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Port Elizabeth and Port Newark (Port of New York Authority)

Price US\$2.00 per copy airmailed US\$20.00 per year

Editor: Yoshio Hayashi

In 1827, a man called Johann Smidt, Mayor of Bremen, founded Bremerhaven. Bremen's port on the open sea.

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PORTS and HARBORS

Forum on Port Problems:

Address by Frank C. Sullivan, President,

Los Angeles Board of Harbor Commissioners

before the Nihonbashi Rotary Club, Tokyo, Japan September 8, 1970

Gentlemen of the Nihonbashi Rotary Club, and guests:

It gives me a great deal of pleasure to speak to you today. I consider it a privilege to address members of Rotary, since they are leaders of business everywhere in the world, and I am grateful for this opportunity.

As Rotarians and businessmen you are constantly alert to changing trends in commerce, and are keenly aware of the ever-increasing pace of progress.

That pace is being felt everywhere throughout the world—in all nations, in every phase of business, and particularly in the shipping industry. And within that industry, gentlemen, a virtual revolution of change—an explosion—is taking place, affecting all the major seaports of the world.

The great nation of Japan, as one of the leading maritime nations of the world, is in the forefront of change. For example, oil tankers sailing the high seas today-and calling at the Port of Los Angeles -average from fifty to sixty thousand deadweight tons. Yet, as a leading builder of ships-and to meet the growing need-Japanese maritime architects have on your drawing boards, tankers of a halfmillion-and even a million-tons. These huge ships, with a draft of almost one hundred feet, will require major changes in harbors wherever they call throughout the world.

Another revolutionary change in

erization, which in the very recent past, has resulted in the alteration of existing terminals and the construction of new ones at many major harbors. Container ships, and their sealed vans of cargo, are moving merchandise across the oceans faster and more efficiently than ever before. Again, you as shipbuilders, have produced many of those container ships, some of which carry as many as 800 to 1,000 containers in a single load. The advent of containeristion

shipping has been that of contain-

The advent of containerization has brought with it several innovations, including the new containerhandling method known as LASH, which means "Lighter Aboard Ship."

The only two such vessels now in service are the "Acadia Forest" and the "Atlantic Forest." Both were built here in Japan. Eleven more are now under construction and by the end of next year, there will be a total of 20 LASH ships in operation. We are, at this moment, building facilities for them at the Port of Los Angeles, where these vessels will begin their calls in 1971.

Basically, the LASH concept includes a ship or mother vessel, a crane aboard the ship, and barges. Each mother vessel has three sets of barges, one on board the ship, another at the point of origination and a third at the destination. The ship's crane lifts each barge from the water at the stern high enough to clear the deck, then rolls forward with the barge to set it into the

hold of the vessel. Each barge holds from 300 to 500 tons of containerized cargo.

Since each LASH vessel costs about \$30 million and each of the barges—which might number as many as 73 for one ship—costs from \$20,000 to \$40,000, the investment in LASH is a sizable one.

This is only one of the many new concepts being introduced in ocean shipping. Each new concept requires special facilities at commercial ports throughout the world. These special accommodations also require major investments.

Farther ahead of us in the shipping industry—but possibly not too far ahead—are nuclear-powered ships and automated vessels, cargo hydrofoils—and undoubtedly, even more advanced means of oceanshipping which cannot even be forecast at this time.

Our short-range forecast at the Port of Los Angeles is requiring an investment in the next two years alone of \$23.5 million for the improvement of some of our present terminals and expansion of our cargo operations. We are now planning to issue \$25 million in revenue bonds to finance these major capital improvements.

One of the projects is the facility for the new LASH vessels I spoke of. Another is the expansion of our bulk-handling operations, and a third is the expansion of our East-West Container Terminal, where four major Japanese shipping firms headquarter their containerized cargo operations for Southern California. The consortium sharing the East-West facility are Japan Line, Yamashita-Shinnihon, Mitsui O.S.K., and "K" Line. At the same time, Showa and N.Y.K. lines are still another container terminal at our port.

Our bulk facilities handle mainly iron ore and coal—the essential ingredients for steel; and Japan buys most of it.

Your country's determination for

160 million tons of steel production by 1975, has ships bringing iron ore and coal from around the world. Today, Japan is the most important single factor in bulk and its movement across oceans is one of the reasons world trade is expanding at the rate of 10 to 12 per cent annually.

At the Port of Los Angeles, we expect our bulk-handling operations to expand from nearly 1.5 million tons annually to more than 3.5 million tons by 1974. And most of this expansion will be the result of your need for the ingredients of your steel industry.

The fact is, your country is our biggest—and I might say our best —customer. Nearly sixty per cent of the business at the Port of Los Angeles is our trade with Japan.

We know that while Japan is the second largest market for America (after Canada), the United States is Japan's number one world market. And the nucleus of that market is Los Angeles.

Out of the approximately \$17 billion worth of goods exported by Japan last year, about 35 per cent went to the United States, and about 30 per cent of your imports, or some \$5 billion worth, came from the United States. We were the biggest buyer of your steel, textiles, TV and radio sets, motor bikes and toys, and the second largest buver of your marine products and footwear. And your Datsuns and Tovotas are the only real competition Volkswagen has ever had in the compact and imported automobile business in our country.

On the other hand, Japan provided the best market for American leather and hides, soya beans, lumber, pulp, cotton and steel scrap, and the second best market for American wheat, corn and coking coal. In addition, Japan bought 15 per cent of all office machines and exported instruments by the United States. This tremendous volume of trade between our two countries shows every indication of further growth in the future. Thus, the United States is not only by far the biggest buyer of Japanese goods, but a very favorable trading partner with Japan.

Let us consider why all of this is taking place. Perhaps most significant as a measure of progress progress requiring change—is a brief reference to Gross National Product which, as you know, is the total value of all goods and services produced by a nation.

