Bridgestone marine fenders give you a complete range of design options that offer significant savings in overall port construction costs. Choose from our full range of fenders: cell fenders (including the world's largest), our exclusive Super-M fenders, plus all types of conventional fenders. Bridgestone's designs, precisely calculated by computer and substantiated by relentless fatigue testing, give the assurance that our fenders are exceptionally durable, easy-to-install, and maintenance-free.

Bridgestone fenders. You can depend on them for absorbing high energy with low reactionary force, and superior durability. Next time, be sure to specify Bridgestone.
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Models include MACH (Modular Automated Container Handling), Modified 'A' Frame, Low Profile, Twin Lift, and Long span backreach. Economy designs for feeder and inland ports.

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Pneumatic rubber fenders use the natural compressibility of air while the variously shaped solid rubber type fenders use only the elasticity of the rubber. Therefore pneumatic type fenders display the advantages of low surface pressure, high energy absorption and excellent oblique performance. They are easy to install and their proven performance is well recorded.

Fender selection

To deal with all of the various movements of a ship influenced by wind and waves at the time of berthing, fenders must have excellent load deflection as well as high cushioning performance. Consequently, the performance of fenders at this critical time has now become the most crucial factor in fender selection.

Yokohama Rubber’s pneumatic type rubber fenders meet all of the specific requirements. They have sufficient elasticity to accept any berthing force and because of their lower mooring reaction force they afford protection for the ship, mooring lines and quayside.

The same high performance also ensures the longevity of the fenders themselves.

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LONDON OFFICE: 3rd Floor Standbrook House, 2 Old Bond, Street London W1X3T.B, England. Tel: 01-499-7134/5 Telex: 885223 YOKOCO G
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- Port of Nagoya takes any type of cargo at specific piers.
- Port of Nagoya handles over 100 million tons of cargo yearly.
- Port of Nagoya plans to further modernization and integration of facilities.
- Port of Nagoya hosts 12th Conference of the International Association of Ports and Harbors in 1981.

NAGOYA PORT AUTHORITY
8-21, 1-chome, Irifune, Minato-ku, Nagoya, Japan
October, 1979 Vol. 24, No. 10

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The Cover: This is an aerial photograph of the Port of Wellington's City Wharves, depicting the Floating Dock in the foreground, Rail/Road Ferry Berths, conventional berths as Aotea Quay, Thorndon Container Terminal, with adjacent New Zealand Railways marshalling yards and other overseas berths and roll-on berths in the background. Also in the rear foreground can be seen the new motorway extending into the capital city and port of New Zealand. See sketch on page 47 also.

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IAPH announcements and news

New President and 3 Committee Chairmen depict programs for 2 years to come

Besides the changeover in the executive offices of the Association, an overall reshuffle was made at the 11th Conference in Deauville of the chairmanship of the International Port Development, Large Ships and Membership Committees.

The Association’s ace members elected to head the three Committees for the next term are; Mr. Keith Stuart of British Transport Docks Board for the International Port Development Committee and concurrently as Liaison Officer with UNCTAD.

Mr. John Wallace of the Maritime Services Board of N.S.W., Australia for the Large Ships Committee.

Mr. J.P. Davidson of Clyde Port Authority, UK for the Membership Committee.

The new chairmen have been active on duty since May under the leadership of President Bastard.

This issue features the messages of the President and the three committee chairmen outlining their programs for the term to come. (TKD)

Presidential Message
by Paul Bastard

Dear IAPH Members,

It is now a few days since the last fire of the 11th IAPH Conference went out. Speaking in the name of the whole Association I think I can renew our warm thanks and our warmest congratulations to Mr. Chairman Le Chevalier, Mr. J. Dubois and the whole team which organized the Conference. We will long keep in mind the memories of this week during which we met in Deauville.

So far as I am concerned I must tell you once more how deeply moved I am by the honour you have shown me in giving me the IAPH Presidency for the next two years. I can assure you that, after the great President George Altvater, I will dedicate all my energy to the continuation of the task we have undertaken for the promotion of our actions and for the realization of our requests. I shall do it with the valuable help of the 3 Vice-Presidents A.S. Mayne, A.J. Tozzoli, P.K. Kinyanjui and the Executive Committee as also the Secretary General.

Therefore I wish, at the dawn of these two years before me, to tell you a few words about the main topics which to my mind, should be the subject of our efforts and our work.

It goes without saying that the continuation of the action undertaken for the recovery and the final reorganization of the Association’s situation constitutes one of our priority objectives. I have complete confidence in the Finance Committee and more particularly in its Chairman J. den Toom to reach the objectives fixed. I think I must also emphasize the intense and steady promotional effort which we all have to make around us to give rise to the registration of new members. I thank Mr. J.P. Davidson and the Membership Committee he presides over for the vigourous action he undertakes in this direction. I am satisfied with the decisions made in Deauville on the proposals made by J.H.W. Cavey and his Committee on Constitution and By-Laws. Our Association has all the assets necessary to be strong, efficient and respected. I rely on you to act in this way.

Furthermore as regards the topics which are to be dealt with in priority, since they correspond to the problems the ports of the world already meet or will meet in the coming years, I see 4 main topics: SAFETY, EFFICIENCY, RATIONALIZATION and PROMOTION.

SAFETY: The role of IAPH in this field must assert itself in a clear and important way. Be it either in the field of reception of ships, detection, prevention and fight against disaster or pollution, handling of substandard ships, special measures to be taken for some types of ships (very large draft, nuclear propulsion, ships carrying chemical... ) or for some types of goods, ports have to defend their interest and to improve, as much as possible, techniques and procedures. The Committee on Large Ships and the Committee on Legal Protection of Port Interests with the impulse of their chairmen J.M. Wallace and A. Pages have to go on with their work in this direction so that they can show us their proposals as soon as possible.

EFFICIENCY: Because of the decisive role they play in international trade, ports have to be ahead of the fight in the field of efficiency. We all know how serious the problems of port congestion are, how important it is that the development of techniques should be planned and allowed for by firms which have therefore to take all the necessary
steps to adopt themselves. We also know that the specialization of men, of methods of management and of operation is now necessary and inevitable. The search for the highest efficiency must of course be balanced with respect to the economic and social parameters which particularize each country. The International Association of Ports and Harbors which groups ports managers from more than 70 countries forms a melting-pot favorable to exchanges of views, in depth studies of all the main fields which constitute a port activity. My wish here is that committees such as that of the International Port Development presided over by J.K. Stuart, such as the Committee on Large Ships, already mentioned, and the Committee on Containerization, Barge Carriers and Ro-Ro Vessels presided by Mr. R.T. Lorimer, should propose concrete actions. Furthermore I think it is necessary to strengthen our links and coordinate our actions with other associations or international organizations involved in certain aspects of port or maritime problems. On this occasion I want to thank Sven Ullman, for his service and his successor J.K. Stuart, Alex Smith and A. Tozzoli for the responsibilities they take upon themselves with regard to IAPH-UNCTAD, IAPH-IMCO and IAPH-ECOSOC relations.

RATIONALIZATION: We all undergo more or less some heaviness of management, some constraints or difficulties which arise from the great variety of interests which contribute to a port activity.

This leads to deceleration, if not blockades, detrimental to the right operation of our ports. Many countries have already launched procedures of simplifications and standardization which begin to bear fruit. But these efforts are isolated, divergent, if not at a times in competition. It is high time we try to make some “little steps” forward so that in non-competitive and not purely national fields at least this rationalization should eventually take on a concrete shape. The Committee on Trade Facilitation co-ordinated by Robert Vleugels has laid the first foundations of an approach to these problems. The task is hard but it is now about time to propose some precise actions which may be we shall find difficult to materialize but which will clearly show where the blockades are and what are the possible ways to “unlock” them. That is the way we shall give rise to reactions and that we shall make headway.

PROMOTION: Maybe this last topic is gone of the most important since the role of ports is still not recognized enough and we absolutely have to dedicate our energies to make sure that public opinion is not only aware of port problems when accidents happen or trouble arises which direct the focus of the moment on this or that port. As I already said, we have to make the whole world understand how vital the port function is and in these conditions how important it is that this function be ensured in the best way. Under the impulse given by J. Bax, the Committee on Community Relations has undertaken the work and already defined a few lines of action. They must be followed and I shall be pleased to act as your spokesman for the media so that the role we play should be better recognized by the public at large.

These are the principal points I wanted to express at the beginning of my presidency.

I renew to Chairmen of Committees my complete support and I shall do everything so that their work, their proposals should be ratified by the Association and later on be really applied in our ports.

Message from the Chairman of Membership Committee

by J.P. Davidson
Dy. Chairman and Managing Director
Clyde Port Authority, U.K.

It gave me great pleasure to be able to report to the 11th Conference at Deauville that since the Houston Conference our regular membership had increased from 191 to 209 ports in 73 nations throughout the world. This is real testimony of the increasing importance which ports place on membership of IAPH. There still remain, however, many eligible world ports who are not members of the Association and the Membership Committee, of which I am now privileged to be chairman is mounting a further campaign which I hope will encourage more ports to recognise the value of membership of the Association.

As improved communications and transportation bring the peoples of the world closer together, it is increasingly clear that the ports, which play such a vital role in the international trade transportation chain, must forge even closer links one with another. Indeed, the constant challenge of technological change in shipping and cargo handling has demonstrated more than ever before the need for inter-port co-operation and assistance on a world-wide basis. There is no better vehicle through which to foster this inter-port cooperation than IAPH and the reports prepared by the Association’s technical committees are an invaluable contribution towards highlighting and solving many of the problems which confront world ports today. In addition the important role which the Association fulfils on behalf of the ports through its consultative status with UNCTAD, IMCO and ECOSOC is further evidence of the real need for an organisation like IAPH through which views of the ports can be presented in those international forums.

I hope that between now and the 12th Conference at Nagoya in 1981 many of those ports who are not presently members of the Association will have recognised that all ports throughout the world are benefiting from the work of the Association and will decide to assist us in that work by joining our ranks.
Message from the Chairman of Committee on International Port Development

Mr. J.K. Stuart

by J.K. Stuart
Managing Director
British Transport Docks Board

In accepting the chairmanship of the Committee on International Port Development I was fully aware of the important role of the Committee in achieving closer cooperation between ports in membership of the Association throughout the world. I am appreciative of the solid work already undertaken and I am sure that all members of the Committee will wish to join me in paying tribute to the part played by my predecessor Mr. Sven Ullman, I am making possible progress achieved already.

The primary tasks to be undertaken in the forthcoming months include the promotion of the sister ports concept which received the full support of delegates at the Le Havre Conference. The continuation on a greater scale of the IAPH Bursary Scheme which can help so much in training of port personnel and the IAPH Award Competition which is so useful in stimulating interest in methods of achieving improved port efficiency.

The Committee on International Port Development includes distinguished and experienced representatives of ports from every region and with their continued support I am confident that co-operation between ports, both developed and developing, will be further strengthened, with considerable advantage to the Association as a whole.

Message from the Chairman of Committee on Large Ships

Mr. J.M. Wallace

by J.M. Wallace
President, The Maritime Services Board of N.S.W., Australia

At the very successful 11th Conference of the Association in Le Havre the Committee on Large Ships presented a report entitled “Guidelines on Port Safety and Environmental Protection” which was the culmination of some years of work by many experts from various countries.

The Committee accepted from the outset that its first edition would require editing, revision, and expansion to reflect changes in techniques and technology.

This is the task of the Committee during the next two years and it is believed that when this is completed the Association will have a manual which will be an invaluable aid to Port Managers in the promotion of port safety and environmental protection.

The procedure adopted has been to nominate Committee Members as primary and secondary authors. Each primary author will be responsible for revision and refinement of a section of the report and, following review by secondary authors, copies of all sections will be circulated within the Committee for the consideration of members.

It is hoped to finalise the work and discuss arrangements for the printing of a report for the Nagoya Conference at a meeting of the Committee to be held in conjunction with the Executive Committee Meeting in Brisbane Australia in April 1980.

Now that Conference delegates have had the opportunity to study the report “Guidelines on Port Safety and Environmental Protection” the Committee would appreciate receiving any further comments or suggestions which it is believed should be taken into account. Any advice in this regard should be forwarded to myself or Vice-Chairman, Dr. Chris Van Krimpen, Port of Rotterdam no later than 31 January 1980.
Executive Committee to meet in Brisbane, April 20/21, 1980

As previously reported, a regular EXCO meeting between the two conferences will be held in Brisbane on April 21 and 22, 1980 under the hostship of Port of Brisbane Authority (Mr. F.M. Wilson, General Manager).

Though subject to further confirmation, there will be meetings of internal and technical committees, prior to the holding of the EXCO meeting. (rin)

Port Study Mission to S.A. Ports

A 5-men port administration and finance systems study mission organized jointly by the IAPH Foundation and Overseas Coastal Area Development Institute of Japan (OCDI, Tokyo) will visit the ports in four countries in S. America in October, including Chile, Colombia, Ecuador and Peru. The Mission will be headed by Mr. Hiroshi Kusaka, Director of Foundation and Dy. Secretary-General of the Association. (rin)

Visitors

– On August 4, Dr. Peter J. Rimmer, Department of Human Geography, Research School of Pacific Studies, the Australian National University (Canberra), visited the Head Office during his two months study trip to Japan, and was received by Mr. Hiroshi Kusaka, Dy. Secretary-General.
– On August 30, Mr. William F. Tobin, Director of Market­ing and Development, and Mr. Frank J. Roovers, Director for Europe, of Massachusetts Port Autority, visited the Head Office and received by the Secretary-General and his staff, during their visit to Japan and other countries in the S.E. Asia. Mr. Roovers is a member of technical committee on Trade Facilitation, and on International Port Development. (rin)

Recent Movement of the SDR Unit

Movement of the SDR unit against the 16 currencies in the SDR system during the period of July 18–30, 1979, is as shown below.

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<th>Currency</th>
<th>18</th>
<th>19</th>
<th>20</th>
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<td>1.16154</td>
<td>1.15502</td>
<td>1.15567</td>
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<td>Belgian franc</td>
<td>37.7117</td>
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<td>Canadian dollar</td>
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<td>Japanese yen</td>
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<td>Pound sterling</td>
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<td>Spanish peseta</td>
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<td>Swedish krona</td>
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<td>1.30631</td>
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</tbody>
</table>

Note: The value of the SDR in terms of the U.S. dollar is deter- mined as the sum of the dollar values, based of market ex- change rates, of specified quantities of the 16 currencies shown above. The value of the SDR in terms of any currency other than the U.S. dollar is derived from that currency's ex- change rate against the U.S. dollar and the U.S. dollar value of the SDR. (Data: IMF Treasurer's Department)

Special Dues for Technical Assistance Fund

Secretary-General, in his August 21 letter, asked all regular members to contribute to the IAPH's International Port Development Technical Assistance Fund by means of paying "special dues", in response to the resolution adopted at the 11th Conference, which reads as follows:—

"The IAPH requests the appropriate international and national organizations to provide funding to the IAPH's International Port Development Technical Assistance Fund, or the Members thereof, to permit the Association and its Members as appropriate to provide training to developing nations so that they shall have the skilled port personnel in all the necessary fields of science and administration which are essential to the Port of the Future".

All those regular members, who consider themselves as being developed, are ardently requested to give their contribution to the Fund. The Fund is being utilized as the resources of the IAPH Bursary Schemes and Award Schemes, under the auspices of the Committee on International Port Development (Chairman: Mr. J.K. Stuart, British Transport Docks Board).

Already, in response to either the preparatory invitation expressed by the former chairman of the Committee (Mr. Sven Ullman, Port of Gothenburg) and to the resolution adopted at Deauville, the following contributions and pledges are received by this office as of Sept. 1, 1979:— (rin)

<table>
<thead>
<tr>
<th>Organization</th>
<th>Amount</th>
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<tr>
<td>British Transport Docks Board</td>
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<tr>
<td>Helsingborg Harbor Board</td>
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<tr>
<td>Oslo Port Authority</td>
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<td>Port of Arhus</td>
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<tr>
<td>Port of Amsterdam</td>
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<tr>
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<tr>
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10 PORTS and HARBORS—OCTOBER 1979
European Seaport Policy (Part 1)

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There are more things in heaven and earth, Horatio,
Than are dreamt of in your philosophy.
— William Shakespeare, 1564-1616
Hamlet I, 5

There are certainly many more things involved in port policy than can be dealt with in a short survey. When in addition the more complex subject of European seaport policy is to be treated, then the best approach is the analytical as proposed by René Descartes in his “Discourse on Method” (1637), i.e. “Divide each of the difficulties into as many parts as possible and required for the best solution”.

In the present case this means that we must attempt to establish the various composite elements of the problem.

We shall thus devote our attention—briefly, of course—in turn to the following topics:

— Europe
— seaports
— European seaports
— policy
— European seaport policy

I. Europe.—The construction of a united Europe is without any doubt the greatest challenge facing the countries involved in the second half of this century. After the tempestuous start which was favoured by the growth in general prosperity of the “golden sixties” and by the enthusiasm accompanying all great new initiatives, the E.E.C. under the influence of the oil crisis and the worldwide recession, which have shaken our confidence in the future, is now in a defensive, transitional phase.

This slower development must not, however, blind us to the fact that the integration which has been achieved in spite of monetary and economic problems cannot easily be reversed and that European policies in various fields will continue to expand little by little. The administrative service now numbering some 8,000 people as well as the new parliament to be directly elected cannot but make themselves felt and here too the rule applies that “the organ creates the function”.

However, with regard to port policy there are two points which must be made concerning Europe.

First of all, I should like to refer to the observations about the diversity of our continent which were made by Professor H. Brugmans in his book “Europa voorbij het nulpunt” (Europe Past Zero) (Standaard, Antwerp-Amsterdam 1975). On page 72 he writes: “Our diversity comes with our geography. We have no deserts or vast stretches of steppes, no pampas or prairies. In Europe it is the climate which alters the landscape, the type of people, the accent in which we speak our language and which changes every fifty kilometres. Then there is our cultural diversity. Most civilisations are formed on the basis of one single spiritual element. Thus Arab society is based on Islam. In Europe Christianity is fundamental but our classical heritage forms both a supplement to and a contrast with it. Depending upon the period one or the other has predominated: a fruitful and dramatic dialectic.

The third element of the diversity is the fact that Europe is an open society. We have always been in contact with other peoples than ourselves, a contact which has frequently been bloody... This has provided us with a mirror in which we have been able to see ourselves”.

On the basis of this diversity as an essential element in Europe Professor H. Brugmans concludes that the future federal Europe will of necessity be greatly decentralized and will never have the unitary character of each of the component states.

“A change in dimension also means a change in character. When the national states were formed by the union of provinces, the united nation was not merely a somewhat larger province. It was qualitatively something else. The idea of European unity completely destroys the principle of the “one and undivisible” state. A “one and undivisible” Europe is unimaginable since it is only the federal method which can lead to unity and that method also involves decentralization”.

