, . . . .)

- (2) The proposed subdivision is quite useful, viz.:

- 1) liquid bulk 2) dry bulk 3) lash and similars 4) pallets
- 5) containers or flats 6) neo-bulk 7) roro and 8) other cargoes.

- (3) Cfr. Statistiek van de Navigatie Maritieme in de Benelux, 1979-1980-1981, C.B.S. and N.I.S., Secretariat Général BNL, Oct. 1982, Plan (82) 49.

**Chart 4: Cargo flows as a function of appearance through the port of Antwerp**



Source : General Port Direction (HKD) and BNL Secretariaat-Generaal

Two breaks ( [1] and [2] ) are to be remarked as opposed to the dotted line: the first is typical for Antwerp as an incoming pipe-line-linked sea port, the second is no doubt an indication of beforementioned technological shifts in transshipment. As a result such changes will further on produce a "turn" in port traffic curves, as indicated by the arrows.

It should not indeed be overlooked that "higher" transportation costs can be compensated by technological changes, either in the transport mean itself (deep sea tanker or pipe-line e.g.) or in the transformation process of the products to be transported (bulk or slurry e.g.).

The first has been the case in Antwerp by the introduction of the R.A.P.L. (Rotterdam-Antwerp-Pipe-Line) in June 1971.

A sea port should always be aware of structural changes in transportation and/or transformation of the goods. Slurry transport might be another good example of possible alterations in the appearance of the goods.

Such changes besides tend to take place at an increasing speed, and therefore may cause difficulties w.r.t. port management, especially port capacity can be affected either positively or negatively: in the case of slurry pipe-lines for instance the existing port capacity soon can become obsolete or at any rate overestimated. If on the contrary intrinsic capacities are not adapted to altering goods appearances the effective capacity might be much lower than supposed.

### 3. Modern transshipment and modern port planning

The need for more space in sea ports, initiated by port industrialization (1), today is enforced by the use of heavier and faster cargo handling units.

More space in ports means in fact more space on the aprons and more space to manoeuvre.

This is easy to understand, if one knows that all three main sea port functions, viz. storage, conveyance and transshipment, together have been seriously increased in importance since 1960. The need for quicker turnaround of bigger sea going vessels, asking also for more "wet" space in sea ports, made necessary a whole series of new measures

w.r.t. the lay out behind the quay wall

- larger aprons for reasons of safety and manoeuvring;
- more intermediate storage areas because of actual impossibility of direct transshipment;
- more open and sheltered storage areas for pre- and after-stowage reasons;
- bigger loading/unloading zones behind the sheds;
- more space for internal traffic, in relation to road, rail and canal transport to and from the hinterland.

Fortunately these prerequisites on lay out of a modern sea port fairly easily can be fulfilled at least, if one accepts to put into practice the knowledge that according to the appearance of the goods the distance between quay and site of storage can be enlarged quite substantially.

Indeed, by means of pipe-lines, belt, chain or vibrating conveyors e.g., several categories of goods are efficiently transportable to far behind the quays (2).

It is also important to underline that, few cargoes are really quay linked, which, dependent on local nautical and/or geographical situations, could produce interesting advantages.

Is all this really important?

We must not underestimate that per square meter apparently little or nothing has been changing since 1900: whereas per running meter transshipment capacities of 3000 t and more are feasible nowadays, an average of merely 8 t/m<sup>2</sup> for elder as well as for most modern general cargo berths seems to be a maximum (3). In other words, and this might appear rather unexpected at first sight, sea ports today have not only to deepen their maritime access channels, locks and basins, but also their quay-depths.

Space well-suited for that purpose often is rather scarce. Be this as it may, many sea ports have the choice, either they further extend the port and possible create a definite over capacity with high average costs on behalf of the community, or they try to ameliorate the use of existing port zones. The goods explosion model allows to think of three separated, though functionally organized, port zones:

1. a deepwater or primary (industrial) port zone for really quay- or berth-linked (industrial) activities (4);
2. a water or classical port zone for port linked (industrial) activities with restricted drafts (5);
3. a dry or tertiary port zone for all-port-directed activities, which are only commercially linked to the sea port, and surely never fully load a sea going vessel.

This latest port zone could be very important in order to be able to optimize a rather limited number of (deep) water zones.

Last but not least it should be kept in mind that any disconnection of transport phases in space can be completed by a dispersion in time of various transshipment activities.

For that reason railways are banned from the apron as is the case at the new Delwaide dock in Antwerp.

Such new arrangements also are made in view of ameliorating the utilization level of infra- and superstructures.

A general view on the port of Antwerp (see Chart 5) clearly represents this shift towards berth specialization as a function of goods appearance, when looking from the right to the left, i.e. passing from elder to newer docks.

(1) Cf. W. Winkelmans (1973).

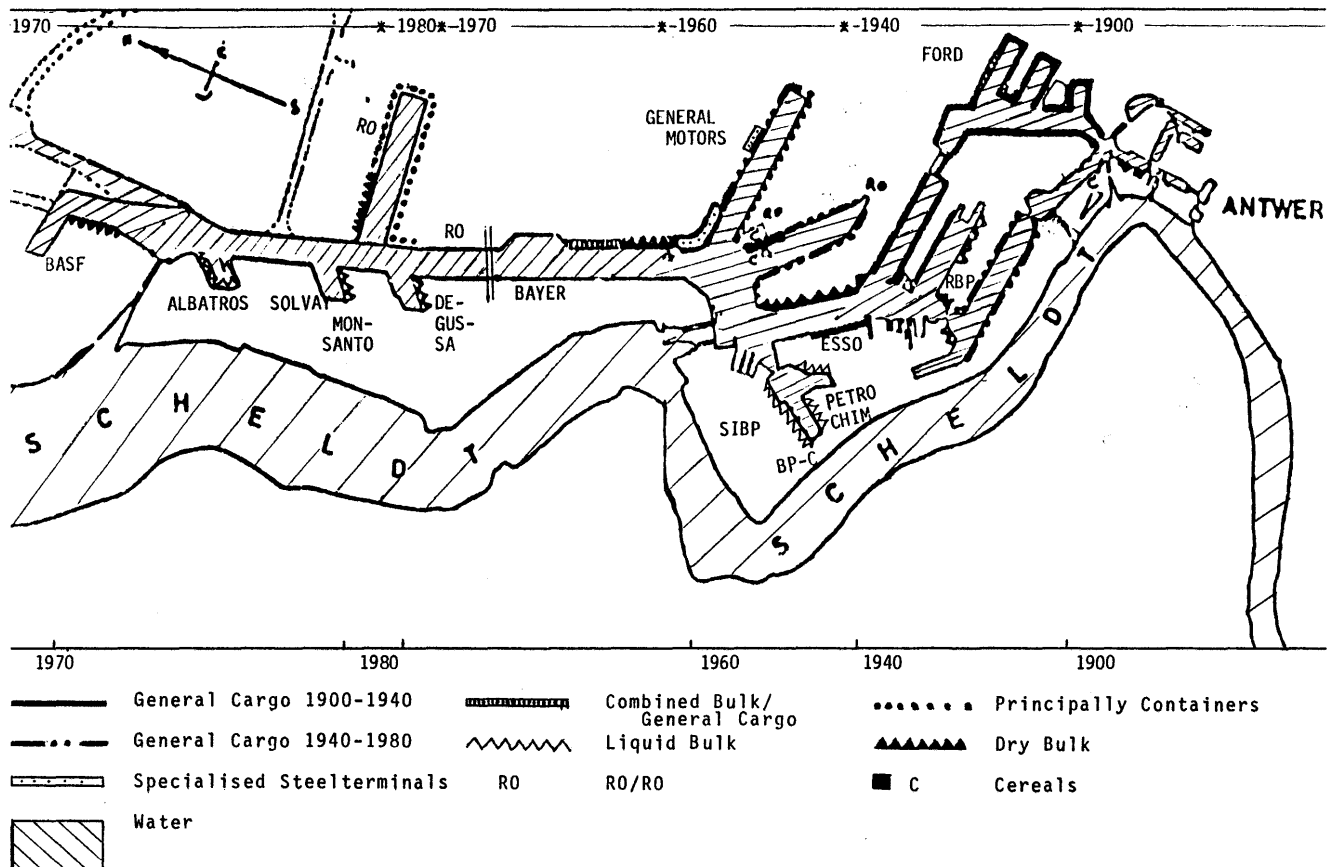
(2) See also M. Van den Doel, e.a. (1977), p. 76, fig. 8

(3) SUYKENS, F. (1978) pp. 31/3: based upon detailed data for Antwerp.

(4) In this case however the goods to be transhipped usually can be conveyed on a continuous basis, consequently the storage zone is not necessary directly alongside the quays, at least for port industries.

(5) In case of port industries, which need sea transport on a regular basis, but not so much that berths are efficiently utilized, the provision of multi-industrial user facilities should be recommended from a port economic point of view.

Chart 5: The Port of Antwerp: location of main industries and specific berths.



#### 4. Feedback of changing world trade patterns

Any change in the distribution of economic activities results in a shift in the level of cross-section of a sea port with the product chain concerned. Effects on volume and appearance of transport flows are to be expected then.

Whether such shifts are likely to happen and will be of importance to sea port operation depend on several factors, such as the degree of specialization, the distribution of maritime relations, etc.

If a port wishes to fight for its position, it cannot restrict itself merely to the transhipment function.

It has to look after both sea legs and land legs of the transport chain, including storage and industrialization.

As to the latter it is wise to consider the possibility that products, which up-to-now were solely produced in the West, could soon be imported from some developing countries.

The average growth rates for traditionally important industries for many European sea ports have been declining seriously since the end of the seventies.

Some examples concerning Western Europe (high income countries) based upon "The Future of the World Economy", a U.N. Study by W. Leontief et al. (New York 1977) and "The World Economy—History and Prospect" by W. Rostow (London, 1978) are speaking for itself:

	1970	2000
— growth rate	3.7	(1)
— GDP as a percentage of world GDP:	22.6	16.7
— regional share of world manufacturing output:	25%	18%
— growth rate of consumption of		(2) (3)
— iron = 4%	(7.9 in developing countries)	
— petroleum = 4.1%	(9.1 in developing countries)	

- (1) North America with 3.3 appears to be the only region with a still lower growth rate.
- (2) For the developing market economies this share shall increase from 6 to 17.5%.
- (3) Within the total output of manufacturing the share of "Machinery and Equipment" will increase from 35 to 42% at the expense of the light industry.

Consequently one can expect a decrease in the shares of the developed market economies in world exports of:

— agriculture:	from 46 to 41%
— minerals:	from 44 to 16%
— light industry:	from 75 to 67%
— materials:	from 85 to 78%

W. European shares in world imports are menaced similarly. Of course many production growth figures will follow the same rather pessimistic way (1970-2000):

— petroleum refineries:	1.1%
— metallurgy:	4.6%



- chemicals: 4.3%
- fertilizers: 2.5%

If one combines these rather low growth rates with persisting low utilization levels, then it becomes obvious that many transport flows could change in volume as well as in origin-destination pairs.

In port planning of infrastructures surely it is necessary to take into consideration such alterations.

In conclusion, let us try to look into the future a little. A simple approximation of future port development in Antwerp can be made (see Table 1), based upon Leontief's et. al. estimation of total international oceanborne traffic by region, and assuming for the year 2000 (\*) either a fairly constant share of Antwerp in the total of European port traffic of about 3.8%, or for 2000 (\*\*) a further declining (1) share, viz. to ca. 2.3%.

On the contrary, for Rotterdam very detailed forecasts exist, in which even a distinction has been made as a function of goods appearances, at least for general cargo (see Table 2).

If one looks at each column separately it follows immediately that a "bright" future seems to exist only for dry bulk and containers. Both categories will apparently double in importance.

However in the more pessimistic scenario (2000 \*\*) Rotterdam's share in total port traffic of Europe could decline from a 13% to some 8%.

The main reason for such a decrease of course is to be found in a general fall in oceanborne crude oil transportation (see column L.B., Table 2).

- (1) From 1958 to 1978 Antwerp's share in total port traffic of Europe declined from 6.4% to 3.8% (At 1969, a top year of the golden sixties, it was 5.6%).

Table 1:

	International Trade (Billions of '70 US\$)		PORT TRAFFICS Sum of M + X (in 10 <sup>6</sup> t)				
	M	X	Liquid	Dry Mineral	Other Dry Bulk	General Cargo	Totals
I. WORLD							
1970	347	347	2,395	791	369	883	4,588
2000	1,589	1,589	9,285	3,301	1,431	4,033	18,429
II. W. EUROPE							
1970	162	159	680	162	80	380	1,302
2000	664	739	2,020	389	229	1,721	4,359
III. RELATIVE SHARE OF II: I (%)							
1970	47%	46%	28%	20%	22%	43%	28%
2000	42%	46%	22%	12%	16%	43%	24%
IV. PORT OF ANTWERP	X						
1958							36
1969							74
1975							60
1978			14	14	17	27	72
1979			15	20	15	30	80
1980			19	18	17	28	82
1981			17	17	15	31	80
1982			21	18	15	30	84
							↓
2000 (*)	Average composition (1978/82)		(.22)	(.22)	(.20)	(.36)	(1.00)
(**)			36	36	33	61	←166
			21	22	20	37	←100
Sources	I & II: LEONTIEF, W — GRAY, C. — KLEINBERG, R.: The Growth of Maritime Traffic and the Future of World Ports — Rivista Internazionale di Economia dei Trasporti, nr. 3 Dicembre 1979, pp. 245/261 IV: — Havenkapiteindienst Antwerpen Afd. Kaaien en Afdaken — L.V.JOLMES: Die Seehäfen an der Deutsche Nordseeküste (Band III) Hamburg, 1980, Tabelle 2, pp. 348/9						

Table 2:

V. PORT OF ROTTERDAM	L.B.	D.B.	CTRS	RO/RO	LASH	(O) GC	TOTAL
1958	40	31	.	.	.	9	80
1969	103	55	.	.	.	25	183
1979	180	91	14	3.5	1	(12) 30	301
1980	160	93	14	4	1.6	(8.5) 28	281
2000 (*)	208	173	35	9	1.7	(15) 60	441
(**)	130	182	27	6.5	1.3	(12) 47	359

Source : Port of Rotterdam: Prognoses met het Goederenstromenmodel IV (MW/0160R)

Legend : 1 L.B. : liquid bulk  
 2 D.B. : dry bulk  
 3 CTRS : containers LO/LO  
 4 Ro/Ro : total of ro-ro (incl. ctrs ro/ro)  
 5 Lash : lash and seabee  
 6 (O) GC : (other) general cargo, i.e. first number is the remaining part of total general cargo minus 1 to 5  
 \* : according to variant B1: average growth rates of 2%  
 \*\* : according to variant A1: average growth rates of 3%

Both tables however show that if Antwerp and Rotterdam will maintain their position (2000\*), and of course they are going to fight for that, then newer port infrastructures are to be provided especially for transshipment of neo bulk and certain break bulk traffics.

Indeed, additional dry bulk traffics tend to be composed more heavily by unit loads of timber, coal and fertilizers, whereas break bulk seems to be containerizable in an increasing way, maybe to ca. 80% (1). If this is true, between 30 and 40 million of tons of containers will enter and leave both ports every year from 2000 on. Compared to the actual 7 to 14 million of tons (resp. in Antwerp and Rotterdam) this is indeed a tremendous increase. It will no doubts imply radical changes in transshipment and storage facilities.

Besides, one and the other is likely to occur, because traditional raw material flows to Western sea ports are going to be replaced increasingly by traffic flows of more "elaborated" products. Be this as it may, the goods appearance of break bulk and/or general cargo will go to determine modern sea ports in many aspects.

Present day difficulties w.r.t. world economy could in that sense include germs of solutions for sea port extension problems.

- (1) Cfr. tables 6 and 7 in LEONTIEF, et.al. (1979).

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# Associated British Ports

(Extracts from 'Report and Accounts 1982, Associated British Ports)

### Chairman's review (extract)

This is the first annual report of Associated British Ports Holdings PLC, the holding company for Associated British Ports (ABP). The report and accounts relate to trading activities for the period from 1 January to 30 December 1982, when ABP traded under its former name of British Transport Docks Board. Subsequent events leading up to the privatisation of the Company in February 1983 are also covered.

I am very pleased to welcome to the Company our new shareholders, who include almost 90% of our employees.

### Strong Recovery Despite Recession

The 1982 results show ABP in good shape, with profits in line with the estimates in the Offer for Sale, confirming the Group's strong recovery. Compared with 1981, revenue increased from £128.2m to £151.6m and operating profit rose from £2.3m to £15.1m. There was a net pre-tax profit of £5.5m compared with a loss of £10.3m in 1981.

This result was achieved despite the continuing deep recession in the economy and unfavourable trading conditions. Costs were contained, operational efficiency improved, and Southampton returned to normal working. The total volume of business handled at the Group's nineteen ports increased by over 1½m tonnes, mainly as a result of higher export volumes.

Container and roll-on/roll-off freight units increased to 852,000, a record level and an improvement of 24% over 1981. In addition, over 740,000 passenger vehicles (including imported and exported vehicles) passed through ABP ports, a 10% increase.

