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Le Havre

# IAPH Conference Le Havre May 1979

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# **IAPH** announcements and news

### Message from the Chairman of the Standing Committee on Legal Protection of Navigable Waterways

#### Mr. Andre Pages leads the Open Symposium on May 14th –

Port Directors are highly attentive to the ever increasing number of facts which mark all aspects of the evolution in port and maritime life, (technique, economic and commercial . . . ).

They are permanently required to adapt both the equipment and the organisation of the port establishments for which they are responsible, if they are not to run the risk of jeopardizing the future and even the present of these.

Sometimes, however, they are less aware of the profound influence that the evolution in International Maritime Law and the legal framework in which their ports are encased, have upon the interest and life of their ports.

Equally, they can be tempted to regard these as legal problems, engulfed in a somewhat mysterious world of their own and best left in the hands of a few specialists, who will cope with it.

It is true that International Maritime Law develops very slowly. The prerogative being finally left to the specialised agencies of the United Nations, (The Inter-Governmental Maritime Consultative Organization, IMCO, and the United Nations Conference on Trade and Development, UNCTAD), who devote years to establishing the drafts of new international conventions in conjunction with the international associations of the various professional sectors interested by them (shipowners, marine insurers, shipbuilders, chambers of commerce, jurists in maritime law ...).

Slowly but surely, the new regulations are introduced into the state laws and from there are applied to the maritime world and impose themselves upon the Ports. They result for the Ports in a whole series of obligations vis à vis their partners, the shipowners and the shippers. Equally, the results ought to be reciprocal and Ports should be able to require a whole series of obligations of these same partners.

The report which the Committee on Legal Protection of Navigable Waterways is to submit to the IAPH during the Le Havre Conference will show:

- that the subjects covered have a wide range and are extremely important to and concrete for ports; e.g. Carriage of Dangerous Cargoes. Environmental Protection . . .
- that a very devoted group within this Standing Committee has conscientiously consecrated itself to studying these issues.
- but that there is still a very long way to go before the Ports, as new comers, can make their voice heard effectively.



Mr. Andre Pages

 and that it is vital that all the ports participate, above all, by explaining their position to their own national authorities, before all important meetings at IMCO or UNCTAD.

#### Bremen Port Donates to IAPH Special Fund

Bremer Lagerhause-Gesellschaft (Port of Bremen) recently sent in US\$1,500 to the Secretary General as their contribution to the Special Port Development Technical Assistance Fund in supporting of the "aid programs" such as IAPH Bursary and Award Schemes now being conducted by the Committee on International Port Development, chairman of which is Mr. Sven Ullman, General Manager of Port of Gothenburg.

IAPH Special Technical Assistance Fund which is established with the revenue contributed from Regular Members, who consider themselves a "developed port" on a voluntary basis, for the purpose of assisting developing ports for training of their staff.

The funds are also being used for the Bursary and Award schemes. (TKD)

# More about `` Conciergerie'', new farewell party venue

Mr. J. Dubois, the 11th Conference Chairman and the General Manager of Port Autonome du Havre, recently wrote to Secretary General H. Sato further explaining the reason for the change of the venue for the farewell reception on Saturday, 19th, May.

Mr. Dubois in his letter of March 19th elaborated why this change had to be made and emphasized the merits of holding the farewell party at "Conciergerie", which has great historical importance and visitors are not admitted unless on such a special occasion as IAPH conference. Our host, after a hard negotiation, is likely to have succeeded in convincing the authority concerned, and is most enthusiastically invite the delegates not to miss this rare opportunity to spend one evening over the "soirée" running a thought to those aristcrats and revolutionists who spent their last nights in this palace, such as Queen Marie-Antoinette, Robespierre and Danton, to name a few.

Mr. Dubois, in the meantime, circulated a letter introducing the newly chosen venue "Conciergerie" to the participants, which we reproduce hereunder with a picture of the "Salle des Gardes", in which the reception of the 19th will be held. (TKD)

#### Mr. Dubois' letter to the participants

(dated March 26, 1979)

Until very recently we hoped that it would be possible to hold the farewell reception in the Chateau de Versailles in accordance with the option we had retained.

In June 1978 the Galerie des Batailles, where we had hoped to hold the reception on Saturday 19th May, was very seriously damaged by a terrorist attack. Despite the efforts made by the Curator of the Chateau de Versailles the restoration of all the affected elements will not be completed by May 1979 and we received this distressing news only a few days ago.

We immediately took steps to ensure that our farewell reception will take place in a setting which is certainly less prestigious than the Chateau de Versailles but which nevertheless has a certain grandeur: the Conciergerie, whose magnificent architecture and situation on the Ile de la Cité, birthplace of Paris, will we hope erase the inevitable disappointment at the impossibility of holding our farewell reception at Versailles.

For those of you who have already registered for Alternative A which includes the farewell reception at Versailles, we offer the choice of retaining this alternative or of transferring to Alternative B, which does not include the farewell reception. In the latter case a refund of 500 F will be made to delegates when they arrive in Deauville. We would therefore ask those delegates who have already registered for Alternative A to let us know their decision.

For those you who have not already registered, this letter is simply informative and will enable you to choose, with full knowledge of the reasons for substituting the Conciergerie for Versailles as the venue for the farewell reception, between the two alternatives.

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"Conciergerie" on the "Ile de la Cité", on the river "La Seine", the birthplace of Paris.



"Salle des Gardes" in the Conciergerie, far ewell reception site.

Moreover we assure you that this unfortunate stroke of Fate has been an incentive to us to redouble our efforts to ensure that the farewell reception will be of the highest possible quality.

To allow you the fullest possible freedom in your choice, we enclose a leaflet about the Conciergerie (as published in the April issue on page 13).

Yours sincerely,

# Credentials/Proxy for Regular & Board Members

Those voting delagates of Regular Members are requested to produce their credentials to the Credentials Committee prior to the opening of the 11th Conference. Also, Regular Members and Board Members, who are not attending the Conference in person, are encouraged to attend by proxy. Applicable members are requested to notify the Head Office, or the Credentials Committee of the 11th Conference, c/o Organizing Committee, Port Autonome du Havre, B.P. 1413, Le Havre Cedex 76067, France.

#### IMCO received IAPH Note on (rin) Handling of Dangerous Goods in Ports

Maritime Safety Committee, at its 40th Session took note of the following IAPH comments on the matter (MSC XL/22/2, March 8, 1979):-

1. The IAPH, having been aware over a period of time that there was an urgent need, on the part of the international port community, for an extended revision of Assembly Resolution A.289 (VIII) concerning Safe Practice on Dangerous Goods in Port Areas, is grateful for having had the opportunity to participate in the deliberations of the Joint ad hoc Working Group on the Handling of Dangerous Goods in Port Areas.

2. It is a matter of considerable satisfaction to the IAPH to note, and to have been party to, the determination of participating governments and organizations to seek to progress the work of revision to the point, where it would be possible to submit an appropriate Recommendation for consideration by the eleventh regular session of the Assembly. It is natural, with such an intent, that the IAPH would wish that the Recommendation be made comprehensive, so far as this is practicable of achievement, so that its dissemination to the international port community could be carried out without undue delay. Its utility could be maximised and its application by ports could be effected with the least inconvenience to regulatory and operational procedures.

3. The IAPH, therefore, commends the draft Recommendations on the Safe Transport, Handling and Storage of Dangerous Goods in Port Areas, prepared by the Joint ad hoc Working Group for acceptance by the Maritime Safety Committee. Such acceptance should also include provisions in respect of crude oil and petroleum products not included in the IMCO Codes for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk and for the Construction and Equipment of Ships carrying liquefied Gases in Bulk respectively.

4. This latter point is emphasised because, although the products in question may be carried in purpose-built ships, ports internationally would be concerned to ensure that this form of transportation is under effective control. It is firmly believed that the principles of such control can be demonstrated in the form of IMCO Guidelines emanating from these Recommendations.

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#### Publications

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"Barge Carrier Supply-Demand Analysis" 1979

- by H. Moncke, P. Faust
- 31 pages Price DM 10.00

"Determination of Ocean Freight Rates-Towards a New Formula" 1979 by Malcolm H. Pace

- 172 pages Price DM. 40.00
   Institute of Shipping Economics
   Werderstrasse 73 D-2800 Bremen 1
   Federal Rep. of Germany
- 2. "PORT PERFORMANCE INDEX-1979":

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- 71 pages Price \$50.00, additional copies for \$10.00 each
- if shipped in the original order

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3. "Containerisation International Yearbook 1979" Tenth edition National Magazine House

72 Broadwick Street, London W1V 2BP

#### Seminars, Conferences, etc.

 "Ports Policy and Practice Conference" in collaboration with the British Ports Association Pharmacy Lecture Theatre, University of Wales Institute of Science and Technology King Edward VII Avenue, Cardiff CF1 3NU May 22-23, 1979 Details from: The Nautical Institute Aldermans House Aldermans Walk London EC2M 3UU U.K.

 2. "International Association of Airport & Seaport Police Tenth Annual Conference" Sonesta Beach Hotel, Miami, Florida June 4-7, 1979
 Datails from: Lieutenant G.R. Havens

Dade County Public Safety Department Organised Crime Bureau 1320 N.W. 14th Street Miami, Florida 33125 U.S.A.

3. "SHIPPING 2000" An International Conference under

the auspices of the British Shippers' Council London Hilton June 19-20, 1979

Details from: E. Quentin Joyce, Director Charterhouse Conferences Limited 12a Charterhouse Square London, EC1M 6AX U.K.

4. "The 6th International Symposium on the Transport of Dangerous Goods by Sea and Inland Waterways"

sponsored by Ministry of Transport, Japan, and other organizations

Nippon Kaiun Club, Tokyo, Japan

October 13-17, 1980

Call for Papers: Those wishing to present a paper are requested to send the abstract (500-1,000 words) in English to reach the Secretariat not later than November 30, 1979. Acceptance of Papers: The acceptance of papers will be decided by the Organization Committee on the basis of the abstracts submitted. Each author will be notified by the end of January, 1980, whether his paper has been accepted.

Details from: The Secretariat

The 6th International Symposium on the Transport of Dangerous Goods by Sea and Inland Waterways c/o Nippon Kaiji Kentei Kyokai, 9-7, Hatchobori 1-chome, Chuo-ku, Tokyo 104, Japan

5. "Liner Shipping in the Eighties-an international symposium" Bremen October 24-26, 1979

Details from: Institut für Seeverkehrswirtschaft, D-2800 Bremen, Werderstrasse 73

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### Open forum: Port releases:

## **ICORELS Report by Mr. R. Bidet**

This meeting, the 7th and last one of ICORELS (International Commission for the Reception of Large Ships) was held on December 12th, 1978 at the Association's head office, 155 rue de la Loi-Brussels.

Were present:

Mrs. C. VAN DER BURGT, Chairman of the commission Prof. G. WILLEMS, Chairman of PIANC H. de JONG, Secretary of the commission Members: Germany (R. F.): H. D. HOFT, Hamburg

Denmark: C. WARMING, Copenhagen

Spain: E. MARIN GARCIA MANSILLA, Madrid

France: R. CHIGNARD, Marseille

Finland: T. REKONEN, Helsinki

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Portugal: Prof. F. VASCO COSTA, Lisbon

Sweden: A. BOHLIN, Gothenburg

U. S. A.: A. STEENMAYER, The Hague Observers:

International Association of Lighthouse Authorities: L. RIBADEAU-DUMAS, Bonneuil-sur-Marne International Association of Ports and Harbours:

R. BIDET, Le Havre.

The items on the agenda were the study of reports of working groups No. 1, 2 and 4 as reports of working groups 3 and 5 have already been approved and published and the study of future themes of studies relative to large ships.

#### I -Report of Working Group No. 1 (Port availability)

The discussion of the draft-report deals with the following points:

- as far as waves are concerned, it refers to waves in the open sea. It might be interesting to present a study of wave phenomena in shallow waters,

- as far as the reliability of weather forecasts is concerned, the formulation of p. 43 of the report (English translation) does not give enough details: it would be necessary for users of weather forecasts to learn how to make better use of meteorological information.

The draft-report of working group No. 1 is adopted provided that the text is slightly modified as regards weather forecasts.

#### II – Report of Working Group No. 2 (navigational radioelectric aids)

It is mentioned that IMCO has dealt with the matter of maritime beaconing further to the documents IALA sent them. Mr. RIBADEAU-DUMAS is developing IMCO's work together with IALA. This work do not interfere with the study of working group 2.

The report of this group is accepted, it being specified that a sentence will state precisely what is done at IMCO and as far as possible the LORAN-C map will be modified.

#### III-Report of Working Group No. 4 (channels and narrow

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#### channels)

There was no comment on the way the group, generally speaking, has fulfilled its task.

There was a discussion about squat. Prof. VASCO COSTA suggested that finkeels are put on both sides of the ship so as to reduce squat and to decelerate ships. Mr. RIBADEAU-DUMAS said that squat does not only result from inertia but also from hydro-dynamic effects. If it is really desirable to enter a port at a somewhat high speed, the danger which lies in braking a ship is that it may cause unforeseen deviations of course.

It was decided that a remark will be added in conclusions  $(\S2.1.2.6.)$  p. 42 which is meant for ship-builders or better for shipping companies, concerning the interest which lies in improving large ship's manoeuvrability.

As regards the training for steering ships in  $\S2.1.4.4.2.$ ergonomic considerations—the paragraph preceding fig. 5 p. 58 will be drawn up in a more prudent way.

In chapter "recommendations" §2.2.1.4., read "waves (amplitude, period, and direction) and tidal-wave" so that the list of these conditions may correspond with the appearing in the report of group No. 1.

In paragraph 4.1.2.2., selection of dredging methods, it would seem desirable to add "traffic in the considered zone" amongst the information to be allowed for in this selection. The view has been expressed that dredging methods to be used and the time required for their carrying-out must be defined in the contract concluded with a dredging firm.

At the end of the meeting, the report of working group No. 4 is accepted.

#### Future studies relative to large ships

As far as these studies are concerned, Mr. VAN DER BURGT, Chaiman of ICORELS has proposed to Prof. WILLEMS, Chaiman of PIANC that themes should cover a smaller field. They should be precise themes, such as "underkeel clearance" or "matter of approaches" which should be dealt with within a year. Prof. WILLEMS has agreed to this while observing that more limited studies will avoid detrimental interferences with the conference works.

As possible themes, the following proposals have been made:

- use of weather forecasts (Prof. VASCO COSTA quotes 2 studies which have been published: 30 days' forecasts, importance of meteorology for ports).

- wave spectrum in shallow waters,

- analysis of risks for mooring and berthing operations and traffic risks in navigable channels (Mr. GARCIA MANSILLA points out that relevant studies are underway at Madrid University). This theme is shortlisted for the 1981 Conference of Edinburgh.

- study of the definition of "substandard ships",

- study of large ships' increasing manoeuvrability and (Continued on next page bottom)

### Rhine, Meuse and Scheldt Delta (2)

- Concluded -

by F. Suykens Professor University of Antwerp (UFSIA) Deputy General Manager Port of Antwerp

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1. The Increase in the Scale of World Trade

2. The Increase in the Scale of Shipping

- 3. The Growth of the Traffic of the Seaports of the Delta
- 4. The Accessibility of the Benelux Ports

5. The Revolution in Cargo Handling Techniques

- 6. The Trek of Industry towards the Sea
- 7. Conclusion

### 5. THE REVOLUTION IN CARGO HANDLING TECHNIQUES.

The enormous growth in world trade and cargo handling in seaports gradually led to attempts to handle these cargo flows as efficiently as possible. Here too there has been a real industrial revolution influenced by a number of factors.

The mechanization of cargo handling was already only a few years after World War Two influenced by the increasing use of forklift trucks. This fairly quickly led to the increasing use of the pallet and the formation of unit loads, i.e. wherever possible, attempts were made to exploit the maximum lifting capacity of the quay cranes and forklift trucks, while at the same time more or less homogeneous units were created which could be stacked and which did not have to be broken up for preference during the complete transport cycle but at least during the handling cycle in the seaport.

Naturally the ideal is to form a unit load which will in size and weight correspond to the maximum transport capacity of the smallest carrier in the transport chain, i.e. the lorry.

In fact the **lorry** is also one of the elements which has changed the face of seaports. Formerly inland transport carriers, such as barge, rail and lorry, brought the cargo to the port. There they were unloaded and expertly stacked in sheds to await the arrival of the seagoing vessels. This meant that the cargo was handled and stored.

The same process took place when the cargo was unloaded in the overseas port.

With the growing importance of the lorry trials were made to see whether, bearing in mind above all the increased labour costs, the lorries themselves could not be taken on board and shipped to the overseas destination.

#### (Continued from page 12)

reliability at low speed,

- study of squat: increase of ships' draught when affected by swells, the ship's hydrodynamic characteristics (especially periods of roll and pitching) and her speed.

- port access affected by silting: surveying methods, admissible draughts.

Naturally the more expensive part of the tractor-trailer combination, the tractor, was left behind and only the trailer shipped.

When it was seen that on long distance routes too much space was lost on these roll-on/roll-off-ships, the chassis was removed leaving only the container which was designed so that it could be stacked. Thus the modern container was born.

Of perhaps even greater importance has been the **specialization** with regard to cargo transport and handling.

We have already pointed out that the greatest possible variety of cargoes is transported on liner vessels. Whenever the quantity of a certain type of cargo has increased to such an extent that it has become possible to fill an entire ship there has been a strong tendency to put a specialized vessel into service to carry it. In this context I have in mind the typical general cargo products which are now being shipped in such massive quantities that in some ports people are speaking of "massive general cargo" and in other of "neo-bulk cargo".

In former times hardly a ship called at the port of Antwerp—which did not take on some quantity or other of iron and steel products. Today there are vessels of 30,000 tons and even more which only carry semi-manufactured steel products on a sort of semi-regular line. As a result of this specialization, as well as of the introduction of special equipment and the construction of specialized steel terminals, outputs of 10,000 tons per day in two shifts both when loading and unloading are not exceptional.

Forest products such as paper, paper pulp and bundled timber, now arrive in vessels of 25 to 50,000 dwt which only remain two or three days in port, whereas formerly coasters with a tonnage of only a few thousand tons carrying unbundled timber would remain some 10 or more days in port to offload their cargo piece by piece.

Car carriers have capacities of up to 6,000 vehicles. The successive operations of offloading and reloading involving the handling of thousands of vehicles keep the vessel in port for two or three days at most.

Similar examples of specialization can be given for the transport of chemical products, fertilizers, non-ferrous ores, grain, fruit, refrigerated cargo, etc.

Within the framework of this specialization the transport chain is considered as one whole.

This means that the transport by seagoing vessel is not viewed independently of the cargo handling in the port and the transport into the interior. In this perspective of "physical distribution" the storage function of a seaport takes on new meaning.

We can all remember how the commercial and storage functions of seaports developed rapidly in the 16th century because of the need to overcome the discontinuity between the irregular arrivals of sailing ships from overseas and the regular dispatch of goods to the markets. This entropot trade was characteristic first of Antwerp and later of Amsterdam, London and Hamburg for several centuries.

When, as a result of the improvement of communications, trade gradually moved also into cities in the interior this entrepot trade lost much of its importance.

Today we are once again confronted by the problem of

overcoming in seaports the discontinuity between the arrival of gigantic quantities of cargo in ever larger vessels on the one hand and the slower dispatch by smaller inland carriers on the other.

This is leading to an increase in the importance of the storage function of ports and to greater storage space requirements in or in the immediate vicinity of ports.