I have said that Japan is a leading maritime nation. Your country also stands high in Gross National Product, reflecting your own unprecedented progress in recent years.

In 1950, your GNP was \$10.9 billion, the seventh highest in the free world. Three years later, in 1953, it had increased to \$19 billion. This amounted to a little more than five per cent of the \$365 billion United States GNP in the same year. By 1960, Japan's Gross National Product had grown to almost \$41 billion, but it was still less than nine per cent of the U.S. GNP and vour trade with the United States showed a deficit of more than \$450 million. By 1961, Japan was still importing twice as much as she was exporting to the United States.

In the five-year period, $1960 \sim 1964$, you exported to the United States nearly \$7 billion worth of goods and imported about \$10 billion of American goods for a deficit of \$3 billion. However, during this period the Japanese people worked industriously to advance their economy at a rapid rate. Your GNP increased sharply as did the volume of your exports and imports.

The remarkable growth of your economy since 1964 is truly an economic miracle. By 1969 it raised Japan's GNP to \$136 billion. Today, your GNP is the third highest in the world, exceeded only by the United States (\$860 billion) and the Soviet Union (\$400 billion). What will 1970, 1971—and the next decade record?

Along with such progress there are problems—problems we share as nations of the world. Foremost is the problem of inflation, now considered a worldwide crisis. Figures developed by the United Nations, and reported in a recent issue of our magazine, U.S. News and World Report, show that inflation in the United States has increased over six per cent in the past twelve months. In Japan, however, it has gone up 8.3 per cent.

In practically every country in

the world, the pattern is much the same: spiraling wages and prices that now seem to defy control. Most experts believe that inflation will continue—but the rate is undetermined. Only with a vigorous effort in all of the major countries can inflation be contained within reasonable bounds.

A Swiss economist said recently that the greatest trouble for the world now is American inflation. He added: "If the United States, with its powerful economy and the world's leading currency cannot hold its rate of inflation below five per cent to six per cent annually, what hope is there for the rest of the world to restore stable conditions?"

Japan's heavy dependence on trade with the United States has made her economy subject to U.S. economic fluctuations. That fact, no doubt, partly explains some of Japan's dilemma. But the Japanese economy has for some time been treading an inflationary path, motivated by equipment investment, highway construction, increased housing construction and wage hikes. The vicious circle of prices and wages, both in the United States and Japan, has been continuing. We all hope that our nations, and the other leading countries of the world, will contain this fever of inflation, so that we may continue to move forward for the benefit of our citizens and the people of the world.

There has been some optimism reported recently in the press in our country. The Wall Street Journal is a newspaper published in the United States and considered by many to be our most authoritative business publication. Two weeks ago, an item on the appraisal of current trends in business and finance in the Wall Street Journal asked the question: "Can a minirecession stop a maxi-inflation?"

The answer given was yes. If everyone can be more patient than everyone normally is, the great inflation that began in earnest in the late 1960s can be stopped without the pain of a full-blown recession, says the Journal.

If productivity strides can be maintained in coming months, we may find ourselves closer to an inflation-free economy than now seems likely. But it will still be a drawn-out, frustrating process.

In any case, we must plan and be ready for the future we hope for and believe in. When inflation is contained, when the danger of protectionism and its trade barriers of imposed quotas or high tariffs on foreign goods is over, and when more and more countries step into the ring of free people and free trade, we in the shipping industry must be prepared to meet the challenges and responsibilities that such events will impose on us.

At the Port of Los Angeles, we have been-and are today-preparing for those things to come. Already a half-billion-dollar facility, and the largest port on America's Pacific Coast, the Port of Los Angeles is pursuing an ambitious long-range expansion plan which will double our present port capability in 20 to 30 years. Already, the dredging has begun, and when our project is completed, we will have moved 80 million cubic yards of earth to create a 1300-acre land mass in our Outer Harbor at a cost of more than \$200 million. We firmly believe we are going to need those additional acres of land and the terminals and facilities that will occupy them. Our project is, in many respects, similar to that of Kobe.

There are more than two billion people living on the rim of the Pacific Basin. Over the next 10 to 20 years, the developing countries will be needing many United States and California products, both for commerce and industrial development. In many ways, trading with California is almost like trading with a full-fledged country.

For example, if California were a nation it would be one of the economic giants of the world, according to figures recently released by the California State Department of Finance. California is the most populous state in the United States with some 20 million residents. This is almost the population of Canada, our neighboring country to the north.

Californians earn more and spend more than their counterparts in all but one country in the world. Our state's per capita income is nearly \$4,000. Among all the nations of the world, only oil-rich Kuwait, with a population of just 600,000, has a higher per capita income— \$4,060.

California's annual gross product is nearly \$100 billion—seventh among gross national products in the world. The Los Angeles area alone produces a gross product of more than \$48 billion, a total exceeded by only nine nations in the world. Our state carries on a foreign trade approximately equal to that of Denmark or Czechoslovakia —about \$6 billion.

Californians generate and use twice as much electrical power as the 720 million Chinese and three times as much as the 512 million residents of India. Only seven nations use more electrical energy than the State of California—the United States, Russia, Great Britain, West Germany, Canada, France and your country—Japan.

We own and drive 13 million automobiles, compared with less than a million cars driven by 236 million Russians. Only the United States itself has more passenger vehicles than California. West Germany has the next highest number with 11.3 million, followed by France and Great Britain with 10.5 million each; Canada, 5.7 million; and Japan, 3.9 million.

The undisputed capitol of this "nation" of California, if we may call it a nation in this sense, is Los Angeles. The Los Angeles region has had a mushrooming growth during the last half-century, and particularly in the past 25 years. Today, it can claim:

The greatest concentration of advanced-technology industries in the world.

The highest percentage of mathematicians, scientists, engineers and skilled technicians in the United States.

Pre-eminence as the West's principal industrial and corporate headquarters.

International fame as one of the greatest tourist centers in the nation.