Of the main bulk traffics, grain exports were at a high level, but coal and ores were rather less than in 1981. There was also a reduction in the number of passengers passing through ABP ports, mainly because of the requisitioning of passenger vessels and ferries for military duties in the South Atlantic.

### Benefits of Investment

The rise in traffic reflects the success of our policy of investing to meet new commercial opportunities. During 1982 we saw the benefit of a number of such developments, including the new coal terminal at Garston, further improvements to the mineral quay and other facilities at Immingham, and the opening of the deepwater entrance channel allowing larger ships to use Lowestoft.

### The Ports

Financial results at Southampton were much improved in 1982 following the resumption of normal working.

An important development for Southampton took place in September when the port's first grain export terminal was opened. Work on a second grain terminal started in 1982 and is due to be completed during 1983. Negotiations with the Tung Group of Hong Kong for the establishment of a joint venture company to manage container berths 201/202 are making good progress.

Our Humber Ports also had a better year. Tonnage at Grimsby and Immingham reached a record level, with new roll-on/roll-off services to Continental Europe, contract work for the Rough Gas Field, greater volumes of food-stuffs and manufactured goods, and increases in some of the port's traditional bulk cargoes such as chemicals, fertilisers and steel. At Hull, as a result of rationalization, the loss incurred in 1982 was lower than in 1981.

Our South Wales Ports continued to feel the effects of recession in local industry, but we made further useful progress with our programme of diversification into new port traffics. Recently acquired trades include fruit imports at Newport, tobacco imports and grain exports at Cardiff, and chemicals and petroleum products for import and export at Barry.

The success of our Small Ports group continued in 1982; the nine ports increased their tonnage and each operated profitably. King's Lynn won its first regular container service and Lowestoft achieved record traffic levels. At Plymouth, both passenger traffic and roll-on/roll-off freight business increased. Container and coal volumes at Garston were up, and Fleetwood's traffic reached record levels.

### Free Ports

The Government's decision to introduce free ports in Britain is one which we warmly welcome. We are confident that a number of ABP ports, including Southampton, would gain a useful trading stimulus if granted free port status, to the benefit of local employment prospects and of port users. We are, therefore, working closely with all the interested parties to develop the free port concept.

### Privatisation

The Offer for Sale to the public of Ordinary Shares in the Company took place in February 1983 as part of the Government's programme of privatisation of state enterprises. The directors welcome the greater freedom to take advantage of commercial opportunities which has resulted from our move into the private sector. H M Government has retained a 48.5% shareholding, but in a letter to me at the time of the Offer for Sale, the Secretary of State for Transport said that the Government does not intend to involve itself in the commercial decisions of the Group.

I am particularly pleased that almost 90% of our workforce took advantage of the offer of free shares, and that some 3,500 employees invested money in additional

shares.

## Current Trading and Dividends

The general level of UK economic activity and the volume of overseas trade have not yet shown any significant improvement, but our overall trading performance in the first quarter of 1983 has been satisfactory. The directors expect, in the absence of unforeseen circumstances, to recommend a total dividend in respect of 1983 of not less than 7p net per Ordinary Share. It is expected that an interim dividend will be paid in November 1983 and that a final dividend will be paid in May 1984.

## Outlook

As a successful part of an essential industry, your Company looks forward to the future with confidence. The continuing recession, and the structural changes still taking place in the ports industry, have produced a challenging environment. I am confident that our managers and staff, now equipped with the freedoms of the private sector, will respond effectively to the challenge. The geographical spread of our nineteen ports, together with the great diversity of business handled, provide a solid foundation for the years ahead.

**Keith Stuart**  
Chairman

## Consolidated profit and loss account

for the year ended 30 December 1982

	1982 £000	1981 £000
Revenue	151,634	128,245
Expenditure	(129,102)	(118,792)
Operating profit before depreciation	22,532	9,453
Depreciation	(7,402)	(7,153)
Operating profit	15,130	2,300
Investment income	1,124	1,533
Exceptional items	(3,584)	(7,010)
Profit/(loss) before interest payable and taxation	12,670	(3,177)
Interest payable	(7,138)	(7,095)
Profit/(loss) before taxation	5,532	(10,272)
Taxation	315	1,488
Profit/(loss) after taxation	<u>5,847</u>	<u>(8,784)</u>
Transfer to/(from) reserves		
Capital reserve—stock redemption	29	41
Revenue reserve	<u>5,818</u>	<u>(8,825)</u>
	<u>5,847</u>	<u>(8,784)</u>

## Associated British Ports Holdings PLC

## Balance sheet

as at 31 December 1982

	£000	£000
Interest in wholly owned subsidiary—Associated British Ports		131,000
Current assets		
Loan—Associated British Ports	7,500	
Short term deposits	<u>5,000</u>	
	12,500	
Current liabilities		
Loan—Secretary of State for Transport	<u>7,500</u>	
Net current assets		<u>5,000</u>
Net assets		<u>136,000</u>

Represented by:

Share capital	2,500
Reserves	133,500
	<u>136,000</u>

## Consolidated balance sheet

as at 30 December 1982

	1982 £000	1981 £000
Fixed assets	<u>148,107</u>	<u>150,154</u>
Investments		
Associated company	275	293
Listed investments	<u>20</u>	<u>47</u>
	295	340
Current assets		
Stores and materials at cost less amounts written off	2,847	2,763
EEC and other investment grants receivable	888	1,136
Debtors and payments in advance	30,289	31,275
Certificates of tax deposit	—	1,750
Short term deposits	10,200	2,475
Bank balances and cash	<u>654</u>	<u>1,032</u>
	44,878	40,431
Current liabilities		
Trade creditors and accrued liabilities	14,805	14,227
Creditors for capital expenditure	1,765	1,547
Interest due to the Secretary of State for Transport	—	1,565
Taxation	<u>200</u>	<u>2,910</u>
	16,770	20,249
Net current assets	<u>28,108</u>	<u>20,182</u>
Total assets less current liabilities	176,510	170,676
Provisions	<u>(13,478)</u>	<u>(13,343)</u>
Net assets	<u>163,032</u>	<u>157,333</u>

Represented by:

Capital liabilities		
Loans from the Secretary of State for Transport	81,294	81,294
Southampton Harbour Board Redeemable Stocks	<u>700</u>	<u>848</u>
	81,994	82,142
Reserves	<u>81,038</u>	<u>75,191</u>
	<u>163,032</u>	<u>157,333</u>

## Port traffic

	1982 000 tonnes	1981 000 tonnes
Inwards		
Ores	6,682	8,009
Coal	1,378	993
Timber	888	869
Petroleum	22,715	23,616
Foodstuffs	2,712	2,443
Manufactured Goods and other Commodities	<u>10,663</u>	<u>8,941</u>
	45,038	44,871
Outwards		
Coal	7,469	8,336
Petroleum	14,098	12,698
Foodstuffs	2,256	1,784
Manufactured Goods and other Commodities	<u>8,041</u>	<u>7,546</u>
	31,864	30,364
Total	<u>76,902</u>	<u>75,235</u>
	000 units	000 units
Container & r/r services (freight units)	<u>852</u>	<u>685</u>
Vehicles (including imported/exported vehicles)	<u>743</u>	<u>678</u>
Passengers	<u>2,885</u>	<u>3,045</u>
	000	000
Shipping entering & leaving (NRT)	125,443	118,587

# Port of Singapore

(Extracts from 'Annual Report 1982', Port of Singapore Authority)

## Chairman's review (extract)

The global economic recession worsened in 1982, causing increased unemployment in the western industrialized countries of North America and Western Europe. Protectionist attitudes in these countries hardened. Towards the middle of the year, there was a noticeable slow-down in exports from the OECD countries due to reduced world demand for manufactured goods and machinery. The Gross National Products of these countries registered little or no increase for 1982.

All these negative factors affected cargo and shipping activities of the Port of Singapore. It slowed the rate of growth in containerised cargo. As a result, the Tanjong Pagar Container Terminal registered the lowest growth in its ten-year history. The number of container boxes handled in 1982 was 1.04 million Twenty-foot Equivalent Units (TEUs), an increase of only 5%. In the previous year, the growth was 14% while the average growth rate over the last five years was 25%.

Overall, however, the port handled a total of 101 million freight tonnes of cargo in 1982, a 10% increase over the previous year. This included some 62.0 million tonnes of mineral oil handled in bulk at the oil terminals and 34.2 million tonnes of general cargo at the wharves. Of this, non-containerized general cargo showed a commendable increase of 11%. Bulk cargo through Keppel Wharves and Jurong Port grew by 25% to 5.3 million tonnes.

The Authority had proposed to raise the port's tariff by about 10% in the beginning of the year. But its implementation was deferred on account of the world-wide economic recession. As a number of our labour-intensive services have greatly increased in costs, the Authority was in fact 'subsidising' port users because the tariff rates for most of these items have not been increased for the last seven years. It will therefore be necessary to revise the PSA tariff in 1983 to recover some of the increased costs.

Meanwhile, PSA continued to make improvements to its marine and engineering services and cargo-handling operations. For example, computerization was added to more areas of the port's activities with 'on-line' applications for faster cargo delivery at Sembawang Wharves and storage in warehouses at Pasir Panjang Wharves. Information on stock inventory control and spare parts requirements were also computerized. For greater efficiency, the servicing, repair and refurbishing of mechanical equipment and their components were centralized in a new workshop. Quality circles, introduced in 1981, were enthusiastically accepted by our employees, and its members have contributed substantially to improving work methods and reducing wastage in port operations.

The slower container growth rate made it necessary for PSA to re-assess its development programme. It was found that the conversion of the two conventional berths at Keppel Wharves into 550-metre container berths will be sufficient for the next five years. This development is progressing well and will be completed by the end of 1984.

PSA has been adding to its infrastructure by building modern warehouses and new wharves and by equipping

itself with more efficient mechanical handling equipment and marine craft. It has also improved upon its cargo servicing operations with investments in computerization and automation. Together with further training and imparting of new skills to its employees, PSA will be able to widen and increase its level of service to port users in this region.

**Lim Kim San**  
Chairman

## Balance sheet

as at 31 December 1982

	1982 S\$'000	1981 S\$'000
Fixed Assets	1,172,828	917,175
Investments	140,378	105,341
Long-Term Receivables	14,330	11,121
Current Assets		
Stores and materials	12,425	13,797
Debtors	55,480	58,190
Deposits, prepayments and accrued interest	11,110	21,537
Bank deposits	1,020,126	892,273
Bank balances and cash	3,487	1,844
	<u>1,102,628</u>	<u>987,641</u>
Less Current Liabilities		
Creditors	85,727	52,908
Accrued expenses	10,032	11,058
	<u>95,759</u>	<u>63,966</u>
Net Current Assets	<u>1,006,869</u>	<u>923,675</u>
	2,334,405	1,957,312
Less Deferred Liabilities		
Long-term loans (unsecured)	42,188	45,158
Provisions	32,712	30,615
	<u>74,900</u>	<u>75,773</u>
Net Assets	<u>2,259,505</u>	<u>1,881,539</u>

## Revenue account

for the year ended 31 December 1982

	1982 S\$'000	1981 S\$'000
Port Operations		
Revenue		
Tanjong Pagar Container Terminal	206,466	193,697
Cargo handling services	63,092	69,840
Wharf services and storage	133,670	124,224
Pilotage and tugs	62,123	64,438
Port and garbage dues	38,007	35,800
Sundry revenue	<u>79,191</u>	<u>82,068</u>
	582,549	570,067
Expenses		
Operating salaries, wages and staff benefits	106,410	95,120
Running expenses and repairs of equipment and buildings	51,264	50,591
Depreciation	62,538	57,826
Sundry operating expenses	27,239	36,747
Administration expenses	30,017	23,809
Property tax	<u>58,255</u>	<u>57,007</u>
	335,723	321,100
Net Surplus from Port Operations	<u>246,826</u>	<u>248,967</u>
Income from Investments	<u>88,438</u>	<u>77,974</u>
	335,264	326,941
Interest Expenses	<u>(2,575)</u>	<u>(2,898)</u>
	332,689	324,043
Surplus on disposal of fixed assets and investments	25,805	3,757
Write-back of provision for diminution in value of investments	<u>854</u>	<u>—</u>
Net surplus available for appropriation	<u>359,348</u>	<u>327,800</u>



# International maritime information:

## World port news:

### STCW Convention to enter into force on 28 April 1984

The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, will enter into force on 28 April next year.

To enter into force the Convention had to be accepted by 25 countries whose merchant fleets represent at least 50 per cent of world gross tonnage. This target was reached when Poland became the 25th country to accept the Convention. The instrument of acceptance was deposited by the Polish Ambassador, His Excellency Mr. Stefan Staniszewski, with the Secretary-General, Mr. C.P. Srivastava.

The countries which have ratified the Convention are (in order of acceptance): USSR, German Democratic Republic, France, Egypt, Spain, Liberia, United Kingdom, Sweden, Denmark, Czechoslovakia, China, Colombia, Bangladesh, Norway, Gabon, Mexico, Bulgaria, Japan, Federal Republic of Germany, Peru, Belgium, Argentina, United Republic of Tanzania, Greece, and Poland. Their combined merchant fleets represent 65.64 per cent of world gross tonnage.

The STCW Convention is regarded as the first attempt to establish global minimum professional standards for seafarers. Previously the standards of training, certification and watchkeeping of officers and ratings were established by individual governments, usually without reference to practices in other countries. As a result standards and procedures vary widely, even though shipping is the most international of all industries.

The Convention prescribes minimum standards which countries are obliged to meet or exceed. In the majority of established maritime countries, standards are often higher than those stipulated in the convention. In some countries, however, standards are not so high and by ratifying or accepting the Convention governments undertake to implement and enforce its requirements. The effect of the Convention's entry into force will therefore be to raise world-wide standards.

Mr. Srivastava said: 'As far as maritime safety is concerned the STCW Convention, in my judgement, is as important as the International Convention for the Safety of Life at Sea (SOLAS). It is generally recognised that most accidents are the result of human error rather than mechanical failure and by raising standards on a global level the Convention will, in the years to come, make a major contribution to maritime safety. (IMO NEWS)

### Review of conventions nears completion: IMO Legal Committee

The Legal Committee is expected at its forthcoming fifty-first session (19 to 23 September 1983) to conclude a review of two IMO conventions dealing with liability and compensation for oil pollution damage.

The two conventions are the International Convention on Civil Liability for Oil Pollution Damage, 1969 and the

International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971. The Legal Committee is preparing amendments to the two conventions and the results of this work will be considered at a diplomatic conference to be convened by IMO early in 1984.

The 1984 conference will also consider for adoption a draft convention on liability and compensation in connexion with the carriage by sea of noxious and hazardous substances.

The Council of IMO, at its fiftieth session held in May 1983, approved the necessary provision for the convening of a diplomatic conference of four weeks duration. This decision is subject to endorsement by the Assembly of the Organization which will meet in November 1983. (IMO NEWS)

### World Maritime Day, 1983: IMO

At its forty-eighth session (June 1982) the Council endorsed the proposal of the Maritime Safety Committee that the theme for World Maritime Day, 1983 should be: MARITIME TELECOMMUNICATIONS FOR SAFETY, EFFICIENCY AND SEAFARERS' WELFARE". This theme was chosen as part of IMO's contribution to the observation of World Communications Year, 1983, in accordance with the decision of the Assembly at its twelfth regular session.

For the celebration of World Maritime Day in 1983 the Secretary-General has circulated to Governments and other interested organizations, the usual documentation and material relating to the theme chosen for 1983.

As in previous years, the secretary-General will hold a reception for members of the diplomatic corps and representatives of organizations and bodies associated with the work of the Organization.

### Non-governmental organizations participating in the activities of UNCTAD

(Extract from TD/B/INF.107/Rev.1)

Rule 79 of the rules of procedure of the Trade and Development Board provides for the participation of non-governmental organizations in the activities of UNCTAD. In accordance with Board decision 43 (VII) a distinction is made between international non-governmental organizations which exercise functions, and have a basic interest, in most of the activities of the Board and of all of the committees, and those which have a special competence in, and are concerned with, specific matters falling within the terms of reference of one or two committees or of the Board itself. The former are placed in the General category and the latter in the Special category. National non-governmental organizations of recognized standing which are

deemed to have a significant contribution to make to the work of UNCTAD may be entered by the Secretary-General of UNCTAD in a Register established for that purpose.

In 1966, at its second session, the Board approved applications from 17 non-governmental organizations for inclusion in the list provided for in rule 79 of its rules of procedure. By the end of 1982 the number of non-governmental organizations included in the list had increased to 109: 49 in the General category and 60 in the Special category. In addition the Secretary-General of UNCTAD has entered three national non-governmental organizations in the Register.