All these developments naturally have a very great influence on the **employment of dockers**.

As a result of the introduction of new cargo handling techniques and the rationalization of port operations the number of registered dockers has slightly declined over the last few years in spite of the trebling of port traffic, referred to above, which at once reveals how productivity has increased.

#### Number of registered dockers.

| Year | Antwerp<br>1 | Ghent 2 | Zeebrugge<br>3 | Rotterdam<br>4 | Amsterdam<br>5 |
|------|--------------|---------|----------------|----------------|----------------|
| 1950 | 13,273       | 1,181   | ·····          | 9,092          |                |
| 1960 | 14,147       | 878     | 201x           | 13,815         | 5,046x         |
| 1970 | 11,934       | 953     | 142            | 14,887         | 3,643          |
| 1975 | 12,002       | 879x'   | 265            | 14,592         | 2,716          |
| 1976 | 11,678       | 771     | 271            | 13,706         | 2,542          |
| 1977 | 11,147       |         |                | 13,149         |                |
| 1978 | 10,795x"     | 750     | 279x"'         | 13,241         | 2,385          |

Sources:

1 Federation of Employers of the Port of Antwerp (Cepa)

2 Belgian Transport Workers Union (B.T.B.)

3 Federation of Employers of the Port of Zeebrugge

Southern Shipping Federation (Scheepvaart Vereeniging Zuid)
 Northern Shipping Federation (Scheepvaart Vereeniging Noord)

x 164

x' Not including 62 workers over 60

x" 25.8.1978

x''' 1.9.1978

As Professor Dr. K. Van Isacker put it so well in his "Goodbye to the Traditional Docker" (Afscheid van de Havenarbeider-Nederlandse Boekhandel-Ant werpen 1967): "The beast of burden, which was what the original docker was, disappeared after the First World War. Today the casual docker used for any type of work is also disappearing. The future belongs to the mechanic who is called upon to contribute to the building of a new port". ("Het lastdier dat de "buildrager" was, verdween na de eerste wereldoorlog. Thans verdwijnt ook de losse havenarbeider voor alle werk. De toekomst behoort de mecanicien toe, die gerrepen is om mee te bouwen aan een nieuwe haven".)

These mechanics must have increasingly intricate technical equipment at their disposal.

It is sufficient in this context to recall the introduction of forklift trucks, mobile cranes, tractors, trailers, etc. to obtain some insight into the enormous development which port equipment has undergone in the course of the last few years.

Unfortunately we do not possess detailed data for the various delta ports about the number of such lifting and carrying devices and vehicles. However, everybody will agree that using larger and more powerful trucks will have a considerable influence on cargo handling per hour at the berth of a vessel and per man/hour of a docker respectively so that people are now no longer talking of a maximum handling capacity but of an optimum handling capacity, i.e. a handling capacity which involves a minimum of costs.

It will be necessary in each individual case to consider whether the introduction of additional mechanical equipment, which immediately involves increased costs, will bring about an increase in handling speed which can equal in value those costs so that a ship is not merely loaded or unloaded as quickly as possible but also as cheaply as possible.

In this perspective it is perhaps interesting to point out that the number of quay cranes in the port of Antwerp increased from 325 in 1950 to 439 in 1970.

This increase by approximately one third may not seem very impressive but the picture looks quite different when the number of cranes is multiplied by the maximum lifting capacity (expressed in tons) of each of them. From this point of view there were 1,047.6 crane-tons available in 1950 as against 3,000.3 tons in 1977.

We can go even further with this comparison and multiply the number of cranes by both their maximum lifting capacity and their maximum reach so that we can obtain an idea of the crane-ton-metre capacity.

In this case we have an increase from 17,852 crane-tonmetres in 1950 to 97,495 crane-ton-metres in 1977 a fivefold increase.

The higher output of the general cargo berths and the high productivity achieved in the ports were without any doubt largely influenced by the considerable investments made in the superstructure. Although containers are handled by only a limited number of dockers it must not be forgotten that at the present time a container crane costs about 120 million Belgian Francs (4 million US\$) and that its use requires a wide range of other pieces of apparatus such as straddle carriers, forklift trucks, trailers, etc.

These new cargo handling techniques also require a lot of space.

Whereas Antwerp was always renowned among the North Sea ports for its very broad quays-since the 'twenties quay aprons with a width of 40 m and sheds with a depth of 60 m were no exception-today the quay depth at the new container terminals has risen fairly rapidly to about 400 m.

Even this site depth has in practice turned out to be insufficient, so that in the New Harbour Dock which is now under construction, provision has been made for a site depth of 800 m.

There is no time to go into this in detail but it nevertheless must be pointed out that if cargo handling per metre of quaywall has increased considerably over the years to fluctuate round the 3,000 tons per running metre at the Churchill Dock in Antwerp, such high levels of output are partly the result of the availability of these large sites. In conclusion, the output per  $m^2$  of site surface area behind a quay built around the turn of the century is not all that different to the output per  $m^2$  of a site beside a container quay, even though the cargo handling output per metre of quaywall varies so enormously.

The need of new sites and land in ports is constantly increasing. This aspect of the question must be taken into account in future port planning since the container revolution does not as yet seem to have attained its summit.

The following statistics of the Bremen Institute for Economic Research clearly reveal the overall growth of the world container fleet.

|       | New    | ships              |                | & growth as against               |
|-------|--------|--------------------|----------------|-----------------------------------|
| Year  | Number | Capacity in<br>TEW | Total<br>fleet | previous year<br>expressed in TEU |
| 1959/ |        |                    |                |                                   |
| 1967  | 48     | 28,020             | 28,020         |                                   |
| 1968  | 27     | 19,201             | 47,221         | 68.0                              |
| 1969  | 59     | 49,587             | 96,808         | 105.0                             |
| 1970  | 35     | 35,129             | 131,937        | 36.0                              |
| 1971  | 51     | 41,253             | 173,190        | 31.0                              |
| 1972  | 82     | 104,218            | 277,408        | 60.0                              |
| 1973  | 66     | 65,556             | 342,964        | 23.6                              |
| 1974  | 29     | 25,828             | 368,792        | 7.5                               |
| 1975  | 34     | 27,939             | 396,731        | 7.6                               |
| 1976  | 51     | 49,832             | 446,554        | 12.6                              |
| 1977  | 68     | 70,224             | 516,778        | 15.7                              |
| 1978  | 30     | 42,880             | 559,658        | 8.3                               |

In view of the vast sums which have been invested in the present installations, ships and containers, it seems unlikely that container transport technology will be significantly changed in the near future.

This is, moreover, also the point of view of Mr. Charles I. Hilzheimer, Chairman of the Board and Chief Executor Officer of Sea-Land Service Inc. who stated at the I.A.P.H.-Conference held at Houston in 1976: "For one or two decades, the changes we experience will be mainly in volume growth rather than in wholesale shifts in technology. For a time there will be sufficient challenge to keep the investments (cheap by replacement standards), which we now have, operating at their most productive level. There will always continue to be an evolution in the technology of component parts of the systems, as we attempt to get better and better production out of the investments. After about two decades, depending upon the state of the world economy, some major changes in the technology of vessel and terminal systems may be expected. Although the nature and exact timing of the changes is almost impossible to predict, we know some of the forces which are pressing for change. In studying these forces we can gain some insight to the nature of the evolution".

This is also the opinion of Lloyd's Register of Shipping which declares in an article about "Ships for the 'Eighties" (100 Al–July 78): "One thing seems clear. There are going to be no space-age developments in the 'Eighties and the world fleet should look more or less as it does today at the end of the decade ... The factors expected to affect ship design in the 'Eighties are those which have emerged in the 'Seventies—of which flexibility of use, cargo unitization and increased automation, linked with a lowering of manning levels, will probably predominate".

The delta ports have always been able without too much difficulty—but at the cost of huge investments—to cope with the new trends in shipping and cargo handling described above.

#### Development of container traffic in Belgian ports.

|      | Antwerp |           | Zee     | Zeebrugge |           |  |
|------|---------|-----------|---------|-----------|-----------|--|
|      | Number  | Cargo tr. | Number  | Cargo tr. | Cargo tr. |  |
|      | cont.   | in cont.  | cont.   | in cont.  | in cont.  |  |
| Year | loaded  | (in tons) | loaded  | (in tons) | (in tons) |  |
| 1972 | 155,532 | 2,303,491 | 90,311  | 1,206,270 |           |  |
| 1973 | 214,794 | 3,228,794 | 92,421  | 1,262,447 | 25,802    |  |
| 1974 | 251,678 | 3,864,012 | 111,597 | 1,639,267 | 43,941    |  |
| 1975 | 222,506 | 3,335,558 | 107,643 | 1,493,858 | 41,581    |  |
| 1976 | 247,400 | 3,723,225 | 122,202 | 1,418,563 | 51,723    |  |
| 1977 | 304,296 | 4,878,466 | 137,966 | 1,811,752 | 48,063    |  |

#### Development of roll-on/roll-off-traffic in Belgian ports.

| Year  | Antwerp<br>Cargo traffic<br>in tons | Zeebrugge<br>Cargo traffic<br>in tons | Ghent<br>Cargo traffic<br>in tons |
|-------|-------------------------------------|---------------------------------------|-----------------------------------|
| 1972  | 603,050                             | 1,315,799                             |                                   |
| 1973  | 821,962                             | 1,893,204                             | 169,452                           |
| 1974  | 808,721                             | 2,297,742                             | 202,466                           |
| 1975  | 710,654                             | 2,578,791                             | 205,430                           |
| 1976  | 807,577                             | 2,771,165                             | 203,134                           |
| 1977  | 1,015,789                           | 3,150,614                             | 203,897                           |
| Note: |                                     |                                       |                                   |

With regard to the port of Zeebrugge attention must be drawn to the importance of the cross-channel traffic of passenger and accompanying vehicles by ro-ro-vessel (1977: 1,605,927 passengers and 671 828 vehicles).

#### Development of container traffic in Dutch ports.

|       | Amsterdam  |           | Rott        | Rotterdam     |          | hing      |
|-------|--|-----------|-------------|---------------|----------|-----------|
|       | Number   | Cargo tr. | Number      | Cargo tr.     | Number   | Cargo tr. |
|       | cont.  | in cont.  | cont.       | in cont.      | cont.    | in cont.  |
| Year  | loaded   | in tons   | loaded      | in tons       | loaded   | in tons   |
|       | (1)  | (1)       |             |               |          |           |
| 1972  | 28,979   | 212,650   |             |               |          |           |
| 1973  | 35,786   | 338,605   | 601,647     | 8,318,658     | 7,825    | 102,890   |
| 1974  | 28,791   | 292,945   | 674,491     | 9,215,866     | 6,563    | 80,495    |
| 1975  | 23,280   | 300,308   | 604,517     | 8,202,378     | 19,998   | 266,846   |
| 1976  | 21,333   | 278,440   | 685,880     | 9,531,099     | 30,256   | 412,228   |
| 1977  | 29,367   | 387,707   | 478,154     | 10,782,800    | 26,660   | 356,683   |
| Sourc | e: Central   | Office of | f Statistic | s (C.B.S.) p. | 189: Arr | ival and  |
|       | departure of containers by seagoing vessel in Dutch ports. |           |             |               |          |           |

Development of roll-on/roll-off-traffic in Dutch ports.

| Year | Amsterdam | Rotterdam | Flushing |  |
|------|-----------|-----------|----------|--|
| 1972 | 102,139   | 1,668,808 | 22,796   |  |
| 1973 | 124,941   | 2,265,464 | 36,848   |  |
| 1974 | 145,599   | 2,900,309 | 148,667  |  |
| 1975 | 117,811   | 2,843,824 | 289,019  |  |
| 1976 | 83,963    | 2,863,473 | 326,952  |  |
| 1977 | 78,564    | 3,032,517 | 456,465  |  |

 Source: Central Office of Statistics (C.B.S.) p. 195: Arrival and departure of trailers, semi-trailers and lorries by seagoing vessel in Dutch ports of loading or unloading.

#### 6. THE TREK OF INDUSTRY TOWARDS THE SEA.

The most far-reaching development which has influenced the ports of the Rhine-Meuse-Scheldt delta over the past few decades is without doubt the spectacular industrialization which has taken place in and around the seaports.

Various factors have contributed to this development.

Generally speaking it is a fact that Western Europe is becoming increasingly poor in raw materials which have to be imported to an ever larger extent from overseas. This is in fact an example of the application of the classic economic theory of A. Weber who in the second half of the previous century showed that manufacturing industries always have a tendency to set up operations at the site of raw materials, especially in the case of raw materials which lose weight when processed.

It is a fact that the industrial pattern of Western Europe today is still to a large degree determined by the location of the coal and iron-ore mines which were developed in the previous century It is sufficient to think of the North and North East of France, the Ruhr, the basin of the Sambre and Meuse in Belgium, etc.

After the Second World War the seaports became, as it were, the new places where overseas raw materials were located.

A second general, economic factor which played an important role was the creation of the European Common Market, as a result of which many new industries were established taking into account the increased sales possibilities within a larger unified market.

These initiatives were taken both by European industrialists who no longer paid the same attention to national borders, and by American multi-national companies which were interested in the growing market possibilities in the expanding European Common Market.

To these two important basic factors must be added a whole series of other factors influencing the choice of a particular site. These factors were found above all in the ports of the delta (see Professor F. Nédée's "Rendabiliteits-beleid en fiscale druk" (Profitability policy and the burden of taxation) Economisch en Sociaal Tijdschrift 1977, n° 3, p. 317).

Of special importance were;

a/- the infrastructure.

Industrial sites were available or could quickly be made available in or near the seaports. The authorities, both national and local, acted rapidly and dynamically especially with regard to the provision of the infrastructure and public utilities.

b/- the labour market.

In the 'fifties and 'sixties there was, especially in Belgium, considerable structural unemployment and ample reserves of qualified workers. Wage costs were, in comparison with other countries, reasonable. There was a link between wage rises and productivity increases which had been worked out in mutual consultations between employers and employees.

c/- finance.

There were relatively few problems with regard to the financing of new investments and the local markets could easily satisfy the demand for new capital. The burden of taxation was, from an international point of view, fairly mild especially when certain tax reliefs and negative taxes in the form of interest subsidies and capital grants for new investors are borne in mind. In 1965 the total burden of taxes and rates amounted to 30% of the GNP, which had risen to 38% by 1974. In the Netherlands the same percentage rose from 38% in 1965 to 47% in 1977.

The results were not long in making themselves felt.

The total surface area allocated to industry in the port of **Antwerp** now amounts to c. 3,500 hectares, about 135 thousand million BF were invested and over 32,000 jobs created.

The principal sectors involved are

| <br>oil refining and storage            | 506 ha   |
|---|----------|
| <br>chemical and petrochemical industry | 1,928 ha |
| <br>car industry                        | 242 ha   |
| <br>ship repairing                      | 69 ha    |

generation and distribution of electricity 275 ha

It should be noted that a new port industrial zone is at the present time under construction on the left bank of the Scheldt. The additional net surface area there which will become available for the establishment of industry amounts to c. 2,500 hectares.

The total surface area allocated to industry in the port of **Ghent** amounts to c. 2,200 hectares while another 1,700 hectares have been provided for further expansion.

In the port of Bruges-Zeebrugge c. 100 hectares are at present occupied by industry. Another 185 hectares of

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industrial sites are available, while provision has been made for another 1,460 hectares for future expansion, both for port industry and cargo handling.

It must be pointed out that with regard to the figures for the port zone on the left bank of the Scheldt near Antwerp as well as those for the ports of Ghent and Bruges-Zeebrugge, the actual division of the areas provided for expansion into functional sites for cargo handling and industry can be altered in accordance with the nature of the demand which will make itself felt in the future.

Not all sites in these port expansion zones are situated immediately beside deep water so that the figures must be interpreted with the necessary caution.

As far as the Netherlands are concerned the updated version of the report "Inventory of the Existing Seaport Zones in the Netherlands" (Inventarisatie van de bestaande zeehavengebieden in Nederland), drawn up by the Seaport Consultative Commission (Commissie Zeehavenoverleg) gives the following picture with regard to industrial sites.

| Surface area of  | port and  | industry | sites in | some | Dutch |
|------------------|-----------|----------|----------|------|-------|
| ports in hectare | s as on 1 | .1.1977. |          |      |       |

|                    | Sites          | Sites                           | Free sites             |                |       |
|--------------------|----------------|---------------------------------|------------------------|----------------|-------|
| Ports              | to<br>industry | prepared<br>fr. all. to<br>ind. | Ready<br>fr.<br>devel. | Virgin<br>land | Total |
| Rotterdam          | 2,385          | 11                              | 280                    | _              | 280   |
| Amsterdam          | 554            | -                               | 390                    | 930            | 1,320 |
| Terneuzen-West     | 489            | -                               | -                      | - 1            | -     |
| Terneuzen-Canal z. | 270            | _                               | 121                    | 62             | 183   |
| Flushing           | 410            | 406                             | 10                     | 390            | 400   |
| Delfzijl           | 244            | 393                             | 10                     | 144            | 154   |
| Eemshaven          | -              | 497                             | 6                      | 34             | 40    |

When these figures for the Netherlands are added together we get an impressive total: 5,659 hectares of land already allocated or being prepared for allocation to industry as against some 2,377 hectares of free sites.

These figures do not include any areas for cargo handling or port expansion plans, neither is the extensive Moerdijk industrial zone included.

The Seaport Consultative Commission (Commissie Zeehavenoverleg) in its annual report for 1977 (submitted on 29 April 1978) even speaks (p. 60) of a total unoccupied area in Dutch seaports of 7,649 hectares which can be compared to the area occupied, 7,051 hectares and concludes that there is still a lot of land available for seaport expansion even allowing for the schemes which are already underway.

The great question which is now facing the ports of the delta is, however, what the land requirements for seaport industrialization in the region will be in the future.

It cannot be denied that as a result of the economic crisis, and perhaps even more because of the crisis of confidence which has arisen over the past few years, the number of new industries to be established has declined quite considerably. In this connection some comment is called for.

a/- political considerations are nowadays frequently more decisive than economic arguments. An outsider cannot but note with concern what results were reserved in the Netherlands for the very thorough socio-economic cost-benefit analyses such as that for the "Ijmond" at Amsterdam, which was drawn up moreover by the National Seaport Consultative Commission (Nationale Commissie Zeehavenoverleg) or that of Rijnpoort (Essor) at Rotterdam.

Doubtless many basic doubts can be expressed with regard to socio-economic cost-benefit analyses, partly with reference to the sometimes debatable calculation of the costs, but above all with regard to the estimates, rather full of fantasy, of some of the benefits.

Nevertheless it is striking that it is precisely those projects for which thorough studies were carried out with positive results which have not been realized in practice for the most divergent of reasons.

The decision of the Dutch government to designate Eemshaven rather than Rotterdam for the importation of L.N.G. in spite of an increase in costs, which is estimated to be some 200 million guilders by those favouring the decision and 700 million by the Rotterdam authorities, must also be seen in this light.

These costs are far less than the estimated 56 thousand million BF, regarded by many as an underestimate, which are considered necessary for the extension of the port of Zeebrugge which has been selected in Belgium for the importation of L.N.G.