And leadership as an international seaport and the country's principal fishing port.

We are not boasting by quoting these facts and figures. They only indicate that California is an ever-growing area for mutual trade with Japan. We are aware that we are plagued with most of the same problems that are plaguing the world's industrialized countries and major cities in this modern, overpopulated and polluted age. But we are making every effort possible to solve those vexing problems. Many of the solutions may demand a re-appraisal of our very way of life, just as growth, progress and the changing trends in commerce and the shipping industry have forced us to re-appraise our ports, our cargo-handling methods and even some of our business concepts.

Such re-appraisals have been constant in recent years at the Port of Los Angeles. We have dredged channels for your supertankers, we have built facilities for your container ships and bulk carriers and we have even signed trade proclamations with nine of your prefectures over the past two years, in what we consider a challenging new concept in pledging our continuing friendship and trade relations with the people of Japan.

We were the first port to enter into these historic trade proclamations. Today we have such agreements with the prefectures of Nagasaki, Hokkaido, Miyagi, Okayama, Wakayama, Shizuoka, Aichi, Osaka and the City of Yokohama.

These prefectures have agreed to ship via the Port of Los Angeles cargo generated in their areas and destined for the United States. And the Port of Los Angeles has agreed to further promote trade between these prefectures and the United States. Although morally rather than legally binding—these agreements are proving to be beneficial to the various Japanese communities as well as the many communities served by the Port of Los Angeles.

While we are separated by the widest of oceans, our two countries and our people are being brought closer and closer together. Not just by proclamations. Not just by new and faster methods of communication and transportation. But we have become bound together as friends by mutual trust and the common desire expressed in the

(Continued on Next Page Bottom)

The Legal Problems Posed by the Utilization of Barge-Carrying Vessels

Port Authority of Rouen

France

The Institute of International Law of Transport organised on 16th October, 1970, at Rouen, a day of study of the legal problems raised by barge-carrier vessels. (Refer to Ports and Harbors, December 1970 page 26, news captioned "Symposium in Rouen".)

This day is the first initiative of international dimension of the I.D.I.T., founded in Rouen in 1969. It was followed by over 150 persons including a good number from neighbouring countries.

Work was carried out under the patronage of the Transport Ministry and the Equipment and Housing Ministry, with in the chair M. RODIERE, Professor of Law and Economic Science at the Faculty of Paris, and Director of the Institute of Comparative Law at the University of Paris.

The congressmen were welcomed by M. VAUDOUR, President of the Regional Chamber of Commerce and Industry of Upper-Normandy, and President of the Institute. He was to thank in particular the Law and Economic Science Faculty of Rouen, the Port Authorities of Rouen and Le Havre, the Bar of the Rouen Court of Appeal, the Association of European Lawyers, the High School of Commerce of Rouen, who all contributed to the organisation of

theme of your magnificent Expo '70-the desire for "progress and harmony for mankind."

We believe world trade is the cornerstone for man's progress and harmony, for man's understanding of man. We at the Port of Los Angeles are continuing to build on that foundation. the talks.

Work started with an introduction by M. MASSON, Chief Engineer of the Ponts et Chaussées, Director of the CERLIC, on the technical aspect of barge-carrier vessels (the Journal de la Marine Marchande has already exposed the views of M. MASSON on this subject). Another introduction was by M. MERCADAL, Professor at the Faculty of Law and Economic Science of Rouen, dealing with the legal aspects.

In a remarkable explanatory statement, M. MERCADAL minutely and pertinently analysed the chronological order of the material operations in moving and transporting the barge, during the maritime and fluvial phases. Clearly exposing the legal problems which appear in parallel, he made it possible for the three commissions, maritime, fluvial and port, to commence their work under the best conditions.

M. POTIER, Director of the Chargeurs Réunis, was Chairman of the Maritime Commission, M. du PONTAVICE, Professor at the Faculty of Law of Paris, being Secretary.

M. J. SAIGOT, Director-General of the C.G.P.V.N., was Chairman of the Fluvial Committee, both M. PEYREFITTE and M. MERCA-DAL, Professors at the Faculty of Law of Roucn, being Secretaries.

The Port Commission had M. LAROCHE, General Director of the N.C.H.P., in the Chair, M. PEYRONNET, General Engineer of the Ponts et Chaussées, and M. HUE, Head of the Commercial Service of the Marseilles Port Authority, being secretaries.

When the three Commissions

and the Joint Committee had finished their work, M. RODIERE presented to the congressmen a very lively picture of the day. Giving the main points specially dealt with by the three Commissions, he tried not without humour to present the possible leading factors of new legislation applicable to bargecarrier vessels.

Here are the main points of M. RODIERE's statement:

I.—Conclusions of the Three Commissions

1 The Maritime Commission

The Maritime Commission studied two main questions:

- -the problem of the qualification of the barge;
- -the problem of the nature of the contract between the pusher and the barge-owner.

a) Qualification of the barge: For the Maritime Commission, as long as the barge is on the carriervessel there is nothing particular in the transport: the ordinary rules of sea carriage will apply.

The real problem appears from the moment when the barge is castoff from the mother-vessel until it is taken up again by this vessel.

What regime will prevail for the fluvial journey?

The reply appeared to be governed by the qualification given:

-for some, it is a vessel;

-for others, a craft;

-for even others, it is a floating container.

This last qualification was waived.

According to the Maritime Commission, the barge is not goods but a "floating machine".

Three assumptions must therefore be considered:

First: the barge belongs to the vessel: there is no doubt that in this case it becomes an accessory of the vessel;

Second: the barge belongs to the Owner but not to the vessel: it then becomes an auxiliary to the vessel;

Third: the barge belongs to the Shipper: the situation is then identical to a lorry on a car-ferry, it is no longer an accessory to the vessel.