The status of the International Association of Ports and Harbors is as follows:

Category	Classification	Session of Board at which designated
Special Category	C.4/C.7	XIII

#### Classification

NGOs in the special category may attend sessions of the Trade and Development Board and also sessions of the Committees indicated in the column headed "Classification":

- C.4 – Committee on Shipping (and subsidiaries)
- C.7 – Committee on Economic Co-operation among Developing Countries (and subsidiaries)

## UNCTAD's technical assistance available in shipping, ports and multimodal transport

(Extract from 'UNCTAD/PSS/TCS/51')

### Introduction

Four years after the creation of UNCTAD, by its resolution 2401 (XXIII), adopted on 13 December 1968, the General Assembly designated the United Nations Conference on Trade and Development (UNCTAD) as an executing and participating agency of the United Nations Development Programme (UNDP). UNCTAD thus became the operational agency responsible for United Nations technical co-operation projects in the field of international trade and related issues of international economic policy and economic co-operation.

In January 1969 a Technical Assistance Co-ordination Unit was established which assumed the overall responsibility for UNCTAD's technical co-operation activities. This Unit, since re-named the Technical Co-operation Service (TCS), in close liaison with substantive divisions and special programmes of the UNCTAD secretariat and the International Trade Centre UNCTAD/GATT (in the field of trade promotion), is responsible for UNCTAD's technical assistance activities at the national, subregional, regional and interregional level. TCS ensures the processing, final approval and implementation, on behalf of UNCTAD, of requests for assistance from developing countries within the framework of the United Nations programme of technical co-operation.

Technical co-operation is provided by UNCTAD in co-ordination with the regional commissions and other agencies of the United Nations family. Technical assistance is provided only at the request of the governments of developing countries, which establish their own overall priorities within the available financial resources. The United Nations Resident Co-ordinator/UNDP Resident Representative in each country serves as the principal channel of communications on technical co-operation matters between governments, UNDP and UNCTAD.

The UNCTAD programme of technical co-operation is largely funded from UNDP resources which amounted, in 1981, to 85 per cent of the total resources, the remainder consisting of funds provided directly by governments under funds-in-trust arrangements and by donor countries, and of a small allocation for international trade under the United Nations Regular Programme of Technical Co-operation. The total technical co-operation programme has increased, from \$1 million in 1971 to little over \$15 million in 1981. The programme of technical co-operation in UNCTAD responds basically to the broad objectives.

### Forms of technical assistance available in the field of shipping, ports and multimodal transport

The programme of technical co-operation in these areas covers the economic, commercial, operational, administrative and legal aspects of shipping, ports and multimodal transport. The assistance given is directed to national or subregional organizations such as ministries, port authorities, cargo-handling companies, shipping companies, shippers' councils or commodities groups, shipping investigation units, multimodal transport operators and training institutions. The assistance provided covers a wide range of subjects and can take different forms adapted to local conditions. It can consist of short advisory missions by a top shipping and ports specialist (or groups of specialists) to advise on selected shipping and ports policy issues or in highly specialized fields such as organization of shippers' councils, fleet development, joint shipping ventures, operations of container terminals, establishment of an electronic data processing centre, and elimination of port congestion. In other instances the assistance is only requested for organizing fellowships and study tours in selected ports. In many cases, the assistance covers the entire shipping and ports sector and aims at its development and modernization so as to enable countries to cope with the present maritime technological and organizational requirements. It also ensures that the corresponding benefits accrue to the country.

An inter-regional Training Project (TRAINMAR) and related regional and national projects provide advice and assistance in the development of modern training programmes for junior, middle-level and senior managers within the whole shipping and ports sector, and in the creation and strengthening of local national and subregional maritime training institutions. Specialized courses and seminars are also organized for the managers of the shipping and ports sector.

### How to submit requests for technical assistance projects

As indicated in the Introduction, assistance is granted only at the request of Governments, which establish their

own overall priorities taking into account national development plans or objectives and the resources available. In most of the developing countries, a specific government department has been designated to co-ordinate the programmes of assistance provided by the United Nations in general and UNDP in particular. This national authority is fully conversant with the official procedures which are to be followed in each case and will be able to give initial advice to any entity desiring to obtain technical assistance. The national authority so designated varies from country to country; it may be, for example, the Ministry of External Affairs or the Ministry of Planning. This authority transmits official requests, which have obtained government approval, to UNDP through the Resident Representative of UNDP in the respective country.

The UNDP Resident Representative has full overall responsibility for the UNDP programme in the country and serves as the principal channel of communication on technical assistance activities between the Government and UNDP and its participating and executing agencies, including UNCTAD.

The UNDP Resident Representatives will normally be in a position to assist in the preparation of requests and will also be able to give information about the availability of resources.

Upon government request, transmitted through the above-mentioned channels, UNCTAD can provide short-term advisory services to review a country's needs on the spot and to assist in the formulation of requests for technical assistance.

Developing countries that are in a position to finance their development assistance programme, either partially or wholly, out of their own resources, can also submit requests for substantive assistance directly to UNCTAD. UNCTAD can also process requests received from the developing countries for technical co-operation projects to be financed by donor countries and/or agencies.

**Further information** on UNCTAD's technical co-operation activities may be obtained from:

Chief  
Technical Co-operation Service  
UNCTAD  
Plais des Nations  
CH-1211 Geneva 10  
Switzerland

## ICHCA change of address

The International Cargo Handling Co-ordination Association has moved its international secretariat, also known as the central office, to premises at 1 Walcott Street, London SW1P 2NY, UK. The telephone and telex numbers are unchanged—Tel: 01-828 3611. Telex: 261106 ICHCA G.

## Canada-Foreign trade

Canada, like the United States, has a major economic stake in international trade. In some respects, in fact, Canada's dependence on world markets is even greater. Last year, for example, with a Gross National Product of \$348.9 billion (Canadian dollars), Canada's exports stood at \$84.4 billion and her imports at \$67.6 billion. Since 1971, Canadian exports have increased five-fold in value and by

almost 50 percent in volume. Similar growth is evident on the import side. These figures reflect only Canada's merchandise trade and not the sale or purchase of services, capital and other intangibles. Moreover, Canada in FY 1982 collected \$3 billion in Customs revenues.

Foreign Trade of Canada					
	1978	1979	1980	1981	1982
GNP	\$230.5	\$261.6	\$291.9	\$331.3	348.9
<u>Merchandise Trade</u>					
Imports	50.1	62.9	69.3	79.1	67.6
Exports	53.2	65.6	76.2	83.7	84.4
Total	\$103.3	\$128.5	\$145.5	\$162.8	\$152.0
Waterborne Foreign (Metric Tons)	178.3 FY78	202.0 FY79	211.8 FY80	213.6 FY81	n/a FY82
<u>Customs</u>	\$2.3	\$2.8	\$3.0	\$3.2	\$3.5
Total Government <u>Revenues</u>	\$32.9	\$35.2	\$40.2	\$46.7	\$54.5

Values in billions of Canadian dollars. Volumes in millions of metric tons.

SOURCES: Statistics Canada and Ports Canada.

In evaluating the significance of shipping and ports in Canada's international trade, it must be borne in mind that about 70 percent of it, by value at least, is with the United States, most of which moves by rail, road or pipeline. Nevertheless, the dependence on ocean (and Great Lakes) shipping is evident. In 1981, for example, 21 percent of Canada's imports by value and 31.8 percent of her exports moved by water. If the U.S. factor is discounted, the margin of dependence on water transport rises dramatically. In fact, U.S./Canadian waterborne trade is nothing to sneeze at—coming, in 1981, to a total of 75.6 million tons with an estimated value of \$4.7 billion (U.S. dollars).

Many of Canada's basic industries are vitally dependent both on trade and water transport. That is especially true of raw materials and semifinished products. In 1981, for example, Canada exported 39 percent of its coal output, 72 percent of her wheat and wheat flour, 29 percent of her coarse grains, and 82 percent of her iron ore, virtually all of which went by water. Significantly though proportionately less dependent on water transport were Canada's exports of lumber, logs, asbestos, lead, woodpulp, paper and paper board, to name just a few.

(AAPAADVISORY)

## Regional Council helps co-ordinate West Coast Ports development in Canada; Don Rawlins, Nanaimo Harbour Commissioner elected chairman

The needs and development policies of West Coast ports in Canada is to be the prime concern of a newly established body set up under recent federal port legislation. Don Rawlins, a Nanaimo Harbour Commissioner, has been elected chairman of the Western Regional Advisory Council, which, with input from the Western provinces, will assist in forming development policies of B.C. ports.

The council brings together representatives of West Coast ports and the provincial governments of British Columbia, Alberta, Saskatchewan and Manitoba to study the needs and development of West Coast ports.

"Success of this operation depends on a spirit of co-operation and participation of the provinces and the ports," Commissioner Rawlins said in an interview.

"With input from all concerned this Council can be a useful vehicle in assisting with determining suitable development policies," he added.

The Council operates under terms of reference set out by Transport Minister Jean-Luc Pepin by means of Section 3.12 of the Canada Ports Corporation Act. This is the legislation which established the Port of Vancouver as a local port corporation effective July 1st.

"We are strictly an advisory body," Rawlins stressed. "We are hoping for an exchange of information which will enable us to formulate long range plans and to co-ordinate development."

The Western Regional Advisory Council membership

includes representatives of Vancouver and Prince Rupert port authorities and on Nanaimo, Port Alberni, North Fraser and of Fraser River Harbour Commissions plus two representatives from the British Columbia government and one each from the governments of Alberta, Saskatchewan and Manitoba. Individuals from the private sector will also be members. Maximum membership is 19.

Transport Canada is represented on the Council by Herb Buchannan, a senior administrator of the Ministry. Commissioner Rawlins was elected to chairmanship of the Council at the first meeting held in Vancouver in July. Four general meetings a year are to be held with the next one being in Prince Rupert in October. (*Nanaimo Harbour News*)

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## America in the World Economy — The Imperatives of Free and Fair Trade — *A position paper*

### By the American Association of Port Authorities

Since earliest colonial times, trade has been of fundamental importance to the American economy. Located for the most part on or near tidewater, the first settlements in what is now the United States were, in many instances, founded or supported by trading companies chartered by royal decree for the purpose of developing profitable commercial relations with the mother countries. Entrepreneurial motivation figured as well in colonies founded by religious groups, such as the Pilgrims in Plymouth, the Puritans in Massachusetts Bay, the Catholics in Maryland and the Quakers in Pennsylvania.

Colonial exports—grain, flour, timber, naval stores, tobacco, rice, furs and hides—were traded in Europe for manufactured goods and luxury items the Colonists could not provide for themselves. For New England, ships, shipbuilding and related mercantile pursuits quickly became of primary significance. By 1760, one third of the vessels under British flag were American-built. Philadelphia ranked among the largest cities in the British Empire. Trade continued to expand after the coming of independence, though its complexion was altered somewhat by migration westward and, after 1800, by the Industrial Revolution. During the 19th Century, the export of southern cotton and later northern grain were prime generators of U.S. export earnings. After World War I, the U.S. surpassed Great Britain to become the world's leading center of finance and trade.

Today, foreign trade is as vital to the United States as it has ever been, and in many ways more so. In the past 20 years, foreign trade's share of the U.S. Gross National Product has grown substantially, from 10 percent in 1960 to approximately 25 percent by 1981. The U.S. exports about 13 percent of its coal production, 60 percent of its wheat, a third of its rice, 30 percent of its feed grains, 40 percent of its soybeans and from 40 to 50 percent of its cotton output. Moreover, in 1980, 8.3 percent by value of U.S. manufactures were shipped to foreign markets.

What is more, foreign trade means jobs—American jobs. Barely 20 years ago, one in 14 American manufacturing workers was engaged in making products for export. Today that ratio stands at one in six, an increase of 130 percent. In 1980, reports the Bureau of the Census, the export of manufactured goods provided employment for 4.8 million Americans, representing six percent of the country's private sector workforce. Even more telling is that in the 1977-1980 period, four of every five new jobs in U.S. manufacturing were export-related.

The pattern of significance is evident elsewhere in the U.S. economy. Approximately one job is created, for example, for every 900 tons of American coal sold abroad. In 1982, with U.S. exports amounting to just over 105 million tons, that translated into nearly 120,000 jobs for American workers, jobs sorely needed at a time when unemployment in the domestic coal industry was approaching 40 percent. As for agriculture, the government calculates that in 1979, 35,000 jobs were created for every billion dollars worth of American farm products exported, for a total that year of 1.2 million jobs.

Other examples can be cited. The Maritime Administration (MarAd) estimates that a single job is created for every 600 long tons of cargo shipped through American ports. The port industry itself, directly or indirectly, accounts for some one million jobs. In 1980, according to a 1983 MarAd study, the U.S. marine terminal and stevedoring industry by itself, directly and indirectly, accounted for 138,000 jobs. Those jobs all depend ultimately on trade.

The enormity, diversity and strength of the domestic U.S. market and the healthy growth of the world economy since 1945 has sheltered the average American citizen from the necessity of recognizing just how important world trade is to our national economy. The American worker, as a consumer, has grown accustomed to a wide selection of domestic and foreign products, while the average producer has traditionally found domestic demand plentiful. The role of world trade in creating that healthy environment was not understood or simply went ignored by the public at large.

But the current recession, with its unacceptably high

levels of unemployment, high interest rates, low investment levels in manufacturing plant and equipment and curtailed domestic demand, has created confusion as to what has brought the U.S. economy to its current state and how to remedy it. In times of confusion bordering on panic, the natural tendency is to reach for quick answers and simple solutions. Trade protectionism has emerged as such an apparently plausible remedy, as workers and many producers seek to shield themselves from competing foreign goods. The feeling is that the way to protect American jobs and industry is to close the door to foreign goods. "Scrap the world trading system as it now exists," the critics seem to be saying, "it isn't working."

Since World War II, fair competition and equal market access within an open, multilateral trading system have been the cornerstone of U.S. international trade policy. That system, despite recognized weaknesses and incongruities, has allowed the unparalleled growth of the international economy in general and that of the United States in particular. To be sure, from a current perspective, the picture appears clouded and uncertain. An 80-year series of annual U.S. trade surpluses was broken in 1971. Only twice since then has the U.S. shown positive trade balances. Twenty years ago, the U.S. led the world in the export of manufactured goods, commanding a 25 percent share of the international market. That share has since slipped to 18 percent.

What should not be overlooked, however, is that the United States is still the world's leading economic power, with a population of greater than 225 million and a three trillion dollar gross national product. Consider, too the following:

- With about five percent of the world's population, the U.S. accounts for 21 percent of its output.
- If California were an independent nation, it would be the world's ninth largest economy.
- The state of Texas outproduces Mexico.
- Pennsylvania's output is comparable to that of Australia.
- Connecticut's economy surpasses that of Greece.
- Over the past quarter century, per capita American buying power has increased 87 percent, civilian jobs by 67 percent, and the gross national product by 161 percent.

In viewing present economic problems it is essential not to overlook the basic strengths and resiliency of the American national economy. At the same time, we must recognize that our own prosperity is inextricably entwined with that of the rest of the world.

The flow of imports is also of basic importance to the United States. The U.S., for example, is dependent and in many instances, extremely so, on imported ores and other strategic raw materials needed by its defense industries. Some 30 percent of its petroleum supply comes from abroad. Imported products likewise contribute to the lifestyle Americans enjoy and help ameliorate inflationary impacts by adding to stocks available in the domestic economy.

Imports also produce residual revenue and employment benefits. In 1981, for example, automobiles imported via the Port of Houston generated \$192 per ton in revenues to the state and national economy and a total of 573 jobs. Moreover, the Congressional Budget Office calculates that domestic content requirements proposed in legislation

currently before Congress, all aimed at curtailing the inflow of foreign automobiles, would cost the national economy a net loss of 150,000 jobs. Referring to that same legislation, a Department of Transportation official estimated that 7,600 to 11,600 direct jobs and 53,200 to 81,200 indirect jobs would be jeopardized at 14 U.S. ports if those requirements became law. Foreign-trade zones in the U.S., reports the government, in 1980 provided employment for 11,700 persons not counting secondary employment impacts.

Political pressures are building in this country for more restrictive trade policies, for measures aimed at curtailing the inflow of foreign-made goods, from automobiles and steel to clothespins and orange juice. Just what that could cost is suggested above. More ominously, protectionism, in whatever form, would invite retaliation. The clamor over imported steel ignores the point that foreign steel makers in Japan, Europe and South America—the sources of those imports—also buy immense quantities of American metallurgical coal, some of it, incidentally, marketed by U.S. steel companies with large coal reserves. Similarly, Japan, the target of much of the anti-import auto pressure, is itself the world's leading importer of U.S. agricultural products. Retaliatory actions by America's trading partners would put our own exporters in jeopardy. And that is something the United States simply cannot afford.

Few will argue that the open, multilateral trading system has worked to perfection. What must be determined, and determined precisely, is where it has fallen short and what can be done to correct those deficiencies. It is both simplistic and inaccurate to conclude that the poor track record of the United States in trade balances over the past few years has been due solely to the system. America's ability to sell internationally depends in part on pricing. Pricing is a function of the productivity of our factories and labor. Since the mid-1960s, productivity in the United States has consistently lagged behind that of our principal industrialized competitors. Research and development spending, as a percentage of the Gross National Product, is declining in this country at a time when it is rising elsewhere. Characteristically, only a relatively small percentage of American manufacturers export, though the Commerce Department estimates that profitable opportunities exist for ten times the number of firms presently exporting.