The second observation concerns the character of European political integration which has considerably changed as a result of both the present economic difficulties and the entry of Great Britain into the E.E.C., with the resultant rise of “pragmatism”.

In this respect Gualo Naets in his book “Europa ABC
(Davidsfonds Louvain 1973, p. 125) remarks: “Vision and long term thinking which were at the basis of European unification are now lacking on a large scale. The member-states are now governed by pragmatists, policy has given way to crisis management . . . “Pragmatism which made its appearance with the entry of Great Britain will remain a constant factor which will continually clash with idealism which flourishes more strongly on the Continent . . .”

The conclusion to be drawn from all this is that further European integration in the most varied of fields is not only desirable but is at the same time inevitable. Diversity in unity and pragmatism in the approach to problems will, however, be the main characteristics of this development. For our continental European mentality this is perhaps not always equally intellectually satisfying, but it is perhaps more efficiency.

II. Seaports.—In the Report of an Enquiry into the Current Situation in the Major Community Seaports drawn up by the Port Working Group of the Commission of the European Community in 1977 the following definition of the term “seaport” is given: “A seaport for the purpose of the present study may be understood to be an area of land and water made up of such improvement works and equipment as to permit, principally, the reception of ships, their loading and unloading, the storage of goods, the receipt and delivery of these goods by inland transport and can also include the activities of businesses linked to sea transport”.

This is a compromise definition between on the one hand the Dutch thesis in accordance with which the concept “seaport” must be interpreted not merely functionally but also as geographically as possible so that port industrialization must be included in the concept “seaport” (and consequently in a European seaport policy), and on the other the German thesis that seaports are essentially places where ships are loaded and unloaded. No doubt, the industrial function of continental seaports has become very important recently. However, it can, not unjustly be argued that in many seaports—sometimes for historical reasons—a diversity of industries is to be found and that it is difficult to see why these industries should be subject to a different policy to that applying to those in the interior. Moreover, it can often be of more benefit to a port for a strongly import or export oriented firm to be established in the “undisputed” hinterland so that large-scale traffic can be attracted without taking up scarce space or creating pollution in the port zone itself or making a call on the limited port labour market.

The extreme situation arises when the refineries in one port are supplied by a pipeline from another port. All the efforts made in Amsterdam, Flushing or Antwerp to maintain or expand refining capacity is of direct benefit to traffic in the port of Rotterdam since the crude oil is sent on from Rotterdam, which is accessible to tankers of up to 250,000 dwt, by pipeline to Amsterdam, Flushing or Antwerp which at the present time can only take ships of up to about 80,000 dwt (to be increased in the near future in the case of Antwerp and Flushing to 125,000 dwt.).

This brief example already shows how difficult it is to include all the functions which a seaport fulfills in one single definition.

This was in fact already ascertained by Dr. H. Samman in his standardwork “Handbuch der europäischen Seehäfen” (Hamburg 1967, B & I, p. 209): “... it must be considered impossible to express all the important aspects of the overall complex of a seaport in only one series of concepts or in only one concept”.

It is thus useful from the point of view of our subject to deal with a few specific characteristics of seaports.

A port is no end in itself, it has only derivative economic activity. This means that a port will only flourish as a result of the import or export oriented activity of trade and industry in its immediate or not so immediate hinterland.

Many ports stagnate or flourish not because of their own fault or merit but are merely subject to the influence of economic activity in general which they cannot influence. Generally speaking ports have to accept the consequences of technological and politico-economic developments just as these make themselves felt. It is difficult for them to mount a political or economic counter-offensive which is strong enough to compensate for those developments, let alone channel them into a more desirable direction (ef. J.M. Verhoeff, Zeehavenconcurrentie (Seaport Competition), Tijdschrift voor Vervoerswetenschap, 1977, p. 298).

Seaports thus have to adapt constantly but in such a way that the cost price remains minimal for the client, for whom the saying “the ideal port is no port at all” is becoming increasingly true, i.e. the ideal port is that whose influence (costs, time, etc.) is least felt.

A port is partly a public service and partly a commercial activity.

In his book “The Economics of Transport” (Cambridge University Press 1966, p. 5) Bonavia pointed out that “Transport is a blend of industry and service ... (such as street lighting, elementary education, justice and policy)”. This observation applies even more to a seaport where the infrastructure without any doubt performs a public function, while cargo handling and all related services give rise to purely commercial activity. In this perspective it is striking to see how the representatives of the German federal city-states (Länder) of Hamburg and Bremen ask why they should treat the port infrastructure which is built by the authorities in a different way to that in which other traffic infrastructure, i.e. air, rail, inland navigation and road transport, is treated, or why privately owned cargo handling firms should enjoy different fiscal or social status to that applying to other commercial or industrial firms in the country.

It is hardly surprising that government influence on port policy is fairly large in all countries, either directly or indirectly.

This governmental influence is decisive especially with regard to port infrastructure which has the characteristic that it is built in a piecemeal way (one berth is not built but a whole dock—a new lock serves a whole series of docks) and that it has a fairly long life.

It is thus not surprising that many writers, such as Dr. J.A.M. Van Buuren in his “Beschouwingen over de economie en het beheer der zeehavens” (Observations about the Economics and Management of Seaports, Delft 1929) declared: “Many interests which are involved in the activity of a seaport with various types of cargo traffic can only be served in an impartial way by a port management organized on the basis of a public service so that the port produces the greatest possible profit for as large a circle of interested parties as possible, in other words so that the common interest is best served. Since, moreover, impartial
service can only be expected from public bodies outside business and industry, only port management which is performed as a direct public service can be considered to be adequate for the task”.

Mr. J. Chapon, Engineer for Bridges and Roads, Director of Seaports and Inland Waterways at the French Ministry of Equipment, declared (at the University of Trieste on 30.8.1974): “Whereas certain types of equipment have a very specific function so that the person who uses them naturally constructs them as well (which is the case, for example, with certain quays or installations), others on the contrary have an obviously collective function; this is the case with port access, most of the water surface area and berths, as well as with the infrastructure facilitating the arrival and departure of goods.

“Thus with the exception of very specialized cases—such as certain oil or ore ports—a port authority with a dual role is required, it performs those functions which have a collective character, namely the construction and running of the basic infrastructure which is used by all port users. Secondly, it coordinates the activity of all the professions involved in the port, both at the level of the physical exercise of their tasks (movement of ships and cargo, laying down the duty hours of port services, etc.) and at the administrative level, which even includes the financial supervision of the activity.

“The port is in this respect not unlike a large city and the port authority has the same task as the municipal council with the dual role of organizing the services of collective interest and administering the whole. And like the council the port authority acts within the framework of laws and regulations laid down by the public authorities at state level”.

Seaports do not only have a local or regional importance but a national and international one.

It is obvious to all that the existence of a seaport provides an enormous impulse for the economic development of a region. Many large European cities such as Hamburg, Bremen, Amsterdam, Rotterdam, Antwerp, Ghent, Zeebrugge, London, Liverpool, Dunkirk, Le Havre and Marseilles owe their original growth and prosperity to the presence of a seaport.

On the other hand it is also a fact that a seaport is not merely of local or regional importance but also serves all import or export oriented industry and as such is of at least national, and in many cases even European importance.

Whereas the public service nature of many aspects of port management has been pointed out above, it is nevertheless a curious fact that in those countries where port management has been strongly centralized, which is mostly the consequence of a strongly centralized national economy, over the last few years centrifugal trends have been making themselves felt. Take, for instance, the establishment of autonomous ports in Italy or France.

In those countries where port management was fairly decentralized, after the Second World War the necessity was felt at national level of achieving greater coordination, i.e. a centripetal trend. In this connection we have the example of the National Ports Council in Great Britain, the National Commission for Port Policy in Belgium and the Seaport Consultative Commission in the Netherlands.

There is, however, more to it than this. Because of the role which the seaports in many West European economies have had in attracting industry and because of the fact that seaports have become important centres of growth—the mainstay of the Dutch economy, as was once said in Rotterdam—the tendency for national authorities within the framework of their regional policies to intervene in port policy has become very great. Thus the decision to erect a steel factory in Fos, near Marseilles as opposed to in Le Havre, was taken for reasons of industrial development in the region. From this point of view it is also typical to note that the French government opted for Nantes-St. Nazaire for the import of LNG from overseas, rather than for Marseilles, Le Havre or Dunkirk where the infrastructure was already present.

The Dutch government decided that Algerian LNG should not be imported via Rotterdam, as originally planned, but via the port of Delfzijl on the Eems. In Germany the import of LNG is planned via Wilhelmshaven and not Hamburg, even though there is an enormous concentrating of industry in the latter port. In Belgium it is expected that the choice of Zeebrugge for the import of LNG will provide a strong impetus for regional industrial development in spite of the fact that past experience has clearly shown that natural gas is something which can be rapidly, easily and cheaply carried to the centres of consumption by pipeline.

The degree of industrialization in Groningen, due to the presence of a seaport.

Seaports have grown gradually.

In this perspective it must first be pointed out that seaports have evolved gradually over the years in a certain direction which was partly influenced by local, regional or national factors.

The fact that there was a large national merchant fleet in the Dutch ports meant that large stevedoring firms as well as inland navigation enterprises, which depended on the shipowners, developed over the years. This led to integrated firms, which expedited horizontal integration after the Second World War to cope with the increase in the scale of activity in ports since then.

In a port such as Antwerp where the national merchant fleet accounts for less than 5% of port traffic we naturally find a different structure. Cooperative and family businesses did not have to make such large investments in the past since the port cargo handling equipment and the principal transit warehouses were the property of the port authority. Now that ports have changed from being labour intensive to very capital intensive it naturally requires a time-consuming change-over when these family or cooperative businesses with a limited capital base see themselves forced to make large-scale investments.

When social relations between employers and employees in a port were good or bad in the past this is still reflected
at the present time in productivity which is higher in some ports than in others.

However, there is more to it than this. Within the framework of a European port policy the French point to what has been called “la rente historique” - the historical rent. Whenever certain European countries in the past had a different transport policy to that existing in other countries (e.g., lower taxes on road transport, freedom of freight charges on the Rhine as opposed to fixed inland navigation freight charges in other countries, etc.), this led to the creation of certain traffic flows. In turn these led to the establishment of federations and specialized enterprises or to the appearance of certain port practices or even to the growth of shipping firms, etc.

When today within the framework of the European Community a similar transport policy is being carried out in various countries it is not enough to divert these traffic flows back to other ports. It is however unthinkable within the framework of a European port policy to introduce discrimination in the opposite sense in order to compensate for the “historical rent”, which arose to the advantage of some ports and the disadvantage of others.

Whereas the “historical rent” has a positive influence, the French use the term “le poids du passé” the “burden of the past” to denote certain negative elements which at the present time weigh heavily on port operations. For example, various port authorities formerly provided a large proportion of port equipment and large workshops were set up to maintain this material, but most of all a large labour force was taken on a permanent basis, mostly by public authorities.

It is difficult to harmonize all this quickly within the framework of a European port policy. It is perhaps useful in this perspective to mention the standardization of the accounting systems of European railway companies (see the official journal of the European Communities of 16.5.1968). In the standardization of the accounting systems special attention was paid to the following categories of assets and liabilities:

1. the obligation of keeping on more personnel than is necessary for operational purposes;
2. the obligatory raising of wages or of employers' contributions to social security charges consisting of:
   a/- benefits for personnel imposed by the state for reasons of national recognition under other conditions than those which apply to enterprises in other sectors of transport;
   b/- allowances which in the other sectors of transport are paid for by the state;
   c/- allowances payable by rail companies but not by enterprises in other sectors of transport;
   d/- a retroactive increase in wages imposed by the government of a member-state;
3. expenses of a social nature borne by railway companies, namely those in the health sector and family benefits which are different to those which they would have to meet if they had to contribute under the same conditions as enterprises in other transport sectors;
4. pension liabilities which are met by railway companies under different conditions to those which apply to enterprises in the other sectors;
5. the expenditure borne by railway companies for railway crossings;
6. postponement of maintenance and replacement imposed by the relevant authorities;
7. liabilities resulting from the maintenance of jobs or of other establishments imposed by the state under conditions which are not in agreement with running the railway on a commercial basis;
8. conditions imposed on public tenders for works and supplies;
9. liabilities borne by the railway company with regard to postwar reconstruction or replacement which should have been met by the state;
10. special credit conditions applying to railway companies;
11. financial liabilities which are the result of a lack of standardization in the past.

Many seaports can quote similar liabilities which weigh heavily on their operating expenses.

Seaports are the crossroads of various partial policies, and consequently seaport policy is a complex business which will normally involve every aspect of economic policy.

We have already pointed out to what extent certain ports consider that it is difficult to talk about a European port policy without thereby involving an industrial policy. But besides industrial policy there are many other fields which are affected by port policy.

The energy policy followed by the E.E.C. will have a direct influence on seaports. If preference is given within the E.E.C. to the import of natural gas from overseas or if it is intended to make coal or oil the principal obligatory basis for electricity production, then certain ports which are more specialized in certain kinds of traffic than others will benefit more than others.

If it is decided at E.E.C. level to construct no more nuclear power stations, then it will be necessary to import more raw materials from abroad for energy purposes.

An agricultural policy can try to make Europe more self-sufficient which in turn involves a possible decline in imports of overseas agricultural produce. If within the framework of the E.E.C. common agricultural policy certain basic products, such as, for example, tapioca, are exempted from duties while other forms of cattle feed are dutiable, then this will influence traffic via certain ports.

The existence or lack of a social policy at E.E.C. level will have a direct influence on wage costs and the extra charges in a port. The extremely divergent ways in which social security is financed are well known. Thus in Denmark social insurance is almost entirely paid for out of taxes so that social security payments by employers are minimal, see the newspapers De Standaard of 16.11.1978 and Le Monde of 6.3.1979.

In France and Italy most social security liabilities fall upon the employer, while the government only contributes one fifth of the cost of financing social security.

In Germany and Great Britain employers only have to bear two fifths of the cost of social security.

Moreover, fiscal policies: throughout Europe also differ greatly and there are some countries where purchase tax is of great importance while direct taxation is lower. Thus, for instance, in Denmark 60.5% of all taxation is raised from income tax, in France this is only 19.7% and in Belgium, which incidentally lies somewhere in the middle, 38.7%.

In Belgium indirect taxes account for 17.1% of taxation and social security contributions. In this respect the extremes are the United Kingdom with 8.6% and France with 22.2%.

Differing fiscal policies can influence port policy. Transport policy is naturally of very great importance to seaports.
Belgium has always maintained that the best European port policy is a good European transport policy.

It is a well known fact that actual port costs only represent an extremely small proportion of the transport costs to and from the interior and it is the latter which are the main factor in the choice of a port. Special rates as a part of a railway policy can benefit certain ports and they usually mean that ports in smaller countries where the national railway company only serves a limited area are at a disadvantage as opposed to ports in large countries such as France and the Federal Republic of Germany.

The freedom of freight charges on the Rhine as opposed to the fixed inland navigation charges elsewhere coupled with a compulsory rotation etc. lead to undeniable distortions in inland navigation traffic. Road traffic to and from certain ports can be hindered by the absence of a sufficient number of international transport licences.

That monetary problems have an influence on ports was recently proved by the debate on extra charges for currency adjustment factors.

The result of all of this is that it is difficult to find a common solution for all of these various aspects of a port policy. Moreover, if there did exist at European level a harmonized agricultural, social, energy, transport, economic, fiscal and monetary policy, the great majority of the problems of a port policy would already have been solved.

Indeed to proceed faster at seaport level than with regard to the other policies can often lead to more distortions.

In this connection it must be pointed out that not all ports are alike. In fact every port is unique.

In one port general cargo predominates over bulk cargo. In another there is greater specialization in oil, natural gas or coal.

Some ports have a large network of routes at their disposal, barge, rail and road, to which in the future pipelines and air will increasingly have to be added.

Some ports have a purely cargo handling function, whereas in others the goods are stored for lengthy periods and possibly repacked or industrially processed.

The range of services which each port has to offer varies greatly and it is thus very difficult to work out an overall policy which will take the specific characteristics and problems of every port into consideration.

It is, moreover, striking that few European countries have their own uniform national port policy or that in so far as an embryo of one does exist it is fraught with specific exceptions which take into consideration the specific characteristics of smaller ports with a local function or of specialized ports for certain types of traffic.

The conclusion to be drawn from all of this is that seaports have so many various aspects that it is difficult to encompass them all in one simple definition. The problem is too complex for that.

Seaports are not an end in themselves and are influenced by the overall economic situation. They are a peculiar blend of public service and commerce but the role of the authorities is always very large. They are of both regional and national importance so that they are frequently used as a factor to stimulate the regional policy. They have evolved historically and sometimes benefit from the “historical rent” or suffer from the “burden of the past”. It takes time to eliminate this.

Above all, however, the influence of all other policies can be felt in seaports so that the seaport problem cannot be tackled in isolation from that of overall European integration. Thus European port policy cannot proceed faster than the rest.

In working out the policy, moreover, consideration must be paid to the very diverse characteristics of the various ports, each of which is unique in itself.

III. European Seaports.—Seaports have an important role to play in the European Community. Their significance has grown considerably as the result of the expansion of the original Community of six continental countries to include Great Britain, Ireland and Denmark for whom, as islands, seaports are of the utmost importance.

84% of the trade of the European Community with third countries is maritime, i.e. in the form of traffic which passes through the ports of the Community. As far as internal Community traffic is concerned about 28% of the trade between the member-states is maritime.

The overall cargo traffic of all ports of the Community amounted to 1,500 million tons in 1975. This traffic is handled in small ports with a turnover of only a few hundred thousand tons as well as in large ports where up to almost 300 million tons are handled.

Every possible variation with regard to both size and administrative system as well as mode of operation can be found in European ports. It thus seemed useful as the first step towards working out a European port policy to examine in some detail the actual state of affairs in the principal ports of the Community. This was done in a fact finding report published by the Commission of the European Community in September 1977. On the basis of this report the following conclusions emerge.

Great Britain is well known throughout the world for its trust ports, i.e. independent corporations ("trusts") set up in accordance with special laws, an example followed in many other countries in the world. Besides these there are the nationalized ports which are owned and run by the British Transport Docks Board and which are also very important. There are also, as exceptions proving the rule, a municipal port and even private ports which are incorporated.

In Ireland the principal ports are also independent public bodies with certain legal rights and obligations. They are independent even though their independence is subject to certain restrictions by legal ties with the central government.

In Italy the influence of the state in port management is very great but gradually the large ports have obtained an autonomous status.

In France a difference is made between the six autonomous ports which were set up in accordance with the law of 29.6.1965 as incorporated public bodies with financial autonomy and the non-autonomous ports of national importance which are under the direct control of the Ministry of Public Works.

As opposed to the situation in the Latin countries of the Community, where the influence of the state is very great, in Germany, Holland and Belgium a more Hanseatic tradition exists in accordance with which the ports are mostly run by the local municipalities.