The Maritime Commission also interested itself with the status of the barge when pushed on the river.

b) The nature of the contract passed between the pusher and the owner of the barge:

According to the Maritime Commission it is a contract for a supply of power, not a carriage contract.

2 The Fluvial Commission

The Fluvial Commission examined problems of private and trade laws.

A.-Problems of Private Law

1°) Third-party liability of barge owners.

The Fluvial Commission engaged its discussion on this question as not having to determine the nature of the contract between the owner of the barge and the pusher, nor to qualify the barge, it seemed that this question could be easily solved. It concluded that in the event of damage caused by an inert object, or whether faultfinding would be sought. Nevertheless the problems qualification could not be of neglected particularly in the event of the barge colliding with a vessel or with a lighter (Maritime collision or Fluvial collision according to the status of the barge);

 2°) The legal nature of relations between the pusher and the barge.

For the Fluvial Commission, in view of the present state of positive law, of jurisprudence and of doctrine, this contract should be dealt with as a carriage contract. But this solving presents serious drawbacks: the regime of pusher contracts is not uniform on the whole of the French interior network: on the Rhine in particular non-responsibility clauses are tolerated.

B.-Problems of Trade Law

Above all it is the question of the access of American barges to the French fluvial network.

If in fact the ruling issued from the Act of 22nd March 1941, and the Order in Council of 29th June 1942, is to be such in its interpretation that American barge-carrier vessels forsake French ports, then it is certain that it will be of no advantage neither to the owners, the ports nor to the French economy in general.

The Commission limited itself to state that it depended on the Government to adopt an attitude reconciling at the same time the interests of bargees and those of the French Economy.

3 The Port Commission

 1°) Status of the Barge

For the Port Commission, the barge is neither a vessel, nor a packing: it is a craft.

It would not be reasonable to give different qualifications to a barge according to whether it belongs to the owner of the vessel or to the shipper. From a fluvial point of view a barge must be considered as a craft; consequently the situation becomes identical to a car-ferry carrying a lorry: the lorry does not become a vessel because it crosses the Channel. No consideration is therefore to be given to the fact that for a certain time the barge has travelled on a vessel.

But the Port Commission comes to the conclusion that the status covering river craft in France does not fit; it is therefore necessary to create for barges a "sul generis" legal status.

2°) Fiscal matters

At what time will be collected the tonnage tax on the one hand, and the cargo tax on the other?

To solve this problem of taxation of the vessel and of the barges, the notion of services rendred by the port must be taken as the guiding principle.

a) Tonnage Tax

Three possibilities can be considered:

First: the vessel casts off barges outside of the limits of the port.

In such a case the vessel has no tonnage dues to pay.

Second: the vessel casts off barges whilst at anchor.

As the barge-carrier vessel is not making use of shore installations it would not be reasonable to expect the vessel to pay as muuch as if tied up to a berth. If the vessel must pay something it is only because she has entered port.

Third: If the vessel utilizes a quay.

The vessel makes use of the installations on the quai and must pay dues as an ordinary vessel.

b) Cargo dues

What is interesting here is to know whether the barge will be discharged at the sea port or at a river port.

If the barge is discharged at the

seaport, it will have to pay the tax due on the discharge of an ordinary vessel.

If the barge is discharged at a river port, having left the sea-port, then double payment of dues must be avoided. No doubt the barge will have benefitted of certain services in the sea-port, but such services appeared to the Port Commission to be secondary to those rendered by the fluvial port where the cargo is discharged.

The Port Commission also interested itself on two other matters: —the handling of barges;

-and the legal nature of towing barges inside the sea-port.

As for the handling of barges in the sea-port, this must be done by the port professionnals, therefore by the dockers.

Dealing with the legal nature of the towing of barges inside the seaport, the Port Commission came to this conclusion: it is a hire of services or a commercial hire, but it is not a carriage contract.

II.—Guiding Principles for new Legislation

The Commissions considered that it will be shortly necessary to ask Public Authority to solve the problems directly. But what course to be pursued to solve them? What will be the legal guide-line?

If all the legal difficulties raised by the utilisation of barge-carrier vessels are thoroughly examined it is noticed that in fact they are due to the insistence in wanting to qualify the barge in which the cargo is carried, whereas it is really the cargo which is of interest.

A barge-carrier vessel has not been conceived to carry barges, but to carry goods in the most economical manners.

Therefore one must not lead from the idea that the barge is an accessory to the vessel but that it is an accessory to the goods. Having thus shifted the problem and bearing directly in mind the goods, all the problems of private law can be solved and a certain number of common law problems can be avoided by the use of proper through bills of lading. It is not by qualifying the barge as a vessel or as a craft, or by qualifying the

(Continued on Next Page Bottom)

The 7th International Seminar on Port Management 4 . . . in The Netherlands 23.5

April 13—May 20, 1971

The Seventh International Seminar on Port Management in the Netherlands is to be held from 13th April-20th May, 1971 in Delft, Rotterdam and Amsterdam, according to an announcement dated 31st December 1970 by the NUFFIC (Netherlands Universities Foundation For International Co-operation, at Molenstraat 27, The Hague, The Netherlands).

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pushing contract as a carriage contract or a contract of hire that legal and social difficulties will be avoided.

Providing all our usual general notions are put aside, it should be possible to accept that what is important is not the envelope but the cargo inside.

Perhaps this idea will allow lawgivers to find a solution adapted to this new technique.

brillant This demonstration pleased and attracted many even if it did not convince all the listeners. Nevertheless it has the merit of putting problem in a new light. All the statements of facts and the minutes of the works of the Commissions will be published and put on sale at the beginning of December by the Institute's secretariat (1).

On the following morning, the congressmen who had chosen to stay on in Rouen visited the Rouen port installations.

After the success of this first meeting, the I.D.I.T. 'is considering organising a second one, at the beginning of may 1971, at Le Havre and concerning pushing. wab or

port)-3, rue, Jacques Le Lieur-76-, ROUEN-Tel. 71.33.50.