Admittedly, there are problems not of our making. Many countries do restrict access to their markets. Barriers to trade in services and direct foreign investment particularly concern the United States, since earnings from overseas investment are a positive force in helping to balance its negative trade in goods. The domestic U.S. work force is shifting from manufacturing to service jobs, the latter now outnumbering the former by a ratio of five-to-three. Service activities such as banking, insurance, data transmission, engineering, consulting, accounting and legal services, are essential in facilitating trade in goods. In the past 20 years, the U.S. export of services has grown tenfold. Foreign constraints are a problem, one not addressed by the General Agreements on Tariff and Trade. Considering that the service sector now accounts for two-thirds of all American employment, it is time that a degree of stability and equity be brought to this vital area.

For the most part, however, mechanisms exist under present international trade agreements to deal with such inequities. These problems, moreover, must be dealt with



prudently, and those charged with that responsibility must be highly flexible in their actions. Unfair competitive practices, highlighted most recently in this country by the import steel investigations, can be dealt with adequately under the present "anti-dumping" and countervailing duty statutes. In such cases, it is essential that these investigations be conducted in a highly professional manner, and that the decisions reached be objective. While bilateral trading agreements now account for at least 25 percent of world trade flows, severely straining the ideal of open, multilateral trade, this problem can be solved by American private sector ingenuity backed by the recently enacted law permitting the formation of export trading companies. The U.S. must also be prepared to react aggressively but not impetuously to barter or "Counter-trading" opportunities.

The plight of the unemployed worker is best answered through job retraining programs. From the national government, we need consistency of direction and policy. U.S. imposed embargoes on grain exports in the recent past have made international buyers wary of committing themselves to American suppliers. Actions of this sort only undermine the effectiveness of U.S. marketing efforts abroad.

The international community we live in today is far too integrated and interdependent to allow for a major shift in American trade policy. Such a shift would cause severe and possibly mortal harm to the American economy. More than a half century ago, with the onset of the Great Depression, the major industrial powers, including the United States, sought to bolster their faltering economies by erecting tariff walls and other barriers to trade. That proved to be no solution at all. In fact, as most economic historians now agree, the antitrade policies of the early 1930s not only failed in their purpose but actually contributed to the economic collapse and the years of hardship that followed. Shutting ourselves off from the world at a time when the U.S. economy is only beginning to emerge from recession will only repeat this bitter experience from the past. Protectionism is not the answer. Rather it begs the question. The truth is protectionism commands its own price. And, in the end, we all pay it.

The quality of America endures as does its inherent ability and determination to compete. International trade in fact, holds enormous opportunities for the United States in its quest to sustain economic growth and create jobs. While insisting to its trading partners that business relationships endure only when all parties benefit, the United States must commit to enlightened international trade policies in developing this potential.

**Prepared by the American Association of Port Authorities  
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## ILA, harbor employers resolve dispute over container job rules

Waterfront employers and the union representing some 50,000 longshoremen in 36 Atlantic and Gulf Coast ports recently successfully renegotiated their current Master Contract with new provisions to help preserve dockworker jobs on the piers.

The accord followed two days of intensive collective bargaining between the International Longshoremen's Association, AFL-CIO and seven major port management organizations and the Carriers Container Council, which represents more than 200 vessel operating companies. According to ILA President Thomas W. Gleason and lead management negotiator James J. Dickman, President of New York Shipping Association, the action fully resolves a dispute in the existing contract that developed on June 30, when the union served notice to reopen the agreement.

ILA demanded greater enforcement authority over the vital Rules on Containers, which are designed to preserve longshoremen's work on the waterfront in handling consolidated container shipments in a 50-mile port zone. New language to effect such improved enforcement of the Container Rules has now been made part of the current three year industry contract. The contract itself has also been fully restored and will continue in effect to its scheduled termination on September 30.

At the same time, the settlement clears the way for quick resumption of labor-management bargaining on a replacement three year industrywide contract. The second contract is due to go into effect on October 1 and run through September 30, 1986.

The parties reached tentative agreement on terms of the seven coastwide items in the replacement Master Contract on April 16. The newly approved changes in the present contract will now become part of the follow up agreement. However, further local bargaining on the replacement contract must still take place, and talks are expected to resume on local issues early next week in some ports, it was indicated.

The renegotiated contract terms reported today are in the form of a 10-point amendment to the Containerization Agreement that is part of the coastwide ILA-Management Master Contract. Highlights include:

- Quick resolution of all disputes over Rules on Containers through a new joint ILA-Management Executive Committee that can be convened on 24 hours notice and include telephone conference procedures to speed decision making.
- Steamship carriers to provide expanded documentation to ILA representatives related to containers.
- Authority for ILA to withhold longshore labor from carriers and direct employers who fail to comply with findings of violations of the Container Rules, and
- Implementation of liquidated damages for all violations of the Rules on Containers from May 26, 1983 onward.

Beyond containerization the Master Contract covers wages; contributions to welfare plans, but not benefits; contributions to pension plans, but not benefits; hours of work; term of agreement; and the agreement for handling LASH and other forms of oceangoing barge vessels.

The local agreements that must still be negotiated cover

a wide range of benefits including pension and health and welfare plans, vacations, holidays and Guaranteed Annual Income (GAI) among others. Both sides have committed themselves to completion of local agreements and ratification in all ports before the September 30 deadline.

(NYSA-ILA)

## Port of Houston christens two fireboats in honor of past Commission chairmen

The port of Houston Authority christened two new high-speed fireboats recently, naming them the **J.S. Bracewell** and **Howard T. Tellepsen** in honor of the two previous chairmen of the Port Commission.

The late J.S. Bracewell's grand-daughter, Mrs. Lyn Bracewell Phillips, daughter of the current Port Commission chairman, Fentress Bracewell, christened the boat bearing her grand-father's name. Tellepsen's wife, Mrs. June Tellepsen, cracked the ceremonial bottle of champagne on the boat named after her husband, who also attended the christening ceremonies.

Kathy Whitmire, mayor of Houston, delivered the principal address at the ceremony. "When we think about the city of Houston and what makes it great, we have to think about the Port," Whitmire said, adding, "We can only see a great place for this Port in the city if the Port is safe."

Also attending the christening ceremonies were Port Commissioners W.D. Haden, II, Marcella D. Perry, John H. Garrett, and Howard J. Middleton. Mrs. J.S. Bracewell also was in attendance.

J.S. Bracewell, port commission chairman in 1954-1955, devoted more than 50 years of service to the Houston area.

He was a school teacher, school board president, lawyer, city attorney, district attorney and assistant attorney general for the State of Texas. He also founded the internationally-known law firm of Bracewell & Patterson.

Howard T. Tellepsen served as port commission chairman for 14 years. During his tenure, the Port underwent one of the most aggressive expansion projects in its history.

In 1956, the Port Authority operated 16 wharves, a grain elevator and owned 200 acres of undeveloped land. When he left in 1960, that 200 acres of land had been developed into an industrial park. The 16 wharves had been joined by 15 new wharves in the Turning Basin, as well as two liquid cargo docks at Sims Bayou and San Jacinto Bay.

He also saw the construction of two 1-million-cubic-foot warehouses, two office buildings, a new maintenance center and additions to the Houston Public Grain Elevator as well as the opening of the 11-story World Trade Building, the acquisition of the Long Reach docks, and the development of Bayport, the Port Authority's liquid bulk terminals.

Swiftships, Inc., of Morgan City, Louisiana built the boats. Stewart & Stevenson Services, Inc., of Houston was the prime contractor. Each boat draws 3½ feet of water and is 68 feet long with a 20-foot beam. Two GM turbocharged diesels turn the twin screws that power each boat. At 2,100 r.p.m., each engine generates 510 h.p. Cruising speed is 20 knots. Each boat costs \$857,000.

Each of the two fire pumps on each boat can deliver 2,000 gallons of water a minute at a pressure of 200 pounds per square inch. Each boat carries 1,000 gallons of foam and has three 4-inch fire nozzles that can spray foam or

water. Four crew members man each boat which is fully operational from the pilothouse. (*Port of Houston*)

## Houstonian elected chairman of Gulf Ports Conference

Richard P. Leach, executive director of the Port of Houston Authority, has been elected chairman of the Mid-Gulf Seaports Marine Terminal Conference.

Membership of the conference includes the ports of Houston, Galveston, Beaumont and Orange, Texas; New Orleans, Lake Charles and Baton Rouge, Louisiana and the Port of South Louisiana and the Mississippi and Alabama state ports.

The conference operates under an agreement approved by the Federal Maritime Commission on January 17, 1967. The agreement permits the ports to discuss terminal rates, charges, rules and regulations and requires the ports to publish in their respective tariffs any of these items which are adopted by the conference. Such items are required to be identified and explained in the tariffs.

## Port of Long Beach gets annual report award

The Port of Long Beach has been awarded the Certificate of Conformance by the Municipal Finance Officers Association for excellence in financial reporting in its comprehensive annual financial report for the fiscal year ended June 30, 1982.

The Certificate of Conformance is the highest form of recognition in governmental accounting and financial reporting.

In tandem with the Port's award, Paul E. Brown, Director of Finance, received the Award of Financial Reporting Achievement for his key role in preparing and publishing the Port's 1982 comprehensive annual financial report (CAFR).

The awards are given annually by the Municipal Finance Officers Association of the United States and Canada (MFOA) to a governmental agency which has published an annual financial report that clearly communicates its organization's financial story, that enhances the understanding of the logic underlying the traditional governmental financial reporting model and that motivates individuals to read and use the report.

## Mrs. G.Kaplan re-elected president: Port of Los Angeles

Mrs. Gene Kaplan and Joseph J. Zaninovich have been re-elected to their second terms as president and vice president, respectively, of the Los Angeles Board of Harbor Commissioners. Kaplan is the first woman president in the 76-year history of the Harbor Commission.

Since her original appointment to the Board in 1974, she has also served two terms as vice president. Immediately prior to her Harbor appointment, Kaplan served with the City's Housing Authority.

She has also been a member of the State Commission on the Revision of Intermediate and Secondary Education and the state Committee on the Study of the Bill of Rights.

Zaninovich was formerly corporate director of industrial

relations for the Terminal Island based Star-Kist Foods, Inc.

He was active on the City's Parking and Transportation Commissions prior to his Harbor Commission selection in 1981.

## **Baltimore celebrates 20 years of containerization; Container cargo accounts for over 60 percent of Port's annual general cargo tonnage**

The Maryland Port Administration and Sea-Land Service, Inc. co-hosted a recent World Trade Center luncheon to commemorate the 20th anniversary of containerization in the port of Baltimore.

Sea-Land introduced container cargo—cargo that is shipped inside steel rectangular boxes—to Baltimore in April 1963 when the S.S. Mobile docked at Pier 10, Canton Marine Terminal, the first of the city's waterfront facilities to be especially equipped for containerized freight. At the time, the Mobile and its sister ship, the New Orleans, operated in a Baltimore-Puerto Rico container run. Baltimore has since emerged as the second largest container port on the East Coast, handling over 4.3 million tons of container cargo annually.

John L. Sutherland, vice president and general manager for East Coast operations of the Sea-Land Atlantic Group, told an audience of nearly 200 maritime officials that Baltimore's container cargo prominence stems from the MPA's aggressive port facilities expansion programs and its trade development efforts.

"We at Sea-Land appreciate this 277-year-old port," Sutherland said. "Baltimore was willing to take a chance with us. Their boldness gave birth to a new generation in transportation history—the intermodal container generation—combining water and overland transport to provide cost savings and efficient service."

Sutherland said 89,000 tons of cargo moved across Baltimore piers in 1965, the year Sea-Land began construction of its Canton terminal, the first specialized container-ship terminal in the port. Sea-Land's 29.5-acre terminal today handles a large portion of Baltimore's container trade—about 30,000 containers annually.

Sutherland said his firm expects to handle container cargo valued at more than \$1 billion in Baltimore this year.

"It's evident that Baltimore realized the need to grow, to become more efficient," Sutherland said. "In this fluid economic climate, with competition at its height, survival without success is meaningless. There is no room for also-rans in this business. Either you make it, or you're quickly forgotten."

Sutherland said Sea-Land economists "feel that we have most likely reached the low point in the general world economic cycle," prompting him to predict a 7 percent growth in annual European imports and up to a 5 percent growth in imports from the Caribbean Basin moving through the port of Baltimore. Container cargo accounts for over 60 percent of Baltimore's annual general cargo tonnage.

European cargo accounts for almost half of Sea-Land's total container trade in Baltimore. Outbound commodities shipped through Baltimore by Sea-Land include lumber, household goods, construction equipment and machinery, and chemicals. Import cargo includes retail consumer

goods, wines, foods, and household goods, Sea-Land serves more than 180 ports and cities in 58 countries with a fleet of 62 vessels.

The Sea-Land terminal in Canton handles an average of 600 containers weekly with an average inventory of 950 containers parked on individual chassis in its marshalling yard. The terminal, combined with the MPA-owned Dundalk Marine Terminal, accounts for over 66 percent of Baltimore's volume.

The port of Baltimore's role as a leading container shipping center has skyrocketed over the last two decades. The then Maryland Port Authority started development of a public container terminal with room for expansion at Baltimore's premier port facility at Dundalk in 1967. Two of the existing berths at Dundalk were adapted for container handling by the end of 1967, with several cranes fitted with special equipment to lift containers. That year, the terminal's first in container handling, Dundalk registered 1,726 boxes or 24,164 tons of containerized freight.

In late 1969 Dundalk's first specialized container crane was placed into operation. Two additional container cranes were added by 1971, and four new container cranes with nearly 24 acres of paved container backup space were added at berths 11 and 12 by 1973. During the period 1967-1976 Dundalk registered 985,061 containers and 11,939,119 tons of containerized freight. The terminal handled its one-millionth container on Wednesday, January 26, 1977.

The 550-acre Dundalk Marine Terminal is today Baltimore's largest container cargo handling facility. Berth 13, a container berth supported by two 40-ton-capacity container cranes, was dedicated last year, giving the terminal a total of seven separate container berths and 10 container cranes. Berth 13 is expected to add 750,000 tons annually to the port's container cargo capacity. Nearly 3 million tons of Baltimore's container cargo traffic in 1982 was handled by Dundalk. This volume was an 11 percent increase in container traffic handled by the terminal in 1981.

Both the oldest and newest marine terminals in the port of Baltimore are also capable of handling container cargo. At North Locust Point Marine Terminal, two 75-ton gantry cranes are available. North Locust Point, formerly a railroad facility, is the port's oldest cargo handling facility. The terminal, operated by the MPA, handled 188,370 tons of container cargo in 1982.

South Locust Point Marine Terminal, the newest marine terminal in Baltimore, was designed for container cargo and is equipped with two 40-ton container cranes and 40 acres of backup space. The terminal, operated by I.T.O. Corporation, handled 116,024 tons of container cargo in 1982.

Container cargo, according to an economic impact report released last year by the MPA, generates 37 percent of the port's \$1 billion annual revenue. The cargo yields yearly economic revenues of \$72.34 per ton and is responsible for 32 percent of jobs directly related to the port, the report states.

Significant to Baltimore's container trade is the fact that container traffic at MPA-owned facilities last year increased by 10 percent—from 3.3 million tons in 1981 to 3.6 million tons in 1982. Furthermore, 64.5 percent of the port's total general cargo was shipped in containers during the year. This is one of the highest ratios of container to general cargo among the world's leading ports.

The MPA has already begun future port development to ensure that Baltimore remains a leading center for container cargo. The 146-acre Seagirt Marine Terminal, a three-berth container facility, is being constructed next to the Sea-Land terminal and is expected to be in operation by the late 1980's. Seagirt alone will have an estimated container cargo capacity of 2.25 million tons.

Site selection engineering in Fairfield has also been completed by the MPA for development of the Masonville Marine Terminal, a 350-acre container facility, by the 1990's. Masonville will add an estimated 4 million tons annually to Baltimore's container traffic by the end of this century. (*Port of Baltimore*)

## Maritime industry is a \$2.1 billion benefit to San Francisco Bay economy

By Michael M. Murphy  
President, The Pacific Merchant Shipping Association

One job in 65 in the San Francisco Bay Area is created by the maritime industry. The fact that the maritime industry is a vital force in the Bay Area was well known to us, but the tremendous impact of the industry was not known until PMSA commissioned an Economic Impact Study in the spring of 1982.

The study proved conclusively that the maritime industry has a major impact, not only in the Bay Area but in the Pacific region of the United States.

### Growth in Bay Area Trade

The ports of the Bay Area are among the busiest in the world. The region's manufacturing and commercial activities have grown up around them, providing access to the nation's major trading partners. Some 60 shipping lines, including eight U.S.-flag operators, provide regularly scheduled service to the Bay Area ports.

Not all the cargo handled by Bay Area ports originates or remains in the region. Increasing container traffic, improved linkages with overland transportation and growing trade with Pacific Rim nations encourage other regions to use the ports' services.

Waterborne trade through the region's ports has grown by 42% since 1971. Containerized trade grew by 142%, reflecting the major changes in cargo-handling technology.