There are naturally many exceptions to this rule since in Germany besides the locally run ports of Hamburg, Bremen, Lübeck, etc. there are several not unimportant ports such as
Emden, Brake, Brunsbüttel and Cuxhaven which are owned by one of the federal states (Länder), while there is also one private port which is the exception proving the rule, namely Nordenham.

In the Netherlands a difference must be made between the large ports, which are run by the local authorities, and the smaller ports, which are run by a port authority, i.e. an incorporated public body set up by the state, the province and the local authority.

In Belgium the ports of Antwerp, Ghent and Ostend are run by the local authorities while the port of Bruges-Zeebrugge is run by a limited liability company, the majority of whose shares are in the hands of the state and most of the remainder in the hands of the City of Bruges. This latter port is considered to be a public utility and is under the control of the Ministry of Public Works.

In Denmark there are many ports, such as Århus, Aalborg and Odense, which are run by local authorities, while the port of Copenhagen is a semi-independent body and the port of Esbjerg is state-owned.

The conclusion to be drawn from all of this is that as far as running ports is concerned every possible and imaginable variation can be found in Western Europe. While there is an Anglo-Saxon tradition which can be clearly differentiated from the Latin tradition in France and Italy and the Hanseatic tradition in Germany, Holland and Belgium, it is nevertheless true to say that the differences within each individual country are sometimes greater than the differences between the various countries. In few European countries is there a uniform national port policy. In every case local circumstances, historical developments, the size of the port, etc. are taken into consideration.

In his remarkable study: “A Comparative Study of Seaport Management and Administration” (London 1979) R.O. Goss comes to the conclusion (p. 39): “...the arrangements described are so deeply embedded in the lift and culture of the communities concerned that it is difficult to find generalisations that cannot be contradicted elsewhere”, but also (p. 55): “It is tempting to examine seaports and their practices as if they were wholly generic, so that the good practices of any one could simply be transferred to others. But one over-riding impression left at the end of this study is the importance of the organisation and management of seaports being appropriate to the general system of government and the beliefs of the people in their own country, even if the latter are expressed as over-simplified slogans. To attempt to shift the practices of Hong Kong to Singapore, of Israel to Canada or of Japan to any of these would be to ask for trouble in terms of confusion as to the purposes and principles of the changes and a correspondingly low level of ability in applying them. Almost certainly, this would lead to a lowering of morale and of efficiency in its everyday sense”.

In most cases ports are component parts of the national economy. Their organization and operation have evolved together with those of the various countries involved. As Goss concludes: “There is no single “best” structure of organisation and management of seaports” so that it must be concluded that it will always be necessary to take local circumstances into consideration.

The conclusion that could be drawn from this is that as the national economies evolve under the influence of European integration and grow towards each other, so too ports will be influenced by this. In other words, the harmonization of European ports will be more the result of European integration than a basic element which will lead to that integration.

Until now attention has been mainly focused on the organisation of seaports but clearer insight can be obtained by analyzing more closely the various functions of seaports. It can quickly be established that there are three main aspects to a seaport.

— the maritime access routes and connections with the interior;
— the actual port itself where a further difference can be made between infrastructure and superstructure;
— cargo handling and the various services in the port.

If a survey of European ports is carried out on the basis of these three functional elements then two major trends soon become apparent.

One trend is found mainly in the original six partners of the E.E.C. and the other in the new member-states of Great Britain, Ireland and Denmark.

The first trend could be called the continental trend were it not for the fact that the world “insular” has a pejorative sense in English.

In the case of the continental countries of Germany, Holland, Belgium, France and Italy the port in the limited sense of the word is managed and operated by the port authority, while the maritime access routes and the connections with the interior are more the responsibility of the central authorities, and while the cargo handling sector and the various other services are in private hands.

Although there are naturally exceptions to the rule most ports in continental Europe are “landlord ports”. As is also the case in the U.S.A. (Army Corps of Engineers—National Coast Guard) and in Japan the maritime access routes are the responsibility of the state since they involve investments which are of national importance and of benefit to the whole community.

In some cases this situation results from land law or constitutional requirements, in other cases from international agreements. It is easy to understand why in the low lying Benelux countries matters of inland waterways and rivers are of national importance. In certain continental ports such as those on the North Sea or the Atlantic Ocean the cost of dredging and of operating the sealocks can be very high.

In the Mediterranean maritime countries, on the other hand, the cost of connections with the interior which require expensive tunnels and difficult motorways through mountainous country is no less onerous. Land access can sometimes cost as much as maritime access and both are of national interest. The cargo handling sector in continental Europe is highly developed and often integrated with other service sectors. It is, moreover, a well known fact that the largest part of the costs in a port are those directly involved in cargo handling and storage. The profits which this activity generates are taxed and these taxes in some countries go to the local municipal authority but in most countries to the central government which considers them to be the compensation for the investments which it has made in the maritime access routes or the connections with the interior.

In opposition to this continental tradition, there are the ports which are run as “total organizations” (see R.O. Goss Op.cit. p. 11) in which case both the maritime access routes and the port as well as cargo handling are the responsibility of one overall organization which sees to all the functions of the port.
In this case the intervention of the central government in the maritime access routes is limited and all the profits made by the cargo handling sector go directly to the port authority. Thus in this case there is ample opportunity for cross subsidization between the various functions. Sometimes the cargo handling charges are kept low while port dues are raised. Sometimes the losses of one sector are covered by the profits of another. In almost every case no taxes are paid to the national authorities who in any case make no investments in the ports or in their maritime access routes.

The conclusion to be drawn from all of this is that there are two opposing philosophies, namely that of the restrictive interpretation of a seaport where, moreover, the port authority as landlord has a somewhat subordinate role to play, and the total organization concept where everything is concentrated in one pair of hands.

It is at once quite obvious that these divergent philosophies will have important consequences at the financial level. That a total organization covers all the costs but also takes all the profits is quite clear and requires no further comment. That a port whose function is simply restricted to operating the infrastructure of the port in a restricted sense only aims at covering its own operating costs is also easy to understand.

The position of the German ports owned by the federal city states also becomes clear when they point out that on the one hand as public authorities they make investments and that on the other hand the receipts of these same public authorities in the form of dues and taxes amply cover their expenditure.

In cases where the state is responsible for the maritime access routes and connections with the interior calculations have shown that the fiscal revenue of the state which results directly from these investments by far exceeds the expenditure.

In fact it is possible to conceive of a third philosophy based on cost-benefit analyses. In this case all the socio-economic costs are compared to all the socio-economic benefits. While in principle this method opens up interesting prospects, in fact experience has shown that the estimation of the benefit which is frequently based on expected developments in traffic flows can lead to a number of difficulties.

While the above described difference between the two major trends with regard to port management in Europe has important consequences for the financial philosophy behind them, this does not mean, however, that of necessity this results in distortions within the Common Market, on the contrary. There are a number of partial markets within it and not all ports are for ever competing with each other for every type of traffic. It is thus striking how the study "Port Perspectives 1976" of the National Ports Council in Great Britain comes to the conclusion (p. 8): "the most important point about these statistics is, however, that they do not show any consistent process of cause and effect or support the view discussed below that the continental ports are cheaper because they are subsidized thus placing the British ports at a disadvantage".

This report further states (p. 9): "By courtesy of the French Ministry of Equipment the Council have seen some calculations analysing the total cost of use of the port system falling on the ship and its customers combined. (The figures are derived from a study carried out by Cerlic on behalf of the French Ministry). They have reason to believe that as proportions these are not unrepresentative of general practice. In round terms, for a container ship the cost of ship's time in port was almost five times as much as published port charges, while cargo handling (which includes a proportion of ship's time) was 12 times as important. In the case of a conventional ship, cargo handling was slightly more important than ship's time but together they were 15 times as important as published port charges in cost terms. These figures explain the paradox that on a route where the freight rate includes all cargo handling and all port charges the shipper can perceive a port as being cheap even if published port tariffs suggest it is expensive.

"Reverting to subsidies, these vary between different continental cases. Rotterdam is the least subsidized and Hamburg perhaps the most; but in any case it will be clear from the figures given above that capital subsidies can only have a limited effect on total port costs. More convincing than this theoretical analysis is the simple fact that subsidies have not led to any marked movements of traffic".

(To be concluded in the next issue)
Constant Striving for the Simplification of Procedures in International Trade: SIPROCOM

By E. Goffin
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Today's procedure: expensive and inadequate

Red tape and all the expensive procedures which it involves are a great hindrance to commercial transactions and in certain cases are a handicap for the normal development of international trade. This is hardly news but it is only logical that it should be increasingly felt as tariff walls are dismantled as a result of the successive negotiations within the framework of GATT(1), (as well as of the extension of free trade zones and customs unions).

The costs involved by these formalities to a greater or lesser extent act as a brake on international transactions and are a serious and frequently even decisive hindrance. The most reliable estimates which are available based on the normal cost price as shown in the export documents—i.e. irrespective of the costs involved by the import of the goods—show that these costs amount to about 7.5% of the average value of the goods dispatched.

It is a complicated problem with many aspects to it and it would naturally not be reasonable to undertake an examination of the procedures and documents in a systematically negative way. The various public and private interests which are involved must be considered. It goes without saying that the charges and costs which are involved by procedures and documents are among the interests which cannot be neglected: the figures given above speak for themselves.

The development of transport techniques—especially of container transport—means that the goods are transferred from the place of origin to their destination within an increasingly shorter period of time. This traffic should not be hindered by traditional administrative systems for drawing up, exchanging, submitting and processing essential information.

The transport of cargo by air involves the same problem but in a more acute form: how can the cargo being dispatched be preceded by the requisite documents if the most rapid way of dispatching the documents is by airmail?

For this reason companies and most public services have introduced computers on an extensive scale for bookkeeping and data processing purposes. With few exceptions, however, they have had to forgo the use of data processing machines with regard to international commercial traffic data (which are by tradition available in the form of documents) because there are no internationally accepted and comparable data norms which would make it possible to include the extremely large number of transfers between the various systems of data processing which are used by forwarders, shippers, importers, carriers, banks, customs services and insurers.

What does simplification mean?

By simplification is to be understood the coordinated rationalization of all data, documents and formalities involved in the international transport of goods.

In practice simplification requires far-reaching coordination and organization.

The necessary financial resources must be collected, a willingness to cooperate stimulated, out-of-date notions revised and new techniques thought out and introduced.

The general dissatisfaction with traditional procedures and documents and the resultant desire for a reform of the system have led to a new world-wide striving for a simplification of procedures and documents involved in international commercial traffic.

How must the simplification be organized?

The greatest impulse towards simplification over the past ten years has resulted from the establishment of a large number of national institutions which have been entrusted with the task of simplification.

All these institutions carry out the following tasks:

a) rationalization of documents;
b) simplification of formalities and procedures;
c) development of uses of data processing which meet the requirements of dealing with the data in the way in which this has traditionally been done using the existing administrative documents and relative procedures;
d) organization of activities and cooperation with other national and international institutions.

It might be thought that these activities would result in one coordinated effort at the level of the dissemination of data.

However, this would be an exaggeratedly simplistic notion. It is not enough merely to think out or work out technical solutions to problems in the field of data processing which are either based on written or printed documents, or which make use of automated systems, since as soon as these solutions are tested in practice great obstacles arise which result from differences in national laws, international agreements, legal definitions, a certain degree of institutional inertia or perhaps even short-sighted commercial goals.

It is precisely this sort of difficulties which hinder an individual approach but which can be overcome by a systematic and well organized strategic approach.

This explains the establishment and success of the relatively recent national organizations for the simplification of commercial transport.

SIPROCOM

In Belgium SIPROCOM—the Committee for the Simplification of International Commercial Procedures—was established by Royal Decree of 28 December 1971 and entrusted with the study of the problems involved.

SIPROCOM is run by a Coordinating Committee in which there are representatives of both the public authorities and the private sector. The above mentioned

(Continued on next page bottom)
Speech given by Oswald Brinkmann, Senator for Ports, Shipping and Transport of the State of Bremen, on the occasion of the 15th Captain's Day in the Upper Chamber of the Town Hall on Friday, 10th August 1979.

One time each year, on the second Friday in August, Bremen celebrates its Captain's Day. On this day the Senate of the Free Hanseatic City of Bremen invites ship and aircraft Captains and Chief Engineers into this Upper Chamber of the Old Town Hall to say 'thank you' to you as representatives of the more than 25000 crew members who, in the course of 12 months, 'anchor' in Bremen and Bremerhaven onboard 11000 sea-going ships and about 8000 aircraft, thank you for linking Bremen and Bremerhaven with the world thus helping strengthen the most important economic basis of the Federal State of Bremen.

Although this significant activity has been carried out by seamen of different races, religions and nationalities for centuries, it was only in 1965 on the occasion of its millennial celebration that the Free Hanseatic City of Bremen commenced to voice gratitude in the form of such an official reception by the Senate. Today's 15th Captain's Day to which I should like to welcome you, ladies and gentlemen, on behalf of the Bremen state government, coincides again with the very day on which Bremen was awarded the 'great market right' by Emperor Otto I back in 965, i.e. 1014 years ago. It gives me great pleasure to see so many men in blue uniforms in this upper chamber of the town hall again this year, in a chamber that has witnessed more than 500 years of Bremen history. Among those present allow me to make a special mention of Captain Heinz-Helmut Meyer of Soman-Neptun Schiffahrts-Aktiengesellschaft who has been kind enough to volunteer to deliver the inevitable guest speech.

This 15th Captain's Day seems to me an appropriate occasion to dig into the past and to review the things that happened. Since the first Captain's Day which, as already mentioned, was held in 1965 as part of Bremen's millenium, unprecedented structural changes have occurred in international shipping and, of necessity, also in the sea ports. Who, ladies and gentlemen, did seriously believe back in 1965 in the pioneering development, the striking success of the container? Who was in a position to predict the world-wide advance of roll-on/roll-off transport? Who then had heard the term 'LASH'? And finally, who foresaw in 1965 the large extent of technical innovations to which even conventional transport would be subjected? I should like to maintain: nobody—or only a few, very few.

In these nearly one and a half decades since, international shipping has experienced a structural change that is unparalleled in its revolutionary consequences. The sea ports had to adjust to the structural changes in all respects, the sooner the better, the more flexible the greater were the chances of surviving successfully in the keen competition among sea ports. Bremen's ports accepted the intellectual model B.

SIPROCOM which has been well aware ever since it began its work of the necessity of finding a simple solution to the problems which exporters face with regard to documents has on the basis of the above mentioned new administrative documents worked out a document system which is based on a basic document—sometimes called the matrix—which contains all the information which is required for the various documents necessary for exporting goods.

By means of simple reproduction with the help of masks the desired number of documents can be obtained.

Since 1 January 1979 this system has been available to Belgian exporters. It includes not only the administrative documents but also the commercial documents, such as the trade invoice, the forwarding order, the transport insurance declaration, the loading receipt, the mate's receipt, etc.

This is in broad outline the main aim which SIPROCOM is pursuing at the moment. Other problems are being studied but it is not possible to go into detail within the framework of this article although the study of the problems which are arising as the result of the abolition of the frontiers within the Benelux countries should be mentioned, as well as the continued efforts being made to bring about as great a simplification as possible of the commercial traffic within the Community.

However, we still have a long way to go and the simplification of procedures and documents is a long-term operation in view of the very many political and economic factors involved.
and financial challenge and tackled it in a fast and extremely flexible manner as no other port in the world did. This adaptability has been one of the greatest political achievements for Bremen's ports, ladies and gentlemen. Today, I am still grateful to both the responsible political bodies, such as the Bremen Parliament, the deputations for finance as well as for ports, shipping and transport, and the port's commerce and industry. In close and unprecedented cooperation a development was met the intensity of which has hardly grown less to date. This willingness to make decisions, this courage to undertake risks reflect exactly what is meant in Bremen by the slogan 'dare and win'.

This correct decision then made in good time was the basis for the considerable change in the structure of Bremen's ports. While until 1965 the service functions had been subject of only insignificant changes for centuries, the introduction of new transport techniques, particularly the container, initiated a development which, as you all know, has since led to the industrialization of transportation. With the immediate adjustment of the Neustadter Hafen to the new circumstances, the Bremerhaven Container Terminal at the coast, the establishment of the 'Stückgut-Terminal Columbuskaje' (general cargo terminal), the modernization of the grain terminal, the creation of packing centres as well as additional handling and storage facilities for motorcar and fruit handling—to name only the most important measures—investments in infrastructure and suprastructure exceeding 1000 million Deutschmarks have been made since 1965, funds that the State of Bremen had to raise from its own resources and by means of which Bremen adjusted to the new structures and changed transport requirements and traffic flows. It increased the total amount of Bremen's port investments during the past 30 years to over 2000 million Deutschmarks. But only with such investments, a tremendous figure for a city state like Bremen, was it possible to make Bremen's ports to what they are today: universal ports with international importance and worldwide reputation.

The allocation of these funds was, of course, no end in itself but it was made because, in line with its constitution, Bremen is fully aware of its particular importance, and responsibility, for Germany's import and export industry and trade and because the ports remain the very economic pillar of this local state. The development has confirmed the courage to undertake financial risks: While in 1965 a total of 17.5 m tons of exports and imports, 9.3 m tons of which were general cargo, were handled on Bremen's quays, 25 m tons, 15.4 m tons of which were general cargo, were handled last year. This positive trend has continued also this year, for in the first six months the volume of goods handled amounted to 13.1 m tons and thus exceeded the comparable figure of last year by 10.6 percent. The container transport accounted for approx. 34 percent or 2.8 m tons of the first six months' general cargo of 8.1 m tons, the latter figure projected for the whole year would mean a new general cargo record. With this increase in goods handling Bremen's ports exceeded the rates of growth that persistant European competitors. To me it seems remarkable that the increase is not only reflected in the container transport but also in various general cargo and bulk goods sectors. This fact is of great importance with a view to the future investment policy. As a quintessence it can be stated that Bremen's ports stood their ground in the competition among the large European universal ports. This is not least due to Bremen's sea port transport industry which I should like to thank here whole-heartedly for its committed support of Bremen's interests.

I mentioned that the adjustment of Bremen's ports to new structures in ocean shipping has cost more than 1000 million Deutschmarks. These investments, however, have not only fundamentally changed the outward appearance of the ports but also the qualifications of the people employed in these ports have been improved systematically. The use of advanced and efficient conveyor and handling equipment, the container, roll-on/roll-off and lash systems, to name but a few, require from the dock worker qualifications that are at least comparable to those of a skilled industrial worker. Consequently, one pronounced objective of my port policy was to put dock workers legally and socially on a level with skilled industrial workers. With the approved 'training for skilled dock workers in the State of Bremen' at the Hafenfachbearbeiterschule Bremen these objectives and a training have been achieved that open to Bremen's dock workers the whole range of work and social advantages of a skilled tradesman. I know, ladies and gentlemen, that this measure is merely the first step in the right direction and further steps have to follow. They will be taken mainly as a result of the awareness that the quality and social status of the dock workers are as decisive for the development and progress of Bremen's ports as are technical investments.