In France too the choice fell on Nantes-St. Nazaire for the importation of L.N.G. rather than the already existing underutilized installations at Le Havre-Antifer or Marseilles-Fos since it is hoped that this same L.N.G. will act as a stimulus for local industrialization, even though it is precisely natural gas of all fuels which can be transported both easily and cheaply to existing centres of consumption and/or to areas where chemical industries are concentrated. The experience of the natural gas found in Groningen in the North of the Netherlands and which was used to stimulate the settlement of new industries at Flushing in the South of the Netherlands by means of the so called "aardgaspotje" seems to be forgotten.

b/- The industrial climate in the Benelux countries is a lot less attractive at the end of the 'seventies than it was at the beginning of the 'sixties. This partly explains the slower growth or the absence of the multi-nationals which made such a great contribution to the prosperity of the delta ports. Selective investment levies must without any doubt be seen in another perspective if there is little or nothing to select.

However, that is not all: a number of American mult-nationals are withdrawing from Western Europe and are making considerable disinvestments, for instance Occidental Petroleum, Union Carbide, Monsanto, Hercules, etc.

c/- The competition to attract new investment schemes is at this moment greater than ever before and, for example, I.C.I.'s choice fell on Wilhelmshaven rather than Moerdijk and Schelde Chemie's on Brunsbüttel rather than Antwerp.

The important incentives which can amount to a contribution of up to 20% of the capital investment are doubtless not without their effect, although it is just as doubtless that the overall cost level in the Benelux countries now works in North Germany's favour.

Considerable competition is also making itself felt from the southern ports especially those in France which have extensive industrial sites already prepared for construction. Just as the French are making every effort to win back so-called "diverted" port traffic, so they are also doing everything to make up for lost ground with regard to the industrial expansion of the French ports as opposed to those in the Benelux countries. We should also not overlook the possibilities of the United Kingdom stimulated by the North Sea oil. A few months ago Dow Chemicals purchased some land near Killingholme and other large chemical companies such as BASF are said to have shown interest in acquiring land on Humberside (European Chemical News 8 September 1978).

d/- There is also the competition from overseas countries. Whereas the industrial pattern in Western Europe in the second half of the previous century was largely explained by A. Weber as the result of the presence of raw materials which underwent the first phase of processing at the place where they were found and whereas by applying the same principle the seaports of Western Europe were after the Second World War the ideal places to find raw materials, the logical conclusion of this theory is that in the future to a greater extent than hitherto raw materials will be first processed at the overseas sites where they are found. This means in the case of iron and steel production, for instance, the ore exporting countries such as Brazil, South Africa, Australia, etc. With regard to oil there is a trend towards refining in the Opec-countries. Phosphate exporting countries also prefer to manufacture phosphoric acid locally. In some cases higher export duties are levied on tropical logs than on the exports of sawn wood, plywood or other forest products.

However, this is not all. Most developing countries adhere to a policy of either trying to manufacture those products where they can competitively do so taking into account their advantageous comparative costs because the raw materials or labour force are available on the spot, or of striving to meet their own country's most essential requirements, for which purpose they expand the industrial capacity required for their own market. At the very moment that Western Europe is suffering from a severe steel crisis, the International Iron and Steel Institute (IISI) has pointed out that the third world countries have scarcely altered their plans for expansion which were in many cases drawn up three to four years ago when the steel sector was still expanding.

In the petrochemical sector too, where Western Europe is facing the problem of overcapacity, various Opec countries have begun work on quite a few impressive complexes (see Chem.Ind. XXX May 78 and N.R.C. 2 June 1978 p. 14, etc.). Although the European chemical industry must adapt itself to face dramatically lower growth rates in demand for petrochemicals and plastics in the next 25 years, Mr. E. Werner, director of chemicals for the Royal-Dutch/ Shell group expects the location of world petrochemical production in 30 years to be broadly speaking similar to the present (E.C.N. September 22, 1978).

e/- The technological revolution in cargo handling and transport means that many more places in the interior are suitable for establishing industries, even for those which previously were considered to be typical seaport industries.

The improvement of inland waterways, for example, which have been adapted to take pusher convoys of up to 3,000 tons, means that the comparative cost advantage of the seaport for processing raw materials is becoming less pronounced. It is remarkable how many neighbouring countries have undertaken large scale canal projects, mostly within the framework of regional planning, the most spectacular of which are probably the Rhine-Main-Danube canal and the Rhine-Rhône link.

However, there is more to it than this. At the beginning we spoke about container traffic but we can also consider this technique not in the sense that a container is a means of packing cargo, but in the sense that a container is a part of the vessel which is taken ashore.

The Americans say that "stevedoring goes ashore". From this point of view container handling in a seaport is nothing more than the simple assembly of parts of a seagoing vessel in a non-labour-intensive manner.

In this perspective attention must also be paid to a new form of transport technology, viz. the pipeline.

At the present time there are some 60 pipelines in the port of Antwerp which link the various industries in the port either with each other or with industries in other ports or in the interior.

This pipeline revolution is especially marked in the delta ports. Thus there are crude oil pipelines from Rotterdam to Amsterdam, Flushing and Antwerp, as well as to Western Germany and, via Antwerp, to Feluy in the South of Belgium. There are ethylene pipelines from Rotterdam, Moerdijk and Terneuzen to Antwerp and from Antwerp to the Dutch province of Limburg, West Germany and southern Belgium (Jemeppe and Feluy). There are oxygen pipelines from southern Belgium to Antwerp, from Antwerp to Moerdijk and the Belgian province of Limburg, etc. There is also the new pipeline for petroleum products between Antwerp, the Dutch province of Limburg and Liège.

This is nothing but a silent revolution since the pipelines are underground and the enormous quantities of products conveyed by them go unnoticed.

Whereas formerly the question was raised in port zones as to whether for safety reasons it was possible to move ethylene over short distances between two factories in the port, this some product has become ubiquitous and is available practically everywhere. As a result in Belgium we have seen a whole series of ethylene processing factories spring up along the A.R.G. (Aethylen Rohrleitungsgesellschaft) pipeline, both in the Campine near Antwerp and in Limburg, whereas ten years ago a seaport site would have been preferred.

Whenever there is a motorway in the vicinity of a pipeline, and perhaps also an inland waterway or a rail connection for bringing supplies of many other products such as chlorine, ammonia, phosphoric acid, cyclohexane, etc. then we discover that many a chemical complex has once again become "footloose".

In Antwerp we have followed this development with great interest and have even encouraged it since the industrialization of developing regions in the hinterland of a port naturally stimulates traffic via that port even if at first sight it involves competition for port industrialization.

However, we have always viewed port industrialization in the first place in the perspective of the stimulation of port traffic so that the recent evolution has taken place in a sphere of good cooperation with local regional development bodies. Closely related to the problem of pipelines are the projects for the construction of slurrylines for transporting dry bulk goods.

Such lines already exist in various countries in the world for the transport of iron ore, coal, etc.

Some studies have been made in Western Europe of this question without as yet any definite decision having been taken. Whereas many experts doubt whether transporting extremely divergent types of ore between the seaports and the sites of blast furnaces by slurryline can compete with the intensive pusher traffic of the sort which has developed between Rotterdam and the Ruhr or with the regular commuter trains carrying iron ore between, for instance, the Belgian seaports and the Belgian interior, other studies would appear to afford more hopeful prospects with regard to the transport of coal.

A definite decision in this respect cannot as yet be taken also taking into account that the construction of slurrylines in our densely populated countries comes up against many more problems than is the case on the North and South American continent.

#### f/- There are also questions of the environment.

Whereas it might be concluded from the previous point that there is a stronger trend towards the spread of industry than was formerly the case, we should avoid exaggerating this situation to an extreme.

What is called in the Netherlands "horizon pollution" as well as ecological and environmental objections argue in favour of a regional regrouping of industry even where it is deconcentrated.

Moreover, little by little because of the increases in energy costs and the overcrowding of infrastructure facilities such as motorways, the idea is gaining ground that the best type of transport is that which does not take place.

If this trend gradually continues to grow in importance then the arguments in favour of the concentration of industrial processing in seaports will once again predominate.

Without any doubt, we must take account of environmental problems when we attempt any forecast of the future development of the delta ports.

A number of harmful side-effects resulting from a policy which has been sometimes too onesidely aimed at achieving quantitively measurable growth have in some quarters in both our countries led to an antiindustry mentality.

Today we are thoroughly aware of the social costs of economic growth: exaggerated overworking, spoliation of nature (water and air pollution) and of the human environment (noise and traffic).

Since the population not only of our port cities, but of all Western Europe is now putting more stress on well-being than on prosperity, or as J. Fourastié has put it "le genre de vie" (the quality of life) as opposed to "le niveau de vie" (the standard of living), there is no point to evade these problems.

New industries usually show much understanding and readiness to cooperate in questions of environment protection. They understand all too well that it is better to take all possible precautions voluntarily when making new investments and to include all the latest devices of environment technology rather than be

(Continued on next page bottom)

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# Paris is a sea port

Turntable of the navigable waterways of France, Paris is directly linked with the channel by a modern waterway.

Sea going vessels of up to 2000 d.w.t cargo capacity are able to navigate the Seine up to Paris. and 200,000 tons per year are transported to and from the U.K., Ireland, Germany, Scandinavia and Spain, without transhipment, therefore without risk of damage or pilferage and at a lower price of transport. The Port of Paris Authority is also able to offer wharves and port complexes for the reception, transit, storage or shipment of goods.



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#### (Continued from page 18)

obliged at some later stage to adapt installations which it may be very difficult to do.

#### 7. CONCLUSION.

When we bear in mind everything that has been said above, it becomes quite clear that in the twenty or so years since the Second World War the Benelux countries as a whole have achieved a level of prosperity which nobody would have thought possible before or immediately after the Second World war.

The delta region owes its new Golden Age to the fact that the authorities in our countries were able to take advantage of the great trends which have influenced the world's economy over the last few years, viz.

- the enormous increase in world trade
- the increase in the scale of shipping
- the structural changes in cargo handling and
- last but not least, the trek of industry towards the sea.

The recession which we are now experiencing has had a very great effect on port traffic, on employment and above all on our confidence in the future.

Various conflicting developments are making themselves felt but viewed as a whole they do not detract from the situation that forms the basis of the prosperity in our countries, namely their favourable geographical location as the gateway to the European continent, a fact that will continue to be of decisive importance in the future as in the past.

Mrs. N. Smit-Kroes, Under-Secretary of State at the Dutch Ministry of Transport and Waterways recently (21 June 1978) put it as follows: "The estuary of the Rhine, the Meuse and the Scheldt with its rich hinterland, in which there is a highly developed complex of industries as well as an excellent transport network, is still so full of vitality that it can absorb many reverses although its declining competitiveness with regard to other countries must urge prudence and caution upon us. I should not be surprised if the traffic flows in Europe are more firmly embedded than we with our understandable concern for the many problems confronting the world of transport sometimes think".

It the development of the European economy is maintained the ensuing favourable influence will undoubtedly make itself felt in the Low Countries situated on the great rivers of the continent.

This requires of us in these "years of uncertainty", as J. Galbraith has called them, a continuing confidence in the future.

In his book "Civilisation" (BBC London 1979) Kenneth Clark recalls the fact that:

"Of course, civilisation requires a modicum of material prosperity...But, far more, it requires confidence—confidence in the society in which one lives, belief in its philosophy, belief in its laws, and confidence in one's own mental powers" (p. 4). "It is lack of confidence, more than anything else, that kills a civilisation" (p. 347).

PORTS and HARBORS - MAY 1979 19

### Annual Report 1978(extracts): Port of Long Beach

As more than 33 million revenue tons of cargo passed through the Port, income from related operations grew as well-totalling close to \$28-million. A record net income of nearly \$14-million during fiscal year 1977-78 reflected an increase of 45 per cent over the previous year ... a statistic that is impressive not only for the dollars directly involved but for the enormous indirect benefits that accrued to the community. Last year 3,293 ships called at the Port-some 300 more than the year before. And the number of highway trucks and trains carrying cargo across the nation's land bridges are similary impressive.

With 61 per cent of total Port of Long Beach commerce being of a foreign nature, the Port divides the outside world into five major foreign trade regions.

The largest share of activity comes from a region called the "Pacific Basin."

The next largest Port cargo market lies within the 14 southernmost counties of California, comprising 78,885 square miles. For every one of the 13.9 million residents in this region, the Port last year handled over two tons of cargo.

A third market segment comprises six adjacent Western states and the total Port market area involves some 26 million people. In other words the Port of Long Beach moved 1.3 tons of cargo last year for every resident of the West.

One of the most interesting aspects of the Port's operations has to do with the fiscal structure of this uniquely self-supporting City department.

The Long Beach Harbor Department is a semi-autonomous agency of the City of Long Beach. It is responsible for the operation, control and development of the municipally-owned Port facilities.

Operating as a highly successful—and profitable—municipal port, it is important to understand that not one penny of City tax funds goes into the Harbor's operations.

In this age of consumerism, where environmental enhancement looms as large on the horizon as economic betterment, Long Beach is not alone. All over the nation—indeed all over the world—people are concerned with the availability of food, of water, of energy, and the quality of the very air we breathe.

This is the climate in which the Port of Long Beach finds itself ... in an era of limits, of greater public awareness, greater public concern, of consumerism. All of these factors are taken into account as the Port of Long Beach plans for the future.

Like the rest of Long Beach, the Harbor District has run out of undeveloped land. And, like the rest of the City, the Port has entered a phase of redeveloping and revitalizing those areas within its boundaries that have become technologically and functionally out of date or obsolete.

The largest single revitalization project in the Port's history will be operational this year with the inauguration of Pier C's new Omni-Terminal. The 2000' long pier provides 45 acres of dockside land with 40 acres of service area for RO/RO, LO/LO, container and breakbulk cargo operations.

What about the Port of Long Beach tomorrow? All projections, including those of the Army Corps of Engineers, the Port planning staff, and those of our consultants predict substantial growth through the year 2000.

Forecasts of total tonnage over the next 20 years vary greatly. Comparisons lead to estimates for the year 2000 that range from 70 million to 155 million tons of cargo.

The Port today is experiencing significant demands from tenants for capacity increases to handle containers, crude oil and dry bulk cargo.

The challenge of accommodating present and projected levels of maritime activity while, at the same time, enhancing the quality of life for the citizens of this community, is a mandate the Port must continue to face.

The only way Long Beach can achieve these objectives with economic feasibility and environmental credibility is through modernizing and revitalizing the Harbor, thereby bringing it up to today's standards of environmental awareness and transportation technology. In this way, the Port will continue its traditional role of reflecting the best interests of its community and the maritime industry.

# Summary of Financial Condition (unaudited)

#### 1. Income Statement

|                             | June 30, 1978<br>\$'000 | June 30, 1977<br>\$'000 |
|-----------------------------|-------------------------|-------------------------|
| Port Operating Income       | 27,899                  | 23,340                  |
| Port Operating Expense      | 16,870                  | 16,287                  |
| Income from Port Operations | 11,029                  | 7,053                   |
| Other Income                | 2,925                   | 2,531                   |
| Net Income                  | 13,955                  | 9,585                   |

#### 2. Balance Sheet Assets

|                                 | June 30, 1978 | June 30, 1977 |
|---------------------------------|---------------|---------------|
|                                 | \$'000        | \$'000        |
| Current Assets                  | 51,557        | 49,062        |
| Harbor Revenue Bond Funds       | 3,845         | 3,715         |
| Net Property, Plant             |               |               |
| and Equipment, at Cost          | 177,103       | 172,190       |
| Other Noncurrent Assets         | 10,869        | 4,982         |
| Total Enterprise Assets         | 243,376       | 229,951       |
| Bridges (Non-enterprise Tide-   |               |               |
| lands Trust Assets) at Net Cost | 24,651        | 25,096        |
|                                 | 268,028       | 255,048       |
| Liabilities and Equity          |               |               |
| Current Liabilities             | 4,901         | 4,050         |
| Long-term Debt Due after One Y  | ear 25,171    | 26,839        |
| Total Liabilities               | 30,073        | 30,889        |
| Equity in Enterprise Assets     | 245,614       | 231,373       |
| Less Bridges at Cost            | 32,311        | 32,311        |
|                                 | 213,303       | 199,062       |
| Total Liabilities and Equity    |               |               |
| in Enterprise Assets            | 243,376       | 229,951       |
| Equity in Non-enterprise        |               |               |
| Tidelands Trust Assets          | 24,651        | 25,096        |
|                                 | 268,028       | 255,048       |
|                                 |               |               |

### Annual Report 1978(extracts): Belfast Harbour Commissioners

#### Trade

Trading activity for the year reflected very closely the general economic scene with 6.6 million tonnes of goods shipped through the Port, showing a marginal increase over last year.

#### Finance

Despite the continuing pressures on costs, the Commissioners have again achieved their objective of an adequate cash flow to sustain the Undertaking. I am very pleased to record that total revenue exceeded  $\pounds 4,000,000$  for the first time in the history of the Port, and the financial outcome of the year's working was more than satisfactory.

On a more disquieting note, the recent industrial action by employees in the road haulage industry has resulted in revenue of approximately  $\pounds 40,000$  being lost to the Port, not to mention the much higher losses incurred by Port users, particularly in the unit load trade.

#### Port Development

As indicated last year, the Commissioners have been actively considering the needs of the Port to ensure that facilities are available to meet the demands of modern cargohandling requiremtns, and I am pleased to announce that the Commissioners are about to embark on a phase of major developments which will embrace—

- 1. a new roll-on/roll-off berth,
- 2. a new lift-on/lift-off berth,
- 3. a new deep-water common-user multi-purpose berth, and
- 4. the installation of two new 15 tonnes cranes at an existing berth.

The total estimated cost is around  $\pounds 13$  millions.

Consultants have been appointed to carry out the necessary preliminary work for the first two schemes, the sites of which will be linked directly to the nearby motorway by a road which is already in course of construction.

Other schemes envisaged, but not yet finalised, would bring total expenditure to approximately  $\pounds 20$  millions within a 5-year period and the programme will ensure that the needs of Northern Ireland's industry and commerce will continue to be adequately met by the facilities of the Port of Belfast.

When the work are complete, several existing berths which do not meet modern requirements will be withdrawn from general service and the shed and quay areas used for other purposes.

Other Port developments, including the reclamation of land for further expansion and the re-equipping of existing berths, have continued steadily.