In 1981, ports in the area handled foreign trade valued at \$14.2 billion, representing 4% of the U.S. foreign trade. U.S.-flag vessels carried approximately 32% of the commercial overseas liner trade through the region in 1981.

### Maritime Economic Benefits

Our year-long study, released in November of 1982, shows that about \$2.1 billion flow annually into the nine-county Bay Area economy from the maritime industry. This figure should grow to \$2.5 billion in sales transactions in 1983.

Our study shows that 44,450 people in maritime worker households are supported either wholly or in part by the industry payroll. Spending by maritime industry employees and their families benefits many local businesses. In 1981 expenditures included: \$55 million for food, \$60 million for transportation, \$120 million for housing, \$20 million for medical, \$15 million for clothing, \$90 million for education and recreation, and \$90 million for taxes, insur-

ance and savings.

### Maritime Industry Contribution to Regional Economy

	Jobs	Earnings	Sales Transactions
1981	38,000	\$ 930,000 million	\$2.1 billion
1982	39,000	990,000 million	2.3 billion
1983	41,000	1,110,000 million	2.5 billion

Note: 1981 actual figures; 1982, 1983 forecast figures as of June 1982.

Every dollar received by the maritime industry is worth \$1.94 to the region.

About 17,230 jobs in the Bay Area maritime industry contributed \$1.1 billion in gross sales. These included jobs in cargo handling and services, shipbuilding and repair, port development, U.S.-flag shipping company headquarters and government maritime services.

### Impact on Other Industries

In addition to the maritime industry and its suppliers, many other industries in the area benefit from maritime trade. Access to larger markets and to supplies of materials enable increased production and employment. The metals, petroleum and chemicals industries lead the list, with textiles and apparel, high technology and food products following.

Together, port-user industries in the area can attribute 35,000 jobs and \$4.4 billion of their sales to maritime trade, in addition to the industry's direct and indirect total impact.

The industry, with all of its related and supporting activities, is indeed a vital part of the regional economy. It provides 38,000 jobs, contributes \$2.1 billion to their gross sales, and pays \$120 million in state and local taxes. Projections show a continued increase in these figures.

### Economic Impact Study

The maritime industry plays a vital role in the economy of the Western states, and one of PMSA's goals is to disseminate this information to legislators and agency officials of state and local governments. The Economic Impact Study released by PMSA was a major accomplishment, showing that the industry is an important part of the economy and makes a social, political and economic impact on the West Coast. (*Wharfside*)

## Oakland Port Board adopts fiscal 1983-1984 budget

The Oakland Board of Port Commissioners adopted an operating budget for the fiscal year 1983-1984, commencing July 1 projecting revenues of \$47.98 million.

While anticipating significant growth in revenue from Oakland International Airport," said Executive Director Walter A. Abernathy, "the budget is shaped primarily by an offsetting slowdown in earnings of our maritime division, coupled with an increase in operating expenses of 9 percent."

Approximately \$1.5 million of the increase is attributable to previously committed salary adjustments and other benefits for Port employees which become effective July 1, and the cost of a net increase of seven positions to be filled in the coming fiscal year, primarily to support airport

expansion activities.

The current year's revenue projection was \$46.5 million. Most of the income is derived from the Port of Oakland's three revenue-producing divisions—maritime, airport and properties.

A slight decline in maritime revenue is expected for the second consecutive fiscal year as a result of the persistent effects of the recession worldwide and the continued strength of the dollar overseas, which traditionally has an adverse effect on American exports. The Port of Oakland is the west coast's leading export port. In the current fiscal year, anticipated income from maritime activity will be \$24,557,500. The proposed figure for 1983-84 is \$24,646,000. The virtually flat maritime revenues are due in part to the Port's success in inducing shipping lines to enter term agreements for the use of terminal facilities. Such agreements provide economic incentives to the lines in exchange for their commitment to call regularly at the Port. More than 85 percent of the Port's container cargoes are now secured through such agreements, compared to 45 percent five years ago.

## Container volumes increase 14 percent: Port of Portland

The Port of Portland's container volumes during the first months of 1983 have shown a significant increase as a result of new steamship lines beginning service to Portland in the past year and cargo gains by the Port's longstanding steamship customers.

More than 31,101 TEUs (twenty-foot equivalent units) have moved through Portland from January through April of 1983—a 14 percent increase over the same period last year. The most notable container growth has occurred in the transpacific trades, where business is up 53 percent over 1982. April was the busiest month for container traffic at the Port in over three years—with more than 8,000 TEUs moving.

According to Del Pearson, general manager of the Port's Liner Trades Division, the Port has attracted increased service from seven different steamship lines in the past year—a majority of which carry containers.

Pearson adds in addition to the new services doing well, the Port's longtime customers, such as the Japanese Six Lines Steamship Consortium, are still finding numerous cargo opportunities available in the region.

Pearson goes on to say during the previous two years, the Columbia/Snake region lost a number of steamship lines due to a difficult worldwide economic climate and turbulent conditions in the steamship industry which caused pricing wars, bankruptcies and numerous fluctuations in steamship activity.

Says Pearson, "We are just beginning to come out of a period where we found ourselves with more cargo than ships.

"Our statistics show there are still volumes of cargo originating in the region which could be moving through the Port of Portland. So, as we get the word out to shippers there are now more ships available, I would expect container volume to show a continued, steady increase in the near future."

Although local and regional cargo provides a great deal of tonnage moving on these vessels, another growing

portion is coming from the Midwest. In October of 1982, the Port began offering the lowest intermodal rates of any port on the West Coast for OCP (overland common point) containers moving to the Midwest. Since the inception of the program, the number of OCP containers handled at the Port has tripled. (*Portside*)

## Record container volume in FY 1983: South Carolina Ports

The Port of Charleston scored record container volume in fiscal year 1983, breaking the two-million-ton mark for the first time, in spite of a world-wide economic recession.

Boxed cargo throughput of the nation's ninth largest container port, for the year ended June 30, was 2,047,684 tons—up eight percent from the previous year total of 1,898,656.

Sixteen pure container lines and 20 breakbulk carriers with container service combined to ship approximately 365,400 twenty-foot-equivalent units (TEU's) through Charleston's three state container terminals. Coming out of the recession, the port had four consecutive strong months of container traffic in the last quarter of fiscal year 1983. Charleston registered throughputs of 196,864 tons in March; 190,047 in April; 205,658 in May, and a new record of 207,686 in June. The record container volume for a single month, prior to this past fiscal year, was 181,353 tons recorded in March, 1979.

Breakbulk cargo at Charleston, as at ports worldwide, was especially hard hit by the recession. Charleston's recovery in the area of breakbulk cargo was gratifying, particularly in the lumber and wood trade and the heavy metals and machinery industries. Breakbulk tonnage through Charleston, down by about 56 percent at the halfway mark last December, recovered to within 26 percent of the fiscal 1982 period. The breakbulk throughput in fiscal year 1983 totalled just under a million tons. This was a decline of 255,270 tons from the 1982 figure of 1,203,711. "Special cargo" tonnage (pure bulk and leased facilities' production) for the year just ended was 984,217, down only three percent, or 28,881 tons, from a year earlier.

Overall tonnage for all state port operations in fiscal 1983 totalled 3,980,342, a decline of just three percent, or 135,123 tons, from last year's total volume of 4,115,465 tons.

Trade Development effort to promote the capacity of Charleston's new Wando Terminal to shippers resulted in attracting new business to Charleston during the past year, and the five container lines utilizing the Wando Terminal more than doubled tonnage through the facility in fiscal year 1983, the second year of the terminal's operation. The five lines had combined traffic of more than 79,000 TEU's in fiscal year 1983.

Moves to the Wando by two of the larger ocean lines calling at Charleston free space for expansion by other container lines at North Charleston Terminal and Columbus Street Terminal. Columbus Street Terminal now handles the traffic of eight container lines. Both Columbus Street and North Charleston terminals also service a number of breakbulk lines which offer container service.

In addition to expanding liner service from 81 to 87 lines, the Ports Authority's trade development efforts

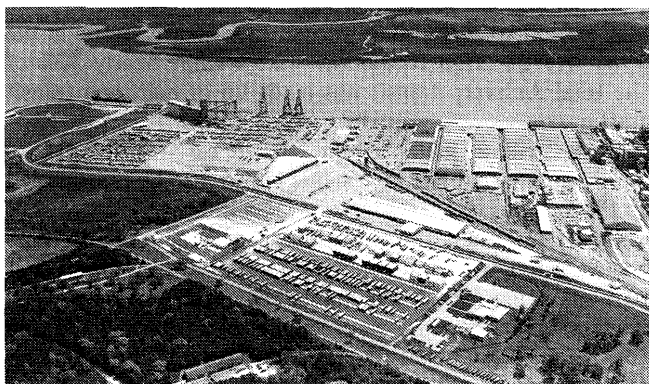


attracted seven new foreign freight forwarders, 22 motor freight lines, five motor freight agencies and three steamship agencies to Charleston's service profile during fiscal year 1983.

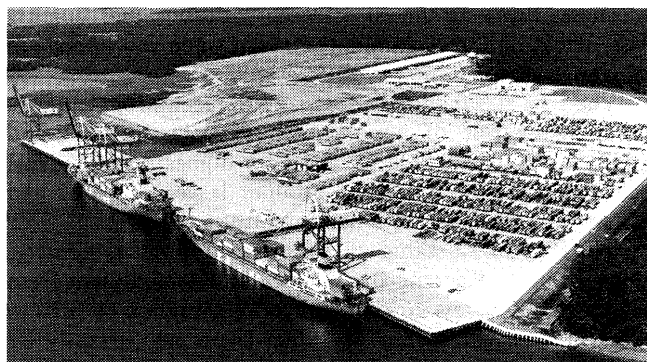
"If a recession can be said to have a good side," said W. Don Welch, executive director of the South Carolina port system, "it is that we had to take a long deep look at ourselves, our direction and our future. We are coming out stronger than ever with our service wider and our direction sharper than ever. Our Orion System is leading the world in computerized port technology. Our new concept of an International Transport Center, located 200 miles inland from Charleston, is attracting attention and imitation in other sectors."

Orion is the single greatest development at the Ports Authority in recent history. It is a computerized shipping document processing system, which links the Ports Authority data base to those of the U.S. Customs Service, the U.S. Department of Agriculture, steamship lines and agencies, and brokers and forwarders. This 24-hour on-line system keeps track of shipments and expedites all cargoes through the port in record time. Breakbulk cargo clearances, which used to require several days, in some cases, now are accomplished within 48 hours. Ninety-eight percent of all containers arriving at the port now are cleared for shipment within a couple of hours of arrival. The Orion System has attracted so much interest in the industry that the American Association of Port Authorities is offering a seminar on it at Charleston, August 18.

The International Transport Center, which will be open this fall, is located on a 110-acre site on South Carolina Highway 290 near the Greenville-Spartanburg Airport and Interstate 85. It readily connects to six other Interstates and provides an interchange point for the loading and off-loading of containers. The International Transport Center expedites interchange activities inbound and outbound and prevents costly hauling of empty containers over the distance between the International Transport Center and the Port of Charleston. The area plans include marshaling and distribution capabilities.



**North Charleston Terminal**, a combination container and break-bulk service facility, has three container cranes, 2,500 linear feet of container berthing space, a 1.5-million-bushel capacity export grain elevator, and more than a million square feet of covered and sprinkler protected warehouses and transit sheds. Recent improvements included renovation and expansion of the terminal's stripping and stuffing sheds and construction of new access roads to its 136 acres of open container storage lots.



**The Wando Terminal**, Charleston's major new container facility, serves five container lines with its four cranes, 2,427-linear-foot berth, and its paved 125-acre open storage and support area. Acclaimed worldwide for its innovative design, the \$80-million complex doubled the port's previous container handling capacity. The terminal property, totalling 561 acres of prime high ground, provides ample room for expansion in the years ahead. The Wando's throughput, during the fiscal year just ended, was more than 79,700 twenty-foot equivalents (TEU's).



**Columbus Street Terminal** serves container, breakbulk and heavy lift cargoes at its 3,875-foot marginal berth. The busy Port of Charleston facility has two container cranes, two gantry cranes and a heavy lift derrick with capacity in excess of 400 tons. Rapid land transport of cargoes is made possible by the terminal's proximity to Interstate 26 and U.S. Highway 17, which intersect immediately north of the 70-acre site.

## Port of Tacoma awarded foreign trade zone status

After five years of effort, the Port of Tacoma has received designation as a foreign trade zone (FTZ). The official FTZ charter was presented to Port officials recently by John L. Evans, deputy assistant secretary of the federal Commerce Department.

The Port worked with the Economic Development Council of Puget Sound in securing the FTZ designation. The initial site approved as an FTZ is the Port's 151,000 square-foot Marshall Avenue Warehouse.

An FTZ offers substantial incentives to both importers and exporters. It encourages both domestic and foreign

business firms to invest in U.S. locations and employ U.S. workers. Zones stimulate foreign trade and operate at no cost to the U.S. taxpayer.

The FTZ status allows a company to receive foreign-made components free of import duty while in the zone, and process them into final products for domestic and foreign sale. Only when a finished product leaves the FTZ and enters U.S. markets is it subject to duty.

The Port's FTZ status will promote more trade, industry, and jobs in the Tacoma area. The value of transactions from all U.S. FTZ's grew from less than \$100 million in 1970 to an estimated \$5 billion in 1980. There are currently 87 trade zones in the U.S. which have created over 16,000 jobs nationwide.

## 1982 container traffic in the Port of Antwerp marks a new record

From data provided by the Antwerp Port Authorities it appears that 1982 was another record year for container traffic.

In all 846,029 TEU were loaded/unloaded in Antwerp, i.e. a 6.5% increase over 1981. The number of TEU handled was well balanced between incoming traffic (415,967 TEU) and outgoing traffic (430,062 TEU).

Containerized cargo traffic amounted to 7,217,000 tons (+1.3% over 1981). Some 60% of this total was loaded with an overseas destination while the remaining 40% concerned incoming traffic.

For 1982 a slight decrease was noted in container activities with North America and Europe, which traditionally are the port's main trading partners in this field. On the other hand container traffic on the routes with the Far East and the Middle East considerably increased by 50 and 70% respectively.

Port of Antwerp—1982 Container Traffic			
	unloaded (in tons)	loaded (in tons)	total (in tons)
Europe	433.947	991.676	1.425.623
North America	1.468.998	1.317.401	2.786.399
Far East	421.281	853.037	1.274.318
West Africa	76.146	202.191	278.337
Arabian Gulf	61.930	386.946	448.876
Other transoceanic traffic	276.035	727.396	1.003.431
Total	2.738.337	4.478.647	7.216.984
Total number of TEU	415.967	430.062	846.029

## Port of Antwerp has an important maritime transit function

An important part of the overall traffic flow in the port of Antwerp is made up of transit traffic. In fact, 40 to 45% of all cargo handled in the port are not bound for or originating from the Belgian-Luxemburg Economic Union (BLEU), but transit via the port to other countries such as

West Germany, France, the Netherlands, Switzerland, Italy, etc. . .

Apart from this particular transit function, covering the European hinterland over 180°, there also exists a transit traffic via Antwerp to or from the maritime foreland of the port. It concerns the so-called maritime transit traffic by which both the incoming and outgoing cargo is carried by seavessel and by which the port's transit function covers a 360° area.

Some examples: transit of American grain, carried to Antwerp in large bulk vessels and transhipped in coasters bound for the U.S.S.R.; Australian coal is brought to Antwerp, temporarily stacked there and later on carried to Great Britain in coasters; solid sulphur is shipped from the U.S. to Antwerp, is liquefied in the port and shipped on to various European destinations.

As is clearly revealed by these examples the maritime transit can be directly by transshipping goods from one vessel into another, or indirectly. In the latter case the maritime transit is combined with intermediary stock-piling or the goods undergo supplementary processes such as bagging, melting, mixing, etc. . .

In some cases maritime transit via Antwerp offers the advantage of large scale imports due to the limited drafts in some other European ports.

Maritime transit traffic via Antwerp also gives foreign companies the opportunity to distribute their products from a centrally located distribution centre, either via their own subsidiary or via the services of an Antwerp specialist firm.

Moreover, goods in maritime transit via Antwerp may be often delivered faster and/or cheaper to their final destination on account of the diversity and regularity of the liner services offered from Antwerp.

Specifically for container transport, the Antwerp maritime transit function was given a boost by the feeder services which exist i.a. to the United Kingdom, the Iberian peninsula and Scandinavia.

From data, given free by the Study Centre for the Expansion of Antwerp, it appears that maritime transit traffic amounted to nearly 10 million tons in 1981.

Consequently the share of maritime transit traffic in the 1981 overall cargo traffic was 12.5% while nearly 30% of the total Antwerp transit was made up of maritime transit traffic.

It is striking that maritime transit cargo is shipped to Antwerp from all five continents in order to be transhipped to third ports.

In 1981, the leading continent of origin of maritime transit cargo was America with 3,146,000 tons the largest part of which (90%) was bound for other European ports while smaller amounts were shipped on to Asia (176,000 tons), Africa (111,000 tons), back to America (7,000 tons) and Oceania (3,000 tons).