The programme offers a lecture period of two weeks-the first and the final week of the seminarwhich will take place in Delft as part of the training offered in the International Courses in Hydraulic and Sanitary Engineering.

During the remaining weeks visits will be made to the Ports of Amsterdam and Rotterdam (two weeks) and several days will be spent in visiting ports in France and in the United Kingdom. During the last two years participants will have the opportunity of visiting/ studying specific aspects of the port management situation in the Netherlands.

Participation in the seminar is limited to 25 persons who preferably should have a university background and several years of experience in a port management setting.

The full particulars of the Prospectus are reproduced below.

Introduction

The speeding up of the turnround of ships in ports has been referred to by the United Nations' Conference on Trade and Development as being a vital problem in relation to world trade. Foreign port administrators, many coming through the intermediary of the United Nations, have spent observation periods in Dutch ports. It is doubtful whether these studies have always yielded good results. A theoretical basis was lacking. It was 'easy to observe the techniques, but difficult to understand why they were applied. Also, it often proved difficult to adapt the knowledge acquired in the Netherlands to the situation in the observer's country.

For this reason, the need was felt to organise a special seminar. The International Technical Assistance Department of the Ministry of Foreign Affairs, which, served as an intermediary for study visits to the Dutch ports, took the initiative and established an international seminar, which handled individual requests. The Port Authorities of Amsterdam and Rotterdam which have frequently been approached by individual visitors, were pleased to give their full support to this idea.

The scientific and organisational responsibility for the seminar was given to the International Courses in Hydraulic and Sanitary Engineering at Delft. Eleven month post-graduate programmes in Hydraulic Engineering have been given by this institution, since 1957. This Institute has offered all-round training to its port and harbour engineers in its "tidal and coastal engineering branch". It is obvious that the same ground cannot be covered in a five-week seminar as in a full eleven-month course; therefore, the seminar programme does not include a discussion of structural and hydraulic aspects, but rather is confined to a thorough treatment of the organisational and managerial aspects of ports.

The previous six Seminars on Port Management have brought together 153 port administrators from 56 different countries. The discussions between them proved to be very valuable. Therefore, each participant is expected to deliver a short statement on the problems that are of special importance of his work in his country. Candidate-participants are requested to bring material with them which they would like to present at Delft.

Subjects Taught in the Seminar

- A. lecture parts: April 13th-17th, and May 10th-18th, 1971, and possibly a few other dates.
- 1. General survey of problems of transportation and of navigation. Development in type and size of ships. Electronic aids to port navigation.¹¹¹
- 2. Port Management. The international character of ports and port dependency on local political conditions. Coordination between ports. Diver-

e anto

⁽¹⁾ I.D.I.T. (=L'Institut du Droit

International des Transports = The Institute of International Law of Trans- 5

sity of port organisation, the port area, and port function. Statistics and reports as tools of management. Operation and financing of a port.

- 3. Lay-out of port areas. Master plan and design features of general and specialised berths. Road and railway connections of ports. Operational research as a tool in port management.
- Cargo Handling. Aids to quicker turn-round of ships. Causes of delay in output. Handling of roll-on roll-off and container cargoes.
- 5. Port labour, safety and health.
- B. programme of visits to and around the ports of Amsterdam and Rotterdam
- 1. Amsterdam: April 19th—24th, 1971

Introductory lectures on the ports, its history, organisation, operation, and future.

Visits with explanatory lectures on:

The harbour entrance at IJmuiden and the locks and new breakwaters.

Theory and practice in handling general cargo from various types of ships.

Handling special cargoes such as cereals, soft and hard wood, containers, etc.

Freezing warehouses. Ship repair yards. Fishing port. Harbour police and fire brigade.

2. Rotterdam: May 3rd—8th, 1971 Introductory lectures on the port, its history, organisation, operation, and future.

Visits with explanatory lectures on:

Harbour entrance at Hoek van Holland with the construction of new breakwaters.

Various sections of the port with large port extension at Europort. Stevedoring enterprises and warehouses. Port training institute. Handling of containers and of unit loads.

Mechanical trans-shipment and storage of general cargoes and cereals. Navigational radar stations.

C. study visits to a few ports outside the Netherlands: April 26th~May 1st, 1971 The organisers of the Inter-

national Seminar on Port Man-

MARCH 1971

agement consider it of great importance that participants become acquainted not only with the ports of Amsterdam and Rotterdam, but also with a number of other ports. For the 1971 Port Seminar preparations are being made to visit a few other ports in France and Great Britain.

D. individual studies: May 18th and 19th

Participants who are interested in special visits or business discussions might use the 18th and 19th of May for this purpose. As far as possible, the courses' management will make appointments for those participants who wish to have such individual discussions. For those participants who do not need those two days for this purpose, the course will arrange a visit to a port in the Northern part of the Netherlands on the 18th of May.

Application and Admission

The Seminar is open to government officials and other qualified candidates who in their daily activities have been confronted with problems of port management for a number of years. Preferably, candidates should have a university degree although in special cases experience can replace a university background. No simple formula can be given for the conditions of admission and for this reason applications will be considered individually. In order to enable the organisers to judge the applications properly, candidates should fill in the attached application form as completely and clearly as possible and return it to the Registrar. All candidates are required to submit a letter of recommendation from their employer. They are advised not to come to the Netherlands to attend the seminar before they have received notice of admission. In order to promote a close contact between the lecturers and participants and to stimulate discussions, the number of participants will be limited to 25.

Duration of the Seminar

The Seminar will being on Tuesday, April 13th, 1971 and close on Tuesday, May 18th, 1971. All participants are expected to arrive in the Netherlands on Monday, April 12th, 1971 and to take part in the entire programme of the seminar. Therefore, those participants who have other business to attend to in the Netherlands, are expected to arrive a few days prior to the Seminar, or to stay on after completion of the Seminar. All participants are advised to obtain visas for France and Great Britain before the Seminar begins.