I will not, therefore, do the one thing while leaving the other undone. It will be the objective of my future port policy to further raise the social and legal status of the dock workers and to adjust the capacities of Bremen's ports to the rising volume of traffic by means of new investments and the replacement of old ones. These investments are necessary, even vital as

- the port with its approx. 120000 direct or indirect employees is by far the largest employer in the State of Bremen and accounts for nearly 34 percent of Bremen's gross value added,
- the port is one of the few sectors of the economy to show growth,
- the port offers safe employment with continuously increasing standards,
- the port decisively contributes to the absolutely necessary improvement of Bremen's economic structure in so far as it can offer 'sea-ship-deep water' as an essential asset of its location.

This objective of mine requires new investments despite the future use and the conversion of old facilities. In terms of fact expansions of capacity regarding the container terminal and the facilities for large-quantity general cargo will be required for the years and decades to come, viz. on the one hand by extending the Bremerhaven Container Terminal in sea direction (by the way, the southern extension (by the way, the southern extensionaugurated on 30th August) and on the other hand by the further extension of the eastern part of the Neustädter Hafen. An additional requirement is the alteration of the industrial port lock which is also necessary for protection against high water. We are going to need all these facilities because according to our calculations in 1985 Bremen's ports will handle in general cargo alone, which is labour and growth intensive, approx. 19 m tons, of which 8 m tons or nearly 43 percent will be containers. Considering that Bremen's ports are going to handle more than 16 m tons of general cargo this year, the forecast for 1985 is more conservative than too optimistic. In this connection I should like to thank the responsible political institutions for al-
ready having given the go-ahead for the further extension of the Bremerhaven Container Terminal in sea direction, an extension that, after all, will involve DM 312.5 m. There was hardly a better way for the parties represented in Bremen’s parliament to clearly demonstrate their political responsibility and their competence than to make this unanimous decision.

The large-scale investments I mentioned will enable Bremen’s ports to participate in the expanding worldwide trade in future years. The foreign trade will further increase despite the great worries in the energy sector, a fact which will certainly have a positive influence on the development of international shipping. In that respect I would like to spread more optimism today than I did at last year’s Captain’s Day when I stated in my speech disappointedly that the situation on the shipping markets was marked, among other things, by excessive tonnage, the stagnation of the volume of cargo, a general decrease of freight rates, the weakness of the dollar and an increasing pressure from outsiders. In general, this description of the situation still holds true today, but I am pleased to note that the pessimism of shipowners that paralysed many activities has given way to a substantially more positive anticipation. The reason for this change of attitude is surely not only to be found in the fact that the tramp market has revived, the time charter transactions have continued for some months now and that at continuously rising rate levels, that the international tanker market is characterized by brisk demand, that price increases for bulk carriers are recorded, tanker tonnage is ordered again, tied-up ships are operated again, and the overall index of line shipping continues to show an upward trend. More important seems to me the improved psychological basic approach of shipowners, which will contribute to reach the market equilibrium sooner than expected even some months ago. In my opinion this will also not be changed by the considerable price increase for mineral oil, for there are positive aspects in this price increase, as it could lead to a shift from the now more expensive land transport to the meanwhile relatively cheaper sea transport, and the OPEC countries will use their extra income for investments, which should lead to a stimulation of world trade. What has to be seriously condemned is the ruthless profit maximization policy of the multinational oil concerns. Nevertheless: everything indicates a slight upward trend. In spite of the improved employment situation and increasing rates, however, we must not become euphoric and leave out of account that the economic depression has been overcome only now. Further endeavours are necessary.

Despite the current worries which press us hard, we must not forget or even minimize one problem: and that is ship safety. The average of the tanker Amoco Cadiz just on the World Shipping Day of 1978 and the recent collision of the two tankers Atlantic Empress and Aegean Captain have demonstrated that things cannot go on as they are. It is true that IMCO, the special organization of the United Nations responsible for ship safety, established comprehensive safety standards for shipbuilding and ship operation so as to improve the safety of shipping worldwide and to protect the sea environment against pollution. But what is the use of such regulations, if they are not at all or inadequately observed? Only if all the nations engaged in shipping accept and properly apply the IMCO standard can a high degree of ship safety be achieved and thus the non-pollution of the sea could be ensured to some extent. For this reason I ad vocate the exertion of pressure in individual cases on those nations which do not want to subject themselves to the IMCO regulations. The European Community with its 24 p.c. share in the world merchant fleet should have sufficient political weight and profile to have its way.

But the observance of the IMCO regulations alone is not sufficient to improve ship safety. The training of seamen and manning of ships must also be in order. In this respect some countries have sinned in recent years. Germany is one of the shipping nations which were absolutely exemplary in this respect. With the ‘ship manning and training regulation’ Germany created an instrument the basic idea of which is right and can by no means be called a ‘national gimmick’ as the chairman of a shipowners’ association recently did. The experience gained with this regulation since 1970, and the technical development in sea shipping as well as international agreements on training and the powers of captains and ship’s officers have now made a revision of this ship manning and training regulation inevitable. Personally, I appreciate this amendment as it will contribute to a more flexible interpretation of regulations as is surely necessary. The Federal Ministry of Transport’s proposals for revision which are now under discussion seem realistic to me and, in my opinion, lead neither to a reduction of training standards nor a reduction of ship safety. In any case, those involved should succeed in finding on the basis of the Ministry’s draft a fair compromise which is acceptable to all.

As in previous years, my speech has focused on the ‘wet’ ports. Nevertheless, the ‘dry’ port will not and must not remain wholly unmentioned, because it is a necessary complement to the ‘wet’ ports and an indispensable element for a foreign trade centre like Bremen. As a result of our being aware of this the Bremen airport will be modernized and adapted to meet future international flight safety regulations. In early May the new departure hall was opened to the public, and currently work to improve safety is going on at full speed. You may take from this, ladies and gentlemen, that Bremen needs this airport and will do its utmost to keep it functioning in line with its economic importance.

With this little detour via the Neuenlander Feld (airport) I should like to come to an end. I should be pleased if at least some of my arguments have met with response and will give rise to discussions. Thank you very much again for coming, thank you for your attention. I am wishing you and myself an interesting Captain’s Day 1979 with lasting impressions, and for the ship and aircraft captains I beg for a hand’s breadth of water under the keel and happy landings.
Traffic through British ports last year reached its highest level since 1974, topping the 350 million tonnes mark for the first time since the ports were hit by the international trade recession, according to provisional figures in the National Ports Council's Annual Report. The increase of 4 per cent during 1978 came largely from higher levels of traffic in fuels due to the development of North Sea Oil, but non-fuel exports were also up, by 2 million tonnes, and at 36.5 million tonnes reached the highest level ever recorded.

In tonnage terms fuels, and oil in particular, are the most important traffic through British ports, accounting for 227 million tonnes of the 351 million tonnes in 1978. The development of the North Sea oilfields, which produced 53 million tonnes in 1978, has caused substantial changes in the pattern of this traffic: imports dropped by a further 5 per cent, from 83.4 million tonnes in 1977 to 79.1 million tonnes (compared with a peak of 137 million tonnes in 1973) while exports rose by 24 per cent, from 43.1 million tonnes to 53.4 million tonnes. Coaswise fuel traffic increased by 8 per cent, from 87.9 million tonnes to 94.5 million tonnes.

The continued growth in container and roll-on traffic was maintained in 1978, with total traffic on these unitized services up by a further 3 million tonnes at 38.5 million tonnes. The biggest increase in this traffic was on services to the near-continent, up 1.7 million tonnes at 17.5 million tonnes.

The Council report, following their latest survey of port capacity, that in the light of existing and projected facilities no exceptional efforts need to be made by ports to meet future requirements. The report states:

"There is no current shortage of capacity to handle any major traffic, and there is ample time to plan, and add to (or convert) present capacity to meet future needs."

All port development schemes costing over £1 million must be authorized by the Minister of Transport, and 14 such schemes, estimated to cost a total of £50 million, were considered by the Council during the year. The report points out that as in the previous year the emphasis was on the provision of specialized facilities for general cargo. Six schemes, at Harwich (2), Dover, Bristol, London and Tilbury, were for Roll-on and Lift-on container facilities, two, at Bristol and Northfleet, were for forest products facilities, and two, at Dundee and Lerwick, were for facilities related to North Sea oil activities. Of the remaining schemes three were for the renovation or replacement of existing facilities or equipment at Tilbury and Liverpool and on the Tees, and the fourth was to provide a heavy-lift Roll-on berth in connection with the construction of the nuclear power station at Torness in Scotland.

Although all the financial details for 1978 are not available, the Council expect that the 28 larger port undertakings will show, in aggregate, a return on capital of 9 per cent in 1978 compared with just over 10 per cent in both 1977 and 1976, and the report points out that not only were the aggregated results thus worse in money terms than in 1977 but poorer still when allowance is made for the effects of inflation.

The report industry is made up of a large number of autonomous authorities, and the aggregated figures do no more than indicate the overall performance of the industry as a whole. The report comments:

"The results of some ports are very much better than others. The reasons why different ports have done better or worse must be looked for in their particular circumstances. For instance the continued run down of conventional general cargo traffic at the two biggest ports, London and Liverpool, has a significant bearing on the results of the respective port authorities."

Traffic through individual larger ports in 1978, in tonnes, was as follows (figures in brackets are the non-fuel tonnage components of each total):

- London: 41.7m (17.5 m)
- Milford Haven: 40.0m (0.09m)
- Tees and Hartlepool: 30.7m (8.9 m)
- Firth: 28.5m (3.8 m)
- Grimsby & Immingham: 25.1m (9.3 m)
- Medway: 20.3m (2.4 m)
- Southampton: 20.0m (3.7 m)
- Liverpool: 14.8m (10.1 m)
- Manchester: 13.0m (4.8 m)
- Clyde: 9.3m (4.2 m)
- Swansea: 5.6m (1.0 m)
- Dover: 5.3m (5.1 m)
- Felixstowe: 4.8m (4.4 m)
- Bristol: 4.4m (3.0 m)
- Tyne: 4.3m (0.9 m)
- Hull: 3.9m (3.4 m)
- Harwich: 3.3m (3.1 m)
- Ipswich: 2.8m (1.7 m)
- Shoreham: 2.0m (1.0 m)
- Fleetwood: 1.9m (1.8 m)
- Plymouth: 1.7m (0.9 m)
- Cardiff: 1.6m (0.8 m)
- Newport: 1.6m (1.1 m)
The British Transport Docks Board's results for 1978, published recently, record another successful year for Britain's leading port authority, with an operating surplus of £29.7 million (1977: £29.0 million) and total traffic of 78.9 million tonnes, despite the continuing stagnation in overseas trade.

BTDB's return on capital showed a marginal increase to 16.9 per cent (1977: 16.8 per cent). However, additional depreciation for inflation (based on the retail price index) increased by £1 million to £8.1 million, and with interest charges of £6.5 million, and corporation tax of £7.6 million combined to reduce the Board's net surplus to £7.0 million (1977: £7.3 million).

In his Chairman's Statement, Sir Humphrey Browne says that he is pleased with the improvement in view of the severe difficulties faced by the port and shipping industries in the UK. A larger step towards the 20 per cent 'target' agreed with Government for 1980 would have been achieved but for industrial disputes arising from the Board's support of the fight against inflation and adherence to the Government's pay guidelines.

Traffics through the Board's 19 ports showed an overall increase of 1.7 million tonnes compared with 1977. There were increased tonnages of ores, fuels, and manufactured goods, which more than offset lower imports of foodstuffs and timber.

There was further expansion in the highly-competitive unit load sector, where the number of freight units dealt with reached 725,486 - the highest ever. Traffic on roll-on/roll-off services was up by 6 per cent, and lift-on/lift-off container traffic was 3 per cent higher.

The number of passengers passing through BTDB ports in 1978 rose by 83,000 to total 3,045,000, and a 17,000 increase brought the number of accompanied passenger vehicles to 483,000.

The handling of new import and export vehicles was again a significant growth area in the Board's business, with a 15.5 per cent rise to 321,000 vehicles.

THE PORTS

Seventeen of the Board's 19 ports produced individual net surpluses after additional depreciation and interest. The exceptions were Cardiff, where the closure of the East Moors steelworks two years earlier than anticipated was 'a serious setback and a main cause of the poor financial result'; and Southampton, which Sir Humphrey describes as 'a major disappointment to the Board in 1978'.

Southampton's result is attributed to industrial disputes which led to several months' delay in the opening of the South Africa container traffic from the port, but the position improved in the second half of the year and Sir Humphrey expresses his confidence that with stabilisation of its labour relations the port can re-establish itself as an important growth point in the Board's business.

In addition to new container traffic, Southampton gained an important contract to handle about 100,000 tonnes of forest products a year and also increased its import/export car traffic substantially. The port was selected as an offshore oil supply base by two major companies.

On the Humber, traffic at Grimsby and Immingham reached a record total of 26.3 million tonnes, and at Hull further new unit load and conventional services were gained, although the overall level of traffic there was affected by industrial action by registered dockers towards the end of the year. There was a 6 per cent increase in cargo tonnage at Goole and car traffic reached 31,000 vehicles handled.

The South Wales ports achieved a 12 per cent growth in export traffics to produce an overall tonnage marginally higher, at 15.5 million tonnes, than their 1977 total. New port was chosen to handle a large contract for export mining machinery to China and also began to develop a substantial East African trade. New general cargo services were gained by Cardiff, and at Swansea general cargo shipments to India, Pakistan and Bangladesh continued to develop. At Barry export tonnages of solid fuels doubled and Windward Islands traffic was at a high level.

Traffic through the Board's small ports rose by 177,000 tonnes to a new record of 5.7 million tonnes. Fleetwood expanded its business substantially to produce 1.9 million tonnes of this total, and Garston dealt with 1.3 million tonnes.

INVESTMENT

Capital investment by the Board of £10.3 million in 1978 was financed without external borrowing, and capital expenditure of £13.9 million was authorised. The Board's present plans, Sir Humphrey states, envisage further investment in the ports up to 1983 of over £80 million (at present price levels) financed from the BTDB's own resources.

CAPITAL REPAYMENT

The Board also made further advance repayments of their commencing capital debt: liability for the instalment of £6.4 million due on 2 January 1980 was satisfied by payment of £5.4 million in April 1978, and two further instalments totalling £14.7 million were extinguished in January 1979 by the payment of £10.8 million.

PROSPECTS

Of the Board's future prospects, Sir Humphrey says: "Continued efforts are being made by the Board to secure improvements in port performance, to contain costs, and to increase our share of the market. However, the uncertainties regarding world trade, the economy and the industrial situation combine to place the out-turn in 1979 in some doubt."
Annual Report 1978: Wellington Harbour Board, New Zealand (extracts)

I have pleasure in reviewing the operations of the Board for its 99th year, which ended on September, 1978.

Shipping Arrivals for the year totalled 7,480,041 net register tons, an increase of 144,573 tons or 2.0% on last year's figure of 7,335,468 tons.

The Manifest Tonnage of cargo passing through the port totalled 5,487,826 tons, which is a decrease of 361,166 tons or 6.2% on last year's tonnage of 5,848,992 tons. The principal decreases were in general cargo inward from Coastal, Australian and other Overseas ports which decreased by 197,892 tons (9.2%); general cargo outward to Coastal ports which decreased by 151,829 tons (9.8%), and oils in bulk which decreased by 80,457 tons (7.5%).

The Annual Accounts which will come formally before the Board after completion of the Government Audit, show a balance of $54,982 in the Working Account as compared with $1,548,283 last year. However, after meeting loan repayments, payments to Sinking Funds and contributions to Special Funds, there was a deficit of $1,534,625 in the Appropriation Account compared with a deficit of $117,402 last year.

Income rose to $13,928,482 (last year $13,217,720) due to a full year at increased charges set in July 1977 and again resulted in a record revenue being achieved despite a total fall in the level of cargo handled. The fuller utilization of the container terminal resulted in this area showing greater throughput than previously. In line with world trends this area continues to account for an increasing percentage of throughput than previously. In line with world trends this area continues to account for an increasing percentage of throughput than previously. In line with world trends this area continues to account for an increasing percentage of throughput than previously. In line with world trends this area continues to account for an increasing percentage of throughput than previously.

Working expenditure increased to $8,656,626 (last year $7,225,875) mainly due to increases in salaries and wages and servicing of the Thorndon Container Terminal. Expenditure on repairs and maintenance $1,729,318 (last year $1,427,241) reflects the cost to the Board of deferred and new maintenance undertaken and the redeployment of staff from capital works, increased wage costs and usage of more expensive components in the Board’s major assets.

This year’s interest total of $2,446,066 includes the first payment due on the second overseas loan of $5.5 m used for container terminal development. The higher investment in assets servicing the container terminal and ancillary operations has resulted in an increase in depreciation charged in the Working Account of $156,551. Total loan redemption made is at approximately the same level as last year although it does not include any provision for the first sinking fund annual instalment of $141,000 due on 25 October 1978 for the second overseas loan.

The Board’s total wages and salaries inclusive of capital works increased by $1,079,987 (14.84%) making the total cost of the Board $8,355,245 (last year $7,275,258).

Loan money raised during the year amounted to $6,862,800 (inclusive of second overseas loan of $5.5 m for container terminal development). Loan liability now stands at $38,966,196 (last year $38,074,123).

Capital expenditure totalled $5,084,054 of which $4,653,299 was provided from loan money and the balance, $430,755 from revenue sources. The principal items of capital expenditure for the year were:

<table>
<thead>
<tr>
<th>Project</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thorndon Wharf Development</td>
<td>$2,185,084</td>
</tr>
<tr>
<td>Third Container Crane Progress Payments</td>
<td>$1,605,016</td>
</tr>
<tr>
<td>Harbour Tug Progress and Final Payments</td>
<td>$543,254</td>
</tr>
<tr>
<td>Seaview Wharf Development</td>
<td>$329,100</td>
</tr>
<tr>
<td>Departmental and General Harbour Works</td>
<td>$314,586</td>
</tr>
</tbody>
</table>

Notwithstanding the progress achieved it has been a frustrating year in that the port has not always operated as efficiently as its first class capability makes possible. General world economic circumstances have resulted in a decline in trade as noted in the statistics but it is difficult to escape the conclusion that the consequences have been exaggerated in New Zealand where we could have overcome them by the improved productivity of which we are so easily capable.

It is a matter for regret that the unfavourable industrial climate affecting New Zealand as a whole has affected port operations acutely and increased costs beyond any corresponding increase in productivity. It is only by an intelligent understanding at all levels and with co-operative effort that the Board’s endeavours in creating and capability for efficient and reliable shipping services can achieve their potential and attract and retain the trade upon which the prosperity of the whole Wellington region depends.