In second place as continent of origin came Europe which made use of Antwerp as a maritime transit point for up to 1,401,000 tons of goods. The final destinations for these goods were spread all over the world though American ports stood in front (42%), followed by Asian ports (22.7%), other European ports (21.7%), African ports (13.3%) and ports in Oceania (0.5%).

In addition to America and Europe as continents of origin, in 1981 also goods from Oceania (226,000 tons),

from Asia (116,000 tons) and from Africa (53,000 tons) were transhipped in Antwerp from vessel into vessel.

## Port of Helsinki in profile

As far back as the 11th century, Finnish peasant farmers would travel to the mouth of the Vantaa River, which was crossed by one of the great trading routes eastwards, and would trade in the products of their forests and farmland. The Vantaa provided a means of getting to and from the interior of the country. Trade was not allowed to develop on any great scale, however, since the all-powerful Hanseatic League held a grip on all Baltic trade for several centuries. Their nearest commercial centre, serving the Finnish trade, was Tallinn, across the Gulf of Finland.

The so-called "War of the Counts" in the mid-16th century effectively put an end to the dominance of the Hanseatic League. Relieved of their influence, and keen to compete with the port of Tallinn, King Gustavus Vasa of Sweden founded the city and port of Helsinki in 1550, using the site at the mouth of the Vantaa. In 1640, Queen Christina ordered the port to be moved, to the area of present-day Helsinki known as Pohjoissatama (North Harbour). With the support of the crown, the port secured an important position in Finland's trade. Maritime trading was limited to the Baltic area, with wood and tar being exported in return for salt and broadcloth.

Shipping, and trade in general, have played a major part in Helsinki's development. The decisive factor was the proclamation of Helsinki as the new capital of Finland in 1812, which was the signal for a programme of building to make the city a commercial and administrative centre. In the four centuries since its foundation, Helsinki has grown to be Finland's centre for business, industry, education, and culture. The sea surrounds the city on three sides, and is a dominant feature both in the layout and the economy of modern Helsinki.

The actual port has been developed gradually. The area around the Market Square, which now houses the South Harbour, was built up in the early 19th century, as was the Hietalahti Basin, at the head of what is now the West Harbour. Large-scale building work really began in the last two decades of the 19th century, when a start was made on the Sörnäinen Harbour. The Jätkäsaari area of the West Harbour was begun at the turn of this century, being followed by Herttoniemi and Munkkisaari in the 1930's, Laajasalo Oil Harbour in the 1950's, and Sompasaari at the beginning of the 1960's.

Foreign trade is of great importance to Finland, since 1/3 of the national product goes for export. Shipment by sea is the most economical and efficient means of transporting goods. In 1982, Finnish foreign trade transports totalled 53.5M tons, of which some 84% were by sea. The value of sea transports was around 97.2M Finnmarks (FIM).

The Port of Helsinki is Finland's largest non-specialist port, the leading import harbour (excluding oil and coal shipments), the largest container port, the leading passenger harbour, and the third-largest port in terms of exports. It is a national port: although it can be said that Helsinki's influence is concentrated on the southern and central districts of Finland, products passing through the port are both produced and consumed in more distant areas in the north and east of the country.

With its high standard of equipment and services, the Port of Helsinki is geared to meet the demands of modern seaborne trade and the handling and warehousing of goods. The port is renowned for its operational efficiency and reliability. There are frequent and regular sailings to and from ports on the Baltic, the North Sea, and across the Atlantic, and transshipments offer connections with ports anywhere in the world.

### Port administration

The Port of Helsinki is municipally owned; the City of Helsinki is responsible for the upkeep and development of the port. Executive management is in the hands of the Port Authority.

The Harbour Committee supervises the operations of the Port Authority. This first-mentioned body consists of nine members elected by the City Council for a four-year term. Each regular member has a deputy. The election is carried out so that the members and their deputies reflect the political balance pertaining within the City Council itself. A representative of the City Council also participates in Harbour Committee meetings.

### The Port Authority

The Helsinki Port Authority is a municipally-owned body, administering the economical production of necessary harbour services, and seeing to the technical and operational development of the port. The Port Authority employs some 800 persons.

The Port Authority is one part of the whole machinery that goes to make up the port. The Authority works in cooperation with stevedoring companies, shipowners, forwarders, shipbrokers, the Customs etc. Taken as a whole, the port employs directly around 5,000 persons.

### South Harbour

#### Traffic in 1982

- 1,94 million passengers
- import 341,000 tons
- export 288,000 tons

Depth of channels	9.1m, 9.6 m
Land area	27 ha
Length of quays	2,239 m
Warehouses	40,228 m <sup>2</sup>
Storage areas	17,000 m <sup>2</sup>
General Customs Warehouse	21,000 m <sup>2</sup>
Ferry berths	7
Quay cranes	4

### West Harbour

#### Traffic in 1982

Imports, unit goods	756,000 tons
Imports, bulk goods	49,000 tons
Exports	528,000 tons

Depth of channels	11 m, 8.9 m
Land area	142 ha
Length of quays	3,858 m
Warehouses	
— Port Authority	54,722 m <sup>2</sup>
— private companies	26,218 m <sup>2</sup>
Storage areas	31 ha
Free Zone	

— sheds	47,000 m <sup>2</sup>
— storage areas	82,685 m <sup>2</sup>
General Customs Warehouse	1,500 m <sup>2</sup>
Dangerous chemicals, etc	
— shed	1,500 m <sup>2</sup>
— storage area	3,000 m <sup>2</sup>
Ferry berths	6
Quay cranes	23
Universal crane	1
Container crane	1

### Sornainen Harbour

#### Traffic in 1982

Imports, unit goods	801,000 tons
Imports, bulk goods	1,275,000 tons
Exports	686,000 tons
Depth of channel	9.0 m
Land area	60 ha
Length of quays	2,214 m
Warehouses	
— Port Authority	12,900 m <sup>2</sup>
— private companies	65,970 m <sup>2</sup>
Storage areas	168,000 m <sup>2</sup>
Dangerous chemicals, etc	
— shed	200 m <sup>2</sup>
— storage area	2,500 m <sup>2</sup>
Container terminal	4.5 ha
Ferry berths	4
Quay cranes	11
Universal crane	1

## The largest container terminal in Europe opens in Bremerhaven

As a finale to the 'Maritime Week' in Bremen and Bremerhaven—and as a prelude to the Port Festival on the World-Shipping Day—the Senator for Ports, Shipping and Traffic, Oswald Brinkmann, today, in the presence of numerous personalities from home and abroad, as well as a vast crowd, opens Europe's largest compact 'Wilhelm Kaisen' Container Terminal.

The Terminal in the seatown of Bremerhaven—now with its 2.3 kilometre-long riverside quay on the Outer-Weser; its 18 container-bridges; 60 van-carriers; and 1.6 million square-meters of traffic-and-storage area for container-handling—places Bremerhaven in the situation of offering immediate storage area to every enquiring shipping line.

The cost of the installation, together with the other extensions made in the Bremen ports; Some DM 3 milliards. Outcome: "Nary a container ship sails by Bremerhaven"—according to the press ('Handelsblatt'). Reference is thereby made, at the same time, to the 8,000 excellently trained port labour. Even now 9 of the 10 lines in the US-trade over the Atlantic call exclusively at Bremerhaven.

## Satisfactory results for container volume handled in Hamburg in the first half of 1983

"In view of the situation prevailing everywhere as regards cargo we are satisfied with the first half year results,

but we know that terminals will have to face up to a number of difficulties due to structural changes," Helmut F.H. Hansen, Executive Director of Port Commerce, Port of Hamburg, The Representative said at a press conference in Hamburg.

The Port handled 361.483 containers in the first six months of this year, 0.6 per cent more than in the same period last year, or calculated on a twenty-foot basis 446,597 TEUs to 4.1 million tonnes. "These figures show that not only has Hamburg's TEU figure increased, but also indicates a better utilisation of boxes and a decrease in the number of empty containers," Hansen said.

The trend to containerisation continues, according to Hansen. "Our feelings about this are ambiguous. On the one hand it speaks for the success of the door-to-door system, but on the other hand this means in fact that there are fewer boxes to be stuffed and stripped, which means less employment in the port. Work opportunities are bound to decline."

"Predicting how things will develop is a difficult task. Economic institutions and economic experts in West Germany tend to be by contradictory. But it seems to me that we shall be able to defend our market position in the future, even if the second half of this year shows no improvement in trading over the first half," said Hansen in conclusion.

## Despite recession Hamburg Port continues to invest; Investment projects near completion

Investments in the Port are continuing with undiminished strength. As in 1982, in this year too considerable funds will be spent on structural and capacity improvements. Numerous projects have already entered their decisive stages.

In November last year the first pile was rammed home for the new quay wall at Kronprinzkai to convert the key apron Buchheisterstrasse (investment sum 67 million DM), and now a new building phase has begun. The filling in operations have reached the stage in the meantime where quay wall superstructure can be regarded as imminent.

The work at Kaiser-Wilhelm-Dock, which is scheduled for completion by the summer of 1984, is one of the biggest quay wall orders ever placed by the Hamburg Senate. The funds approved for construction of the approximately 750-metre quay wall amount to a total of 105 million DM. It is calculated that it will be possible for the first new berth with sufficient water depths to take large containerships to become operational already at the end of 1983.

However, the building activity associated with the 105 million DM project is only one part of the wide-ranging operations under way in the Port:

- In connection with restructuring of the eastern Free Port, the Northern Elbe is currently being deepened and widened. This work will cost some 44 million DM.
- About 18 million DM have been estimated for the construction of a new quay wall at Stoltenkai.
- 20 million DM is the cost of lengthening and strengthening the Salzgitterkai in Sandauhafen. This work, which was started in March, 1982, became necessary because

the terminal is to an increasing extent being used by (lightened) freighters whose dimensions are in some cases far in excess of the expected vessel sizes according to the original planning. In future, if necessary, a "regular ship" of 110,000 tdw, and a larger bulk cargo vessel of 280,000 tdw can be dispatched simultaneously.

Since the below grade construction work has for all practical purposes been completed, the new harbour basin is now fully surrounded by shore walls. With 17 meters (mean sea level) the new berthing basin for ore freighters has the biggest water depth to be found within Hamburg's shore walls.

- Furthermore, the Hamburg Senate intends this year to reinforce the 300 or so metre long quay wall at the northern Europakai (Tollerort-Terminal) to create the water depths necessary for large containerships. The cost of the project is put at about 11 million DM.

Expansion of the terminal of Messrs. Wallmann & Co. in the southern Reiherstieg is also envisaged within the scope of wide-ranging measures to improve the structure in the Port. In this case the city of Hamburg has provided 15 million DM for infrastructure measures. All told, the Hanseatic city is investing at Reiherstieg about 40 million DM. On conclusion of the operations, the firm will have a quay wall running more than 500 metres along a water depth of ten to twelve metres. This means that in future it will be possible to dispatch ships up to 250 meters in length.

The railway station Hohe Schaar, which is in the vicinity of Reiherstieg, is also to be extended. Approximately 28 million DM have been earmarked for the project, which was begun in 1980. Of this sum, about 20 million DM will be spent on modernising the signals system and about 5 million DM on expanding the facility by six tracks.

In addition to this, strenuous efforts are being made to improve the traffic situation in the Free Port centre. Since the middle of 1979 work has already been proceeding at top speed to reorganise and expand the important traffic junction at Argentinienbrücke. The work involves building a new bridge and two high roads to ease the burden on the busy junction in future and will cost about 40 million DM. Completion is reckoned with at the end of 1984.

In 1983 a total of 140.4 million DM are to be spent on infrastructure in the Port from budget funds (last year's total was 145.4 million DM). With regard to private building operations (suprastructure measures) in the Port, last year 345.1 million DM were invested (1981: 180.2 million DM). In the opinion of Volker Lange, Senator for the Economy, the investments—in addition to maintaining and creating workplaces—also improve the efficiency of the Port and in the long run reinforce its function as an economic point of emphasis. (*port of Hamburg Topics*)

## VCK-Havenbedrijf to expand its Scandia Terminal: Port of Amsterdam

VCK-Havenbedrijf is to expand its Scandia Terminal in the Western Port area. This independent stevedoring company is then to concentrate its activities at two Amsterdam terminals, the Scandia and Deep Sea Terminals.

The first phase of the Scandia Terminal expansion

includes 22,000 square metres of paved storage, a 130 metre long quay on deep (10 metres) water and a 12,000 square metre shed of which 2,000 square metres will be cold storage.

VCK-Havenbedrijf is to invest f 5 million in this project.

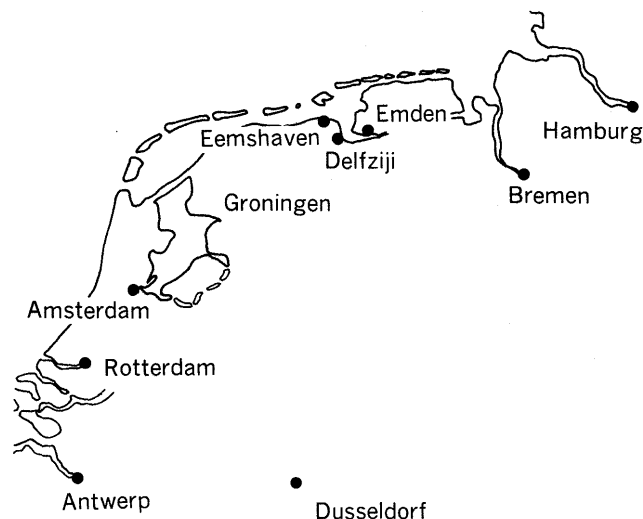
This move is a step further towards VCK's long-term goal to concentrate its activities in one location. The reduction of cargo has resulted in an overcapacity at VCK's terminals and has made the reduction in the number of terminals necessary.

VCK's most modern cargo-handling and distribution facility is the Scandia Terminal which was built in 1975 for the handling of ferries (passengers as well as roll-on/roll-off truck cargo) for services from Sweden and Norway, including the Tor Line and Fred. (*HAVEN AMSTERDAM*)

## Coal transhipped by pontoon barge to Sweden: Port of Amsterdam

Ocean transport of bulk cargoes by pontoon barge is a relatively new concept. In April, the first such transport in the Port of Amsterdam was handled a Overslagbedrijf "Amsterdam"—OBA—the port's largest bulk terminal. The Finnish pontoon LAPIS II, which is registered in Naantali, was loaded with about 13,500 tons of coal bound for Sweden. Normally, it would take three or four coasters to handle the same amount of coal. The pontoon was towed by the Norwegian tug, STARM, to her destination. This method of transporting coal is much cheaper than by using conventional ships. Gans Transport represented Shell, the shipper and Messrs. Oudkerk was the agent. It is expected that this type of transport of dry bulk cargoes will be seen more regularly in the future. (*HAVEN AMSTERDAM*)

## Port of Delfzijl in profile



## Once a port—always a port

Originally, the port of Delfzijl was a natural harbour. It was discovered rather than constructed by our ancestors, who found it an almost ideal anchorage for their small vessels. Later, as trade operations expanded, and bigger ships were built, the whole situation changed, of course. The town of Delfzijl even owes its name to one of the first



major changes: "Delf" is the old name for the Damsterdiep, which was the chief link between the town of Groningen and the sea, "Zijl" being the archaic word for "sluice". The sluice was built in the Delf in approx. 1300 A.D. A sluice means ships waiting, and ships waiting bring trade. More and more people came to settle in the sluice area, and the town of Delfzijl was born. Soon, Delfzijl became more important as a place of strategic significance, and ramparts were built to fortify the town. Thus, Delfzijl became a safe place to live in, and the townspeople could peacefully ply their trade, viz. coasting and fishing.

In the course of centuries many natural harbours have disappeared. Usually, this was due to natural causes, such as silting up, floods, or some other Act of God. Harbours, because of their economic and strategic value, were also often the hub of military operations in times of war, sometimes resulting in their complete destruction.

But not Delfzijl. Throughout its age-old history the town was spared from all kinds of disasters and catastrophes, allowing it to flourish and develop into a port of international significance. Of course its growth has also been based on efficient management. Particularly vital in the development process is the Eems canal, which was completed in 1876. The canal greatly enhanced communications between the towns of Groningen and Delfzijl, turning Delfzijl into a major regional transit port. Another factor that has been instrumental in promoting the growth of Delfzijl in those days was the completion, in 1884, of the railroad linking Groningen and Delfzijl.

Once again, however, Nature itself was responsible for the rapid development of Delfzijl into one of the major ports in Holland. Because, the discovery of a salt stratum near Winschoten in 1951 greatly affected port operations. The establishment in Delfzijl of the N.V. Koninklijke Nederlandse Soda-industrie entailed a lot of extra work in the port, for export of the new Dutch product.

But still more was to happen in those Fifties. In 1959 another natural resource was discovered in the area, viz. the vast natural gas deposit at Slochteren. This has been another discovery that dramatically affected the port of Delfzijl. In the end, the discovery of vast natural gas deposits has led to the construction of the "Eemshaven" harbour, which was completed in 1973. Moreover the Eemshaven is important not only to Delfzijl: it is expected to prove beneficial to the employment situation throughout the region. In addition to the rather spectacular events outlined above several other developments have affected the port of Delfzijl that, at first appearance, would not seem to be as spectacular. They are, however, highly significant events, such as the design and improvement of communications, by road, by ship, and by rail. And, of course, infrastructural enhancements, so vitally important to the transshipment and other industries.