Language

Since the course will be given in English, a good working knowledge of this language is a prerequisite.

Fees and Other Expenses

The participation fee is Dfl. 2200.-, which includes the tuition fee, travel costs for the fieldtrips within the context of the course, and the cost of lodging and breakfast during the period of the course. Participants are required to pay lunch and dinner expenses. Unfortunately, it cannot be guaranteed that hotels will always have single rooms available. The participants' fee should be paid on or before registration day. Those preferring to pay in advance are requested to have the participation fee paid to the account of NUFFIC at the Amsterdam-Rotterdam Bank, 14 Wagenstraat, Den Haag.

Fellowships

It is expected that a number of participants will be granted fellowships by their employers or by national or international fellowship granting organisations, such as the United Nations, the International Labour Organisation (I.L.O.), or the Organisation for Economic Development Co-operation and (O.E.C.D.). Candidates who wish to receive information about financial facilities provided by the Netherlands to candidates coming from developing countries should apply to the Netherlands Diplomatic Representative in their countries. Netherlands Government fellowships do not include an amount for travel expenses from the country of origin to the Netherlands and v.v.

Insurance

Participants are expected to insure themselves against health, (Continued on Next Page Bottom)

Singapore Moves Towards Containerisation

The Port of Singapore Authority

The Port of Singapore today serves an extensive region in South-East Asia and is fast becoming a pivotal transhipment springboard engulfing wider regions around the Republic, reaching well beyond the confines of South-East Asia. Its responsibility as a leading Port is one of continuous development and improvement to cater for the demands

accident, and third-party liability risks for the duration of the Seminar.

Application for Admission to the Seventh International Seminar on Port Management in The Netherlands

to be held at Delft/Rotterdam /Amsterdam

April 13th—May 18th, 1971

please use typewriter full name (underline family name): date and place of birth:

nationality:

address for correspondence:

degrees and qualifications obtained, with name of university and date of graduation:

(you are requested to give a survey of your educational background on a separate sheet)

knowledge of English (to be listed as fair, good, excellent):

who should be charged for your fees?:

please state on a separate sheet your occupation(s) after graduation (kind of work, place, duration) and explain—in about 100 words —why you wish to attend the course

place, date, and signature,

this application to be addressed to: The Registrar

Netherlands Universities Foundation for International Co-operation 27, Molenstraat

DEN HAAG, Netherlands

of its many port users. The Port today provides a maximum range of efficient services meeting the requirements of commerce, industry and transportation at the lowest costs.

To meet this challenge and to keep up with its present and future requirements, the Port is to-day developing a Container Port costing \$77.6 million which will provide adequate container terminal facilities to handle the anticipated container traffic through this region.

This PSA Container Port is being constructed with the confidence that with the upsurge of containerisation in the world, Singaport will with this project be ensured of a place in the ultimate global system of Container Ports. With construction well in progress, the Port forges ahead into the seventies with confidence to gain a new importance in international shipping as a major pivotal Port.

The PSA Container Port situated at the East Lagoon will have a terminal initially occupying 60 acres of land. The terminal will be comprised of two main Container Berths of length totalling 2,250 ft. with 44 ft. depth alongside at low water, a 700 ft. Cross-Berth with 34 ft. alongside at low water for feeder service vessels, one Freight Station at the Cross-Berth of 420 ft. by 150 ft., and two larger Freight Stations at the main Container Berths of 540 ft. by 150 ft. each. There will also be two weighbridges of 60-ton capacity and a 3rd of 40-ton capacity.

The terminal will cater for about 6,200 twenty-foot containers stacked 2-high at random and 106 twenty-foot refrigerated containers with plug-on facilities. The deck will also be capable of supporting 40-foot containers. The marshalling yard will cover an area of 26 acres. Initially, two single-lift 35 ton container cranes will be installed to operate along the main Container Berths.

The 700 ft. Cross-Berth originally due for completion at the end of 1970 has been completed 3 months



The Singapore Minister for Communications, Mr. Yong Nyuk Lin, centre, inspecting the completed Crossberth during a recent opening ceremony. Others in the picture are, from left, Mr. A. Vijiaratnam, Director-Engineering Services, Port of Singapore Authority; Mr. R. E. Aldred, Chairman, Taylor Woodrow (representing Taylor Woodrow-Dillingham, the main contractor); and on the right of the Minister, Mr. Howe Yoon Chong, Chairman, Port of Singapore Authority and Mr. J. G. Bevan, Project Manager, Taylor Woodrow. (Port of Singapore Authority)



An aerial view of the Container Port, showing the completed Feeder Service Berth (Berth 48) and work in progress on the 2,250 ft. of deepwater berths for Container Vessels. (Port of Singapore Authority)

ahead of schedule, while the first Container Berth together with its ancillary services will be completed at the end of 1971 when Singapore will be able to take on its first container vessel. The second Container Berth and the entire, initial phase of Singapore's Container Port will however, be ready towards the end of 1972.

The siting of this Container Port at the East Lagoon was because of its proximity to the city's trading area, and its easy access to the industrial sites at Jurong. Other major considerations were the ease with which ships could enter the Port and approach the berth, the availability of deep water, the adequate shelter against the monsoons, the adequate space in manoeuvring the largest size vessels expected to use this port and the

(Continued on Next Page Bottom)

MARCH 1971



The Port of Aden

by S. M. Khalifa, A.A.C.C.A., A.A.I.A.

General Manager

Aden Port Trust People's Democratic Republic of Yemen

The Port of Aden in the People's Democratic Republic of Yemen enjoys a most auspicious position at a cross-route between Europe, the Far East and Australia. Its location made it a focal point for ships sailing through the Suez Canal to bunker at Aden. The average net registered tonnage of ships entering the Port prior to the closure of the Suez Canal had reached 40,000,-000 tons per annum and the number of vessels was approximately 6,000 per annum.