H. A. JAMES
Chairman

1. Balance Sheet as at 30 September 1978

<table>
<thead>
<tr>
<th></th>
<th>1978 $,000</th>
<th>1977 $,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Debt</td>
<td>41,393</td>
<td>36,074</td>
</tr>
<tr>
<td>Loan Funds – Creditors</td>
<td>375</td>
<td>1,823</td>
</tr>
<tr>
<td>Creditors – Capital</td>
<td>91</td>
<td>345</td>
</tr>
<tr>
<td>Capital</td>
<td>6,020</td>
<td>6,307</td>
</tr>
<tr>
<td></td>
<td>47,881</td>
<td>44,550</td>
</tr>
<tr>
<td>Reserves</td>
<td>9,566</td>
<td>8,183</td>
</tr>
<tr>
<td>Contractors Deposits</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Creditors – General</td>
<td>1,430</td>
<td>830</td>
</tr>
<tr>
<td>Accumulated Surpluses</td>
<td>1,881</td>
<td>2,870</td>
</tr>
<tr>
<td></td>
<td>60,760</td>
<td>56,435</td>
</tr>
<tr>
<td>Fixed Assets (at cost)</td>
<td>56,753</td>
<td>10,157</td>
</tr>
<tr>
<td>Less Depreciation Provision</td>
<td>46,596</td>
<td>43,294</td>
</tr>
<tr>
<td>Loan Funds – Term Deposits</td>
<td>1,098</td>
<td>1,049</td>
</tr>
<tr>
<td>Advance</td>
<td>186</td>
<td>206</td>
</tr>
<tr>
<td></td>
<td>47,881</td>
<td>44,550</td>
</tr>
<tr>
<td>Reserves</td>
<td>9,556</td>
<td>8,183</td>
</tr>
<tr>
<td>Contractors Deposits</td>
<td>1</td>
<td>–</td>
</tr>
<tr>
<td>Harbour Fund</td>
<td>1,443</td>
<td>1,992</td>
</tr>
<tr>
<td>Debtors</td>
<td>1,265</td>
<td>1,076</td>
</tr>
<tr>
<td>Stock on Hand</td>
<td>602</td>
<td>631</td>
</tr>
<tr>
<td></td>
<td>60,760</td>
<td>56,435</td>
</tr>
</tbody>
</table>
Annual Report 1978: Hamilton Harbour Commissioners

Chairman’s Report (extract)

The task before me, as I sit down to write these remarks for the Hamilton Harbour Commissioners’ 1978 Annual Report, is especially gratifying. The reason? Last year was a year of records for the Port of Hamilton.

During 1978, the Port handled an impressive 13,142,732 metric tons of cargo compared with 12,126,826 metric tons in 1977. The year also saw the single largest steel shipment handled by the Port of Hamilton, and the docking here of the largest vessel ever to visit the Great Lakes. Many other events combined to maintain the momentum of this year of distinction. One particularly worthy of mention is the shipment last spring of automobile components to Venezuela. This was the first shipment from Hamilton under the Auto pact between Canada and Venezuela, and represented quite a breakthrough for our Port.

The Harbour’s advancement in 1978 is reflected in our revenue for the year. Our financial statement indicates that we have met the challenge of stiff competition, the incursion of escalating costs, and achieved a healthy profit position during 1978. In fact, another record.

It is dangerous to make predictions, but there is every hope at this time that we shall further solidify our position in 1979.

Many people do not realize, as they take their daily drive over the Skyway Bridge, the significance of Hamilton Harbour in their lives. We are a key Canadian port with responsibilities not only to this area but the whole country. The Port of Hamilton is a strategically located centre for international as well as domestic trading. And it was to enhance our competitiveness and capabilities that, as I reported a year ago, we launched two projects of major significance: the development of Piers 25, 26 and 27 on the Harbour side of the beach strip, and the reconstruction, enlargement and deepening of Piers 12 and 13 at Wentworth Street.

In a move to fix the guidelines for future demands on the Port, with emphasis placed on the increasingly valuable role of the Port in the community, the Commissioners absorbed the above-mentioned projects into an overall Port Master Plan which we unveiled in June 1978.

Embodied in the plan will be our policy of ‘Harbour Improvement for the Benefit of All’. Also incorporated will be the development of the Harbour for marine trading purposes and as an economic and recreational resource for local citizens. The scheme embraces two main concepts: the East Port Concept which is aimed at meeting the changing needs of marine traffic, creating a commercial and industrial complex and providing improved access to major rail and road networks; and the West Port Concept at Centennial Pier including marine supply stores and service areas, restaurants, boutiques, picnic and barbeque areas plus docking facilities for pleasure boaters.

A factor of great importance to potential users of a port, is that port’s reliability of performance. Therefore stability of labour relations is vital. I am pleased to report that our record at the Port of Hamilton is excellent and a contract with the International Longshoremen’s Association, signed last year, offers three more years of the smooth operations that are an integral part of any healthy port. And a healthy port means we can offer a greater mix of balanced benefits to the community.

As part of our aim to play an expanding role in the community, we implemented a Harbour Awareness Project running from May to September 1978 funded by the Federal Government. The number of visitors touring our facilities during that period and learning more about our activities, exceeded those for the same period in 1977 by 155 per cent. Our total for the year was up 92 per cent. And 2,000 passengers enjoyed cruises on our yacht M/V Seaport. Other promotional activities included going out into the community with displays and exhibits in shopping malls, banks and at various shows. The interest of many local residents was aroused by a visit to the Harbour in July by HMCS Saguenay.

All these activities are part of making reality of the belief that Hamilton Harbour should be made even more accessible to the community.

(Continued on next page bottom)
In 1978 cargo turnover in the Port of Copenhagen reached a figure of 10 270 120 tonnes, representing a decrease—904 693 tonnes or 8.1%—on the previous year. There was, however, a continued increase in bulk cargo—3.3% or 122 663 tonnes—whereas tanker cargo and general cargo showed a decrease of 15.6% or 883 862 tonnes and 8.0% or 143 494 tonnes respectively.

The decline in total tonnage and number of ships entered—i.e., vessels liable for payment of dues—continued the downward trend noted in previous years. The 1978 figures were 12 348 986 NRT representing a drop of 1 021 347 NRT or 7.6% and 20 958 ships entered, representing a drop of 2 458 ships or 10.5%.

While the decline may be attributed mainly to a falling off in regular routes on Sweden and Finland, slightly lower figures were also noted for tanker traffic, tramp traffic, bunkering and provisioning. Only line traffic and “other traffic” produced higher figures.

The Port’s accounts for 1978 show a surplus of D.Kr. 5.1 mill., as against D.Kr. 4.1 mill. in 1977 and D.Kr. 5.4 mill. in 1976.

The Port’s investments in construction activities in 1978 amounted to D.Kr. 17.1 mill., as against D.Kr. 18.5 mill. in 1977 and D.Kr. 18.1 mill. in 1976.

These investments, amounting to a total of D.Kr. 53.7 mill., were financed solely from the Port’s own resources, put at disposal via the operations account.

1. Balance Sheet as at December 31, 1978

<table>
<thead>
<tr>
<th>Assets</th>
<th>1978</th>
<th>1977</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>1,173</td>
<td>1,025</td>
</tr>
<tr>
<td>Investments appropriated for Future Harbour Improvement</td>
<td>2,800</td>
<td>3,025</td>
</tr>
<tr>
<td>Deferred Accounts Receivable Land, Docks and Harbour Improvements</td>
<td>17,889</td>
<td>17,889</td>
</tr>
<tr>
<td>Less accumulated depreciation</td>
<td>4,804</td>
<td>4,804</td>
</tr>
<tr>
<td>Capital Development in Progress</td>
<td>13,085</td>
<td>13,085</td>
</tr>
<tr>
<td>Other Fixed Assets</td>
<td>2,607</td>
<td>2,607</td>
</tr>
<tr>
<td>Buildings, Equipment and Vessels</td>
<td>8,126</td>
<td>8,126</td>
</tr>
<tr>
<td>Less accumulated depreciation</td>
<td>5,974</td>
<td>5,974</td>
</tr>
<tr>
<td>Total</td>
<td>21,844</td>
<td>21,844</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Liabilities</th>
<th>1978</th>
<th>1977</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>474</td>
<td>474</td>
</tr>
<tr>
<td>Long-term Debentures payable</td>
<td>1,025</td>
<td>1,025</td>
</tr>
<tr>
<td>Loan payable</td>
<td>1,024</td>
<td>1,024</td>
</tr>
<tr>
<td>Total</td>
<td>2,049</td>
<td>2,049</td>
</tr>
<tr>
<td>Net Capital</td>
<td>2,523</td>
<td>2,523</td>
</tr>
</tbody>
</table>

Capital

- General Capital | 16,520 |
- Allocation for Future Harbour Improvements | 2,800 |
- Total | 19,320 |

Net Capital

- Icebreaking fund | 4,492 | 4,192 |
- Reserve fund | 220,703 | 225,195 |
- Total | 225,195 | 229,387 |

2. Operating Statement

Revenue

- Terminal | 1,173 |
- Harbour operations | 762 |
- Marine dockyard | 598 |
- Rental | 1,289 |
- Other | 394 |
- Total | 4,219 |

Expenses

- Operating salaries, wages and direct costs | 2,168 |
- Administration, office and general expenses | 712 |
- Depreciation | 732 |
- Others | 481 |
- Total | 4,093 |

Excess of Revenue over Expenses for the year | 126 |
Annual Report 1978:
Lyttelton Harbour Board (Extracts)

Trade
During the twelve months ended 30 September 1978, 1,761,038 tonnes of cargo passed over the wharves—a reduction of 362,456 tonnes or 17% below last year’s total of 2,123,494. This reduction is most concerning, and is comprised of a drop of 302,480 tonnes in imports and 59,976 tonnes in exports.

Finance
Revenue Account
In come for the year totalled $11,596,902 compared with $7,207,030, for the previous year. The main reasons for this increase were: the increase of some of the Board’s charges from November 1977; a 9% increase in the total tonnage of ships visiting the Port (despite a drop in the volume of trade) and the building up of the Container Terminal’s throughput.

The most significant variations in the accounts were:

a. Port Installation—Services:
Total revenues increased to $5,107,151 from $4,258,224, significant individual variations including:
- Incinerator $18,000 (−31%)
- Pilotage $140,000 (+41%)
- Port Charges $85,000 (+44%)
- Towage $156,000 (+45%)

Wharfage on goods $508,000 (+23%)

Total expenses were $2,446,272 compared with $1,924,478 last year.

b. Cargo Services:
Total revenue increased slightly to $1,471,443 from $1,428,239.

Less principal repaid during year
Balance, 30 September 1978

Port Development
Long and short term Harbour Development was considered by the Board at the August 1978 meeting. The staged development, which is planned over the next ten years, includes the following:

- A development in the Inner Harbour to provide suitable berthing and cargo handling facilities for general cargo and special purpose vessels,
- Reclaiming an area of approximately 7 ha in the vicinity of Gladstone Pier and No. 1 Breastwork, together with the provision of berths and facilities,
- Extension of Container Terminal facilities,
- Provision of a new berth for bulk trades at the Cashin Quay breakwater, and provision of storage and bulk handling facilities,
- Future provision of an oil wharf in the Outer Harbour.

The Board is conscious that if it is to retain its present trades and be in a position to attract new trades, it must have facilities which can accommodate the various multi-purpose types of vessels, such as large roll-on quarter ramp vessels, which are replacing the conventional vessels on some services.
The New
Red Hook Container Terminal
Atlantic Basin-Brooklyn

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

Through 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
International maritime information:

World port news:

10th IALA Conference, 1980

The "Maritime Safety Agency" of Japan will organise the 10th Conference of the International Association of Lighthouse Authorities (IALA) to take place on 10th-21st November, 1980 at the Tokyo Prince Hotel.

The following are invited to the Conference:

(1) All IALA members
(2) Lighthouse Authorities which are not members of IALA
(3) International organisations
(4) Other organisations having a particular interest in IALA work.

The Conference comprises:

(a) Technical discussions centred around the 12 topics; shown on the attached list; IALA members will submit about 240 reports, 100 of which will be discussed together with 12 general reports, 1 for each topic;

(b) Two sessions of the IALA General Assembly;

(c) Technical excursions and visits to places of interest;

d) A two day special technical meeting on buoyage systems, as discussed at IMCO; further details about this will be sent to you in due course;

e) An exhibition of aids to navigation equipment by IALA industrial members during 3 days of the Conference.

There will also be a ladies programme.

The Conference registration fee has been fixed by the Executive Committee of IALA at 350 Swiss Francs for each participant, except for representatives of international organisations which are exempt. No registration fee will be required for a spouse accompanying a participant.

Details from: IALA Secretariat, 43, avenue du President-Wilson, 75775 PARIS CEDEX 16, France

Manual on radio aids to navigation

The International Association of Lighthouse Authorities (IALA) brings together services or organizations responsible for the provision or maintenance of lighthouses and other aids to marine navigation; and, maintains liaison with intergovernmental organizations having to do with hydrography, oceanography, aviation, communications, meteorology and marine safety matters.

Several years ago the Association undertook to prepare a manual concerning radio aids to navigation and assigned the task to its Technical Committee on Radionavigation Systems. In considering the scope of the manual the Association recognized that information on radio aids to navigation may often be found in textbooks, manufacturer's brochures, conference reports, etc., but very often this information is outdated or may be intended for specialist readers only. It is frequently found also that much information which could be of use to the general reader is omitted from these publications, or is difficult to find, and that they also contain information which is sometimes of no interest to those wishing to familiarize themselves with general operation of the system, its uses and its limitations. Furthermore, it is possible that all the required information is not available in a single publication. It was therefore considered that if a single publication, giving information on those radio and other associated aids to navigation used in the maritime field, could be written for mariners and lighthouse engineers, it could be extremely useful.

The Association now has available for sale the MANUAL ON RADIO AIDS TO NAVIGATION, consisting of the following chapters:

Chapter 1--General Review of Aids to Navigation
Chapter 2--Direction Finding
Chapter 3--Consol
Chapter 4--Decca
Chapter 5--Loran
Chapter 6--Omega
Chapter 7--Radar including land based radar
Additional chapters will be available in the near future and will include
Chapter 8--Satellite Navigation
Chapter 9--Gyrocompasses and Inertial Navigation
Chapter 10--Accuracies and Errors

The MANUAL ON RADIO AIDS TO NAVIGATION which exists in both languages, English and French, may be ordered from:

The International Association of Lighthouse Authorities
43, avenue du President Wilson
75775 PARIS CEDEX 16
FRANCE

The cost for the manual (loose-leaf binding and Chapter 1-7) is 75 Swiss Francs.

Publications

1. "Port Pricing and Investment Policy for Developing Countries" by Esra Bennathan and A.A. Walters

This book analyzes pricing policies for port services and the use of prices to control the distribution of benefits, and it recommends pricing and investment policies designed to increase the economic well-being of developing countries. By offering the first sustained application of the principles of economics to the pricing policies of ports, the authors promote the concept of cost-based port tariffs.

230 pages

The World Bank, 1818 H Street, N.W.
Washington, D.C. 20433, U.S.A.

2. "Financial Management of Ports" by the UNCTAD secretariat, March 1978

103 pages

Contents

I. Basic accounting for non-accountants
* Introduction to accounting and financial management
* Accounting conventions
* Financial statements and reports

(Continued on next page bottom)
ADB’s contributions in 1978 to port development

Extract from the Asian Development Bank Annual Report 1978

Operations in General

In 1978, the Bank achieved an impressive level of assistance to the region, the total loan approvals exceeding one billion dollars for the first time. Project loans, together with one program loan, totalled $1,159 million. Nearly one-third of the loan commitments was on concessional terms and went to the poorer countries. Significant progress was made in the area of co-financing and cooperation with other aid agencies. Technical assistance activities expanded sharply in 1978, recording an increase of 54.8 per cent over the previous year.

During the year, a total of 53 loans for 52 projects in 18 developing member countries (DMCs) was approved, compared to 45 loans for 45 projects in 16 DMCs in 1977. While the number of loans increased by 18 per cent, total loan approvals of $1,159 million showed an increase of 31 per cent (22.2 per cent in real terms) over the total of $887 million in 1977.

Considering that transport and communications play an important role in the process of economic development, the Bank has provided sustained support to this sector from the very first year of its lending activities.

By the end of 1978, $941.8 million or 17.4 per cent of the Bank’s cumulative lending had been provided to the transport and communications sector involving 68 projects. Technical assistance for 39 projects amounted to about $6.7 million, or 14.4 per cent of total technical assistance grants. Within the sector, lending for roads accounted for 59 per cent, followed by 24.4 per cent for ports, 10 per cent for airports, 5 per cent for railways and 1.6 per cent for telecommunications.

In 1978, seven loans totalling $138.1 million were approved — three for road projects, two for airports and two for port projects.

Loans

Loans for the two port projects, one in Indonesia and the other in Thailand, amounted to $27.8 million. The main objective of the Bank in this field has been to enable ports in DMCs to cater more effectively to the development needs of the countries concerned, and to handle an increasing volume of general cargo traffic.

Fifth Port, Indonesia

$26.3 million for the rehabilitation and expansion of port facilities at Belawan, involving dredging and reclamation works, construction of road embankments and a quay, paving of roads and port areas, provision of utility services, construction of transit sheds and other supporting facilities, with the provision of tugboats, pilots boats and cargo handling equipment. The project includes a feasibility study and project preparation for Phase II development of the Port and a port operational improvement study. The Federal Republic of Germany is providing $40.39 million for co-financing Songkhla and Phuket Ports, Thailand: $1.5 million technical assistance loan to finance engineering services for detailed site investigations, master plans and detailed designs and tender documents for the development of two major deep-sea ports at Songkhla and Phuket in southern Thailand.

Technical Assistance

Provision of technical assistance, especially for improving the capability of DMCs to make more effective use of external assistance both from the Bank and from other sources, is an important aspect of the Bank’s developmental role. Technical assistance grants are financed mainly from the Technical Assistance Special Fund, established in 1968, to which both developed and developing member countries of the Bank contribute, and which also receives net income from the Bank’s ordinary capital resources from time to time. In addition, the Bank administers technical assistance projects financed from other sources such as UNDP and EEC.

The Bank’s technical assistance activities expanded significantly in 1978, both in terms of number of projects and the total amount of assistance provided.

Forty-seven projects amounting to $11.1 million were approved during the year, compared to 42 projects amounting to $7.2 million in 1977.

Project preparatory technical assistance amounted to $8.4 million for 34 projects; advisory and operational technical assistance amounted to $2.7 million for 13 projects.

Belawan Port Study (Phase II), Indonesia: $150,000 for a feasibility study for Phase II development of the Belawan Port.