#### W. H. BARNETT Chairman

#### **Balance Sheet**

as at 31 December, 1978

|                                  | 1978          | 1977          |
|----------------------------------|---------------|---------------|
|                                  | <b>£'</b> 000 | <b>£</b> ′000 |
| Capital Employed in Undertaking: |               |               |
| Fixed Assets                     | 5.599         | 5.549         |
| Long-Term Debt Receivable        | 1 169         | 1 186         |
| Current Assets                   | 5 907         | 4 907         |
| Deduct: Current Lighilities      | 5,707         | 4,907         |
| and Provisions                   | 1 8 2 5       | 1 574         |
| Net Current Assats               | 4.082         | 2 2 2 2 2     |
| Net Cullent Assets               | 4,082         | 10.000        |
|                                  | 10,830        | 10,068        |
| Capital Not Employed in Undertak | ing:          |               |
| Fixed Assets                     | 3,836         | 3,836         |
| Less: Capital Debt               |               |               |
| relative thereto                 | 3,836         | 3,836         |
|                                  |               |               |
|                                  | 10,850        | 10,068        |
| Represented by:                  |               |               |
| Capital Debt                     | 4 629         | 4 740         |
| Less: Delative to Fixed Assets   | 1,029         | 1,710         |
| not directly employed            |               |               |
| in Undertaking                   | 3.836         | 3.836         |
|                                  | 793           | 904           |
| Grants and Contributions         | ,,,,          | 501           |
| not vet applied:                 | 1 697         | 1 5 5 7       |
| Reserves                         | 8 360         | 7,607         |
| 1(0301703                        | 10.850        | 10.068        |
|                                  | 10,830        | 10,008        |
| Revenue Account                  |               |               |
| for the year and ad 21 December  | 1079          |               |
| for the year ended 51 December   | er, 1978      | 1055          |
|                                  | 1978          | 19//<br>£'000 |
| One set in a large set           | £ 000         | £ 000         |
| Operating Income                 |               |               |
| Port Charges:                    |               |               |
| On Ships                         | 1,486         | 1,270         |
| On Goods                         | 1,435         | 1,315         |
| Rents of Property                | 619           | 612           |
| Others                           | 545           | 525           |
| Total Operating Income           | 4,085         | 3,722         |
| Expenditure                      |               |               |
| Total Expenditure                | 3,042         | 2,742         |
| Operating Surplus                |               |               |
| Before Depreciation              | 1,043         | 980           |
| Depreciation                     | 602           | 405           |
| Operating Surplus                | 441           | 575           |
| Surplus on Redemption            |               |               |
| of Harbour Stock                 |               | 3             |
| Interest Receivable              | 438           | 430           |
| Interest Pavable                 | 126           | 228           |
| Net Surplus Before Tavation      |               |               |
| and Extraordinary Item           | 753           | 780           |
| Taxation for the Year            | _             |               |
| Net Surplus                      |               |               |
| Before Extraordinary Item        | 753           | 780           |
| Extraordinary Item               | 155           | 1 214         |
| Not Surplus                      |               | 1,214         |
| After Extraordinary Item         | 752           | 1 004         |
| Transferred to Reserves          | 753           | 1,004         |
| LIANSICH CU LU NENCIVES          | 1.1.7         | 1 774         |

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# (Extracts from the First Annual Report 1977)

#### INTRODUCTION

In June 1969 the Government of Cyprus was granted by the IBRD a loan of US\$11.5 million for the construction of a new port at Limassol, the purchase of new equipment for the port of Famagusta and the engagement of consultants for the improvement of the administration, operation and accounting procedures of the public ports. A condition in the Loan Agreement entered into between the Government and the IBRD for the above loan provided that the Government should establish a National Ports Authority responsible for the construction, operation, maintenance and development of the facilities of the public ports.

The Cyprus Ports Authority (originally named as Cyprus Ports Organization) was established by the Cyprus Ports Authority Law 38 of 1973. In accordance with section (16) 1 of the above Law, the Cyprus Ports with all their assets and obligations were finally transferred to the Cyprus Ports Authority on the 1st of August 1976. Until that date running of the ports continued to be performed by the Department of Ports of the Ministry of Communications and Works.

#### Port facilities-as on 31.12.76

The construction of new deepwater ports at Limassol and Larnaca was completed in 1973.

#### Limassol

**New Port:** Quay 821 m; closed sheds 14,136 sq. m. and a hazardous goods store; open stacking area 31,400 sq. m.

**Old Port:** Quay 240 m; closed sheds 3,244 sq. m.; open stacking area 4,400 sq. m.

Larnaca: Quay 326 m; closed sheds 5,670 sq. m. and a hazardous goods store. Maximum permissible draught at Limassol New Port is 10.5 m., at Limassol Old Port 4.6 m. and at Larnaca 9 m.

#### **DEVELOPMENT PLANS**

Development plans finalized in 1977 provide for quay extensions at Limassol and Larnaca totalling 480 m and 340 m respectively, including specialized Container and Ro-Ro facilities.

#### PORTS AND TERMINALS

During 1977 Limassol and Larnaca ports continued to serve the Cyprus economy in general, while specialized terminals the petroleum and minerals traffic.

In the period of the report, Limassol port was the major port of the Island. Serving exports, imports and transit, it accounted for 69% of the general cargo traffic through Cyprus ports. During the same period, Larnaca serving mainly exports, accounted for 31% of the above traffic.

During 1977, 56% of the oil movement through Cyprus, i.e. 13% of total traffic, was handled at Larnaca special terminal.

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#### Cargo

In 1977 Cyprus cargo traffic amounted to 3,186,000 tonnes as compared to 3,027,000 tonnes in 1976. This traffic was made up as follows: 49% exports, 49% imports and 2% coastal deliveries.

#### CONTAINERS

Among the increases in the basic methods of cargo handling, i.e. ro-ro, containers, bulk and conventional, the most spectacular one was observed in container handling. Between 1976 and 1977 there was a 49% increase in total container movements. In terms of numbers TEU's increased from 18,554 in 1976 to 27,714 in 1977. Full containers with Cyprus cargo increased by 68% during the same period, rising from 9.404 to 15.806 TEU's.

In terms of tonnage, containerized Cyprus cargo in 1977 was 160,000 tonnes, amounting to 25% of containerizable cargo as compared to 15% in 1976.

#### **Financial Policy**

The financial policy of the Authority is governed by the provisions of the CPA Law 38 of 1973 and the Loan Agreement with the I.B.R.D.

In general terms, the Authority must generate enough revenue to cover all its operating expenses, including depreciation and to realize a 7% rate of return on the average of its net assets employed at the beginning and the end of each financial year. After 1978 this rate of return must be higher than 7%.

#### ASSETS

The written-down value of the fixed assets as at 31.12. 1977 amounted to C£1,570,693.

#### **NET SURPLUS**

The net operating surplus of the Authority for the year under review amounted to C£2,200,608. The net surplus for the same period, after taking into account the other revenue of the Authority, the interest on long term liabilities, the remuneration of the Members of the Board of Management and nonrecurrent expenditure, amounted to £1,647,502.

### Annual Report 1977-78(extracts): Department of Marine and Harbors, South Australia

#### **Director's Report**

The year 1977-1978 has been a busy and innovative year for the Department, which is facing new challenges in its ports, marine, pleasure boating and other areas of administration. In this State, the Department is responsible to the Minister of Marine for:-

- (a) the development and management of the State's commercial and other ports, including the Port of Adelaide and the deep sea ports at Port Pirie, Port Lincoln, Thevenard, Wallaroo and Port Giles;
- (b) the administration of Marine Act within the State's territorial seas and participation as the State's marine authority in current major developments in marine affairs in Australia;
- (c) the administration of the Boating Act, with a primary concern for safety in pleasure boating;
- (d) the provision, control and maintenance of harbor and other facilities for the fishing industry;
- (e) consultancy and advisory services to Government and other bodies in ports and marine affairs.

The Department has a wide ranging role in port and marine affairs throughout the State, and is making a substantial effort within the community and with the various industry bodies with which it is associated, to communicate and disseminate information concerning its areas of administration.

#### The Year 1977-1978–Significant Operating Results

Whilst receipts for services over all Departmental activities amounted to \$13.9 m (an increase of \$1.2 m over the previous year), and were more than sufficient to meet management, operating and maintenance costs of \$11.9 m, receipts were insufficient to cover the major allocated charges for interest, debt redemption and superannuation contributions. It was necessary for the balance of these charges (\$5.3 m) to be met from Consolidated Revenue.

The incidence of interest charges on the investments in commercial ports facilities is a matter of significant concern. There can be no doubts that the investments in container facilities, and in modern high speed grain bulk loading facilities are vital to the economic success of the State. It is equally true that in the port industry in many parts of the world, it is necessary to provide capital intensive facilities in advance of matching trade and shipping volumes and, in this sense, many ports are subsidised by Governments in the provision and repayment of the investments in such facilities.

The Department has reason for quiet confidence in the ultimate economic success of the Port of Adelaide as an international containerport.

The year just concluded saw a marked downturn in the volume of grain shipped over the Department's bulk loading installations as a result of the severe drought, and this has had a significant effect on revenues.

The total results for the Department are also affected by costs necessarily incurred in marine affairs administration and for the fishing industry from which minimal revenues are derived. A management information system consultancy is proceeding within the organization and, when completed, will provide an improved segregation of costs and revenues and other information to assist in management decision making. The information system will also facilitate the analysis and reporting of operating results on a more intensive basis.

Notwithstanding the severe downturn in grain shipments, it is pleasing to report that cargo tonnages increased, by comparison with 1976-1977, in the Port of Adelaide, and at the outports of Port Pirie and Wallaroo. During the year 3,031 ships arrived at South Australian ports, an increase of 51 ships in the number of arrivals for the previous year.

| Trade generally  | 1977-78           |                   | 1976-77           |                   |  |
|------------------|-------------------|-------------------|-------------------|-------------------|--|
|                  | Imports<br>Tonnes | Exports<br>Tonnes | Imports<br>Tonnes | Exports<br>Tonnes |  |
| Port of Adelaide | 1,946,134         | 1,229,862         | 2,119,499         | 1,003,712         |  |
| Port Pirie       | 371,017           | 776,459           | 368,722           | 713,461           |  |
| Outports         | 301,334           | 1,852,164         | 236,955           | 2,002,008         |  |
| Private Ports    | 3,633,321         | 3,793,427         | 3,602,668         | 4,435,844         |  |
| Total            | 6,251,806         | 7,651,912         | 6,327,844         | 8,155,025         |  |

#### **Financial Statement**

Receipts and payments on account of Consolidated Revenue for the year ended 30th June, 1978

|   | 1978       | 1977       |
|---|------------|------------|
|   | \$         | \$         |
| Receipts-   | 13,954,759 | 12,751,387 |
| Wharfage  | 7,468,028  | 6,591,801  |
| Tonnage Rates   | 1,139,483  | 1,217,635  |
| Conservancy Dues  | 686,730    | 664,224    |
| Pilotage Fees and Other Services  | 2,222,537  | 1,825,183  |
| Bulk Handling Charges   | 2,368,605  | 2,386,992  |
| Fishing Industry Charges  | 69,376     | 65,552     |
| Payments-   | 11,173,524 | 9,861,100  |
| Excess of Receipts over Payments  | 2,781,235  | 2,890,287  |
| Interest on Loan Funds, sinking<br>fund contribution and super-<br>annuation contribution | 8,045,645  | 7,120,046  |
| Balance being Cost of Marine and<br>Harbors Department met from                           |            |            |
| Consolidated Revenue  | 5,264,410  | 4,229,759  |

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### International maritime information: World port news:

### 1978 world trade growth about 5 per cent in volume terms: GATT

"IMF Survey":-The value of world trade in 1978 amounted to about \$1,280 billion, according to a first assessment of trade developments during the year by the Secretariat of the General Agreement on Tariffs and Trade (GATT). In dollar terms, the increase was about 14 per cent, or 1 per cent more than in 1977. The volume of world trade increased by about 5 per cent, compared with a 4 per cent increase in 1977. Preliminary indications suggest that in 1978 the volume growth of world trade slightly exceeded that of world production (excluding services).

The difference between the growth in value and in volume, the report states, represents the change in dollar unit values of world trade, which increased by 9 per cent in 1978, about the same as in 1977.

Industrial Countries. Trade among industrial countries expanded in 1978 by some 18 per cent in value and about 5 per cent in volume. In value terms, industrial countries' exports to the oil exporting developing countries rose by roughly 20 per cent and those to the non-oil exporting developing countries increased somewhat more rapidly; while imports from the oil exporting developing countries declined by 5 per cent in value, those from the non-oil exporting developing countries increased by about 10 per cent. In volume, industrial countries' exports to the nonoil exporting developing countries accelerated, growing in 1978 at almost the same rate as exports to oil exporting countries. Exports to the Eastern trading area recovered strongly in volume from their decline in 1977, the largest increase being to the People's Republic of China.

Reflecting the wide differences in overall expansion rates, the growth rates of imports and exports differed significantly among industrial countries, the GATT report states. In volume terms, imports into the United States expanded by 10 per cent, despite an absolute decline in the imports of oil. Imports into the Federal Republic of Germany and the United Kingdom rose in volume by about 8 per cent (considerably faster than in 1977), and those into France and Japan by about 6 per cent (also registering a strong acceleration over 1977 levels). Exports from the United States, which had stagnated in 1977, expanded by nearly 10 per cent in volume in 1978. Exports from Italy and Sweden expanded by 7-8 per cent and those from France, the Federal Republic of Germany, and the United Kingdom by 5-6 per cent. The smaller European countries showed similar increases, while Japan's exports stagnated. In value, the combined exports of the industrial countries increased by nearly 20 per cent and their imports by some 15 per cent. Largely as a result of the improvement in the trade balance, the industrial countries' current account shifted from a deficit of \$8 billion in 1977 to an estimated surplus of at least \$25 billion in 1978.

**Oil Exporting Countries.** The export earnings of the oil exporting developing countries are estimated to have declined by 4 per cent in 1978 owing to the fall in volume of their exports. The rise in the value of the imports of this group of countries slowed down to 15 per cent, the lowest rate since 1974. Their trade surplus was considerably reduced and, consequently, their current account surplus declined from \$35 billion in 1977 to about \$15 billion in 1978.

Other Developing Countries. The export earnings of the non-oil exporting developing countries are estimated to have risen by about 9 per cent in 1978, compared with 16 per cent in 1977. This deceleration resulted from the decline in prices of primary products (other than fuels) exported by developing countries. In volume terms however, exports from this group of countries, which had shown only a small increase in 1977, appear to have risen at a much faster pace in 1978, mainly because of the increase in manufactures. The current account deficit of the non-oil exporting developing countries widened from \$22 billion in 1977 to an estimated \$35 billion in 1978. Eastern Trading Area. The value of total imports into the Eastern trading area is estimated to have risen some 17 per cent in 1978, and the value of total exports is believed to have grown slightly less. In trade with developed market economies, the long-term trend for the Eastern trading area's imports to expand faster than exports-which had been interrupted in the preceding two years-was resumed in 1978 and the area's import deficit with developed market economies increased.

**Immediate Outlook.** The GATT assessment observes that the uncertainties concerning the economic policies in the industrial countries facing a renewed acceleration of inflation make it hazardous to formulate an outlook for world trade in 1979. If the expected slowdown in economic activity in the United States is kept within the limits indicated by official forecasts, its effects could be offset by some acceleration of economic growth in Western Europe. In that case, the report states, the import demand of industrial countries might be expected to increase in 1979 at much the same rate as in 1978.

# "SHIPASSIST" being launched by UNCTAD

UNCTAD Information Service for Technical Assistance in Shipping and Ports to Developing Countries (SHIPAS-SIST), a new service that will for the first time present a global inventory of sources of technical assistance available to developing countries in the development of their national merchant marines, ports, shipping services and maritime transport technologies, is in the process of being established on an experimental basis under UNCTAD auspices.

Growing out of a decision of UNCTAD's Committee on Shipping, later endorsed by the Trade and Development Board last year, SHIPASSIST will offer a directory of possible sources of aid—bilateral and multilateral—in this complex field. Information will be organized under three broad categories: education and training services, consultancy services and services for funding technical assistance projects.

Governments and international organizations are new in the process of supplying the required data in questionnaires that were distributed at the end of August, and it is expected that SHIPASSIST will be operational in the course of this year.

Developing countries wishing to use SHIPASSIST may deal directly with the donors listed or approach them through UNCTAD. It is anticipated that SHIPASSIST will be operated within the framework of the Shipping Division.

#### World Maritime Day

"IMCO NEWS":-A call for all those involved in the maritime industry to give the highest possible priority to safety and pollution prevention has been made by the Secretary-General of IMCO, Mr. C.P. Srivastava, in his annual World Maritime Day message.

World Maritime Day, which falls on 17 March, is this year dedicated to the theme Safer Shipping and Cleaner Oceans.

In his message Mr. Srivastava pointed to the grave anxiety which many people feel about the threat to human life and the marine environment posed by shipping. He referred to a number of accidents which had occurred in recent months and said: 'No country with a coastline and a port is immune from the dangers of maritime casualty and marine pollution from ships.'

Mr. Srivastava said that the international nature of the shipping industry made it essential that efforts to improve safety and prevent pollution be made on a global level—a responsibility that rested primarily with IMCO.

Over the years, the Organization has adopted numerous measures which are kept under continuous review. The year 1978 saw the convening of two important conferences, on Tanker Safety and Pollution Prevention, and the Standards of Training, Certification and Watchkeeping of Seafarers.

'But the adoption of safety and pollution prevention standards at international conferences in the form of Conventions, recommendations and resolutions is only the first step,' Mr. Srivastava said. 'It is the universal acceptance, the implementation of standards which really ensures maritime safety and pollution prevention. This is a task which, quite appropriately, belongs to the Governments of the world.

'It is they and they alone that can ensure, through national legislation, that international conventions, rules

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and regulations are effectively enforced.'

Mr. Srivastava said that while national procedures must necessarily take time, IMCO had been urging Member Countries to expedite the process as much as was feasible.

He said: 'In recent years the pace of ratifications has certainly accelerated and this of course is very gratifying. There is, however, much more to be done in order to ensure universal implementation of safety and pollution standards and it is to this end that IMCO's advisory efforts are now directed.'

The Organization has established a world-wide network of technical advisory services to provide technical assistance to developing countries. Mr. Srivastava appealed to Member Governments to 'make use of these advisory services as intensively as possible while developing their national maritime expertise for ensuring maritime safety, for preventing marine pollution and indeed for general maritime development on sound technical foundations.'

## Value/weight ratios for multimodal cargoes (TD/B/AV.15/52)

(Note by the UNCTAD secretariat)

Statistical summary and conclusions

The results of the secretariat's review of available data indicate that 83 per cent of the potential containerized cargo for 1975 have value of \$US1.50/net kilo or less and the weighted average for all containerized commodities is \$US 1.12/net kilo. Details are noted on table 1.

The range of individual values is widely dispersed as values range from \$US.02/net kilo (non-alcoholic beverages) to over \$US 30/net kilo (office machines) but the most frequent values are concentrated towards the lower portion of the range, e.g. under \$1.50/net kilo.

Future distribution of values is expected to remain oriented towards the lower ranges as containerization diversifies into the trade of developing countries whose exports are generally low value commodities, while in developed countries containerization will continue to expand its market share of lower value semi-manufacture goods.

Summary of unit value distribution of containerizable cargo in world exports, 1975

| Value range<br>US dollars per<br>net kilogramme | Tons        | Percentage of the total | Cumulative<br>percentage |
|---|-------------|-------------------------|--------------------------|
| \$ 0.00 - 0.49                                  | 129 512 973 | 48.8                    | 48.8                     |
| \$ 0.50 - 0.99                                  | 57 439 430  | 21.6                    | 70.4                     |
| \$ 1.00 - 1.49                                  | 33 646 440  | 12.7                    | 83.1                     |
| \$ 1.50 - 1.99                                  | 6 204 339   | 2.3                     | 85.4                     |
| \$ 2.00 - 2.49                                  | 8 829 439   | 3.3                     | 88.7                     |
| \$ 2.50 - 2.99                                  | 9 120 437   | 3.4                     | 92.1                     |
| \$ 3.00 - 3.49                                  | 3 542 393   | 1.3                     | 93.4                     |
| \$ 3.50 - 3.99                                  | 3 808 442   | 1.4                     | 94.8                     |
| \$ 4.00 - 4.49                                  | 277 915     | 0.1                     | 94.9                     |
| \$ 4.50 - 4.99                                  | 607 097     | 0.2                     | 95.1                     |
| \$ 5.00 - 5.49                                  | 5 309 397   | 2.0                     | 97.1                     |
| \$ 5.50 - 5.99                                  | 1 663 215   | 0.6                     | 97.7                     |
| \$ 6.00 - 6.99                                  | 1 602 803   | 0.6                     | 98.3                     |
| \$ 7.00 - 7.99                                  | 2 112 961   | 0.8                     | 99.1                     |
| \$ 8.00 - 8.99                                  | 228 554     | 0.1                     | 99.2                     |
| \$ 9.00 and over                                | 1 577 450   | 0.6                     | 99.8                     |
| Total   | 265 483 293 | 100.0                   | 100.0                    |

Permanent Technical Committee of CCC (Customs Cooperation Council) in its document (25.045 E/T7-551, Feb. 28, 1979) carried the following secretariat notes together with the replies contributed to CCC from the organization consulted with the subject matter, as reported in the February 1979 issue of this journal.