### **The Port of Delfzijl Authority**

For a long time in the history of the Delfzijl harbour its development has not been deliberately controlled. Initiatives were taken, and concerted efforts were made only incidentally. However, as the harbour continued to grow and expand, a growing need was felt for an organization capable of controlling and coordinating the developments. This was experienced as a must, particularly in matters relating to port operations. Consequently, early this century, parties involved agreed to entrust the organization to the Pro-

vinciaal Havenbedrijf. This step proved quite an improvement; due to the rapid growth of the town of Delfzijl, however, the burden became excessively heavy for the Provinciaal Havenbedrijf.

Operations continued to expand, and it became obvious that Delfzijl was in urgent need of an authority to act as a central body, to make provisions that were required to adequately manage and operate a modern harbour and industry complex.

In 1958 plans for such an authority finally materialized through the creation of the Port of Delfzijl Authority.

The Port of Delfzijl Authority is a legal entity, established by an Act of July 31, 1957, containing the joint agreement by the State of the Netherlands, the provincial authorities of Groningen, and the municipality of Delfzijl, to establish the Port of Delfzijl Authority. The State, the province of Groningen and the municipality of Delfzijl participate for 50, 30 and 20 percent, respectively. From the outset of the Port of Delfzijl Authority policy has had a positive impact on the growth of the port.

A few figures can illustrate that growth: in 1958 316,017 tons of goods were handled, whereas, in 1980, this volume had increased to 2,414,063 tons.

The total surface of the industrial area near the harbour has been strongly expanded, too: in 1958, the year in which the Port of Delfzijl Authority was entrusted with the management, the area embraced only about 260 acres; in 1981 the total surface area embraced over 2,100 acres.

The activities of the Port of Delfzijl Authority strongly expanded, proportionate to the diversification and expansion of port operations, and to the regional growth. The number of tasks the Port of Delfzijl Authority is carrying out autonomously, however, also increased, causing a substantial increase of the number of personnel, to a total of 120 in 1981.

The policy making body of the Harbour Commission, the Board of Management, consists of 7 members. The Board members are elected from representatives of the participants in the Port of Delfzijl Authority, viz. the State, the province of Groningen, and the municipality of Delfzijl. The Executive Board is composed of members of the Board of Management who are designated for the purpose.

As the Eemshaven grounds are on the territory of the municipality of Hefshuizen, a representative of that municipality serves on both Boards, as an advisory member, in addition to the other members of the Boards. The eighth member of the Board of Management, viz. an advisory member, has been designated by the Department of Economic Affairs, to allow the Department to keep abreast of the economic developments in the region.

Day-to-day management of current affairs has been entrusted to the General Manager of the Port of Delfzijl Authority, who is responsible to the Board of management, and works under the supervision of the Executive Board with the assistance, of course, of a highly competent staff.

### **Benelux is the world's third harbour power: Inter-university meeting**

The problems encountered by shipbuilding and repair yards are making headline news, but a scientist following all this publicity closely, is struck by the lack of attention to

longer-term prospects.

Has the western world already abandoned these activities, fearing it will no longer be able to compete in the world market? And if so, on what rationale, given the fact that the increasing capital-intensiveness of production processes is working in the west's favour?

Another striking thing is that a number of smaller shipbuilding yards, especially in the north of the Netherlands, are not doing badly at all. They make products which are internationally renowned for their high quality.

Research into long-term developments is needed, if decisions of an ad hoc nature are to be avoided.

These observations were made recently by Professor L.H. Klaassen of Rotterdam's Erasmus University, at a multiday seminar devoted to the trading and distributive functions of the ports in the Benelux countries—Holland, Belgium and Luxembourg. Over two hundred students and teaching staff of Benelux universities had come to Rotterdam to attend.

Mrs Neelie Smit, the Dutch minister of transport and public works, outlined the trading and distributive functions of Benelux by pointing out that the overall value of loaded and unloaded cargoes reached a thumping 540 billion guilders in 1981.

Measured by the cargo handling of their ports, the three Benelux countries are the world's third harbour power, said our E.D.J. Kruijtbosch, secretary general of the Benelux Economic Union.

He observed that in a period of stagnation and depression such as the present, governments are sorely tempted to economise the easy way by making drastic cutbacks in infrastructural facilities, without concerning themselves overmuch with possible returns on such investments in the near future. Holland has reduced spending on infrastructural projects much more than Belgium has.

#### Need for space

Mr. F. Suykens, a top official of the port of Antwerp, contributed a port administrator's view on the conference theme. He noted that the emporium and storage function of ports was gaining in importance.

In the Middle Ages when seagoing ships called at irregular times, seaports had to serve as emporiums to guarantee a regular and dependable supply of the hinterland.

Today again a certain discontinuity in supplies must be smoothed out, but this time it is due to the upscaling in maritime shipping. It is impossible to carry onward to the consumers immediately the huge volumes of freight landed by very large carriers.

This means that seaports have an increasing need for more space. Simultaneously the new storage and distribution functions can be seen as a means to provide jobs for workers made redundant by new technologies in the cargo handling business.

#### Great tradition

Another speaker was Mr. M. van den Bos, chairman of the Rotterdam Chamber of Commerce, who discussed at length the outcome of a survey which the Chamber carried out recently into the city's trading functions.

It is vital for Rotterdam's position as a place of establishment for business firms, that it strengthen the commercial and services sector which has a great tradition and is of

high quality. The presence of other firms in the same branch, which leads to many kinds of social relationships, is a major reason for trading firms to set up shop in a seaport. This agglomeration benefit is hard to quantify, but it is nonetheless quite clear. The same goes for the name of Rotterdam in a firm's business address, which gains it international recognition.

H.B.

(Rotterdam Europoort Delta)

### Six-barge pushtows—series of practical tests imminent: Port of Rotterdam

A series of trial sailings with six-barge pushtow convoys will shortly be held on the waterway between Rotterdam and West Germany. A report on the results of these practical tests is due to be completed within one year. The minister of transport and public works will decide in the middle of 1984 whether six-barge convoys may be allowed on the Dutch part of this route.

If the trials offer prospects for improved efficiency in transport, the minister expects a cabinet majority to make funds totalling 210 million guilders available for improvements in the waterway aimed primarily at reducing interference with conventional inland shipping to a minimum.

The decision to make a series of practical trials was made recently by a large majority of the Dutch parliament's transport committee. Earlier, the minister, Mrs. Neelie Smit, had given positive replies to a large number of written parliamentary questions on this subject.

The Waterways Board, which is in charge of the major Dutch rivers, has meanwhile started consultations with the parties involved closest on the setup of the trials. This government body has been charged with carrying out the experiments under difficult circumstances.

Previous studies have indeed shown that at favourable water levels (hence: sufficient keel clearance) it is possible for heavily laden six-barge pushtows to sail from Papendrecht (a village south of Rotterdam just east of the Dordrecht railway bridge, which is considered to be an obstacle) to the Dutch-German border.

However, spatial problems may arise at low water levels, when the river has narrowed and the loaded pushtow sails from Rotterdam to the Ruhr district. During strong winds sailings with empty barges (mostly in the opposite direction) might also involve some risk.

The minister told the MPs that in her opinion substantial savings in cost could be made only if it was possible to sail with six barges under all circumstances. She pointed out that a comparison with the situation in West Germany (where a great many trips with six-barge pushtows have meanwhile been made) did not quite hold true because the German Rhine is about 40 metres wider than the Dutch Waal (delta) river, shipping with small vessels is less intensive there and the banks are of coarser material making them less sensitive to erosion.

Experimental sailings with six-barge pushtows in West Germany have so far been permitted only under nautically favourable conditions. They are not allowed at low water levels, and down-stream trips with empty barges are strictly forbidden.

Hans Bregggen

(Rotterdam Europoort Delta)

## Sea-borne container traffic in the Port of Rotterdam 1982

Destination Origin	Loaded			Unloaded		
	Total number	of which with cargo	Weight of cargo x 1,000 t	Total number	of which with cargo	Weight of cargo x 1,000 t
Europe	753,618	692,432	10,128,706	738,596	522,939	7,226,162
North Africa	355,034	312,658	4,635,417	285,692	184,206	2,812,442
West Africa	14,080	13,522	178,801	8,533	2,601	31,819
Central Africa	26,558	26,413	388,447	29,622	4,429	54,819
East Africa	3,517	3,506	53,464	1,541	775	9,885
South Africa	2,800	2,797	36,916	4,155	2,561	35,201
North America	21,758	21,521	270,419	20,463	11,197	145,221
Middle America	111,776	102,316	1,564,900	193,607	186,323	2,708,953
South America	373	313	4,560	3,890	853	11,124
West Asia	4,823	3,496	40,129	18,371	14,146	162,157
South & South East Asia	80,226	79,456	1,193,350	57,748	9,293	121,172
East Asia	45,069	42,917	602,054	35,105	32,007	404,890
Oceania	60,036	57,145	852,035	77,538	73,846	719,536
	27,568	26,372	308,214	2,331	702	8,943

## 40% trade increase boosts Southampton's freeport bid

Associated British Ports has released figures confirming a sustained recovery in trade at Southampton, the group's largest port and a leading candidate for Freeport status.

During the first half of 1983, 2,406,000 tonnes of non-oil cargo passed through the port, an increase of 43% over the same period of last year.

These figures are the first to indicate Southampton's performance since ABP's public flotation earlier this year.

Big increases were registered amongst containers, grain, and a variety of other commodities. The volume of container traffic at the Prince Charles Container Port increased from 93,969 TEU's to 127,019 TEU's, some 35%.

Exports of grain rose sharply, from 69,700 tonnes to 361,300 tonnes, as a result of the highly successful operation of the port's new grain silo. A second grain silo has now been built, and is to be inaugurated by HRH The Princess Anne in September.

Tonnages of general and bulk cargo, including manufactured goods, raw materials, timber, fertilisers and other commodities have also risen to 1,635,000 tonnes—an aggregate increase of 22½% over the first half of 1982.

Mr. Dennis Noddings, ABP's Port Director at Southampton, commented: "These figures show that the port is in fine shape and that a strong recovery is building up. This can only strengthen the case for Freeport status for Southampton."

## All things considered it was a good year for Port of Brisbane

The Port of Brisbane has ended up with a surprisingly good trading result for the 1982/83 financial year—only 4.4 per cent down on the previous year.

Official figures, based on manifest data, were released by the Port of Brisbane Authority Chairman (Hon. A.M. Hodges).

They show the port's total trade reached 8,976,000 (mass) tonnes for the year with exports of 3,546,000 tonnes and imports of 5,430,000 tonnes.

(In 1981/82, the port's total trade reached a level of 9,391,000 mass tonnes.)

Mr. Hodges said there were several gratifying features in the result, not the least being that the Port's performance

was attained in spite of sluggish world trends which saw trade through some of the major ports fall back by 20 per cent to 30 per cent.

He added: "And . . . neither should people forget that the port's trade was hampered in the first part of the year by drought, which devastated grain crops and halved our grain export tonnages. That was followed by floods over wide areas of the state.

"Yet . . . in spite of those setbacks . . . had it not been for the fire which drastically reduced the production capacity of Ampol's oil refinery and, hence, the refinery's crude oil imports, we would have gone very close to at least equalling our best trade efforts."

Minister for Maritime Services (Hon. J.P. Goleby), who had been closely monitoring the progress of the port's trade during the year, commented:

"Most people associated with the port would have to be pleased with this performance.

"I find it particularly significant that the port handled 99,395 t.e.u.'s, positive proof that Brisbane is more than matching the economic demands and pace of the all-important container trade.

"That figure is a substantial improvement on the previous best container trade of about 96,500 boxes in 1979/80."

Mr. Goleby said there were other rewarding features to port trade during 1982/83.

Exports of fertilizers and chemicals had soared to 117,500 tonnes—a 155 per cent increase, as a result of active marketing policies (by Consolidated Fertilizers Ltd.) in Western Australia and Asia.

General cargo rural products' exports went up almost 25 per cent and meat exports managed to increase almost 11 per cent to 273,000 tonnes.

Coal exports rose significantly by more than 43 per cent to an all time record of 731,600 tonnes whilst metal ores went up by 8 per cent to reach 228,500 tonnes.

Mr. Goleby said: "Whilst it is recognised that the port's general success is not applicable to all parties, one has to concede that Brisbane has retained its trading status in the midst of woeful trading conditions.

"The success is due in no small measure to the determination of the Port of Brisbane Authority to provide the means for industries to trade competitively in a very competitive world."

He added:

"My advice from the Authority is that even with only a reasonable improvement to trading conditions, the 1983/84 financial year will produce record levels in most facets of the port's activities." (*Brisbane Portrait*)

## Keeping pace with demand: Port of Melbourne

The completion of 5 Webb Dock during December 1982 marked the end of more than one-and-a-half decades of continuous construction of deep-sea heavy duty container and roll-on roll-off berths in the Port of Melbourne.

Since the advent of containerisation in the early 1960's the Port has virtually been rebuilt to provide the specialised berths, cranes, storage and terminal areas essential to the efficient and quick handling of this revolutionary method of cargo handling.

The massive construction programs undertaken have been described by some as being a "catching up process to meet the demand". In some world ports this could be true, but as Melbourne was in the forefront of the transition to containerisation, it is more appropriate to refer to it as "keeping pace with the demand".

Many millions of dollars have been expended in opening up new areas of the Port and in deepening and widening channels to cope with the increased draught of the big container ships. Construction of Webb Dock commenced in the late 1950's, to be followed by Swanson Dock. As the percentage of containerised cargo increased new berths in each of these complexes were built until today Webb Dock consists of five berths and Swanson Dock seven.

Although there is the prospect of a downturn in trade in the immediate future and only moderate growth thereafter, this does not mean there will be a reduction in construction work. In fact, the Port of Melbourne Authority already has in excess of one hundred and fifty million dollars worth of projects planned for the next five-year period.

To some extent this planned construction heralds a change in the nature of the work rather than a lessening of the amount to be done. Having provided for the immediate demand, it is now possible to concentrate on other areas in the Port.

The provision of improved general cargo facilities for the newer multipurpose vessels being introduced is a major task. The current works at 17 Victoria Dock, to be followed by two subsequent berths, will ultimately give the Port more than 900 metres of continuous wharf space in the area previously known as the "straight six".

Other projects will be aimed at improving cargo handling capacity and efficiency with the ultimate introduction of more major cargo handling equipment. In addition, the development and improvement of the Port's infrastructure will continue. One such project is the construction of a new road access system to East Swanson Dock while other works associated with the provision of public access points and general improvement in the standard and the appearances of the Port will continue.

One project which will be of considerable benefit to Port users and the State of Victoria is the approval of a rail line connecting Webb Dock with the Victorian railway network. Work is expected to commence later this year. To be constructed by the Railway Construction Board, it will commence near the Pigot Street-Footscray Road junction, cross the Yarra River downstream of the Charles Grimes Bridge, proceed along Lorimer Street turning south at Todd Road and then follow a south-westerly course terminating at the Port Authority boundary.

The Port Authority will be responsible for providing rail sidings within Webb Dock and the links to the main line. Further rail sidings in other south side areas of the Port will be added progressively as additional berths are constructed in line with the PMA's Forward Development Plan.

Ports today are operating in an increasingly competitive field as shipowners seek to contain costs by reducing the number of ports of call. Aware of the need for Melbourne to maintain, and improve, its share of trade, the PMA's planned capital works programs will offer Port users first class facilities and services at all times. (*Quarterly*)

## Indian Institute of Port Management A Metamorphosis

Indian Institute of Port Management, conceived by the Indian Ports Association for catering to the needs of the Officers of Major ports in India, has witnessed dramatic changes in the last few months.

A decision was taken by the I.P.A. in the year 1982 to strengthen and broad-base the activities of the Indian Institute of Port Management, considerably, to enable dissemination of concepts relating to the dramatic changes in Shipping Technology, which made it imperative for the Ports to gear themselves up to meet the challenges imposed by such changes, related to the specific environment of the Indian economy.

The Institute which is concerned primarily for the management development of the personnel of the Major Ports, Dock labour Boards and other organisations closely associated with Ports renewed its pledge to lay major stress in the following areas:—

- (a) Teaching and Training
- (b) Research
- (c) Consultancy.

The major concern of the Institute in recent months has, therefore, been to develop programmes in collaboration with other organisations and Research Institutions in the country, and beyond the country—the International Bodies and United Nations Agencies.

Collaboration in this context with Institute of Shipping Economies at Bremen, West Germany, UNCTAD, NATIONAL TRANSPORTATION PLANNING AND RESEARCH CENTRE, Trivandrum, Indian Institute of Management, Calcutta and Jamunlal Bajaj Institute, Bombay has already been initiated.

The renovation and remodelling of the Institute Premises has been completed. The entire Library of the Institute has been redone and the number of journals, books, literatures stored in the Library have been considerably expanded.