However, the number of ships entering the harbour, after the closure of the Suez Canal, totalled to nearly 1,600 per annum and the average net registered tonnage is nearly 9,000,000 tons per annum. This drastic fall in tonnage and ships had a temporarily adverse effect on the finances of the Port.

The Management of the Port has, nevertheless, been busy studying

adequate back-up land for full container yard operations.

About 50 acres of foreshore had to be re-claimed to provide the additional land area required for the marshalling yard. Final dredging to 44 ft. at the main container wharves will be completed by the middle of 1971.

The original plan to accommodate 3 container ships along 2,250 ft. of deep water berths are now to be amended with an extension to 3,250 ft. and construction of the additional 1,000 feet should follow the completion of the first phase at the end of 1972.

Shipping through the Port continues to grow and during the first 9 months of 1970 registered an increase of 16% over the corresponding period in 1969. During this period there was also an increase of 56% in the number of containand planning for the improvement of the existing facilities so that bigger ships could be accommodated in the Port. During 1970 a number of big tankers have entered the Port e.g., "HAMILTON LOPES", and "HORTA BARBOSA". Incidentally, the deepening of the harbour from 36 feet to 40 feet has already commenced and the first stage of deepening the entrance channel is nearly completed.

In addition to these plans, the Port Authority had been thinking very seriously of the ever increasing changing trend in the Ports industry and had envisaged studying the possibilities of using the Aden Harbour for transhipment of containers to serve nearby regions after the Suez Canal reopens.

Although the Port of Aden has been subjected to wild remours after independence, yet the long standing tradition of the Port

ers handled through the Port by conventional means. At the PSA temporary Container Yard/Freight Station, close to 6,000 containers were handled during the 9 months period. This increase reflects the trend of this fast growing concept of unitisation in the inter-modal movement of cargo. Singapore is receiving its share of containers and it is expected that when this Container Port is fully operational it should be able to meet its demands as a major pivotal Container Port for the region.

The Port being forward-looking is now actively studying its requirements beyond 1972. The plan for the Port as she moves into the midseventies is therefore towards an even larger and better equipped Port to serve not only the region but international shipping calling at the Port as well. together with the application of new Management techniques have upkept to the better the standard and efficiency of the Port during the past two years.

Vessels calling for bunkering on discharging cargo are given firstclass services and despatched within the minimum turn-round time. Complaints, if any, are dealt with at the highest level possible and whenever time permits high rank officials of the Port board ships to improve the public relation of the Port with its customers.

It is worth mentioning here that independence has brought us one major advantage and that is the Aden Harbour has never remained closed, not even for one day during the past three years, due to strikes. This is a big achievement when compared with records of pre-independence days. However, it is admitted that a Port does not run without labour problems but the Port Authority manages to encircle and solve them without affecting the operation of the Port.

The Aden Harbour had a flourishing entrepot trade, which unfortunately had dwindled for reasons beyond our control. However, the Management is thinking seriously of introducing modern methods and more facilities to recover this aspect of trade.

It is interesting to observe that the Aden Harbour is still, as it has ever been, busy seeing dhows of different shapes and make plying between Aden and other Ports in the Red Sea, the Arabian Gulf and East Africa, as far away as Zanzibar. The Aden Port Management welcomes this type of crafts and has endeavoured to give better facilities to these crafts which have made structural revolution by fitting diesel engines to help their movements when their sail by wind fails. It is interesting in these days and era to see this type of crafts still using the high seas as they really indicate in the 20th century the glory of the Port of Aden, which used to be a focal point for trade for many countries around and across the high seas, by means of these crafts.

The Port of Aden used to welcome about 200,000 passengers yearly prior to the closure of the Suez Canal. It is a fact that every passenger then looked forward to shopping in Aden instead of any other Port while en route from Europe to Australia and the Far East and vice versa. Although the closure of the Suez Canal had brought the passenger traffic to a standstill, the Port Trust Management is now planning to improve further and foster such facilities as to make it much more attractive to passengers coming to Aden. Moreover, the General Manager, in Management's planned tour, visited different Shipping Companies with a view to answering questions on spot and, at the same time, pointing out the improved services of the Port and in particular canvassed for the return of passengers shipping to Aden.

Such attitudes on the part of the Management proved fruitful. One good example was the evolution of the jet-sea traffic which was embarked upon when in October, 1969, only a few hours before calling to another port, R.H.M.S. "Patris" diverted to Aden due to difficulties in air traffic rights in the other Port. As soon as news of the diversion were received, a highly powered Committee was immediately formed under the Chairmanship of a Minister and the membership of the General Manager of the Port, the Director of Immigration, Director of Civil Aviation, Director of Tourism, Commissioner of Police and Shipping Manager, and decisions were taken to waive all the normal requirements demanded from the passengers in the Port and the Airport. A welcoming Committee was appointed and the passengers entered the harbour under a welcoming musical band.

Fortunately, the arrival of "Patris" coincided with the Republic's Independence celebration. The whole city was colourfully decorated with flags and illuminations. The operation was successful, turn-round of passengers from Port to Airport and vice versa was meticulously arranged and as a result the owners of the vessel have decided on their own accord to come back next time to their usual place of call-the Port of Adento which they have frequently called

IHI Active In Kashima Harbor Construction

IHI Bulletin, Nov. 1970

All factors point to the fact that the Japanese industries will continue their buildup during the '70s. In the wake of this trend, development of coastal industrial zones as well as industrial ports and harbors is assuming greater importance. And in sea-front civil engineering projects of this nature, a wide scope of special vessels for port and harbor construction service ships as well as other equipment supplied by IHI are playing leading roles.

Spurred by such urgency, a mammoth industrial zone encompassing 3,300 hectares of land area was constructed on the seacoast of Kashima, Ibaragi Prefecture. Here, new plants are now mushrooming at a fast pace to reflect the indomitable vigors of the nation's 35 leading firm representing the iron and steel, petroleum refining, petrochemical, food manufacturing and other major industries.