Incheon Port (Phase II), Republic of Korea: $150,000 to develop a plan for the future development of Incheon Port and to determine the investments necessary to meet the forecast traffic demand on the port through the year 1990.
Hamiton's trade chief heads Great Lakes Ports group

The Port of Hamilton's trade development director, Fred Rose, is the new president of the International Association of Great Lakes Ports (IAGLP).

Mr. Rose, elected during the association's 19th annual meeting held recently in Chicago, succeeds interim president Alan T. Johnson of the Port of Duluth.

Formed in 1960, the IAGLP represents 16 United States and five Canadian ports and consists of two sections, one for each country.

Next step—a 9-1/2-month Seaway season

A 9½-month Seaway shipping season is now within sight, but an 11-month season may not become a reality until the turn of the century, members of the International Association of Great Lakes Ports were told at their annual meeting in Chicago recently (June 13 and 14, 1979).

"We believe that an 11-month season could be programmed for as early as 1985," said William H. Kennedy, Associate Administrator of the St. Lawrence Seaway Development Corporation, "but then we must consider that there are many other entities involved with navigation much beyond the already extended April 1 to late December season."

The St. Lawrence Seaway Authority, the Corporation's Canadian counterpart, feels a little less optimistic.

"A season approaching 11 months will not be realized until sometime after the year 2000," said Walter E. Webb, the Authority's Director of Planning and Development.

Mr. Webb explained that the Seaway Authority plans to complete the necessary work required to ensure dependable opening and closing dates for the present season, to develop improved aids and a navigation system to permit 24-hour navigation throughout the season.

"We believe that by the time we reach these objectives, the 9½-month season will be well within our grasp," he said.

Mr. Webb said that preliminary cost estimates show that a 24-hour, 9½-month navigation season is possible at a cost of about $5 million. A 9½-month season would require an investment of more than $30 million while an 11-month season could be achieved for about $440 million (excluding the cost of icebreakers).

The season extension report produced by the Corps of Engineers says that the average annual benefits of yearround navigation would be $337,917,000 based on a 50-year project life.

Saint John Port projects extensions of Pugsley, Long Wharf terminals

A project with a total cost of $19 million will be started soon in the port for the extensions to Pugsley Terminals and Long Wharf. The entire project will be completed in mid 1981.

The extension at Pugsley South will link that terminal with the Atlantic Sugar Refinery pier, adding 18 acres of open storage space and 800 feet to the wharf itself. At Long Wharf a 328 foot extension will be undertaken, providing an additional six acres of storage space.

The completion of this joint project will give the port an additional capacity of 400,000 tons of cargo annually.

An extension for Rodney (Container) Terminal has received federal Treasury Board approval in principal, and will be started in the spring of 1980.

MPA planning Hawkins Point expansion

The Maryland Port Administration plans to expand the Hawkins Point facility, which had been used primarily for the importation of aluminum manufacturing materials, into a multi-cargo handling terminal. With this additional waterfront usage, more space at Dundalk Marine Terminal will be available for containerized cargo.

Scheduled for completion a year and a half from the date of notice to proceed, the expanded terminal will be 40 acres in size and is intended to be used primarily for import and export of automobiles.

Hawkins Point Marine Terminal is located along the southern shoreline of Baltimore Harbor, next to the harbor entrance and directly across from Dundalk Marine Terminal.

Under the development plan a new section will be added onto the existing channel which is maintained at 36 feet below mean low water. The new section will have a depth of 30 feet and a 250-feet width.

Baltimore launches crane training program

The Maryland Port Administration, in cooperation with the Steamship Trade Association of Baltimore, has begun a training program for port of Baltimore crane operators who are members of the International Longshoremen's Association.

The program is an 8 to 16 hour course of instruction in the operation of container cranes. Some 88 longshoremen are scheduled to take the course.

Each training session starts with four hours of classroom instruction given to groups of four operators. The second part of the program consists of four hours of practical instruction on the cranes.

Each operator who completes the program will be given a certificate by the MPA Safety Department.

The MPA is providing the facilities and the instructors for the program. The individual stevedoring companies who employ the operators are paying full salary to those taking the course.

James A. Schuyler, MPA's crane training officer, said that training programs are needed because "many pertinent areas never get mentioned" in operator-to-operator instruction.

The participants also get copies of MPA safety regulations—rules that Schuyler said are the cumulative result of decades of trying to prevent accidents and are therefore "written in blood."

A discussion of the 18 most common types of crane accidents is part of the session. A National Safety Council release states that 95 percent of crane accidents are the result of human error. Schuyler stressed that there is no way to make a crane "people proof." The key to safe crane operation, he said, is simply moving the massive machines smoothly and carefully. "Your best operations don't rush," Schuyler said.

PORTS and HARBOURS—OCTOBER 1979 31
Houston Port Bureau begins 50th year of service to shippers

"Port of Houston Magazine": - On June 1, The Houston Port Bureau began its 50th year of service to the Port of Houston, the City and the business community.

The Port Bureau was created for the purpose of improving service through the Port of Houston and supplying information and data to shippers throughout the country. It was originally involved in the sales and marketing of the Port of Houston as well as the transportation section. Initially offices were opened in New York City, Kansas City, Dallas and Houston.

The Bureau was formed as a composite instrument of all the public and semi-private agencies interested in the development of the Port of Houston. Initially it was supported by the Chamber of Commerce, the Port Commission, the Maritime Committee, Merchant's Exchange, Cotton Exchange, City of Houston, Foreign Trade Club and private terminals located within the Port.

Today the Bureau's membership has grown substantially and is supported by the Port of Houston Authority, Port of Freeport and a membership of 230 others, comprising persons, firms, concerns or corporations having real or substantial interest in the advancement, promotion and development of transportation and commerce into, out of and through the Port of Houston and other ports it serves.

As it was recognized in the early stages of the Bureau, soliciting freight for the Port of Houston is a very technical and highly specialized service, thus, it is important that each phase of the transportation and its cost factors must be considered in endeavoring to influence cargo through the Port of Houston. Therefore, in the early stages, the policy of the Bureau was to look beyond the solicitation of freight and uncover the factors which influence a given movement to a competing port.

It was recognized that in many instances the freight was moving to another port even though there was an economic advantage via the Port of Houston. It was this function that the traffic department of the Bureau provided to guard the transportation rate structure and to seek ways and means of improving Houston's competitive position. There was a third phase of the Bureau originally and that was the information division normally referred to as promotion and advertising. The Bureau operated in this format until 1959 when the sales and promotional segments of the Bureau were transferred to the Port of Houston Authority. The Bureau's activity certainly has had an impact upon the growth of the Port of Houston and when one reviews the Annual Reports of the Bureau in the previous years it is easy to realize that severe handicaps would exist in business operations and opportunities if it were not for the work and the planning of the Bureau.

Such efforts have helped to develop a transportation system at a competitive cost, and transportation via the Port of Houston is a good barometer of business. The Bureau is constantly engaged in protecting the Port of Houston, its greater business area, including Freeport, in regulatory proceedings where other ports and railroads serving those ports are seeking enlargement or encroachment on interior cargo sources.

As those in the business of selling the Port of Houston recognized, even with all the outstanding facilities available, competitive cargo will not move through the port in face of noncompetitive transportation charges, such as inland freight.

The port resources of Houston and Harris County merit high rank among the metropolitan centers of the Texas Gulf Coast. By any criteria, the Houston Port Bureau and its services associated with the port deserve superlative ratings also. For example, it is largely responsible for the region's being blanketed by a fine network of transportation routes, roads, railroads, motor freight systems, pipe lines and waterways. These transportation advantages and systems take on additional meaning when one recognizes that Houston is the location of many home offices of national and international firms. Today Houston ranks first in the south and fifth in the nation in population and third in the nation as a seaport. The Port of Houston, therefore, with its 50 mile ship channel, has helped to stimulate along its banks more than $8 billion worth of industry which has in many ways been assisted by the Houston Port Bureau.

Today, no other port in the Gulf can boast of such facilities and industry. Many plants and industries along the ship channel would not have located in Houston had it not been for the Houston Ship Channel and other surface transportation facilities. A competitive level of transportation charges when combined with the ocean charges results in a bottom dollar advantage. This is a factor which the Bureau strives to improve constantly.

To significantly depict the increase in cargo in Houston since the Houston Port Bureau was organized, in 1929 the Port of Houston Authority handled 14 million tons, whereas in 1978 it handled 109 million tons, an increase of approximately 800 per cent.

Since the beginning of the Houston Port Bureau, it has successfully carried out its purpose: To sell the Port of Houston and strive to improve the transportation rates and services. Prior to setting out its objectives, it may be well to recognize that the journey of foreign commerce does not always begin or end within the confines of the general port area. A great deal of tonnage originates or terminates with the vast industrial complex surrounding Houston, however, there is also a considerable volume of movement to and from inland points.

The objectives of the Bureau are set out in its charter:

1) To coordinate all proper activities of the City of Houston, of Harris County, and of the trade territory tributary to the Port of Houston, in relation to matters of rates, ratings, classifications, charges, rules, regulations and practices incident to and related to the movement of freight by water, rail or motor carriers to, from and through the Port of Houston, for the best interests of the City and Port of Houston and Harris County;

2) To act as a fact-finding body to investigate rates, ratings, classifications, rules, regulations and practices governing or proposed to govern the movement of freight into, out of and through the Port of Houston;
Jim Gray elected president of the Long Beach Board of Commissioners

The Long Beach Board of Harbor Commissioners has elected James H. Gray to succeed Richard G. Wilson as president, effective July 16.

Gray, who has served on the Board since September 1976, is well known for his civic activities. A past president of the Long Beach Chamber of Commerce, and past elected member of the Long Beach Board of Education, he is currently serving as vice chairman of the United Way, Region III.

Joint study starts on a rail transfer facility: Los Angeles & Long Beach

Both Los Angeles and Long Beach Harbor Commissions gave approval recently for a joint feasibility study to be conducted on an Intermodal Container Transfer Facility proposed for construction reasonably near both ports.

It was agreed that the staffs from both ports will work together to determine the viability of building a rail transfer facility for containers nearer the marine terminals. Existing rail transfer facilities for inbound and outbound marine containers are currently located about 25 miles from both ports.

Recent transportation studies indicated there is a great need for having container transfer facilities located nearer the ports because of the rapid growth of rail container movements in the various joint water/rail services instituted in the last few years. The growth rate is expected to continue and may even increase more dramatically if Panama Canal toll rates increase, or if there are disruptions to Panama traffic.

The studies also point out that because of the shorter trucking distances there would be at least a 90 percent net reduction in truck pollutant emissions and fuel consumption. The proposed facility would also reduce trucking fees approximately 75-90 percent from the present charge of $100 per container.

F.A. Heim re-elected president of the Los Angeles Board of Commissioners

Frederic A. Heim was re-elected president of the Los Angeles Board of Harbor Commissioners recently and Jun Mori was re-elected vice-president during the Commission’s regular election of officers. Both will hold their offices until the next regular Board elections in July, 1980.

Heim, who has been Commission president since February, previously served three terms as president and Mori has held the vice-presidency since April.

Port operating income for 1978-79 ups by 17.4%: Los Angeles

Port of Los Angeles Executive Director Ernest L. Perry reported to the Board of Harbor Commissioners recently that the Port’s operating income for 1978-79 reached $28.2 million, up 17.4 percent from last year. Gross revenues and operating expenses both increased 17 percent. The figures were part of the fourth quarter report summarizing last year’s financial picture at the Harbor.

The Port’s income from operations still falls short of the amount needed to provide essential maintenance and fund the Port’s five-year, $405 million capital construction program without additional revenue bonds, Perry said. The construction program was adopted earlier this year by the Board of Harbor Commissioners to modernize and upgrade present Port facilities and to construct new ones.

The continued growth of Port income is necessary in order to maintain the Port’s bonding capability. The Port plans to issue revenue bonds in the amount of 10 million dollars to provide further funding for the 1979-80 capital expenditure program.

Dr. Perry also noted that numerous inflationary and
other cost increases are being incurred currently which will necessitate tariff rate increases for the present fiscal year.

Capital spending in 1978-79 was $42.7 million versus $27.4 million in 1977-78, an increase of 55.9 percent. 1979-80, capital spending is projected at $59 million.

Preliminary tonnage statistics reveal that the past year's total billed revenue tons amounted to 42.4 million tons. This compares to 38.6 million tons the previous fiscal year.

The Harbor Department does not receive any tax monies, but rather operates on its own earned revenues and must rely on its profitability for operating expenses and bond debt service.

Los Angeles publicizes revised draft of Master Plan

The Los Angeles Board of Harbor Commissioners recently approved a revised draft of the Port Master Plan and authorized publication of the notice of its completion and distribution to the California Coastal Commission and to other concerned persons, organizations and governmental agencies.

This draft of the Master Plan is the result of revisions made in response to comments and recommendations received during workshops and from interested organizations and agencies after the first draft was distributed in June, 1978.

A draft Environmental Impact Report on the Plan is to be completed Aug. 31 and will be submitted as a separate document to interested parties for review and comment.

Final adoption of the Master Plan by the Harbor Commission for formal submission to the Coastal Commission for certification will be considered at a later date after interested parties and organizations review and submit comments and after a public hearing is held during the latter part of September.

In the Foreword to the Master Plan, Fred Heim, Harbor Commission President, said: "It is the policy of the Port of Los Angeles, through this Plan, to integrate into the development process all of the economic, engineering, and environmental skills required to evaluate and quantify the long-term effect on the total environment of alternate decisions and trade-offs in order to arrive at optimum development decisions."

Poland Street Wharf dedicated: New Orleans

The Board of Commissioners of the Port of New Orleans officially dedicated a new wharf facility on the river designed for general cargo, steel, and heavy-lift commerce. Poland Street Wharf, formerly known as Berths 4 & 5 of the New Orleans Army Base (Gulf Outport) and often referred to locally as the Port of Embarkation, was turned over to the Dock Board on a 25-year lease agreement, following extensive rehabilitation by the Army to bring the facility up to Class A standards.

Poland Street Berths 4 & 5 will accommodate two ships simultaneously. Both front and rear aprons have rail service. Total riverfront footage is 932 lineal feet, with 1,330,470 total square feet of area within the facility.

The unique arrangement with the U.S. Government allows the Dock Board to bring on stream a substantial addition to port facilities at a fraction of the cost — both in terms of time and money — that would be incurred if a similar new wharf were constructed from scratch. Conservative estimates put the figure at $14 million and 2-3 years investment if such a project were undertaken from the ground up.

Army Corps monitoring Old Man River

The Mississippi River has made New Orleans the second busiest port city in the Nation. But the relationship of the two is a love-hate affair. The fickle river is ever filling with sediments, threatening in flood time to inundate the city, and sometimes attempting to end the relationship entirely by finding a different route to the sea. In an effort to keep things flowing smoothly, the river’s changing ways are being studied by the U.S. Army Engineers Waterways Experiment Station (WES) in Vicksburg, Miss.

WES has built a scale model which reproduces the Mississippi River downstream from Mile 14 above Head of Passes, including South and Southwest passes, portions of Pass a Loutre and Cubits Gap, and a portion of the Gulf of Mexico. The model is built to a scale of 1:500 horizontally and 1:100 vertically. Current studies are investigating plans for reducing shoaling in the lower end of Southwest Pass. Future investigations on the Passes model will examine the hydraulic, salinity, and shoaling characteristics of channels deeper than the existing 40-foot channel.

The proposed Seabrook Lock, part of a navigation and hurricane flood protection project on Lake Pontchartrain, is also molded in miniature at WES. The area is subjected to storm waves of up to five feet coming from the North and Northwest. In addition, sea walls at the New Orleans Lakefront Airport and on the south shore of the lake reflect wave energy into the vicinity of the lock site. These conditions could make navigation difficult and dangerous for waterborne commerce and small boat traffic.

Installation of a breakwater lakeward of the lock has been proposed to provide wave protection to the lock entrance. However, as a result of dredging to obtain fill material for the airport, there is a large hole with depths up to 65 feet in that area. Due to the hole and poor foundation conditions, the breakwater may be a floating structure, although a fixed structure and a combination of the two are still under consideration.

New foreign trade zone at Elizabeth/Port Newark to open for operations

Recently, the establishment of a foreign trade zone at Port Newark and the Elizabeth-Port Authority Marine Terminal, the second foreign trade zone at the Port of New York and New Jersey, was approved by the Foreign Trade Board of the U.S. Department of Commerce. Officially designated Foreign Trade Zone No. 49, the new zone will occupy a total initial area of 208,000 square feet divided equally between Building 200 at Port Newark, and Building 2280 at Elizabeth.

Commenting on the new dual facility, Port Authority Chairman Alan Sagner noted that the zone is expected to be in operation by the fall of 1979. Mr. Sagner predicted that it will handle and process approximately 34,000 tons of cargo annually and generate about 100 new jobs. He also observed that the tonnage directly attributable to creation of the zone is expected to spur expansion of the initial area to one million square feet, which, in turn, could
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generate an estimated 163,000 tons of cargo valued at $266 million, and create employment for approximately 500 people.

Besides facilitating the handling of a wide variety of foreign and domestic cargo, the zones are used for storage, exhibition, assembly, and manufacturing/processing operations. Addition of this second trade zone at the Elizabeth/Port Newark complex should afford the international shipping community an even higher degree of flexibility and convenience in moving cargo via America’s principal ocean gateway.

Thomas L. Berkley elected president of the Board: Port of Oakland

Oakland attorney-publisher Thomas L. Berkley, a member of the Oakland Board of Port Commissioners for the past ten years, was recently elected President of the Board.

The seven-member board oversees operations of the Port of Oakland, the Oakland International Airport and extensive commercial properties.

Real estate developer Ted Connolly was elected First Vice President of the Board of Port Commissioners, and distinguished Bay Area educator Norvel Smith was elected Second Vice President. They will serve in office during the fiscal year of 1979-1980.

Portland news
• More cargo, more ships expand port’s world markets

To quote the song, it’s been a very good year—so far. Marine activities at the Port of Portland in 1979 have been high-lighted by several major developments. Together, they signal a trend toward increasing steamship service and tonnage volumes.

Cargo tonnage (excluding grain) through the Port for the first quarter was up 15.7 percent, and grain tonnage through the Port’s two elevators rose 23.1 percent in the same period over the first quarter of 1978. Ship calls increased 34.2 percent.

• New state law gives port help

The Port scored a major legislative victory recently when a bill giving Oregon port districts greater flexibility to fulfill economic development roles was signed into law. Introduced on the Port’s behalf, the new law reduces red tape in land transactions, resulting in greater cost efficiency.

Specifically, the law reduces the number of required appraisals involved in port property purchases; authorizes an extension of the payment period for property purchase contracts from 10 to 20 years; and includes personal property such as buildings as well as real property in contract land purchases.

$10 million approved for high-level bridge: Port of Seattle

Port Commissioners have made their support of a new bridge to West Seattle official by voting to spend up to $10 million on the proposed high-level Spokane Street span.

City and county governments have agreed to help fund the bridge but $20 million in state aid is still needed.