Excellent air-conditioned Library and class rooms, with built-in public address system, is now available as an environment conducive to the growth of knowledge. Sophisticated audio-visual aids are employed for class room deliberations with participation-oriented discussions for effectively strengthening the conceptual base of participants.

The Institute has at present a dynamic leader in the shape of Dr. A.K. Agarwal, Professor of the Indian Institute of Management, Calcutta in the area of "Management Information System" who has joined the Institute as its Director. Over the last years, he has been responsible for developing, organising and training computer professionals and in organising Management development programmes for the renowned Institute.

The Institute has also recently expanded its administrative staff considerably, to handle the tasks imposed on it.

Steps have also been initiated to induct core-Faculty in the areas of Personnel Management and Industrial Relations, Industrial Engineering and Maintenance Management, etc.

The Institute has drawn up its academic calendar for the current year which includes week-long as well as longer duration courses on wide ranging topics in addition to Seminars and work-shops on selected topics.

Efforts have been made by the Institute, consistently, to

ensure that the contents of the programme are oriented to real life problems of ports of India, and therefore, studies have been organised at various ports in India for data collection and eventual conversion to case studies for discussion in the class room during the training programmes.

In addition to the Management Development Programmes designed by the Institute, programmes have also been organised by the Institute on the specific requests of individual organisation.

The Institute looks forward to the future with courage and conviction.

The future for the Institute, it believes, is interlinked with the future of the Indian Ports, and the Institute stands committed to its tasks of developing appropriate Managerial Personnel for the ports, in the near future. (*INDIAN PORTS*)

## Israel Ports 1981

(Extract from 'Israel Shipping 1981', *SAPANUT*)

Cargo movements (excluding oil) through Israel's three major ports in 1981/82 grew by 4% and amounted to 11,521,000 tons (net), compared to the 11,106,000 tons handled in 1980/81 (which fiscal year had witnessed a 6% decline on the prior year's traffic). The tendency of the past few years continued in the division of cargo movements through the three ports: a decrease in the proportion handled each by the ports of Haifa and Eilat, and an increase by the port of Ashdod. At Haifa, cargo traffic did go up 2%, but at Ashdod, it rose 9%. Traffic at Eilat decreased 16%. Table illustrates the changing pattern of cargo distribution through these ports over the past five years.

The considerable increase in general cargo handled at all Israeli ports should be noted, especially that of trailerized and containerized cargo moving through Ashdod. These latter grew by 27.7%, from 1,215,000 tons to 1,551,000 tons (net). Haifa recorded only a 2% increase in containers and trailers, from 1,580,000 tons to 1,612,000 tons (net). Considering the port of Ashdod's location closer to the population centers of the Tel-Aviv area and Jerusalem, the possibility exists that this port will soon overtake Haifa in handling general cargo.

Distribution of Cargo Traffic Through Israeli Ports, 1976/77-1981/82 (in %)

YEAR	HAIFA	ASHDOD	EILAT
1976/77	57.1	32.6	10.3
1977/78	51.9	37.0	11.1
1978/79	50.4	40.5	9.1
1979/80	47.2	43.1	9.7
1980/81	45.3	46.4	8.3
1981/82	44.5	48.8	6.7
Change between 1976/77 and 1981/82	-22.1	+49.7	-35.0

The annual report of the Israel Ports Authority for 1981/82 states that in the past five years, overall cargo movements have risen 24.5% while total manpower has decreased some 25%. As a result of this rise in work productivity, the Ports Authority was able to continue operating

in a reasonable financial condition, even though there has been a drop in real terms of 28% in the Authority's charges when compared with the rise in the cost index. The relatively small deficit in 1980/81 of IS 88.6 million was reduced to one of IS 68.2 million in 1981/82. Considering the decline in value of the Israeli Shekel, the real reduction in the Authority's deficit was even greater. The loss was covered by its Revenue Adjustment Fund, set up for this purpose.

Development costs in 1981/82 for the Ports Authority were relatively small, amounting to IS 210 million. Work continued on completing the bulk cargo terminal at Haifa as part of the development project of that port's eastern section. Planning of Ashdod's special bulk port also continued. Labor relations at the three ports were quiescent, and activity continued in training workers to handle the sophisticated equipment that is being introduced to the ports in ever-increasing measure.

## Penang Port's performance for first quarter of 1983

The Port of Penang recorded significant growth in almost all aspects of its activities for the first three months of the year. It handled 1.81 million tonnes of cargo from January to March 1983 as compared to only 1.6 million tonnes over the same period last year. This represents an increase of 13.1%. There was also an increase in the number of vessels that called at the port from only 992 vessels in the 1st three months of 1982 to 1,053 vessels for the same period in 1983.

Export tonnage rose by 17.6% to 619,361 tonnes as compared to 526,474 in 1982. The major commodities which recorded increases were tin, timber and palm oil.

Import cargo for the period too increased by 11.1%. 1.2 million tonnes were imported in 1983 against 1.08 million tonnes over the same period last year. The major import commodities comprised raw sugar, cement, machinery and fertilizers.

Container traffic continued to maintain a high level of growth with an increase of 51% over the same period in 1982. 19,348 TEU's were handled from January to March 1983 against 12,792 TEU's for the same period last year.

The volume of vehicular traffic using the ferry service continued to grow significantly particularly motorcycles, cars and lorries. In terms of units, 1.6 million motorcycles, 1.1 million cars and 0.2 million lorries used the ferry service for the first three months of the year, thus registering an increase of 10.1%, 8.1% and 17.3% respectively over the same period last year.

## TRAINMAR course developers' workshop part II: Port of Penang

Malaysian Port Authorities have been urged to upgrade the quality of their port services besides striving to increase the volume of cargo handled through the Ports.

The call was made by the Deputy Minister of Transport, Datuk Abu Hassan bin Haji Omar when he declared open the UNCTAD Course Developers' workshop at a leading hotel in Penang recently.

The inter-regional workshop on training development in Maritime Transport (TRAINMAR) was held under the



auspices of the Ministry of Transport Malaysia and the Penang Port Commission.

This workshop was an extension of the first course Developers' Workshop held in Manila last August.

The two-week workshop, attended by 20 course developers from India, Kenya, Peru, Philippines and Malaysia was conducted by four lecturers from the Maritime Training Institution in Geneva. During the workshop the participants were exposed to training development guidelines to ensure that they were well trained in developing courses in the Maritime sector.

This TRAINMAR programme is to develop management training capabilities in Maritime Training Institutions by means of training course developers and instructors from developing countries. It is also aimed to develop a system of cooperation through the exchange of training materials among these institutions.

At present there are seven regional TRAINMAR centres in Ivory Coast, India, Peru, Philippines, Mexico, Kenya and Tunisia. Each centre is headed by a national coordinator of the host country and an UNCTAD team leader to coordinate course delivery. Courses on port planning and operations, management of container terminal, finance and training are delivered by TRAINMAR experts at the centres in many major world languages.

## **Development of container terminals — PPA's priority**

The Philippine Ports Authority has assigned top priority for the development of modern and specialized international and domestic container terminals to ensure greater and better service to the port community.

The port agency explained that the advent of containerization has brought about major changes in port and harbor planning. Other projects have to be programmed since priority projects like the International and domestic container ports have to be developed first to accommodate the increasing international and domestic containerized cargo traffic.

The Manila International Container Terminal is envisioned to become a transshipment point in Southeast Asia, projected to handle container traffic of about 450,000 TEUs in 1986. It aims to bring about the general reduction of feeder traffic, faster turnaround time of vessels and alleviate congestion at South Harbor by diverting around 90% of its cargo traffic to the new port.

The South Harbor which will handle only general cargo and 10% of the foreign container traffic after the ICT is completed.

Infrastructure to be provided under the Phase II of the international container traffic project are: extension/strengthening of the existing conventional wharf, construction of Ro-Ro facilities, paving of 15 has. of container stacking and marshalling yard, and construction of peripheral access road and internal roadways including amenity buildings container freight stations, etc.

The proposed domestic container terminal, on the other hand, calls for the separation of the containerized handling from breakbulk operation. It will make use of the existing Piers 2 and 4 and possibly Pier 6 as the terminal for containerized vessels. The remaining piers will handle the breakbulk traffic and containers carried on break bulk

vessels including passengers.

The back-up area located at Slip Zero and at the back of Piers 2 and 4 will provide the following facilities: a container yard (CY) capable of handling around 6,000 TEUs at any one time, a container freight station, a six-lane CY gate with four weigh-bridges and amenity blocks.

In the past few years, containerized cargo traffic continued to post huge increases in foreign and domestic trade. Foreign container traffic has been rising steadily; in 1978, foreign containerized cargoes rose from 209,973 TEUs to 289,446 TEUs in 1982, recording a 37% increase.

More significant is the fact that domestic container traffic at North Harbor (NH) has increased tremendously from 44,305 TEUs in 1978 to 247,066 TEUs in 1982 registering a 457% increase. Domestic container traffic is projected to still increase to around 500,000 TEUs by 1990.

This indicates that any future increase of the traffic beyond the level of capacity of a port would result to increased berth utilization, and, consequently the result is a build-up of ship waiting time.

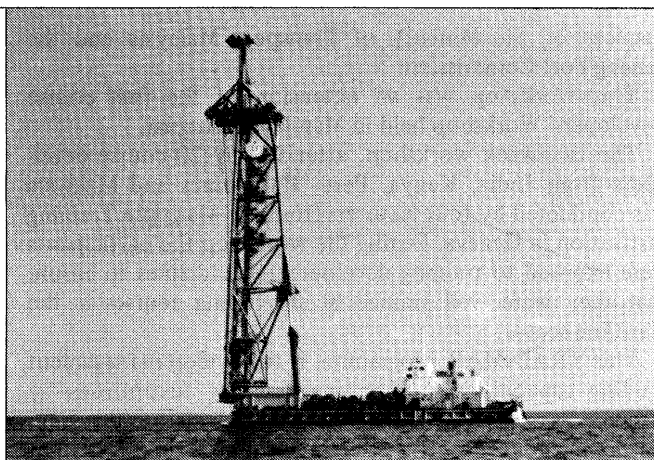
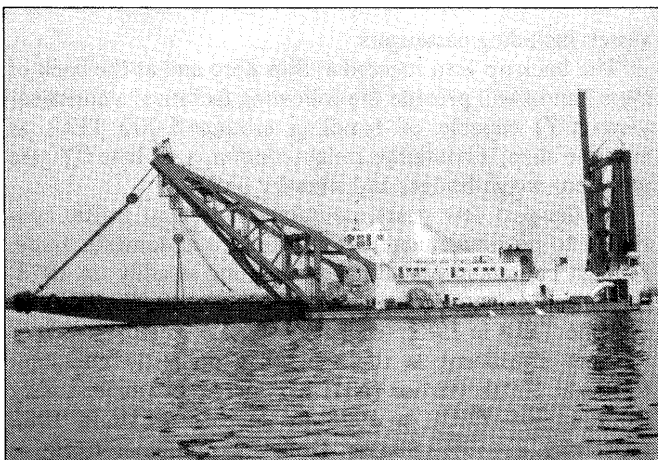
Waiting time build-ups accruing from future traffic increase would create port congestion. The disadvantage would be the disruption to the operations of shipping lines and other port users.

Once completed, the two development projects will directly benefit both the shipping lines and the port users through savings in ship-in-port costs brought about by the faster service time and lower waiting time of vessels; better handling productivity and utilization of equipment and reduction of damages and pilferage for the cargoes that will be induced to be containerized with these projects. **TCC**

## **9% increase in cargo handling in the first half of 1983: Port of Jebel Ali**

Despite the recession and downward trends in world shipping, Dubai's Port of Jebel Ali has shown a 9% increase in cargo handling in the first half of 1983, compared with the same period in 1982. At the same time, the Jebel Ali Industrial Zone is rapidly developing with two new major companies signing leases for industrial sites neighboring the Port. Further, two major shipping lines have commenced regular direct calls at Jebel Ali. The National Shipping Company of Saudi Arabia (NSCSA) will call from the Far East, and also from the USA East Coast and Gulf. Lauritzen Reefers have a new monthly service from Europe to the Red Sea and the Arabian Gulf, offering the first regular refrigerated breakbulk service to Jebel Ali Cold Store.

From January to June 1983, total vessels calling Jebel Ali numbered 1,146 showing a 22% increase over 1982. The Jebel Ali Container Terminal handled 61,019 TEU's, 13% more than the 54,023 TEU's handled in the first six months of 1982. Container units handled increased by 26% from 37,290 in the period January to June 1982, up to 47,082 in the same period in 1983. In May 1983 Container units handled broke the previous record set in March, improving it by 4% with 10,000 units moved in the month. Petroleum products increased from 545,530 MT in the first six months of 1982 to 638,405 MT in 1983, showing a 17% rise. Dry cargo tonnage handled at Jebel Ali increased by 4% in the same period.



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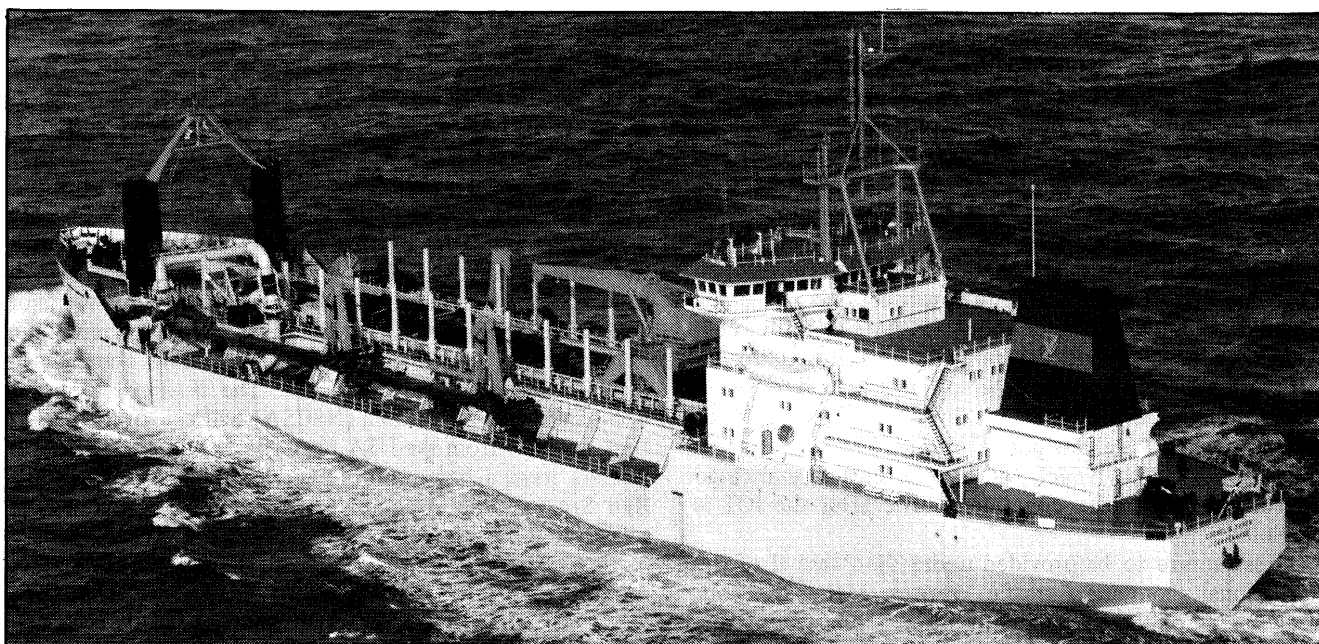


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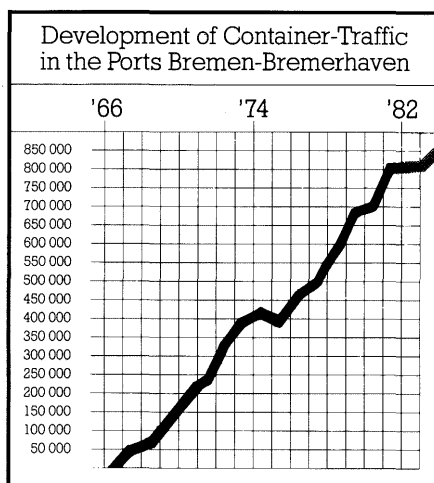
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It is a tradition of the Bremen ports always to be a step ahead. Shipping lines and shippers in Germany and in the world are aware of this. We have just completed another important step into the future: on August 19, 1983, the new



extension to the Container Terminal Bremerhaven "Wilhelm Kaisen" was inaugurated. Our investments there for container services provide altogether 3.200 meters of berths and 395 acres of stacking area. Ready for your use – today and tomorrow.

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# MITSUI Automated Container Terminal System

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But how to process it for efficient  
handling of containers?**

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

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

1. Yard Plan Computer System
2. Yard Operation Computer System
3. Data Transmission and Oral Communication System
4. Transtainer® Automatic Steering System
5. Transtainer® Operation Supervising System
6. Portainer® Operation Supervising System

① Computer Room

② Gate Office

③ Operation Room

④ Portainer®

⑤ Rail-Mounted Transtainer®

⑥ Rubber-Tired Transtainer®

**M MES**

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