- 1. At its 101st/102nd Sessions in December 1978 the Permanent Technical Committee took note of Doc. 24.414 in which the Secretariat had related the developments of the matter from the 95th/96th Sessions of the Committee to that time. The Committee also noted that only a few replies had been received to a letter that the Secretariat had sent to 15 organizations to seek the views of potential users of the proposed new Convention and postponed further discussion on the matter until its sessions in April 1979. It was noted that all the replies would be published in due course.
- 2. The replies received so far by the Secretariat are reproduced in the following.

#### 3. Federation of International Furniture Removers (FIDI)

In view of the present situation and, in particular, the existence of several Customs transit systems, the preparation of a new Convention would appear to be a useful step. If a large number of countries agreed that Customs seals should be affixed on departure and that a loading manifest, which would be acceptable to the various transit states, should be prepared by the country of departure, this would greatly facilitate Customs formalities and procedures and would doubtless help to speed up transit operations. These measures would obviously have to be taken within a frame-work of active mutual administrative assistance.

However, the proposed new Convention should not duplicate the TIR procedure, which is becoming increasingly widespread, particularly now that it covers multimodal transport. Although it is already extremely useful, the TIR procedure, particularly in its new 1975 form, should be extended to many more countries and should be used, in particular, by groups of countries in the same part of the world.

Neither should the new transit Convention duplicate the ITI Convention which, as far as we know, has not yet come into force and whose practical consequences are therefore unknown. In any event, emphasis should be placed on the facilitation of transit operations in which the goods must be transferred from one region to another. In this connexion, why not limit the number of regions and try to combine them?

### 4. INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS (IAPH); trade facilitation committee

Clearly it is in the interests of port and harbour authorities that goods should move speedily through the ports and harbours and that they should not be delayed more than necessary by the need to comply with Customs requirements. The IAPH should therefore support any proposal which is likely to enable goods to clear the ports more quickly by reducing the Customs procedures to be completed there.

The extent to which this particular proposal will affect port traffic is not evident. Almost certainly the interfaces between transit systems occur most frequently at land frontiers, but there are bound to be occasions even at present on which goods move from one system to another through a port. More importantly, if it is made easier for goods to transfer between systems, it is probable that traffic will move under transit procedures in future where at present it makes no sense to do so.

There is no doubt that, as the CCC recognizes, in case of containerized and other forms of unit load through movement, the intervention of Customs at ports results in an unnatural break in the journey. For such traffic in particular it is more sensible that Customs export clearance should be completed at the point at which the goods are loaded into the container, etc., that they should move without interruption, sealed and under cover of a simple document, through to their destination where import Customs formalities are performed. The CCC proposal should, therefore, assist the movement of goods from departure to destination and at the same time speed the flow of traffic through ports and on these grounds is to be welcomed.

#### 5. International Chamber of Commerce (ICC)

On the whole, the ICC's experts, while recognizing the basic need to facilitate the transport of goods in transit, feel that the initial draft does not really seem to meet this requirement in view of the many problems its implementation would undoubtedly raise, particularly as regards the conditions of operation of the Customs offices of loading and departure, the acceptance of the security measures taken by the various Customs authorities involved, and the conditions governing the establishment and acceptance of the documentation systems employed (Goods manifest).

Moreover, doubts were expressed with regard to whether it was really necessary to implement a new international instrument of this nature, and it was felt that it would be definitely more desirable to see first whether the existing instruments might not be improved and applied more efficiently in order to overcome the present difficulties in international Customs transit procedures.

The ICC would therefore like to invite the CCC and the other international bodies concerned to pursue their efforts in this direction and, for its part, is ready to make whatever contribution it can.

#### 6. International Chamber of Shipping (ICS)

Various opinions have been expressed on the subject of Customs transit. However, the predominant view within ICS is one of doubt whether any new initiative would be necessary. This attitude has also been expressed in an IPG context.

ICS is, therefore, not convinced of the need for a new international instrument in this field and feels that it would be more appropriate to make better use of existing regulations.

#### 7. International Road Transport Union (IRU)

Our review of the document (Doc. 24.015) on the provisions to be included in this draft Convention indicates that certain principles are very close to the ideas already worked out by the ECE Group of experts on Customs questions affecting transport and that it would be useful if an understanding were reached, at international level, between that body and your own organization with a view to determining who should be responsible for drawing up such a Convention. However, this problem is solely within the competence of governmental organizations and, strictly speaking, IRU has no say in the matter.

At the same time, since our opinion has been requested, perhaps we may share with you what we have learned about transfers from the EEC transit system to the TIR Convention. International lorry drivers may well start their journey under the EEC system and continue it with a TIR carnet. According to them, there are no problems in going from one system to the other since the two Customs procedures have a common basis.

In other cases, involving containers, land transport may well continue by road. Here too it seems that there are no serious problems, apart from the time needed to accomplish the formalities in passing from one system to another. In principle, the Goods manifests do not all have to be redone but are merely attached to the new transit procedure.

#### 8. International Union of Railways (UIC)

The UIC's study of the difficulties encountered in international railway freight traffic does not indicate that the situation could be improved to any great extent by introducing measures to facilitate the carriage of goods in Customs transit. The need for any such measures is therefore debatable, at least as far as conventional rail traffic is concerned.

In combined traffic, where the means of transport changes, the situation is perhaps rather different. However, our experts are not aware of any difficulties in this area. The international transit procedures, which allow for a change in the means of transport and cover many countries, probably meet the needs of transit traffic, at least at European level.

Furthermore, the TIR carnet procedure is not, as far as we know, used in intercontinental traffic (in container traffic between the USA and Europe, for example, where it could already be applied before the goods leave the USA). Long-distance transport always involves handling of commercial or forwarding arrangements which interrupt the continuity of Customs transit and provide the opportunity to complete new formalities for reshipment under Customs control.

The Customs authorities would have to take the appropriate measures in the country of shipment at an authorized "office of loading", as described in paragraph 17 of Doc. 24.414.

According to paragraph III-A-1 of the Annex to Doc. 24.015, the Contracting Parties shall "whenever possible make available the services of offices of loading". Moreover, paragraph 19 of Doc. 24.414 states that "Offices of loading are situated in the country where the goods are loaded. However, a Customs transit operation need not necessarily start in that country but may commence, for example, at

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the first Customs office upon arrival in another country." The office of loading assists the office of departure by taking certain preliminary measures, such as affixing Customs seals.

In these circumstances our experts tend to doubt whether regulations, if adopted, would be successful in practice. They consider that, even within the limited circle of the European Communities, it is not possible, despite common objectives, to implement the Article 39 Rule enabling the simplified Community transit procedure, as described in Article 36 et seq. of EEC Regulation No. 223/77, to begin at the station of shipment.

To conclude, we fail to see the need for regulations of the type envisaged as far as rail traffic is concerned. Nevertheless, should such regulations prove useful at world level, the railways would not oppose their implementation.

#### 9. SIMPROFRANCE

The French Committee on the Facilitation of Trade Procedures has examined the letter with interest and has started consulting its members on this subject. The results will be communicated to the CCC as soon as possible.

#### "On Line for Service... THE MODERN PORT" now available

Produced by The Port Authority of New York & New Jersey Port Promotion Division 16mm, 28 minutes, sound and color

Designed as a general educational film to show how large ports in general operate in this the age of automation and electronic data processing, "On Line for Service .... The Modern Port" has as its setting the modern marine and aviation terminals of the New York-New Jersey Port as well as its World Trade Center. All of the port's containership terminals are portrayed as are specialized operations for roll-on, roll-off cargo, LASH, automobiles and the traditional breakbulk methods that remain important even in the most modern of ports.

The importance of electronic data processing is demonstrated in several scenes as the title infers since "on line" is computer jargon for immediate or conversational-type response. In spite of the efficiency of computers and other machines, the port's all-important level of service depends on people. The film stresses this through close-ups and voices of port specialists in action.

Particularly informative are those scenes that detail the handling of containers arriving at huge terminals, how containers are lifted on and off ships as seen from the cab of a crane operator, the entire LASH cycle, railroad piggyback operations, export packing a large piece of machinery, and the interchange of containers among ocean-going ships and jumbo jet air freighters. The significance of trucks and trains to the port are not overlooked and neither are the contributions of freight forwarders, custom brokers and the banks.

Special emphasis is placed on the World Trade Center and how it functions as the home for many firms and government organizations that play a vital role in port operations. The significance of the World Trade Center as a rich source of information and education on international commercial matters is stressed through scenes of the Center's World Trade Institute, World Trade Information Center and the Information Floor. U. S. Customs, which occupies most of an entire building at the Center, is still another major subject.

"On Line for Service .... The Modern Port" is available for showings to trade, civic and other adult audiences without charge. For information and bookings call (212) 466-8312 or 466-8315 or write/call the Trade Development Office nearest you.

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St. Olaf House Tooley Street-3rd Floor London, SEl 2PH, England Phone: 011-44-1 then 403-1844

CONTINENTAL EUROPE Talstrasse 66, 8001 Zurich, Switzerland Phone: 211-06-15

#### ICHCA XIV Conference

The ICHCA's XIV Biennial Conference and General Assembly will be held in Helsinki from 27 May-1 July 1979. The theme selected for the Conference, said Mr. Jouhki, Chairman of the Finnish national committee of ICHCA, was "FROM RAW MATERIAL TO FINISHED PRODUCTS", and it was highly germane to ICHCA's work. The economics and techniques of business logistics were becoming increasingly important, and ICHCA had a significant role to play in the impartial promotion of co-operation and co-ordination in the fields of logistics and cargo handling.

The Conference would be divided into four groups, interspersed with two plenary sessions. Each group would deal with one of the four following subjects on which papers would be presented and discussed: Bulk cargo, Forest products, General cargo, Port administration.

#### PANAMA CANAL TRAFFIC

|   |  | 9 Mc        | onths  |
|---|--|-------------|--------|
|   |  | 1978        | 1977   |
| TRANSITS (Oceangoing)   |  |             |        |
| Commercial  |  | 9,354       | 8,922  |
| U.S. Government   | •••••  | 70          | 63     |
| Free  | •••••  | 4           | 10     |
| Total   |  | 9,428       | 8,995  |
| TOLLS <sup>1</sup>  |  |             |        |
| Commercial  | \$142,087,840  | \$122,0     | 61,026 |
| U.S. Government   | 653,236  | 6           | 06,957 |
| Total   | \$142,741,076  | \$122,6     | 68,001 |
| CARGO <sup>2</sup> (Oceangoing)   |  |             |        |
| Commercial  | 102,586,573  | 92,5        | 90,663 |
| U.S. Government   | 237,262  | 1           | 69,444 |
| Free  | <u></u>  | •••••       |        |
| Total   | 102,823,835  | 92,7        | 60,107 |
| <sup>1</sup> Includes tolls on all vessels,<br><sup>2</sup> Cargo figures are in long tor<br>Statistics compiled by Execu<br>(Panama Canal Review, Winter | oceangoing and si<br>is.<br>tive Planning Staf<br>er 1978) | nall.<br>f. |        |

#### **Record cargo movements in Halifax**

Business in the Port of Halifax during 1978 continued to maintain the steady improvement it has been showing over the past several years and total cargo throughput, at 14,064,000 tonnes showed a slight improvement over the previous year's record of 14,000,000 tonnes.

In 1977 the Port of Halifax consolidated its position as Canada's leading containerport by handling close to 2 million tons of containerized cargo. The port had the third highest container throughput on the east coast of North America and sixth overall in North America. In 1978, the Port of Halifax succeeded in maintaining its traffic levels in spite of some of the special circumstances which resulted in extra traffic for the port in 1977, not being repeated last year.

A significant increase in RoRo cargo was shown at the port's two major RoRo facilities, Autoport and the Halifax International Container Terminal.

The year saw a great deal of activity in the improvement and upgrading of port facilities, as well as progress on the Fairview Cove container facilitiy. Three of the port's older piers were resurfaced to facilitate the movement of containers and heavy lifts along with the heavy machinery used to handle these cargoes.

Work is progressing on the creation of a new \$1 million combination terminal. It will have a seven-acre open area, a 625-feet open berth and a 50-feet wide Ro/Ro ramp. Two shedded berths will provide 100,000 square feet of storage space. It is being built to handle the ever-increasing demands of combination carriers trading to Canada and is expected to be operational by mid-May.

### Seabus system solves transit problems

"Canada Courier", Ottawa: —A new Canadian-developed marine passenger transporter—Seabus—is now plying British Columbia's Burrard Inlet, carrying 400 people every 10 minutes between North Vancouver and Vancouver's South Shore.

Establishing an efficient passenger-only marine link, Seabus is a fundamental part of a totally integrated system that co-ordinates with shore-side services to form a cohesive urban transportation system linking these rapidly expanding municipalities. The system is gaining international recognition.

An innovative undertaking, the project involved the design and construction of two ferries—the first of their kind in the world; floating terminals; floating maintenance and overhaul berths; and administrative and maintenance buildings. Also included were a passenger overpass over rail tracks, a tankage system and bus loop to complete the land side of the transit hook-up.

Selected for the design and construction supervision of the entire project was Case Existological Laboratories Ltd. (CELL), a Victoria, British Columbia, company noted for its marine design, research, ocean engineering and consulting engineering expertise. Other Canadian companies selected by CELL performed a variety of essential tasks.

Now crossing the 1.75 nautical mile (2.8 km) Inlet with an expertly trained crew of four (CELL provided the training program) are the Seabus ferries, the "Burrard Beaver" and the "Burrard Otter"—the first two of what could be as many as eight such transporters. These vessels have a length overall of 34.30 m; breadth overall is 12.65 m; and depth to main deck is 3.51 m. Speed is 14 knots.

Unique in design, these are all aluminum double-ended catamarans with equal speed and manoeuverability in each direction. This feature allows efficient maximum capacity for a given length and good resistance to heel while loading/ unloading at the terminals. Double ending also avoids the need of turnaround, thereby saving time and increasing safety in the vicinity of the terminals.

The adoption of a flow-through loading/unloading technique minimizes both turnaround time and harbour speed for a specific capacity. These, too, were considerations of safety and economics because, for every one minute delay in the terminal, an additional two knots of speed is required in transit to make up for the loss.

For these reasons the total ferry passenger space-34 m by 12.5 m was designed to form six equal rectangular areas serviced by wide 1.6 m doors at either end. As well, on each side of the craft there are six quick-action doors-the same as used in Canada's proven subways-to facilitate passenger movement.

Use of aluminum also had its advantages. Its light weight means that about 15 per cent in fuel consumption can be saved. In fact, it has been determined that in less than 10 years the fuel savings alone (not counting maintenance savings) can pay for the premium of building all aluminum. The other factor is that aluminum requires less maintenance than steel construction.

The whole system is operating better than all expectations. The projected passenger rate of 7,500 per day has been exceeded from the beginning of service, running at 10,000 to 12,000 a day. On the July 1 holiday in 1977, passenger flow peaked at 25,000.

Also innovative are the passenger terminals to support the catamarans. Of pre-stressed post-tensioned concrete construction, the terminals are E-shaped hulls that are designed to float to automatically compensate for tides of approximately 5.2 m to 5.8 m.

Formed from four separate modules that are joined when a float, the terminals have a length overall of 79 m; width overall is 79.9 m.

Maintenance and overhaul berths, which follow the repair-by-replacement concept, are similar in construction to the E-shaped terminals. Also floating, they are located immediately adjacent to the passenger terminal. These berths are used for daily cleaning, refueling, removing sewage and used oil, and pumping dirty bilges.

The total system, including transit ashore, passenger interface and marine link, is certain to be a forerunner of similar ventures throughout the world. Much of the success of the system is credited to the fact that a single Canadian marine designer, CELL, was responsible for the entire concept—from vessels to terminals to maintenance and training programs.

#### **Boston news**

#### • Castle Island container development

Executive Director David W. Davis recently announced that the Massachusetts Port Authority will expand its container facilities at Castle Island. Plans for development of the expanded facility have been initiated in anticipation of the continuing cargo growth at the Port of Boston. The proposal is an important first step in providing additional container handling at Castle Island, increasing capacity by an estimated 14,500 containers per year.

The Port Authority began the expansion plans in response to a trend of increasing volume at the Port of Boston and to a number of steamship lines who expressed interest in relocating from Moran to a new facility, preferably Castle Island. The advantages of expansion at Castle Island are two-fold: time and cost. Development of the facility will take place within eighteen months. The plans will be implemented at an estimated cost of \$11.5 million. The preliminary schedule calls for ground breaking at Castle Island in the fall of 1979, with a target date for a completed, operational terminal on January 1, 1981. The proposed Castle Island site would provide additional capacity for the Port of Boston's container cargo handling system.

#### • Container traffic reaches all time high

Moran Terminal experienced record breaking volume during calendar year 1978 for number of cargo containers handled. For 12 months ending December, 1978 a total of 53,971 containers were loaded and unloaded at Moran, a 47% increase over the same period one year ago. The record breaking volume is attributed to the terminal's increased capacity, streamlined operating and labor procedures, and improved ship scheduling.

In January, 1979 container volume was up nearly 20%,

from 3,373 containers in January 1978 to 4,194 in January, 1979.

Moran terminal currently services 11 major ship lines directly and 8 lines via barge shuttle service.

#### • Foreign Trade Zone update

The Massachusetts Port Authority recently filed a proposal with the Foreign Trade Zones (FTZ) Board in Washington, seeking noncontiguous expansion of its existing foreign trade zone grant to include two Massachusetts Port Authority owned sites, Commonwealth Pier 5 and the Commonwealth storage yards.

Commonwealth Pier consists of an 800,000 square ft. marine terminal building, 40,000 sq. ft. of which is desired for initial operation; Commonwealth storage yards is a primarily vacant land parcel, consisting of approximately 25 acres.

The Port of Boston anticipates receiving approval of this application within the next two weeks.

# Wando project suit dismissed with settlement agreement

The South Carolina State Ports Authority recently announced its agreement to a settlement that dismisses the legal challenges to the authorization of the Wando River terminal project in Charleston Harbor.

As a result of the settlement, a suit in federal district court in Charleston by several local and national environmental organizations against the federal government for issuing the permits required for the terminal has been dismissed. The environmental organizations have agreed not to contest the validity of federal and state project permits.

Construction on the Wando River terminal project began in October of 1978 and has continued while the lawsuit was pending. Phase A of the terminal, budgeted at \$56 million, will be complete in about three years.

As part of the settlement, the State Ports Authority has entered into an agreement with the environmental organizations to carry out a number of mitigation measures during the project development. Much of the mitigation flollows proposals outlined in the Environmental Impact Statement and during the administrative processing on the project permits.

The mitigation measures include providing a screened, landscaped buffer zone, a restriction on using Wando River marshes for spoil disposal, compliance with air and water quality standards, and certain development controls on adjacent property.