The bridge is expected to cost $192 million to build. Without state aid, the community may have to settle for
second choice — a mid-level drawbridge which Commissioners have termed inadequate for future marine commerce and for West Seattle vehicle traffic.

Both the Seattle City Council and the King County Council have agreed to spend $10 million each. The city has an additional $142 million set aside for the project.

**Port of Seattle accords with the City for developing Seacrest Marina**

An interlocal agreement with the City of Seattle for development of a small-boat facility at Seacrest Marina, West Seattle, has been approved by Commissioners.

The Port and the city will each provide $1.5 million.

The marina design calls for construction of a 600-slip, open-moorage marina and re-development and replacement of the existing boathouse. The U.S. Army Corps of Engineers will design, construct and maintain a floating breakwater necessary for the project.

Other development will include a promenade-bikeway along Harbor Avenue, bulkheading to provide parking for moorage and associated marina development, landscaping and visual screening between the development and adjacent facilities.

**Presentation regarding port’s policy**

The La Guaira Chamber of Commerce, in a paper submitted before the Ninth General Meeting of the Council of Commerce (Fedecámaras) recently held at Puerto Ordaz, sustained the points of view regarding ports’ policy which are quoted immediately below: The need to define a policy for the operation of containers and rolling freight; The need for a policy regarding port’s infrastructure that may allow the operation of modern transportation means; A port’s tariff policy capable of providing fair safety costs to users; Establishment of norms and procedures inferred from the scientific analysis of foreign commerce; A policy for connecting the port of La Guaira with the country’s interior through alternate means of transportation; The need to remodel and recondition the passenger terminal in La Guaira; To improve the organization of customs houses; The possibility of installing permanent revision tables at port warehouses in order to facilitate quick release of merchandise.

+6.1% for the first four months of 1979: Port of Antwerp

The general cargo traffic in the port of Antwerp continues revealing a positive trend during the first four months of 1979.

In all some 24.35 millions tons of cargo were handled in Antwerp during the January/April period of this year against 22.93 million tons during the corresponding period of last year; which means an increase by 6.1%.

Total general cargo traffic increased by 4.8% to exeed 9.32 million tons.

Traffic of bulk goods increased by 7% to exceed 15.03 million tons (+17.3% for incoming and -11.6% for outgoing traffic).

Good results were achieved a.o. in the oil sector (+17.7%), the traffic of iron ore (+30.4%) and the coal traffic (+43.6%).

As far as containerized general cargo is concerned, an increase by 6.5% was noted after the first three months of this year.

**Liverpool news**

- **Port launches international campaign for container security**

Port of Liverpool Security chief Tom Bradley has launched an international campaign to make containers thief proof. Speaking in Canada he criticised reluctant shippers and called for support from cargo insurers.

Mr. Bradley told the International Cargo Security Conference in Montreal: “We can’t go on putting up with the majority of containers not secured in any way, except for a flimsy plastic seal”.

He said the International Standards Organisation should re-examine the whole question.

“There should be an approved standard method of locking containers, such as a recommended padlock or security bolt. After all, who would leave their house or car without locking it. Yet on average we put £60,000 worth of goods into a container, close the door and walk away”.

Mr. Bradley said seals were not security measures. They were designed for the benefit of underwriters, to show where a theft took place – not to prevent a theft.

“And it’s my business to prevent theft, not to deal with claims”.

Mr. Bradley said that once the standard lock had been established pressure would have to be brought to bear on shippers. “We know from bitter experience, that they will not do the job voluntarily”.

He added that the matter could be resolved quite simply – by insurers.

“All containers being shipped through ports are insured. The insurers can make a valuable contribution to crime prevention by making it a condition of all insurance that containers should be fitted with the approved standard locking device.”

Mr. Bradley, who had been invited to address the conference of 600 security experts, said there was also need for especially strong and securely designed containers for shipping high value goods, and for an alarm which warned that a container’s door had been opened while it was on a park.

And the man who heads Liverpool’s security force had a word of advice to ports which already have a computerised cargo handling system, or are planning to introduce one … don’t just accept the word of the computer experts that the system is secure.

Computer frauds, he said, were becoming such a feature of commercial life that it had been necessary to create a new breed of individuals – computer auditors.

**Le Verdon celebrates third year in service of container terminal: Port of Bordeaux**

Le Verdon had only two regular line services in 1976. Today, it has become the port “where Europe and the World meet”. Australia, New Zealand, Africa, Canada, the United States, the Caribbean, Guyana, Saudi Arabia, Jordan, the Yemen, northern Europe, are all regions in the world which use Le Verdon for their trade with France.

Naturally, the terminal’s traffic figures have followed this increase. From 60 000 t. in 1976, the trade passed to

(Continued on page 38)
Transhipment

Verdon has proved both its efficiency and the interest it received for the mammoth tankers, and so the oil companies regularly have been handling containers reached 10,800 at the end of the first five months of 1979 was a considerable increase from the 6,223,000 tonnes against 3,855,000 in 1977. The ever-increasing growth of RO/RO traffic has led the Port of Marseilles Authority (P.M.A.) to increase the number of specialized berths adapted to receiving RO/RO ships. One new berth is nearing completion in La Joliette Dock.

Marseille/Fos news

- A year of improvements at Marseilles harbor area

The modernization of Marseilles Docks, to adapt them to the changing traffic conditions, continued throughout 1978 as regards both infrastructures and superstructures.

I. INFRASTRUCTURES

Construction of various RO/RO berths

The intensification of navigation in the Gulf of Fos, the presence of very large ships, the existence of numerous anchorages in the roadstead and the range of dock basins from Lavéra to Port Saint-Louis-du-Rhone, have led the

The Integrated Traffic Regulation Centre at Port-de-Bouc

The intensification of navigation in the Gulf of Fos, the presence of very large ships, the existence of numerous anchorages in the roadstead and the range of dock basins from Lavéra to Port Saint-Louis-du-Rhone, have led the
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.

P.M.A. to put in hand the construction of an Integrated Traffic Regulation Centre for ships entering the Gulf of Fos. By means of its two monitoring radars, one at Cap Couronne and the other at Port-de-Bouc, this Centre will be able to regulate navigation in the access channel and the roads and will provide efficient co-ordination with all the port services concerned, in particular the pilotage and towage services. Work on the Centre started at the end of 1977 and is nearing completion.

The Mourepiane Container Terminal

The work of constructing a container terminal at Mourepiane started in 1978. The first stage of the work covers about 25,000 m² and will be operational by mid-1979. The second stage comprises an extension of the container terminal to the North, and will be started as soon as the first stage is in service. When fully completed, this terminal will have a capacity of 45,000 to 50,000 containers.

- Marseilles assisting Egypt for the development of Port Said

The P.M.A. was represented by its Commercial Director, Mr. Remond, at the conference on "The Development and Equipment of Port and Inland Waterways in France and Egypt" that was held at Ismailia from 10th to 18th February.

The Port Authority’s film “Marseilles-Fos, Port Without Limits” was particularly appreciated, being considered by far the best of those shown, especially as it was the only one with a commentary in Arabic.

At about the same time, the P.M.A. signed its sixth technical assistance contract with Egypt concerning a study for the development of Port Said.

A seventh contract implementing the findings of the Port of Alexandria management study, is now being negotiated.

Report on the Suez Canal

(Marseilles /Fos news)

General Cargo Traffic

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<th>Type of Ship</th>
<th>1976</th>
<th>1977</th>
<th>1978</th>
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<tbody>
<tr>
<td>Container Ships</td>
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<td>Nber</td>
<td>T.Kt</td>
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<td></td>
<td>4 545</td>
<td>417</td>
<td>21 600</td>
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<tr>
<td>Lash</td>
<td>2 265</td>
<td>69</td>
<td>2 538</td>
</tr>
<tr>
<td>Ro/Go</td>
<td>7 606</td>
<td>1 134</td>
<td>12 218</td>
</tr>
<tr>
<td>Car Carriers</td>
<td>5 411</td>
<td>258</td>
<td>5 748</td>
</tr>
<tr>
<td>Total</td>
<td>19 827</td>
<td>1 878</td>
<td>42 104</td>
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From these figures, it will be noted that there is a levelling off in the numbers of RO/RO ships, whereas the number of container ships and car carriers continues to increase.

Tanker Traffic:

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<tr>
<th>Year</th>
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<td>1976</td>
<td>2610</td>
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<td>1977</td>
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(Continued on next page bottom)
Container system internationally compels new structuring of markets

"The days for discussing the economic pros and cons of container-transportation, as compared to other forms of traffic systems, are gone. The transocean trading-in-containers system (with heterogeneous general-cargo consignments being collected into homogeneous units) has crowded out the alternative fundamental transportation systems in recent years and has meanwhile secured such a large section of the market that we have to adapt ourselves to the conditions of its existence", stated Dr. Rolf Stuchtey of the BLG, when declaring on the world-wide effects of new transportation systems (particularly of containers) on maritime trading economies; at the invitation of the Federal Association of German Industry (Cologne) and the German External Trade and Traffic College (Bremen).

It is true that the ideal conception of an unbroken house-to-house traffic-chain by the container has, e.g. in the German seaports, only been realized to some 60% (with about 40% moving as so-called pier/pier container traffic, i.e., are stuffed and unstuffed within the confines of the seaports) - and ignoring the still numerous chinks and crannies in the information and documentation chain; but the first development-phase of approx. two-way container-traffic between highly developed national economies (with its considerable exchange-effect), has long been superseded by a second development-phase. Included now in the transocean container-traffic transportation system between the heart of the industrial centres of the USA, Europe, Japan and Australia are the secondary provinces, the so-called 'way ports'. Stuchtey: "Due to their geographical trading position along the routes of the major conference lines, these ports, with their dependent economic regions, are compelled to initiate sub-maximum transport systems which are only possible of development in dependence on the economic situation of the major ports. Powerful shipping conferences, the fleets of which have been developed according to the economic requirements of the major ports, force a similar operational system to be adopted by those subsidiary ports. Thus, in the wake of containerization in the ports of Japan, Hong Kong and Singapore, trading areas such as Thailand, the Philippines and Malaysia were compelled to take up with the systematics of the container trade. Any subsidiary ports endeavouring to elude conference-pressure run the risk of severance from the major traffic streams.

Included in a third development-phase are trading-areas functioning between highly industrialized nations and countries of rich natural resources (crude oil), where the systematics of the container-trade are adapted thanks to their financial and geographical independence enabling them to develop a maximal traffic system for themselves. In view of the extreme export and import divergence it is only possible for the short-term bottle-necks of the new transportation system to be overcome. An integrated transport-chain, even in the medium-term, is not possible, due to a lack of trade infrastructure.

Further container-traffic areas are seen by Stuchtey, in the coming years, as being, particularly, Mexico, the east and west coasts of South America, Venezuela and Columbia - as well as India, Pakistan, Sri Lanka, East Africa and Indonesia.

Apart from Structural alterations in the transport-chain, Stuchtey also makes reference to the 'palpable effects' on the mercantile marine markets: the new cost-proportionment; displacement of liability-conditions; and changes in liner-terms. Capital and degree-risk concentrations have led ship-owners to form consortiums, enabling frequent sailing-schedules to be maintained, together with advantage being taken of cost-degression arising from the employment of larger vessels. The continued concentration-process producing diversification-trends has resulted, in addition to such alliances, in the amalgamation of shipping companies with large concerns.

A further result of the new development is an increasing concatenation of trading-areas, leading to increased inter-dependence of sectional-markets. Major shipping companies establish liner-services around the world, thereby linking many trading areas. From favourably-located main-ports they cover circumjacent-ports with feeder-systems. Stuchtey: "The result is that several secondary areas can be serviced from one main area. An American shipping company, for instance, is thus able, from one strategically-located port in the Persian Gulf, to also serve ports in India and Pakistan- with a feeder-service". This development has not yet been exhausted.

(Continued from page 39)

Improvement programme:

The first stage of the widening of the Suez Canal is due to be completed at the end of August 1980. At present, the Canal has a wetted cross-section of 1800 m², a draught of 38 ft (11.58 m), and can accommodate ships of up to 60,000 tonnes fully laden or 250,000 tonnes in light condition.

By early September 1980, at the end of the first stage of the improvement programme, the Canal will have a wetted cross-section of 3700/3300 m², giving a draught of 53 ft (16.5 m) and allowing the passage of ships up to 150,000 tonnes fully laden or 370,000 tonnes in light condition.

The second stage, which will be decided upon after completion of the first stage (probably in the second half of 1981) and which will involve three year's work, will give the Canal a wetted cross-section of 5200/4700 m², a draught of 67 ft, and will allow the passage of ships up to 260,000 tonnes fully laden or 500,000 tonnes in light condition.

<table>
<thead>
<tr>
<th>Annual receipts of the Suez Canal (in millions of $)</th>
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<tbody>
<tr>
<td>Estimated receipts</td>
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<tr>
<td>375.6</td>
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40 PORTS and HARBORS—OCTOBER 1979
A stevedore's view

'Shipping is a very old-fashioned industry, much in need of improvement'. This is the view of Mr. Jan Stornebrink, newly appointed director of VCK Havenbedrijf, the stevedoring division of Verenigd Cargadoorskantoor (VCK).

In Western Europe, mechanization in shipping has resulted from purely social concerns: sometimes it has had economic results as well, but the primary reason for mechanization is a social one.

Columbus discovered American in 1492, but little, really, has changed since then. If we take the three major points in ocean transport: the way the ship moves, how cargo is placed on board and how cargo is treated, we find very little change.

Oars and sails have been replaced by propellers. But in terms of speed there is little real difference. The age of sail reached its zenith with the clipper ships which could average 21 knots. Some ships today can do 30 knots, but the overall average of the merchant fleet is 15 to 16 knots.

Cranes were invented to replace the masts and tackle of the sailing days. But the movement of the human body in attaching hooks and composing hoists has not really changed. Bagged cargo is still handled in the same way; a bale is still 70 kilos, just as it was in the time of Columbus.

We are faced with a very slowly developing technology. Mechanization has been purely social - men are getting more and more unwilling to lug 70 kilo bales these days. The labour market is changing and forces shipping to mechanize.

However, mechanization has not always been following the wisest lines. Why do we need 40 or 50 ton container cranes when the average container-load is about 14 to 22 tons?

The same applies to equipment on ships and ashore. There is an enormous waste of investment in general cargo cranes, considering that the average lift is only 1 to 2 tons.

Containerization is an excellent method of packing goods. Containers certainly reduce pilferage and insurance costs, but they leave much to be desired as a shipping concept. I believe in containerization, but only if the ships can carry other types of cargo as well.

The pure container concept leaves little room for flexibility. We often see container ships with boxes stacked three or four high on deck, but given the amount of freeboard showing, there must be a large number of empties aboard.

I am firm believer in roll-on/roll-off. It eliminates cranes. Ro-ro is the most flexible type of shipping around. Ro-ro vessels can take containers trailers, and cargo with awkward dimensions; practically everything that can pass through the stem opening.

Revolutionary ro-ro

Moreover, the investment for the stevedore handling Ro-ro vessels is minimal compared to handling container ships. I reckon that two 30-ton fork lift trucks, one aboard the vessel and another on the quay, can handle the same number of containers per hour as two container cranes working a containership.

Ro-ro shipping got off to a slow start as such vessels formerly were thought to be too expensive. However, the third-generation containerships have proved to be more expensive than ro-ro ships. The ships of the type operated by Atlantic Container Line may well be ideal. These vessels, which are part containership, part ro-ro vessel, are extremely flexible.

Imitation is the purest form of flattery, and the ro-ro vessel proved to be such a successful concept that scores are on order world-wide. The Soviet Union alone has 36 such vessels on order and Poland is building some as well. The same applies to the newbuildings of Seaboard and Western, which company has two vessels of 30,000 dwt on order for the carriage of forest products.

Stevedoring trends

People are less and less interested in doing conventional work. Retirement ages are getting lower, there are more holidays, men start to work at a later age, all this leads to a steadily diminishing work force.

A stevedoring-firm's product is its tonnage per year, which is conditioned by a number of factors: the number of men, multiplied by the number of hours they can work, times their speed in tons per hour. Taking the above into consideration, it is clear that the tonnage per hour should increase in order to keep pace with the increased world tonnage.

Europe's first merchant nuclear ship "Otto Hahn" lays up

The first commercial atomic freighter, built in 1967 for DM55 millions, is now finally to be laid up, following a decision now made by the vessel's operators, the Association for the Use of Nuclear Energy in Shipbuilding and Shipping (GKSS). A further 5 years employment of the "Otto Hahn" (16,870 GRT) would have required an additional DM60 millions investment, with no notably new scientific knowledge to be gained.

Bremen cargo-handling increases by 10.6%

With a half-year handling of 13.135 million tons, the cargo volume of the first half-year of 1978 was exceeded by 1.256 million tons—or 10.6%. In Bremen and Bremerhaven the handling locations having the highest general-cargo proportions already now handle 61.9% (8.133 million tons) in work-intensity general-cargo. The proportion of bulk-cargo (5.002 million tons) sank to 38.1%. The continually-increasing container-handling turnover participated with 33.8% of the general-cargo.
How about the flows of general cargo in Rotterdam in the year 2000?

How will the future flows of general cargo exactly be offered for handling in Rotterdam? In other words: how many containers will have to be handled in the years 1980, 1985, 1990 and 2000, what will be the share of ro-ro transport, how much will be carried by lash and seabee ships and, finally, what will be the volume of conventional general cargo offerings? The new freight flow report also tries to give well-founded replies to these questions. The results are of importance for planning in the general cargo sector.

Rapporteur J. Katgerman has investigated to what extent general cargo suitable for container transport was indeed containerized until recently. He found that 53 per cent of all incoming cargo and 69 per cent of all outgoing cargo in this sector was containerized in 1976. It must be assumed that the containerization of these cargoes will have reached its maximum, i.e. 100 per cent, by the year 2000.

Over 40 per cent of all container offerings in the Rijnmond harbors — more than 900,000 units in 1977 — are shipped to destinations in Europe, about 35 per cent go to North America and some 17 per cent go to Middle East and the Far East. Transports to and from the West European hinterland are mainly conveyed by road (an estimated 75 per cent) and by rail (over 20 per cent). The remainder is carried by inland vessels.

The volume of the flows of containers is determined by two factors: the volume of the flows of general cargo and the degree of containerization (the extent to which goods suitable for container transport are indeed shipped by container). Both quantities will grow substantially and this means that account has to be taken of a fast increase in the flow of containers. The forecast are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Units</th>
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<tbody>
<tr>
<td>1980</td>
<td>1,183,000</td>
</tr>
<tr>
<td>1985</td>
<td>1,633,000</td>
</tr>
<tr>
<td>1990</td>
<td>2,067,000</td>
</tr>
<tr>
<td>2000</td>
<td>3,025,000</td>
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</table>

Roll-on/roll-off

Roll-on/roll-off transport in the Rijnmond harbors is directed almost exclusively (97 per cent in 1976) at the United Kingdom.