#### First major construction work nearing for new SPA terminal

"South Carolina Port News":-The first major construction activity on the State Ports Authority's Wando River terminal complex is nearing reality. The long-planned project again dominated deliberations of the SPA governing board at its December 13 meeting.

A \$550,000 contract was awarded to Wilbur Smith & Associates of Columbia to prepare architectural and engineering (A&E) master plans for the development.

The board authorized submission of documents required for the master plan and initial building plans to the State Budget and Control Board. The first-step construction,

#### **Elevator elevated**



Charleston:-This 65-foot "hot elevator", designed for asphalt production at a plant in the Middle East, was one of 36 units recently loaded at the Port of Charleston's Columbus Street Terminal. The strange-looking cargo was part of a complete plant loaded aboard Transamerican Steamship Corporation's M/V "Eagle Glory".

esitmated to cost \$5 million, includes a 60-acre grading, drainage, paving and rainfall run-off control program. Other items in that program are site landscaping and building an access road to waterside from the property line.

Require archaeological land studies will be performed by the University of South Carolina under a \$10,037 contract. The university's Institute of Archaeology and Anthropology proposal was approved by the SPA board.

The first phase of the Wando development involves already-approved issuance of \$56 million in state general obligation bonds. The bond funds cover construction of three container-ship berths, four container cranes, back-up facilities and a rail/barge ferry operation.

A second and final phase of the program is contemplated later for additional berth and support facilities at the 561acre site.

#### Port Corpus Christi news

#### • Commissioners keep 40-foot project moving

The long-awaited maintenance dredging to return the inner harbor to 40 feet should be underway by May.

Dredging is expected to begin where shoaling is most critical, in a two-mile area east and west of the Harbor Bridge. This portion of the channel and turning basin receives heavy silt loads from wind and tidal action.

Port commissioners made it clear in December they would not allow a new ruling on levee funding to delay the critically needed maintenance work. In a move that reverses a long-standing policy, the Corps is now interpreting project authorization language in a way that shifts the burden of paying for levee construction and maintenance from the Corps to local sponsors such as the Navigation District.

For the 40-feet maintenance project this means about \$1 million in additional funding which the Port must put up

#### Long Beach photo news



U.S. LINES BICENTENNIAL CONTAINER RETURNS TO LONG BEACH:-Fourteen voyages and 122,000 miles after having been painted in a Bicentennial theme by the Port of Long Beach in July of 1976, a 40-foot container box of United States Lines arrived back at Long Beach aboard the American Lancer recently. During its 30-month odyssey, the seaborne salute to America's 200th birthday had been transported over most of U.S. Lines' far-flung route system. Here, Terminal Manager Captain Everett C. Bell sees the container off to its next destination, with the Long Beach Harbor Administration Building visible in background behind cab.

now and an unknown amount that will be required for future levee maintenance.

Port Commission Chairman William E. Carl said that the maintenance work is of utmost priority and that other projects will have to be reevaluated accordingly.

Maintenance dredging was last done in the landlocked Main Harbor in 1970. Traditionally the area near the bridge has been swept out about every two years. Silting has forced the Port to impose a depth restriction of 38.5 feet until the maintenance is done.

Three-fourths of the 36 miles in the Port's channel system has been deepened to 45 feet. The final leg into the Main Harbor is authorized and the Corps has funding during the current fiscal year to buy disposal site right-of-way. Plans call for work on the 45-foot deepening to get rolling as soon as maintenance is completed.

#### • '78 tonnage a record for fifth straight year

For the fifth consecutive year tonnage at the Port of Corpus Christi hit an all-time record high in 1978. An even busier year is expected in 1979.

Total port traffic for '78 was 61.2 million tons. Tonnage at the port has more than doubled in the past five years, primarily because of growth in petroleum, grain and dry bulk cargoes.

The '78 total for dry bulk cargoes was two-thirds higher than in '77, mostly because of expanded shipments of imported cement clinker.

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In 1978 the Port enjoyed a year of unprecedented shipments of bagged goods.

Sales Manager Perry McGee said this provided a heavy workload for longshoremen who died an outstanding job of giving port customers quality service.

Total petroleum movements through the port in '78 amounted to 47 million tons. That compares to 47.2 million tons for the same period last year. This is attributed to reduced demand for refined products due to mild weather in '78.

#### Port Everglades news

• Orlando G. Suarez is the new Port Director at Port Everglades, June Silvernale, Chairman of the Port Everglades Authority Commission, announced.

He will take over the position on March 5, 1979.

• Waterborne commerce at Port Everglades for the month of January 1979 was 1,214,415 tons up 9% over 1978, Commissioner Jack Behringer announced.

#### **CFS at Barbours Cut completed**

"Port of Houston Magazine":-The Container Freight Station (CFS) at Barbours Cut Terminals, was completed recently at a cost of \$1,138,430.

This building is to be used for what is known as stuffing and unstuffing containers, which means that they will consolidate several shipments into one container for export; on import they will unstuff the containers for the purpose of separating shipments.

The building is of a rigid frame construction, with a metal skin and roof, and is 100 feet by 550 feet.

The CFS will be served by a railroad spur which is almost completed. The building is surrounded by a paved area which will be used by truckers on one side and containers on the other side. This building will be connected to the various terminals east of the CFS by the Intraterminal Road, which is a separate road from Barbours Cut Boulevard.

# Los Angeles Port's master plan updated

"Fifty-two percent of today's containerships can't come into the Port of Los Angeles because it isn't deep enough. Our top priority is to deepen the Main Channel to 45 feet," said Ronald W. Kennedy, Director of Port Operations, during a recent meeting of the Los Angeles Chamber of Commerce Maritime and Harbor Affairs Committee.

Giving an update on the Port's master plan, he outlined current and proposed Habor projects which are part of a \$305 million, five-year capital construction program and said the plan will be submitted to the California Coastal Commission informally in March and formally in May.

Kennedy explained that the Harbor's major problem with development projects is the conflicting regulatory criteria of the many state and federal agencies which don't include all the diversified elements that are part of port development decisions. One of the major goals of the master plan is to integrate into the development process all the economic, environmental, safety and engineering skills required to evaluate and quantify the long-term effect on the total environment to arrive at proper development decisions.

He pointed out that because of the Panama Canal trade diversions, the National Foreign Trade Council has predicted a 12 percent growth rate in imports and a 21 percent rate in exports for the United States.

Kennedy told about an extensive study which is underway concerning a proposed energy island facility to be constructed south of Terminal Island. The study will be completed by August and describes the dredging of spoil from a 65-foot channel south of Terminal Island which will be used to create additional new land, including development of the energy island.

Short term capital projects in progress or proposed for the future include: development of the Seaside Container Terminal complex, development of a Cabrillo Beach marina and recreational complex in the West Channel, development of a new container rail-ramp yard to be shared with the Port of Long Beach, redevelopment of the Fish Harbor area of Terminal Island, expansion of the Matson Container Terminal and development of an innovative computeroperated gate and construction of a new Harbor administration building.

#### Los Angeles' new container terminal

Los Angeles Harbor Department plans to complete construction of a new \$4.7 million concrete wharf at Matson Navigation Company's Container Terminal in the Terminal Island section of the Port of Los Angeles by this June.

The new wharf will provide Matson with contiguous access to the waterfront, a third ship berthing area and space for a new container crane. The terminal's fourth crane is planned for erection later this year.

Work is also well underway on the development of 18 acres of new backland area for container storage which is needed to operate Matson's third wharf. The fifth phase of the terminal's massive expansion project will incorporate computers and other electronic technology for the continuous tracking of all containers.

The project will also include an innovative multi-laned main gate which will expedite truck deliveries and pickups -aided by computerized processing.

## Reform of U.S. maritime policy spelled out

A specific framework for reform of U.S. maritime policy was spelled out recently at a major international liner shipping conference by Charles I. Hiltzheimer, chairman and chief executive officer of Sea-Land Service, Inc.

The two-fold objective of the reform would be to increase U. S. flag carriers' market share of U. S. export and import tonnage to at least 40 percent from the estimated 30 percent the U. S. liner operators now carry, Mr. Hiltzheimer said. And to correct the "dumping" of excess ships into the U.S. liner trades by third flag. vessels—ships that are independent of the countries to which cargo is being imported or exported.

"The U.S. shipping industry is not asking for a guaranteed share," Mr. Hiltzheimer stated. "Instead, it is believed that the minimum 40 percent goal can be achieved through competition within a regulatory system that does not treat U.S. and foreign companies differently."

The positon enunciated by Mr. Hiltzheimer was submitted to the Carter Administration January 11 by the National Maritime Council, the maritime industry-labor coalition that represents virtually all of the U.S. shipping industry.

Other "vital" points recommended, according to Mr. Hiltzheimer, include:

#### Los Angeles photo news



New mobile command post for the Port of Los Angeles' Port Warden's Office gets a try-out by Port Warden Ed Henry and Sgt. Herman McMahon. Equipped for virtually any harbor-related incident, the 1979 GMC van features a PA system, scanner for Coast Guard, Fire and Police broadcasts, and a marine radio to monitor marine broadcasts and to communicate with Coast Guard rescue vessels at disaster scenes. The vehicle also carries such emergency equipment as blankets, road cones, a ladder, fire ax, pry bar, stretcher, bolt cutter and fire extinguishers.

- A requirement that all larger liner carriers (foreign as well as domestic) be members of open conferences.
- Assurances of responsibe and competitive liner conferences.
- All carriers, conference and non-conference alike, be subject to inspection by independent neutral bodies.
- A legislative mandate "in no uncertain terms" that the U. S. Shipping Act of 1916 takes precedent and is exclusive of all other laws, particularly of the antitrust laws.
- Development of a statutory shipping policy toward bilateral arrangements, to accommodate cargo allocation policies of other governments and protect the interest of U. S. carriers and shippers.
- Clarification of intermodal rate-making authority by ship liner operators.

#### Board approves bonds for Continental's \$200 million construction program

"Port Record", New Orleans:-The Board of Commissioners of the Port of New Orleans has long recognized the need for port-related industry-often called "captive industry"-as a key to vitality and progress in the Port and the area. Earlier this year the Board took positive steps in the direction of industrial development by approving a budget for the establishment of a professional industrial development staff to work with local and state agencies toward the common goal of attracting industry.

In early November the Board once again took definitive action when it approved the issuance of \$200 million worth

of industrial development revenue bonds to finance construction of a major grain elevator and other facilities by Continental Grain Company. The building program is planned for the company's Westwego site, within the Port limits.

Michael J. Molony, Jr., president of the Board, said he was "delighted with the development, the first of many we hope to materialize in bringing more jobs, processing and manufacturing to the area.

"This is an example of business working with a government agency for the best interest of the people. The Port and our State's citizens will benefit from the development without any public taxation or any financial liability. Under the financing arrangement Continental Grain will be totally responsible for repayment of the bonds" he added.

The grain elevator and other facilities that are contemplated should add more than 300 permanent jobs when construction is completed, according to Continental officials.

Molony said that the U.S. Maritime Administration in 1977 estimated that one job is required for each 600 tons of foreign trade, with the exclusion of oil. The agency reported that, again excluding oil, the direct impact of each ton of foreign cargo handled comes to \$44, and that the total economic impact, both direct and indirect, comes to \$70 a ton.

"These figures," said Molony, "indicate how exceedingly important it is for us to induce industry to come to our port and to utilize it."

## Egyptian silos project cargo to move through New Orleans

"Port Record", New Orleans:-More than 3500 metric tons of project cargo, consisting of equipment and materials required in grain silos, will move through the Port of New Orleans over the next 18 to 24 months. When completed the two silo complexes will handle a large proportion of Egypt's grain imports.

The project for the construction of the two complexes is being funded through the United States Department of State, Agency for International Development (AID) program. Under the AID program, the government of Egypt entered into a loan agreement with the United States in which planning, design engineering, equipment procurement, and construction management are provided by a U. S. based firm.

The two silo complexes will be constructed simultaneously in Alexandria and Cairo by Egyptian construction firms. The Alexandria site will involve the construction of a 100,000 metric ton capacity grain silo complex to be built adjacent to an existing silo facility.

The Cairo (Shubra) complex will also be capable of storing 100,000 metric tons of grain when completed.

#### **Portland news**

#### • Portland container volume up sharply

Dramatic increases in containers moving across Port of Portland docks to inland points in recent months are growing evidence of Portland's ability to influence cargo.

"In November (1978), we had triple the volume of throughout containers at Terminal 6 than we had the same month the year before," reported Lloyd Anderson, Port executive director.

For the first 11 months of 1978 (latest information at

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press time) Port of Portland container tonnage is ahead of the previous year by 12.3 percent for loading, and 18.3 percent for discharge. "We see this trend continuing and growing," Anderson said.

Unlike other large West Coast seaports which lease out their facilities and serve as landlords, Portland is an "operating port"—with total operational and pricing controls.

In addition to this competitive advantage, Anderson called attention to the development of the upriver ports on the recently extended Columbia/Snake river system.

"We're handling a substantial number of containers coming downriver from Pasco, Washington, and some from Lewiston, Idaho, 340 river miles away, and other points along the river. Empty containers now provide the backhaul for truckers, completing this river-oriented transportation network that leads to Portland," Anderson said.

He noted two other factors are stimulating exports through Portland: "The drought is over and agricultural products are once again moving by container in high volumes over our docks. Also, the valuation difference between the dollar and the Japanese yen makes American exports even more attractive."

#### • Port industrial bond proves popular

The Port Commission has approved three companies' requests for industrial revenue bond issues to finance planned facilities. The companies are Nordstrom, Inc., Rodda Paint Co. and Potters Industries, all located in the tri-county Port District.

The total issue will be about \$7.2 million..

During the past year the Port assumed a leading role in the issuance of bonds and is informing businesses about the availability of this development tool.

Industrial revenue bonds are a form of municipal bond issued in the Port's name. The firm, not the Port, is liable for repayment of the bonds and therefore, no public money goes toward bond indebtedness.

#### Seattle Tradelines

#### • U.S.-U.S.S.R. marine insurance planned

For the first time since the U.S.-U.S.S.R. Maritime Agreement was signed on October 14, 1972, the Soviet Union has agreed in principle to share with U.S. underwriters the placement of marine insurance on cargoes moving between the two countries.

Robert J. Blackwell, assistant secretary of commerce for maritime affairs, was chief American negotiator of the basic U. S.-U. S. S. R. Maritime Agreement. He headed a U. S. delegation which met with representatives of the Soviet Union in Vienna, Austria, Viktor M. Ivanov, deputy minister of foreign trade, headed the U. S. S. R. delegation.

"This agreement breaks a six-year impasse on the insurance issue and will enable American underwriters finally to participate in this growing trade," Blackwell said.

The negotiators agreed to the text of a Memorandum of Understanding which recognizes the interest of U.S. marineinsurance companies in underwriting a substantial share of the marine-cargo insurance in the bilateral trade. The memorandum calls for meetings—beginning immediately between the marine--insurance entities of both countries to develop implementing procedures.

#### • New law to speed entry through Customs

The business community and international travelers will

be the chief beneficiaries of the newly signed Customs Procedural Reform and Simplification Act of 1978.

The new law, the first Customs administrative reform in more than 20 years, will permit the U.S. Customs Service to speed the release of imported merchandise, expedite processing of travelers and automate and simplify many procedures.

A result of cooperative efforts of the Customs Service, Congress and the importing community, the law eliminates many antiquated procedures and permits Customs to institute major administrative and operational reforms. The bill will permit Customs to:

1. Immediately release goods to importers upon presentation of appropriate entry documents. This change, which establishes the current "immediate delivery" procedure as the routine method for handling formal entries (those over \$250), will separate the duty-rate procedure from the procedure for documenting entries, and speed the release of merchandise from Customs' custody.

2. Adopt a long-planned automated merchandise-processing and revenue-collection, system that will speed delivery of merchandise to importers, reduce paperwork, cut the number of financial transactions and provide faster and more accurate statistical data.

3. Amend section 592 of the Tariff Act of 1930 to remove unduly harsh initial penalty assessments. The amendment to Section 592 establishes varying levels of penalty commensurate with the degree of guilt or negligence of the violator. The penalty would relate to a multiple of the loss of revenue or, if there were no loss of revenue, a percentage of the appraised value of the merchandise.

4. Raise the personal duty exemption for returning U.S. residents from 100 to 300 (600 for residents returning from insular possessions), and set a flat duty rate of 10 percent (5 percent for residents returning from insular possessions) on the first 600 worth of items above the exemption.

The new law also repeals certain statutory fees in connection with the entry, clearance and related movement of vessels.

## Antwerp to extend gale warning system

The gale warning system in the port of Antwerp, which was set up in 1974 by the City Authorities will be extended on the request of the private sector enterprises. The system works simple though effectively. Near Boudewijn lock an anemometer is installed which provides data to the lockkeeper. From the moment the wind reaches a velocity of 79 km/hour the lock-keeper switches on the gale warning system. Coded radio signals then turn on rotating lights on thirteen high masts in the port. When the lights start rotating, the crane drivers stop their work and lock the cranes.

The usefulness of the system made the City Authorities decide to meet the request of various private firms to install another thirteen stations, equipped with rotating lights.

#### £20 million—5-year Development Program: Belfast

At the Annual Meeting of the Belfast Harbour Commissioners held recently, the Chairman, Mr. W. H. Barnett, C. B. E., M. A., announced that the Board had approved, in principle, a number of major developments intended to ensure that the Port's infrastructure will continue to be adequate for its volume and pattern of trade and also appropriate so far as modern cargo-handling requirements are concerned.

The projects outlined comprise two new unit load terminals, a new deep-water common-user multi-purpose berth and the installation of new cranage at an existing uncraned general cargo berth. The cost of all these is estimated to be in the region of  $\pounds 13$  million and other anticipated developments would bring total expenditure to approximately  $\pounds 20$  million over a period of, say, the next 5 years.

#### New Unit Load Terminals

The two new unit load terminals will be situated beside each other at the Southern end of the 100-acre County Antrim Reclamation Area, which has a frontage alongside the deep water of Victoria Channel, the main entrance Channel to the Port.

One of the terminals will be designed for handling roll-on/ roll-off traffic and will replace the existing terminal at the extreme South end of Donegall Quay.

This new terminal will be capable of accommodating ships up to 550 feet in length and 85 feet in beam.

The second terminal will cater for lift-on/lift-off traffic and will be operated by Irish Sea Ferries Ltd. who at present run a daily service to Garston and a weekly service to Rotterdam. It will comprise an area of some 8 acres, with a berth 700 feet long. Two quayside container-handling ship-discharging cranes will be installed, together with two rail-mounted compound-stacking cranes for secondary handling.

#### New Deep-Water Common-User Multi-Purposes Berth

Following extensive consultations with a wide range of Port Users and other interests, the Commissioners have reviewed the Port's requirements for break bulk and semibulk cargoes.

They have decided to concentrate the handling of these commodities as far as possible in one central part of the Port with a frontage to both Victoria and Herdman Channels. The major development now decided upon will be an extension Southwards by approximately 1,000 feet of Stormont Wharf which will have a sufficiently large open area to cater for the wide range of cargoes not requiring covered accommodation.

#### Finance

The Commissioners will be seeking grant aid from the E.E. C. Regional Development Fund, from which generous assistance has been received in the past in relation to other projects. Application will also be made to the Department of Commerce for Port Modernisation Grants. The balance of development costs will be met from the Commissioners' own resources.

#### Liverpool news

#### • Port counts cost of lorry drivers' strike

The lorry drivers' strike has cost the Port of Liverpool more than  $\pounds 1$  million. And the price the port must pay for someone else's dispute has prompted the Managing Director of the Mersey Docks and Harbour Company, Mr. James Fitzpatrick, to declare: "It must never happen again".

Machinery must be found to deal with such disputes he said, so that ports which were heavily dependent upon the road haulage industry would be safeguarded.

"In this dispute everyone has lost", said Mr. Fitzpatrik. "The dockers have lost wages. The Dock Company has lost valuable revenue which would have been used to improve facilities for all who work in and use the port-including the lorry drivers. And the shipping companies have lost out too".

Mr. Fitzpatrick said however, that Liverpool has faired better than most other UK ports, and he gave much of the credit to the work behind the scenes, of the port's own shop stewards.

"The Dock Company did the best it could to meet the needs of shipowners and shippers alike, by re-opening berths which were moth-balled and by dropping the penalty quay rent charges imposed on cargo which is not collected from the docks.

"But the docks shop stewards worked ceaselessly throughout the strike to ensure the release of perishables, animal feedstuffs and other vital cargo. Certainly, not one single ton of perishable foodstuff was allowed to rot", said Mr. Fitzpatrick.

#### • Grain terminal – another record year

Royal Seaforth Grain Terminal gave the Port of Liverpool one of its major success stories of 1978 with a record throughput of 1,700,000 tonnes, an increase of nearly 150,000 on the previous year.

Although throughput of corn and maize fell by 250,000 tonnes, wheat increased by about the same amount last year. And the terminal handled an additional 140,000 tonnes of soya.

And attention is now being turned at the Grain Terminal to another facility-the export of home grown grain. Modifications are being made which will enable the port to take advantage of Britain's bumper wheat crop.

Bad weather has delayed work on the export facility which is now expected to be completed by the end of March.

#### King's Lynn orders new crane

A new 25-tonne crane has been ordered by the British Transport Docks Board from Stothert and Pitt of Bath for installation at their Wash port of King's Lynn, to assist the port in the handling of increasing tonnages of steel traffic and other heavy cargo.

The new crane, to be erected at Bentinck Dock, will be a level luffing, electrically operated, portal cargo crane, with a maximum capacity of 25 tonnes at a radius of 14 metres, and 20 tonnes at a radius of 17 metres. The crane is scheduled for delivery in a year's time in February 1980.

#### Southampton car terminal scheme

The British Transport Docks Board are to carry out a scheme at Southampton's Eastern Docks to provide improved terminal facilities for handling import and export vehicles, at an estimated cost of  $\pounds400,000$ .

The project involves the resurfacing of seven hectares (17 acres) of land, the provision of drainage facilities, additional buildings for personnel, and High Mast lights, and is expected to be completed within a year.

Car-handling is a relatively new traffic for the Port of Southampton, but it is gaining steadily in importance. An average of around 100,000 vehicles are dealt with annually-

the exact figure for 1978 was 120,000. British Leyland, Renault, Ford, Datsun and Fiat are some of the makes handled on a regular basis, and it is expected that this traffic will increase considerably in the future.

#### Southampton widens cargo range

Already established as Britain's principal port for handling deep-sea container traffic and as a major general cargo port, Southampton is continuing to widen its range of cargo operations.

Commodities which have not been handled at Southampton in the past are now being dealt with in increasing quantities. Recent examples of this trend include large shipments of forest products including newsprint and plywood.

A spokesman for the British Transport Docks Board explained that Southampton, with its' natural deep water and absence of lock gates, was particularly well suited to accommodate the large ships carrying this type of cargo. "Our marketing efforts to attract a wider range of cargoes to the port are already producing results" he commented, "and we are confident that Southampton's advantages for shipping will become increasingly recognised".

#### Shipping and goods traffic 1978: Aalborg

During the year of 1978 3.807 ships totalling 3.968.151 NRT have called at the Port of Aalborg.

The share in the total tonnage of the municipal section of the port came to approx. 69%.

The goods traffic in the Port of Aalborg aggregated 6.494.737 tons. The municipal share in the total goods traffic came to approx. 55%, compared with 58% in 1977.

The goods traffic in the municipal section disperses as follows:

|                                | t.        | %     |
|--------------------------------|-----------|-------|
| Import from foreign countries  | 2.616.320 | 73,2  |
| Import from Denmark, coastwise | 595.382   | 16,7  |
| Export to foreign countries    | 128.246   | 3,6   |
| Export to Denmark, coastwise   | 232.554   | 6,5   |
| Total                          | 3.572.502 | 100,0 |

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# The New Red Hook Container Terminal

Atlantic Basin-Brooklyn

Another major project undertaken for the Port of New York/New Jersey



**T** hrough the combined efforts of the State of New York, the City of New York and the Port Authority of New York and New Jersey, construction has begun on the 1,000,000 ton capacity Red Hook Container Terminal. Designed with the newest container facilities available, it will provide over 1,200 new jobs, contributing \$13 million to the Port economy.

> THE PORT AUTHORITY OF NY & NJ Marine Terminals Department

## New function of Le Havre-Antifer Transhipments

#### Port of Le Havre Series No. 10

Some refineries of North-Western Europe are served by ports which could not be adjusted to the reception of large oil tankers. Therefore oil companies are sometimes led to transfer-close to the place of final destination- the crude oil carried by large ships from the Arabian Gulf onto small or medium-sized vessels.

Transhipment operations are usually effected at sea, mainly off the English coasts (Lyme Bay) on the South-West coast but also near Barfleur under the lee of the Cotentin especially in case of South Westerly gales.

They are carried out by specialized lightening oil tankers fitted with large protecting equipment such as retractable fenders and provided with well trained crews.

It goes without saying that the idea has come of carrying out these operations in a port site. As far as Le Havre is concerned, transhipment operations can be done through the Compagnie Industrielle Maritime's tanks.

Oil discharged from large ships berthed at Antifer is transferred to Le Havre then re-loaded onto smaller ships berthed in the conventional port. Another solution has been considered: that of oil transfer from one berth of Antifer to the other by using both sides of the wharf.

However the Antifer wharf can only accommodate vessels below 200,000 dwt because of the space between bollards; transhipment from berth to berth can be done that way on small ships only, which is a serious handicap for oil companies, for the interest of transhipment often lies in the possibility of transfer onto medium-sized oil tankers which are bound to use a good many ports.

Thanks to floating fenders-huge inflated rubber cylinders-which have been recently purchased by the Port Autonome, small ships can now moor alongside a large vessel and thus direct transhipment can be done.

At Antifer mooring alongside a possible lighter is done in quite a different way to that used at sea, since there is no longer any mooring manoeuvre at sea but merely a conventional mooring manoeuvre at berth. In order to carry out this manoeuvre, ships are provided with all the port logistics which include not only the use of channels, widely dimensioned manoeuvring areas and aids to navigation but also the assistance of pilots, powerful and specialized tugs and well trained gangs of boatmen. In addition to a shelter under most weather conditons, ships find in Antifer an assistance in case of event or incident while they are operating.

It must be added that mooring alongside any oil tanker whose deadweight ranges between 30,000 and 150,000 tonnes is possible without it being necessary to send for specialized ships.

In the course of 1978 the Port Autonome and the Compagnie Industrielle Maritime have studied a special tariff for these operations allowing them to be competitive compared with any lightening operation at sea, it being understood that costs at Antifer include a certain "allowance".

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Port of Le Havre-Antifer: operation of transhipment

3 lightenings of that category have already been carried out since the first operation of November, 20th.

| Lightened         | Lighter   | Tonnage   |
|-------------------|-----------|-----------|
| Bellamya          | Nacella   | 106 111 t |
| Batillus          | Naticina  | 96 303 t  |
| Pierre Guillaumat | Fructidor | 71 777 t  |

#### General cargo traffic in 1978

#### (See front cover also)

In a relatively unfavourable climate and despite the serious repercussions which have troubled the port of Le Havre, the port recorded a growth of almost 3% in its general cargo traffic in 1978.

This increase is due entirely to exports which have soared by 7.7% whereas imports have fallen by 2.5%. This underlines even further the distance which has been observed over the last three years between imports and exports, to the benefit of the latter. This is a good picture of France's foreign trade which results in an important development in our sales of finished products abroad and a slowing down of imports on the part of French enterprises. In 1978, 740,000 tonnes separated imports from exports.

The most flattening results were recorded above all in the field of containers with a traffic increase of 11.2%. This is the result both of an intrinsic growth in existing container traffic (the Far-East, U.S.A., West Africa) and of the containerization of traffic which up to now has been either conventionally carried or ro-ro.

Ro-ro traffic stabilised during the year (+1.1%) as the exchanges with Great Britain did not undergo a major increase and were affected by labour problems in Le Havre and in Southampton.

With regard to conventional traffic, the drop of 200,000 tonnes noted is due almost exclusively to the technological transfer to containers and ro-ro. The increases recorded in

certain sectors were not sufficient in themselves to overcome this.

This is an inescapable evolution which is making itself felt in all large world port. However normal it may be, this phenomenon obviously poses problems at the level of employment of dockers.

It is for this reason that the Port Autonome is searching, together with the entire port community, for the best solutions in the face of this situation.

This is shown, moreover, by:

- an intensive prospection by shipowners and conventional loaders,

- the development of the international transit function (consolidation, dispersal, industrial and commercial platforms, etc....),

- a restructuring of the port hinterland to adapt it to the new demands of break bulk and palletized goods.

To this end, the Port Autonome will invest nearly 30 million francs in conventional traffic. The main realizations will be a fruit centre and a coffee centre, as well as the construction of a polyvalent platform.

#### Second bridge for Francois I Lock

A second bridge is to be built over the François I Lock, at its seaward end. The lock is a vital factor in the current development of the port and the industrial zone, and the new bridge, which will be of the rolling type, will put an end to the periodic interruption of road traffic when ships are passing through.

#### New projects approved

At their latest meeting, the Board of Directors approved the construction of 6.3 ha/16 acres of stacking space to the north of the François I Lock to supplement the stowage areas already laid out around No. III shed. They are needed for the overspill from the Atlantic and Europe container terminals, which are frequently filled to capacity.

#### **Dunkerque news**

#### • Balance sheet in 1978

Thanks to FRANCE's turning more to foreign counties, and its Labour Relations record getting better, Dunkerque's traffic reached 35,644,195 tons in 1978 i.e., 8.7% growth over 1977 and 6.3% over 1976.

1978 traffic also overtops 1974 which was the highest tonnage reached in the past: 34,588,000 tons.

This goal was achieved through a dramatic boom of exports (+23.8%) which amount to the highest ever total tonnage of 7,287,580 T.

Imports also grew compared to both 1977 (+5.1%) and 1976 (+1.7%).

Considering these figures Dunkerque continues to rank first among French Ports excluding petroleum and third for the total traffic.

Bulk traffic and tramping account for most of the growth whereas general cargo and regular services roughly maintain their score.

Concerning container traffic, a steady growth can be noticed since 1974 although no major regular service came to increase the destinations already served from Dunkerque.

#### • 1978 figures

The cross Channel traffic which amounts to 1,084,670 tons shows an increse of 10% compared to 1977.

The number of crossings was:

| 3,766 from/to Dover    | (+ 3%)  |
|------------------------|---------|
| 362 from/to Harwhich   | (+ 14%) |
| 528 from/to Felixstowe | (+ 29%) |

441,886 passengers crossed the Channel, with a growing proportion from France to Great Britain.

#### Fines for pollution at sea

Marseilles:-The French Senate recently adopted, with certain amendments, the Government bills for the prevention of pollution at sea. The first of these texts prescribes fines of 500,000 to 5 million francs and 1 to 5 years in prison for captains who voluntarily discharge hydrocarbons into the sea; and fines of 100,000 to 1 million francs and 6 months to 2 years in prison for involuntary discharge.

The second text prescribed fines of 100,000 to 500,000 francs and 1 month to 2 years in prison for the captains of ships carrying hydrocarbons who infringed the regulations applying to French territorial and inland waters, and the rules of the international London Agreement of 1972.

#### **Rouen Port news**

• Investment projects: The Board approved the first outline of the new operations programme for the infrastructure likely to be undertaken in 1979. The final programme will have to take into account the State decisions, as it seems little likely that the State will be able to provide its share in all the investments that would appear to be necessary. The order of priorities fixed by the Board is as follows:

- Access: Work to carry on with the aim of ships fully laden of 35,000 tons deadweight to get up to Rouen, and for 50,000 tonners to get to Honfleur and Port-Jérôme, in addition to let ships with a draught of 9.30 metres to go to sea from Rouen on one direct tide.

- Quays: Construction of a first quayside of 180 metres at Moulineaux to cope with the general cargo, with particular reference to the vehicle trade. Construction of a ro-ro ramp to complete equipping the Scandinavian terminal at the Rouen-Quevilly Quay.

- Other operations: Many other operations must necessarily be carried out.

• Modification to the Boundary limits of the Port: The limit for French territorial waters has been extended from 3 to 12 miles from the coasts. It is therefore incumbent on the Port of Rouen to make changes in the area under his control, which, in the Seine estuary, extends to the international waters sector. The limits with Le Havre and Calvados were the results of agreements some time ago. The dossier will be the subject of a public enquiry.

#### **First arrival at Bremerhaven**



Third-generation containership "S.A. Waterberg" of Safmarine Corporation, Cape Town, being berthed on her first visit at Stromkaje of Bremerhaven Container Terminal. (Bremer Lagerhaus-Gesellschaft)

#### **Bremen International**

### • Standard pallet gives maximum efficiency in fruit transportation

The constant containerisation expansion in sea-trading has meantime encroached into the fruit trade. Werner Klemeyer, partner of the Scipio-group, one of the leading undertakings in the European fruit trade, stressed the container as being: "an instrument of the uninterrupted transport-chain stretching from dispatch-location to final receiver" and so does not entirely correspond to "the logistics of the fruit trade". For whilst it is feasible it would nevertheless be difficult of adaptation in the right composition at the far-distant dispatch-location for each respective set of market conditions. Furthermore "the danger exists of economic depreciation of the fruit for reasons of intermediate variations occurring in market conditions, or intermediate alteration in the condition of the fruit whenever cargo-composition is effected too early in the country of origin". This necessitates re-commissioning in the receiving port, resulting in extra costs. Klemeyer: "From present-day aspects, fruit transportation calls for thought in transport-systemisation". Where possible the individual fruit package should not be handled in between the production-line packing-station stage and the receiving retail trader. There is "no further doubt for the international fruit trade participants, from start to finish of the transport chain, that these requirements are best fulfilled with the individual packages stowed as fruit units on pallets (Europool-exchange pallets 80 x 120 cm and, for ocean transport, on the 100 x 120 cm pallet)". Where containers are already being utilized-introduced "from the point of view of shipping company interests", then the fruit commodity should be palletised inside the containers. Containers always have the advantage "where relatively small quantities have to be carried over long sea routes". Hereby the market-warranted transport of New Zealand Kiwi-fruit to Bremen in reasonable quantities was only at all possible with containers. Thus the container was able to open up new production areas and new import routes. The decisive rationalisation effect, however, also in such instances, lies "only in palletisation".

#### • Cotton containerisation remains most dissimilar

A review from Bremen, biggest cotton port and location of one of Europe's leading cotton exchanges, indicates containerisation of cotton handled in Bremen to have attained notable proportions in certain trades. It was 8.9% in 1977 and already 13.5% in 1978, whereby the degree of containerisation from individual countries of origin was very dissimilar. More than half the exporters choose conventional methods, including the U.S.S.R., the largest supplier of cotton through Bremen, as well as Turkey and Brazil, which held the leading position previous to the U.S.S.R. However, the Central American countries also only participate with about 2% in containerisation via Bremen, as also Peru-with Egypt similar (1.1%). The picture differs for countries having a more or less balanced foreign trade, where the use of containers is profitable in both directions, or where empty containers being returned to Germany are available for these shipments. Thus cotton imports from South Africa in 1978 were up to 9.5% and even to 22% from West Africa, to 46.5% from Iran, to 83.4% from the U.S.A. and-already in 1977-to 100% in containers from Israel. The usage depends upon the availability of these containers and upon the respective loading systems.

The considerable protection afforded by the containers for cotton, customarily wrapped in jute or plastic, is unquestionably advantageous, but one trump card of the large metal box does not apply here—that of through transportation, sealed by the supplier, direct to consignee. Cotton has to be unloaded in the destination port, for determining weight and quality. The cotton industry also sets great store on being supplied by the Bremen importers with constant, conformable quality (from stocks where necessary).

An alternative to the container in recent years—relative at least to the U. S. A.— is the lash trade. 12,685 bales (a bare 12% of the U. S. A. cotton shipped to Bremen) in 1978 were loaded in barges. It had already been up to 27.8% (19,248 bales) in 1977. The considerable drop was due to the severe cut in the contract-volume of cotton being routed along the Mississippi. Inland-barge traffic is used for cotton produced in near-by plantations in Mississippi, Louisiana, Arkansas, Tennessee and Texas.

In cost-comparison; container, lash and conventional shipping modes are all around equal; containers lead in time-comparison. Cotton as bulk/general-cargo, makes barges particularly suitable for the above-mentioned reasons and due to their large capacity capabilities.

# **GET ALONGSIDE FAST FOR OFFLOADING AND REFLOATING** The tendency today is to build ships larger and larger



OFFLOADING A CRIPPLED TANKER (PHOTOGRAPH BY BRITISH PETROLEUM)

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### **Free Port of Hamburg**

(Reprinted from Port of Hamburg Topics): –Wherever in the world a seaport is faced with the necessity of creating special facilities for the duty-free storage and transhipment of sea-borne goods, it is generally usual to make use for one's own planning and decisions the experience gained during a period of over 90 years in this sector by the Free Port of Hamburg.

Since 1888 the Free Port has been a special and unique characteristic of the Port of Hamburg. It has survived practically unchanged the political and economic upheavals of the past decades. This is clear proof of the necessity and expediency of the solution found at that time.

The principle upon which it is based is incredibly simple. Whereas in many ports the customs-free storage of seaborne goods is limited to warehouses, which spatially have no connection with each other, in Hamburg the entire centre of the port was made a duty-free area.

Here all incoming and departing ocean-going ships may move without any customs restrictions, and here foreign goods can be transhipped, transported, stored as long as required, inspected, sampled and to a certain extent also undergo warehouse handling without being subject to customs control; in the eastern part of the Free Port the processing and refining of goods are even permitted. Only when the goods are moved across the boundary and into customs territory do they have to be cleared by customs.

The "Free Port" subject became topical following the foundation of the German Reich in 1871. Hamburg belonged to the German Reich, it is true, but had remained an independent state territory with its own customs sovereignty. Goods arriving by ship from abroad could be stored everywhere in the city without customs supervision. This had numerous advantages for the whole population as well as for the city's economy.

When Reich Chancellor Bismarck urged that Hamburg too should join the German customs union, this wish at first found little favour in the Hansestadt. There were years of longdrawn out negotiations which ended with the arrangement that Hamburg would join the customs territory of the German Reich provided the area of its port could continue to remain virtually customs-exempt territory.

After the Hamburg Senate had reached agreement with the chancellor on this basis, it was now a matter of creating in practice the pre-conditions for the functioning of this bold solution. As far as the Hamburgians were concerned, the task arising from this was one for which there had been no precedents.

On the one hand all the possibilities for large-scale extension of the port facilities in the low-lying areas of the River Elbe had to be kept open; on the other hand arrangements had to be made to ensure that this rapidly expanding harbour region always remained delineated from adjacent customs-liable residential and trading districts by means of easily controllable customs boundaries.