Three factors are of decisive importance for the future of ro-ro transport: the volume of the freight flows to and from the United Kingdom, the degree of containerization and the proportion between lift-on/lift-off container trans-

(Continued on page 44)
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KUWAIT, AJMAN, KHORFAKKAN, JEDDAH, EGYPT
(Continued from page 42)

port and ro-ro transport.

On the basis of the available statistics it has been concluded that all general cargo on the route to the United Kingdom is containerized; consequently a further increase is impossible. In 1977 incoming and outgoing ro-ro shipments amounted to 2.9 million tonnes. The forecasts for the future are:

- 1980 3.8 million tonnes
- 1985 4.7 million tonnes
- 1990 6.2 million tonnes
- 2000 9.9 million tonnes

Lash and Seabee

The Lash (lighter aboard ship) and Seabee techniques have so far been concentrated mainly on transports to and from the United States. New, but presumably only temporary, is Lash transport to the Middle East. Lash and Seabee ships accounted for 1.4 million tonnes of incoming and outgoing shipments in Rotterdam in 1977. Nearly 90 per cent of these shipments went to the United States or originated from this country.

The possibilities for growth of Lash and Seabee transports are not big. There is a certain imbalance between imports and exports. The standard container is a major competitor for smaller shipments, while, on the other hand, small bulk carriers are in the market for larger shipments.

The estimated volumes of incoming and outgoing cargoes to be carried by Lash and Seabee ships by sea are:

- 1980 1.6 million tonnes
- 1985 1.6 million tonnes
- 1990 1.7 million tonnes
- 2000 1.7 million tonnes

Conventional

The only remaining sector to be discussed now is that of conventional general cargo which is not shipped in containers or by lighters, not driven onto ferryboats by trailers. Estimates:

- 1980 11.1 million tonnes
- 1985 11.9 million tonnes
- 1990 12.9 million tonnes
- 2000 15.4 million tonnes

**Hamburg Port transshipments in first half '79 tops 30 million tons**

In the first six months of this year the facilities of the Port of Hamburg transshipped 30 million tons of goods of all kinds. This means a rise by 10.2 percent or 2.8 million tons compared to the same period of the preceding year. This result is primarily due to increases in dry bulk handling (coal, ore, potash), from 5.3 million to 7.3 million tons, and liquid cargo from 8.8 million to 9.8 million tons. Also, as to general and bagged cargo, the upward trend of the previous year continued. On the other hand, there was a drop of 13.1 percent to 4.1 million tons in suction cargo (grain, feedstuff, oilseeds). A major factor was the reduction in grain imports.

Hamburg Port handles over 300,000 containers in first half of 1979

In the first half of this year 305,701 containers (20-ft-basis) with a total weight of 2.8 million tons were handled at Hamburg Port. This means an increase of 6.6 and 9.0 per cent over the comparable period of last year. The containerization degree (share of containerized cargo in overall general cargo volume) reached 31.5 per cent.

**Seaport stable: Amsterdam**

At the Port of Amsterdam, the level of sea-borne traffic during this year's first quarter remained approximately the same, 4,198 thousand tons against 4,228 in 1978.

Despite a slack start in January, there was increasing activity in all categories during the next two months. In percentage of increase over the previous year, cattle fodder and oil seed were ahead with +47%. Also up were minerals, grain, general cargo, wood products and other cargo.

Only strong declines in transshipments of coke and coal and molasses unbalanced the picture, which on the whole continues to be favorable.

**Hartel Canal to have open connection with Oude Maas:**

enormous project starts

In order to solve the capacity problems around the locks in the Hartel Canal this fairway will be provided with an open connection with the system of rivers in the hinterland within the shortest possible time. The Netherlands Government and the Municipality of Rotterdam recently reached agreement on this project.

This means that the port of Rotterdam will shortly become the scene of a remarkable hydraulic engineering project. A busy canal with a total length of about 24 kilometers will be withdrawn from the protective régime of a huge system of locks. Instead of having stable water levels, the canal will become subject to the tides of the North Sea within the next few years.

This will have far-reaching consequences. Bridges will have to be jacked up, quay-walls and landing-stages will have to be raised, underwater pipelines and mains will have to be replaced and low-lying adjacent areas will have to be protected with new embankments. The cost of the project on the basis of January 1, 1976 prices, will total some 200 million guilders to be shared equally between the Government and the Municipality of Rotterdam.

The Hartel Canal is almost ten years old in which time its use by shipping has increased vastly. The reason is that many big firms have moved to the new western port areas (Europoort and Maasvlakte) to expand operations. Goods which are carried by this canal in bulk are ores, coal, grains and derivatives.

Most of the cargoes are going eastwards, says Drs. Jan Katgerman, econometrician with the Rotterdam Municipal Port Management. This means that most of the bustle in the Hartel Canal is due to inland vessels, carrying to the hinterland goods which have been landed from sea-going vessels in the western port regions. All inland shipping transport from and to Europoort goes by the Hartel Canal.

Mr. Katgerman has tried to estimate future freight flows through the Hartel Canal on the basis of the most recent

(Continued on next page bottom)
Full Autonomy and Labor Discipline alone can ensure better Port Working

By K.M. Sheth*

The highly pathetic conditions prevailing since quite some time at most of the major ports in India especially at Bombay and Calcutta have become a matter of grave concern, not only to our country, but the discontent is being equally felt internationally too. This is evident from the fact that Bombay which, at one time, enjoyed the reputation of being one of the most efficient ports in the country was recently dubbed as "one of the worst in the world today" in a report that appeared in the New York Times International Economic Survey. This, certainly, is a reflection on the management and the system of functioning of major ports in the country. As you all probably know, there were as many as 120 ships waiting not so long ago and even now there are about 90 ships lined up in a queue for berth at Bombay. The waiting period ranges anywhere from about 60 to 70 days for general cargo ships to about 30 to 35 days for fertilizer vessels. If such is the situation in fine weather, God only help us during monsoon. Several committees have been and continue to be appointed by various authorities to study problems of the ports and make requisite recommendations, as though all this is not already known. And it is unfortunate that despite the various assuring statements from responsible quarters the situation shows little sign of improvement. The resulting frustration is sought to be alleviated by Conferences through increasing congestion surcharge on Bombay. Recently, Karmohom Conference increased surcharge to as much as 50% on Bombay. How can it be blamed? On one hand the shipping industry is passing through crisis for about last 5 years — one of the worst in its history and, at this time, on the other hand it has to face hopeless turn round at major Indian ports. The industry, as a result, finds itself badly sandwiched between the devil and the deep sea. One may not easily realise the stupendous damage such congestion is doing to our national economy. The recent port strikes at Bombay and Calcutta registered an export loss worth about Rs. 500 crores. In addition, millions of rupees in foreign exchange are being drained out of the country by way of demurrage charges and conference surcharges on account of unduly long detention of vessels. Developing countries like India can ill afford to ignore all this, particularly, in the light of mounting import bill following the recent oil price hike by the OPEC countries. In the final analysis all these negative factors go to build up huge trade balance deficits, push up inflation and finally hit the poor common man. This, then is the disease, the malaise from which Bombay port is suffering.

Now, let us examine the chief causes responsible for these symptoms and try and find a solution. As you may know, I was one of the Trustees of the Bombay Port Trust for a period of 2 years. During my tenure, I observed that the working of the port was suffering from 2 main ills, namely, labour indiscipline and lack of autonomy.

LABOUR INDISCIPLINE

In my opinion, labour indiscipline is largely responsible for congestion in the Port. You will be surprised to know that in the last 105 years history of the Bombay Port, not one single labour strike was legal. Labour go on strike without either giving the requisite notice or when the dispute is still under conciliation proceedings. It may be recalled here that in January 1975 when there was a major strike in all Major Ports in the country, it was during the conciliation proceedings and hence in contravention of the law. Unfortunately, no action was taken by the Government. In 1976, even when there was no major strike some 30,000 man days were lost in illegal stoppages of work. In other words, the labour has developed a habit of going on strike whenever they feel like. The strike may take place owing to either inter Union rivalry or personality conflict between the Union leaders. Reporting late for duty is the order of the day. Our labour output, as a result, is 1/15th of what it is even in a small place like Singapore. It is beyond my comprehension why the Government continues to be so complacent about all this. Labour indiscipline has been one of the biggest drawbacks in the progress of our country. Therefore, unless and until the Government realises this and introduces some discipline,
the clock of the nation will get set back by a few years in an otherwise fast progressing world. Execution of the labour policy as of now is heavily one-sided. The employer cannot declare a lock-out under the present Industrial Disputes Act without complying with requisite laws, otherwise is liable for prosecution. However, no such restraint is placed on the labour. In my opinion, there are two ways of improving this situation:

*Firstly,* except wages, all other matters should be susceptible to compulsory arbitration if the parties are unable to reach a negotiated settlement, and *Secondly,* when law is frequently violated by the labour, there should be strong backing to the local management by the Government. It should not be afraid to take action against the erring labour leaders. Today, unfortunately, this will is lacking.

**LACK OF AUTONOMY**

Unlike other advanced maritime nations like United States, Europe, Japan, Germany, etc., the Chairman and the Trustees of the Major Ports in India enjoy very little power to take either any important independent decision or any effective remedial measure for improving the working of the Ports. In other words, autonomy is very limited. It is circumvented by the provisions of the Major Port Trust Act 1963 and the various Rules and Regulations framed thereunder, with the result, that for ordinary matters — even small ones — references are required to be made to the Ministry — from where the decision come very late, if at all.

For example, in September 1974 when the first World Bank tanker of SCI came to Bombay, the Pilots demanded an extra allowance of Rs. 300 for such movement. Being fully justified, the Chairman and the Board unanimously sanctioned the same, subject to the Government approval. Government took more than two years to sanction the extra payment and whilst doing so, the amount was reduced to half.

In March 1978, when the Pilots went on strike, neither the Chairman nor the Board was empowered to negotiate settlement and it took New Delhi nearly one month to depute one of its Officials to Bombay, and that too for merely listening without any power to negotiate a settlement. The financial worth of the Pilots' demand was Rs. 120,000 per year to be paid to 22 Pilots and it was nothing new as a similar allowance was being paid to the Pilots at Madras and Cochin since the last few years. But the Government continued to be tardy on the issue and this built up so much congestion in the Port that it ultimately cost the industry a colossal loss of Rs. 40 crores.

The Chairman of Bombay Port Trust, you will be surprised to learn, is not authorized to purchase equipments costing more than Rs. 5 lakhs and the Trustees of the Board worth more than Rs. 25 lakhs. International experts on the matter, however, have categorically stated that there should be more financial freedom and the Board empowered to spend upto Rs. 4 crores without having to refer to any higher Authority. The point is particularly valid in respect of those ports which can meet the commitments out of their own resources. As you all know well, in the present day high costs, you can hardly acquire any major equipment for Rs. 25 lakhs.

The Port is least modernized. Quite a number of equipments are completely outdated and are working, if output, as a result, has slowed down considerably. You will be surprised to know that the Port of Bombay is working with 1½ tons hydraulic cranes which were first installed in 1881 and the cranes will be celebrating their birth centenary in another two years' time.

At Bombay, container handling started in 1973 and yet the Port does not have a Gantry Crane. The Port has recommended acquisition of Floating Crane and few extra Tugs, but the approval for the same has yet to come from New Delhi. What I do not understand is that when the Port has reserve funds worth about Rs. 100 crores and is overall making a net profit of about Rs. 12 to 13 crores every year and is not dependent for any subsidy, why should the Government interfere with the working of the Port and not give adequate powers to the Chairman and the Board of Trustees to make independent decisions?

**PORT CHARGES**

Even in respect of revision of port charges, it is New Delhi who makes decisions regardless of their justification. It directs the Chairman to have the proposals passed through the Board of Trustees by ensuring majority voting of the Government nominees. Today, Indian port charges are one of the highest in the world not only in comparative terms but also in absolute terms rendering service hardly worth its charges. When all sections of the actual users of the port like the shipowners, the shippers, the Navy, the Railways, the Municipal Commissioner, the Collector of Customs are already represented on the Board of Trustees, would it not be more fair to leave such decisions entirely to them rather than issue the directives from New Delhi? In my opinion, the Trustees are the best persons to appreciate the conditions in the Port and therefore the revision of rates should best be left to their judgement without any intervention from or sanctioning by the Government.

**ADMINISTRATION**

At present, the Chairman has powers to create and fill a post carrying a pay-scale of Rs. 1500 p.m., but he cannot fill the post without the prior approval of the Government if the maximum pay exceeds Rs. 2,000 per month. An unfortunate result of this has been that even though the Port is so badly congested, the post of Chief Engineer and the Deputy Conservator are lying vacant. The post of Manager carrying out General Duties which expired on 26th December, 1978, still remains unfilled as orders from New Delhi are still awaited. With this kind of functioning, the Administration in the Port is naturally suffering badly.

There is considerable talk going on in responsible quarters about development of Nhava Sheva with a view to relieving congestion at Bombay. I would strongly appeal to the Government that before anything is finally decided, two important points should be taken into consideration. One, that with our system and speed of working, it will take many years to develop it and crores of rupees would have been sunk. Its development will definitely have no immediate impact on the present situation of congestion at Bombay. The other point to remember is, that if we continue with the existing system of working of ports, development of even two more Nhava Sheva Projects, in my opinion, will not solve the problem of our congestion.

In other words, there can be no solution until the heart of the matter is tackled and that is to enhance the powers of the Local Authorities and the means and the will to control the manpower.
Wellington Harbor picture and sketch

Sketch on front cover

This photo is of the two berth Thorndon Container Terminal. The Terminal handled 156 cellular container ships last year with a throughput of containers being 78,200 TEU's giving a tonnage of 1,265,000 metric tons for the year ended 30 September last. The Container Park area is approximately 24.3 hectares reefer capacity 1392 units with three portainer cranes, one rail transfer crane, 18 straddle carriers etc.; total cost 35 million dollars.

Port Zayed plans four new berths for $35.9 million

The Sea Department of Abu Dhabi has decided to build four new berths at the Port of Mina Zayed, including two deep berths for containers which will be equipped with modern clearing and shipping facilities. Total costs of the berths will be $35.9 million.

The two new container berths are to be operational by mid-1980 at which time the draft alongside the wharfs, presently 9 meters, will have been dredged to 10.5 meters.

Port of Brisbane now has its own Coat of Arms

THE PORT OF BRISBANE AUTHORITY HAS BEEN GRANTED ITS OWN COAT OF ARMS.

THE ARMS WERE DESIGNED BY THE COLLEGE OF ARMS, LONDON. The Authority's motto: "ex urbe ad orbem" means... "from the city to the world"... and is in keeping with the PBA's role as an organisation committed to the efficient movement of ships and cargo through the Port of Brisbane.

In the near future, the insignia will begin to appear on official stationery, documents, and flags.

The Arms are surmounted by a globe symbolic of the port's involvement in international trade. The top section of the centre shield comprises two wavy blue lines, symbolising the Authority's interest in port and marine matters.

Facts in brief: Port of Hong Kong

Hong Kong has one of the most perfect natural harbours in the world.

The port has always been a key factor in the development and prosperity of Hong Kong, which is strategically located on the Far East trade routes and is in the geographical centre of the now fast-developing Asia-Pacific Basin region. Victoria Harbour covers an area of 6,000 hectares, varying in width from 1.6 to 9.6 kilometres, and it can accommodate vessels of up to 305 metres in length, with drafts of up to 12.2 metres.

Administration

Responsibility for administering the state-owned port is vested in the Director of Marine. The Port Executive Committee advises him on the shipping, commercial and other changing needs of the port, while the Port Committee advises the Governor on all long-term planning.

The Marine Department ensures that conditions exist to enable ships to enter the port, work their cargoes and leave as quickly and as safely as possible. It is concerned with the many aspects of safety standards on all classes and types of vessels, from the largest oil-carrying tankers to the smallest
passenger-carrying sampans. It also supplies all the navigational aids, maintains ocean mooring buoys, manages the Hong Kong-Macau Ferry Terminal and administers public cargo working areas. But the Marine Department neither controls nor operates any of the ocean shipping alongside berthing facilities, nor the transit sheds or warehouses associated with them, nor the container complex. These are all operated by private enterprise—making the port unique in that it is not administered by a Port Authority.

Shipping

During 1978, a total of 91,421 vessels of 108 million net registered tons entered and cleared the port, and of these, 18,832 were ocean-going ships.

Total deadweight tonnage of cargo discharged by ocean-going vessels in 1978 was 19 million tonnes compared with 17.5 million tonnes in 1977. Cargo loaded was 6.7 million tonnes, compared with 6.3 million tonnes in the previous year. River trade involved 1.7 million tonnes of cargo—mainly foodstuffs from China for local consumption—being discharged, and 233,000 tonnes of export cargo being loaded.

A sample survey recently carried out revealed that, on average, conventional ships working cargo at buoys were in port for 2.8 days and containerships were here for just 21.5 hours, including steaming, berthing and unberthing time.

Containerisation

The Kwai Chung Container Terminal, located in the north-western part of Victoria Harbour, has six berths totaling more than 2,300 metres fronting on to more than 60 hectares of cargo handling space, which includes container yards and container freight stations.

Throughput at Kwai Chung was 1.227 million TEUs in 1978.

Port Facilities

Within the port there are 71 mooring buoys operated and maintained by the Marine Department for ocean-going vessels. Of these, 43 are suitable for vessels of up to 183 metres in length, and the remainder for ships of up to 135 metres in length. The moorings include 60 special typhoon mooring buoys which are so located that ships can remain secured to them during tropical storms. This obviates unnecessary ship movements, so helping to maintain efficiency and reduce operational costs.

There are 253 modern marine navigational aids strategically located throughout Hong Kong waters to guide mariners to and from their berths, and those in the harbour are constantly being improved to ensure greater safety.

New yard cranes for container terminal: Singapore

The Port of Singapore Authority has received two of the six new yard gantry cranes (transstainers) ordered at a cost of $6.5 m last year and are now being assembled at the Container Terminal.

The remaining four will arrive over the next four months and are expected to be in operation by the end of this year. This will bring the total of transtainers at the PSA Container Terminal to 11 and enable more of the ship opera-
developed by yokohama rubber, ABF's (Air Block Fenders) are epoch-making pneumatic rubber fenders featuring bolt installation on the quay wall.

The low reaction force of ABF's assure less stress to quay wall and vessel, inclined berthing can be enlarged, while contact pressure performance is outstanding.

ABF's are excellent against rolling, swaying, yawing and all other forceful movements of wind and waves.

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Several years of severe testing in Japan under adverse conditions has proven the quality and performance of this important harbor equipment.

An additional advantage is that problems inherent in solid type fenders are solved by the new ABF design.

Yokohama Rubber's ABF's are the most advanced types available today. They enjoy wide use and give users complete satisfaction.
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