Furthermore there was the fact that many store houses along the canals of the inner city were no longer in demand as stores for imported goods, since they did not possess the advantage of being in duty-free territory. Therefore new storage facilities in the required amount had to be



built inside the future Free Port. In view of the fact that this had to be done in close spatial connection with the inner city, an entire city district where 20,000 people lived at that time, had to be torn down to make way for the Free Port warehouses.

This gigantic project was planned and carried out within a period of seven years, from 1881 to 1888—an admirable technical and organisational achievement!

In retrospect it should be noted that the decision at that time was correct and created essential pre-conditions enabling Hamburg within the following decades to develop into one of the world's leading port and trading centres. Foreign and domestic trade, industry and crafts took part to the fullest extent in the stormy expansion of world trade and the industrial growth of the German Reich before the First World War.

Today the Free Port area is about 15 square kilometres in size and thus occupies about a sixth of the overall surface of the port. It consists of two parts separated from each other by the Köhlbrand, a tributary of the Elbe. The western section, which includes the Container Centre Waltershof, was not built until 1910. The largest part of the general cargo terminals, the storage depots and warehouses with just under 700,000 square metres of storage area, as well as numerous industrial firms (shipyards etc.) are located inside the Free Port.

Both Free Port sections are surrounded on the land side by a three metre high fence. Goods traffic passing the boundary between the Free Port and customs territory is dealt with at checkpoints under customs supervision; several customs posts are available for customs clearance. Persons who are not carrying goods with them pass the customs posts without having to be checked. 

# Seatec II

### **Seminar Program** Singapore, June 11-15, 1979

#### Session Chairmen

Dr. Ross Robinson, United Nations ESCAP Mr. A.S. Mayne, Port of Melbourne Authority Prof. Ir. J. de Koning, Delft University Prof. Ir. P. Th. Velzeboer, Delft University

#### Session 1 Monday 09.90, June 11

- 1. Keynote Address: D. Koludrovic or Dr. Ross Robinson of ESCAP
- 2. Interface between ports of industrialised and developing countries: Melvin Shore, Director, Port of Sacramento.
- 3. The role of finance bodies: speaker invited from Asian Development Bank.
- 4. Problems concerning finance: Who pays, Port Authority, city or country? Richard Goss.
- 5. Port planning and economics: speaker to be announced. LUNCH: followed by visit to World Trade Centre for inauguration of "Marintec Asia 79".

#### Tuesday 08.30, June 12 Session 2

- 1. Address of session chairman.
- 2. The evaluation, selection, training and motivation of human resources:
  - a) Simon Feldman of World/ORT Union, Geneva.
- b) Practical applications in dredging: F.C.H. Neervoort. 3. Technological requirements for port works in developing
- economies: speaker invited from Philippines Ports Authority
- 4. Port Construction: can civil engineering contractors contribute long term benefits to a developing country's construction or port industry? E. Orsoba, Nigerian Ports Authority
- 5. Hydraulic research: speaker to be announced.

#### Session 3 Wednesday 09.00, June 13

- 1. Address of session chairman.
- 2. Dredging in tidal basins: Dr. V. Tapasvi, Engineers India Ltd.
- Lunch: 3. Operational aspects of dredging fleets:
  - a) Contractors viewpoint: speaker invited from Japan. b) Port services viewpoint: Brig. Narula, Dredging Corp. of India.
  - c) Joint venture viewpoint: speaker to be announced.

Session 4 Wednesday 14.00, June 13

- 1. Restructuring of existing port facilities to suit future trade requirements: theme presentation by session Chairman S. Mayne of Port of Melbourne.
- 2. Re-training of labour and management to suit new facilities: Loh Heng Kee, Ports Authority of Fiji.
- 3. The frame contract as a means of long term port development: Ir. J. van Dixhoorn of Rijkswaterstaat.
  - a) Contractors view: Ir. F. Roelofsz, Int'l Association of Dredging Companies.
  - b) Port Authority view: speaker to be announced.
  - c) Consulting Engineers view: speaker to be announced.

#### Session 5 Thursday 09.00, June 14

- 1. Technology transfer: to what extent is the transfer of dredging technology necessary, desirable, technically and commercially possible?
  - a) Prof. Ir. J. de Koning of Delft University.
  - b) Dr. S.K. Bhattacharya, Ports Consultant, Directorate of Sea Communications, Indonesia.
  - c) Ir. J.U. van der WakZanen & Verstoep,
- 2. Closing summaries

#### CARGO HANDLING

#### Friday 09.00, June 15

Chairman: Patrick Finlay, ICHCA, International Cargo Handling Co-ordination Assn.

Theme: Improving the interface between land and water

- 1. Chairman's keynote address.
- 2. Cargo handling requirements in the Asia/Pacific region: a) Shippers viewpoint: speaker from Singapore Shippers Assn.
  - b) Port authority's viewpoint: speaker to be announced. c) Shipowners viewpoint: speaker to be announced.
- 3. Co-ordination of shipboard and land-based cargo handling requirements: V. Brnicevic. Navire Cargo Gear.
- 4. Dockside Equipment selection: Ken Dally, National Ports Council. U.K.
- 5. Increasing the effectiveness of existing tonnage through improved cargo handling techniques: speaker to be announced
- 6. Operational training, maintenance, spares and service: speaker to be announced.

19:30 Gala Party- Shangri La Hotel poolside

Note: This program is subject to augmentation/amendment

#### 

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### **Computerized Information System—** How it works in Japan's major ports

(Shipping and Trade News):-Tansport renovation, triggered by containerization, has brought about rationalization of not only the hardware aspects of transport and cargo handling but also of the software facets.

Even though the handling and conveyance of cargo is rationalized and accelerated by multipurpose ships and new types of handling equipment, physical distribution may still remain unrationalized unless documentation, liaison and other paperwork are streamlined at the same time.

What is now being developed in the framework of software rationalization is a port and harbor information system.

The computerized system is intended to handle the paperwork that begins with the arrival of a ship in a port and ends with her departure. The system's approach is supposed to fulfill dual purposes: one is to rationalize the procedures of documentation, communication and data processing, the volume of which is growing with the increase in through cargo traffic and ships calling at ports, and the other is to efficiently utilize such facilities as transit sheds and berths, the number of which is also growing with the increases in cargo traffic and ships port calls.

Development of such systems has been, or is being, undertaken in Nagoya, Kobe and Yokohama by their respective port administrations. In Nagoya, the ship arrival and departure control system of the Nagoya Port Authority started full operation in January 1979.

This article describes how the NPA's system works and how such systems are being developed in Yokohama and Kobe.

#### Nagoya

The ship arrival and departure control system developed by the NPA handles on a real-time basis all data processing needs for the control of each visiting ship from arrival until departure, of berths and tugboats and of the supply of information concerning visiting ships, berths and tugboats



Plasma display panels installed at the maritime affairs section of Nagoya Port Authority.

with its central processing unit (CPU) ACOS-77 NEAC System 200, linked on line to display units installed in the berth, tugboat, signal and radio subsections of the authority's maritime affairs section.

The computer also prepares the statistics and control data demanded by the subsections, calculates charges for the use of mooring facilities and tugboats, and issues bills therefore.

It was in January 1972 that the NPA started its preliminary research for development of this information system, and in June 1974 the port authority organized a 30-member Nagoya Port Information System Research Council in which shipping lines, harbor transportation operators, shippers, governmental agencies and academic circles were represented. The council began regular activities through its ship movement information committee and cargo information committee.

The total system the research council plans to eventually develop will comprise, besides this ship arrival and departure control system as its core, a seaborne cargo information system, an arrival and departure control center system, a harbor work control system, a port authority internal operation control system, a joint use system and an information service system.

Next will be developed the seaborne cargo information system intended to keep track of, and provide information concerning, seaborne cargo in the port area and of the use of public transit sheds and related facilities, as well as to process documentation needed for export-import procedures and forwarding.

In contrast to the ship arrival and departure control system which, primarily embodying a systems approach to the execution of the internal affairs of the port authority, was developed under the authority's strong leadership and has a more public character, the seaborne cargo information system in which the operations of the port authority, freight forwarders, metage agencies, shipping lines (or their agents) and customs brokers are integrally linked is more private in nature. Thus the Nagoya Port Information Research Council points out in its study report: "It is desirable to shift, along with the expansion of the system, the responsibilities for further development and administration of the system to a third sector. After such a shift, the port information system would take the form of an information center."

#### Yokohama

The project for establishment of a port information center system, already undertaken by the Port and Harbor Bureau of the municipality of Yokohama, uses a similar approach.

Unlike Nagoya's system, however, what is envisaged in Yokohama would include the control of public transit sheds and warehouses in the first phase.

In Yokohama, a research council for the establishment of the Yokohama City port information center, in which interested industries are represented, was inaugurated on (Continued on page 46)

# WHAT IS THE BEST WAY TO USE THE LANDS EFFECTIVELY ?

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#### (Continued from page 44)

the initiative of the municipal Port and Harbor Bureau to engage in research for the development of the intended system. The council has already selected the types of the CPU and the 38 terminal units to be installed in the pier offices.

It will process on a real-time basis procedures to control ships' arrivals and departures (including assignment of berths and buoys and regulation of mooring), cargo sharing areas in transit sheds (permission to use such areas, confirmation of the completion of such use, procedures relating to deliveries in and out), and public port facilities including unloading areas (procedures relating to their use and calculation of charges). The system will also handle bill collecting procedures (adjustment of charges, issuance of bills and receiving of payments) and statistical affairs.

#### Kobe

Meanwhile, a Kobe Port Information Control System Research Council was launched in July 1970 at the initiative of the municipality's Port and Harbor Bureau, and started full-scale efforts to establish a systems approach to port information handling through its ship information committee and cargo information committee.

The research council commissioned computer manufacturers to conduct surveys on the current situation of the network for communication of information concerning the movement of ships, the feasibility of introducing an electronic data processing system (EDPS) for the handling of export loading procedures, on the present state of paper work relating to transit sheds and warehouses in the port of Kobe, industries' interest in participating in a total system for the computerized control of port operations and the use of computers by various enterprises involved in the functioning of the Port of Kobe. They were further asked to undertake concept formation for the intended EDP system to keep track of ships moving in and out of the Port of Kobe. The research council suspended its business in June 1975, and was succeeded by a new body called the Council for Development of an EDP System for the Port of Kobe.

Although the council, like its counterparts in Nagoya and Yokohama, broke down port information into two broad categories of cargo information and ship movement information in its research program, it differs from the two others in that development of a total system encompassing both categories is intended from the outset for the Port of Kobe.

The Kobe council's policy to include cargo information processing functions from the very beginning represents its intention to maximize the number of prospective participants in the computerized system.

The three port authorities further share the view that the development and administration of such systems should eventually be entrusted to third sector organizations. Though every one of them has a fairly definite idea of what its system should be like, they have many problems in common which remain unsolved, such as the treatment of those not subscribing to the system, coordination with public authorities concerned, standardization of document forms, interface with existing electronic systems and observance of secrecy.

Given the rapid progress of transport renovation, however, a systems approach to handling of port information is in accord with the needs for rationalization and modernization of port operations, while the more efficient utilization of ports and harbors is also an important requirement.

#### Radioactive isotopes used in Moreton Bay investigation

("Brisbane Portrait"):-The exercise to track the spread of dredge spoil in Moreton Bay by the use of radioactive isotopes has shown that-thus far-very little movement of mud has occurred from the Mud Island dumping ground.

The tracking programme-the first of its kind in Queensland-began in April and May last year with the dumping of test loads of spoil from the Port of Brisbane Authority dredger, "Echeneis".

The seeding of dredge loads with isotopes and the dumping of the spoil was carried out by expert staff of the Australian Atomic Energy Commission and supervised by the Department of Health (Queensland Government).

The loads were deposited in Moreton Bay in the vicinity of Mud Island—a dumping ground which Port of Brisbane dredgers have used for many years.

Ever since, Authority employees have been monitoring the isotopes with tracking equipment installed on a workboat, "Wyuna".

The final information will have an important bearing on the Authority's future dredging plans and priorities.

Periodically, mud samples are taken from the lower reaches of the river and sent to the A.A.E.C.'s laboratories in Sydney. There, they are examined to detect any trace of the isotopes returning to the dredged channels.

No significant movement of the mud has been detected during the first three months of the study. The effect of summer storm action has yet to be evaluated. The study will continue until September.

#### ADB provides technical assistance for Lae Port

Papua New Guinea's plan to expand Lae Port to meet overseas and coastal traffic demand up to 1990 will be assisted with a technical assistance grant from the Asian Development Bank.

Lae Port, the gateway to the Highlands and the Morobe Provinces, is the largest commercial port of PNG. It is located at Huon Gulf overlooking the Solomon Sea. With a hinterland accounting for about 40 percent of the country's population, it plays a vital role in the economy of PNG.

It is estimated that the total dry general cargo traffic through Lae Port will increase from about 640,000 tons in 1978 to about 950,000 tons in 1986. Because of this, additonal facilities will have to be provided if serious congestion is to be avoided.

A major factor in the emerging cargo traffic pattern at Lae Port is the increasing containerisation of overseas cargo.

With increasing containerisation, overseas ships would be calling at only a few major ports in PNG, with the result that the pressure on Lae Port is likely to increase. This would enhance the role of Lae Port as an important entrepot in PNG.

Expected to begin in May 1979, the technical assistance

study will, among other things, review in detail and revise as appropriate the layout and the components of the first stage development of the tidal basin scheme for Lae Port recommended in a study made in 1973 by a consulting firm.

#### Major boost in Gulf container traffic

Container traffic using Sharjah's Port Khalid on the Arabian Gulf increased by over 90 percent in 1978 compared with the previous year, Sharjah Port Authority reports in its annual summary of results published recently.

However break-bulk general cargo dropped by 45 percent in the same period, demonstrating that the rapid growth in containerisation has largely been at the expense of breakbulk operations.

A spokesman for Sharjah Port Authority commenting on the results said: "1978 has shown an encouraging recovery from the 1977 position and we closed the year on a very strong note owing to Iran's political crisis which led to a number of shipping lines using Port Khalid for temporary storage of Iranian-bound cargo".

Container tonnage totalled over 953,000 compared with 490,500 in 1977 with general cargo falling from 667,000 to 365,000. The total tonnage during 1978 increased from 1,756,825 to 2,080,122.

## Fisherman Islands swinging basin nearing completion

("Brisbane Portrait"):-Only a few high spots remain to be removed and these are being levelled with a series of small explosive charges-followed by cleanup dredging. Most of the deepening work was carried out by the Port of Brisbane Authority's main dredger, "Sir Thomas Hiley".

"Sir Thomas Hiley" commenced dredging off the islands in July 1978. In between other port commitments, she has removed about 1.4 million cubic metres of material from the river bed in the vicinity of the islands. The dredging is an integral part of the overall new port project.

The dredged material has been deposited on dumping grounds in Moreton Bay.

The work has provided deep water (11.7 metres, low tide) between the port's main entrance channels and the islands' first berth.

So far, the total off-shore islands' dredging programme has provided a swinging basin and berth approaches with a combined area of 35 hectares.

In places, the "Sir Thomas Hiley" had to dredge out nine metres depth of material.

Work on the islands' wharf-552 metres in length-for container and ro/ro vessels is well advanced. It is longest single length of wharf construction ever undertaken in Brisbane. When finished, the wharf will accommodate two 60,000 d.w.t. ships simultaneously.

The new port site is parallel to the port's main entrance channels.

# Mr. Pao elected chairman of Intertanko

The Week in Hong Kong:-Hong Kong shipping magnate and chairman of World-Wide Shipping Group, Sir Yue Kong







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PORTS and HARBORS - MAY 1979 47

Port Lincoln, South Australia



SOUTH AUSTRALIAN DEPARTMENT OF MARINE AND HARBORS WINS ENGINEERING AWARD:-Designed, built and operated by the South Australian Department of Marine and Harbors, Port Lincoln's 4000 tonnes an hour grain loader was a clear winner of the Institution of Engineers, Australia, SA divisional award for 1978. The award was announced in March this year. The 600 m wharf carries twin loaders, with two 15 m grain berths and a 12 m berth for discharging bulk cargo, such as phosphate rock. The grain berths handle vessels up to 60 000 dwt, but can be deepened when necessary to 18 m to take ships of 100 000 dwt. The award was from strong competition which included freeway engineering, core library, computer systems, factory and office design and construction entries. The grain loading facility cost \$12.5 m. Separate privately operated silos hold 300 000 tonnes of grain.

Pao, has been elected chairman of the International Association of Independent Tanker Owners (Intertanko).

Sir Yue Kong, who heads the world's largest independentowned tanker fleet, was vice-chairman of the Intertanko for three consecutive years.

#### **Review of Penang Port development** projects

Under the Third Malaysia Plan, a total of \$135 million was allocated for the development of port facilities in Penang. Among the projects which had been implemented and completed are the Bus Terminal Complex an ancilliary facility to the Ferry Service, the Sixth Berth which is a Container cum ro-ro berth at Butterworth and the North

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Channel study.

Among the most important projects to be undertaken for the long term development of the port is the Phase III Port Development Study. This project is in accordance with Port Master Plan Study drawn up in 1975 and involves the location of a new port site to accommodate the future growth in traffic.

The port is expected to maintain a steady growth to cope with the economic development of the country and planning for new port facilities is a continuous exercise conducted by the Penang Port Commission.

With constant improvement of its facilities the Penang Port Commission has been able to handle a greater percentage of the port traffic. In 1970 the Commission handled 1,277,406 tonnes which represented 42% of the port traffic and by 1977 the Commission was handling 2,576,453 tonnes or 56% of the overall port traffic. This competitive environment in Penang is very healthy as it generates a constant need to increase efficiency in the organization.

Another factor which has contributed to the steady port development is the good industrial relation climate and this is attested to by the absence of industrial dispute over the last decade.

#### Penang improving container facilities

The Penang Port Commission have been handling containerised cargo since 1973 and plans were already formulated then to meet this revolutionary trend in cargo handling.

| Statistics on | Containers | Handled | at the | Port | of | Penang |
|---------------|------------|---------|--------|------|----|--------|
|               | (1         | N TEU)  |        |      |    | -      |

| (11 120) |        |         |        |            |
|----------|--------|---------|--------|------------|
|          | Inward | Outward | Total  | % Increase |
| 1974     | 1,500  | 1,494   | 2,994  |            |
| 1975     | 4,525  | 4,327   | 8,854  | 196%       |
| 1976     | 7,050  | 7,140   | 14,192 | 60%        |
| 1977     | 9,000  | 9,037   | 18,037 | 27%        |
| 1978     | 5,773  | 5,519   | 11,292 | up to June |

In anticipation of these favourable growth figures, the Commision has committed itself to providing adequate container handling facilities in the form of a container gantry crane, two transtainers and number of other container handling equipment such as tractor trailers, heavy duty forklift trucks and shortmasted forklift trucks.

Other improvements in the rendering of container handling services are being investigated into in order to ensure that delays will be minimize, especially in the area of documentation.

To cater for deeper draught vessels the port is currently undertaking a feasibility study into the deepening of the north channel to between 36 feet and 40 feet ACD. Together with this is the provision of a container cum ro-ro berth which is already operational. The length of this berth is 524 feet with a draught of 32 feet alongisde.

A number of new shipping lines have indicated growing interest in the port's new facilities and full container shipping services can be expected to be increased in the very near future.

With the provision of these additional container handling facilities the port accordingly revised its container tariffs in order to present a comprehensive system for raising container handling charges.

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