Kashima Harbor was constructed in parallel with this industrial zone.

before the closure of the Suez Canal. The operation was repeated after eight months with the same success and zeal and about 3,500 passengers were transported between the Port and the Airport i.e. from the vessel to charactered aircrafts. The ship is expected to pay yet another visit sometime in 1971 and accordingly a warm welcome and further improved arrangements will be extended to the vessel and the passengers.

Another recent important development in the Port of Aden is the establishment of the Free Zone and the Free Market within the Port's vicinity. The areas allocated as an initial stage for the Free Zone are 525,420 square feet of open space and 162,000 square feet of covered space. Here import, export and industrial facilities are provided without restrictions or taxes. It is situated at the center of an expansive sand beach which is constantly hit by severe climatic conditions. Here, the mountainous waves of the Pacific break thunderingly on the beach, and there are only about 100 days a year of placid sea when the waves measure only one meter high. It is far from being a good natural harbor, and its construction was achieved in the face of indescribable hardships.

For example, a long, southside breakwater extending 3,900 meters into the sea and a 1,050-meter northside breakwater had to be built. To secure the waterways and berthing places, some 80 million cubic meters of earth were excavated to produce a harbor 8,050 meters long, 10 to 16 meters deep, and extending northward and southward in a Y-shaped configuration from the central waterway. As a result, Class 10 ships can enter the harbor with ease.

Minoru Ishida, manager of IHI's Ocean Development and Engineering Department, Technical Development Division, explains, "In projects of this nature, a multitude of diverse service ships are put to work. IHI's experience in the construction of service ships dates as far back as 1883.

"We have built a vast number of dredgers, floating cranes, rock crusher ships, pile driving vessels and others in the past, contributing immensely in the construction of the country's ports and harbors as well as in reclamation work.

"IHI's achievement, both in number and quality, not only assumes the top position in Japan but ranks among the foremost even in the world.

"The wide scope of service ships and other equipment supplied by IHI played a leading role in the construction of Kashima Harbor,"

Cargoes Being handled at Japanese Ports



he continues, and gives a description of these ships, as follows.

When constructing Kashima Harbor, land construction equipment such as excavators were first used to excavate inland earth down to sea level in order to develop the waterways and berthing places. In later stages of the project, pump dredgers were mainly used to dredge to the desired water depth.

While a large number of pump dredgers were mobilized for the excavation work, by far the most important role was played by the pump dredger "SANTIAGO" (main generators total 10,000 ps, diesel electric system), which IHI delivered to Mitsui Real Estate after a complete remodeling work that was virtually equivalent to a new construction job.

Meanwhile, when constructing the breakwaters, the supervisionsurvey ship "KUROSHIO," constructed by IHI for the Ministry of Transportation, cruised about actively. This ship was primarily used in surveying the condition of the mounds prior to caisson installation. It was so designed that, even with waves two meters high, its four spuds could be used to lift and secure the ship at a height of three meters above sea level to allow accurate measurement of the sea depth and pinpointing of the points of measurement.

On the other hand, as extra large caissons were used, they were floated and towed out to sea to their points of erection. At times, the caisson

Kashima Harbor Development Plan



draft was so deep that the caisson had to be embraced and lifted up from both sides to decrease the draft. For this, IHI developed a special type of floater for the Ministry of Transportation.

Currently engaged in waterway dredging is Japan's largest drag suction dredger "TOKUSHUN MARU No. 1" of 4,000 m³ hopper capacity (see IHI Bulletin Vol. 4, No. 41, Sept. issue) which IHI constructed for the Special Dredging Company.

The various special purpose ships and machinery supplied by IHI are proving their worth in other harbor construction and waterway dredging works.

For example, in the land reclamation project on Port Island in Kobe Harbor, IHI's bucket wheel type unloaders (BWU) and bucket wheel excavators (the same type ordered for land reclamation of Kashima Harbor) are being used extensively.

Two BWE's ordered by the Toyo Menka Co., Ltd., for delivery to the Asahi Kogyo Co., Ltd. are engaged on Awaji Island in digging earth and sand for use in a land reclamation project. The earth and sand dug by the BWE's are moved to the wharf by a conveyor system and taken by barges to Port Island being created in Kobe Port where two 2,500-ton-per-hour bucket wheel-type unloaders made by IHI are being used. Use of the BWE's makes digging of earth and sand, their transportation and unloading continuous.

To date, reportedly $600,000 \text{ m}^2$ of land area comprising 13% of the Port Island project have been reclaimed.

The land reclamation work of this project was initiated in 1966, and upon its completion in 1975, the total reclaimed land area will be $4,360,000 \text{ m}^2$. The site will become a world's leading "Offshore Harbor City," a superior example of ingeniously integrated land reclamation effort and a super-modernized harbor that will serve as a container terminal and fulfill other purposes as well.

IHI has developed earth moving systems combining the Bucket Wheel Type Unloader (BWU) and the Bucket Wheel Excavator (BWE) with conveyor lines for use in large scale land reclamation and readjustment works which are expected to become increasingly necessary henceforth. For such client needs, IHI is fully prepared to exert its unreserved efforts.

Apart from construction of seafront industrial zones and accompanying ports and harbors, various marine civil engineering works as exemplified by the Aomori-Hakoda-

(Continued on Next Page Bottom)

Statistics And Trade

Haven Amsterdam

(19th October, 1970)

Statistics, like Caesar's wife, are all things to all men. Happily figures recently released by the port's Havens en Handelsinrichtingen indicate that seagoing traffic moving through the port of Amsterdam in the first six months of 1970 has surpassed that of the same period last year by 16 per cent.

Culled from the records of Amsterdam's Municipal Office for Statistics which are based on data obtained from the declaration of seaport dues by shipowners or agents, the figures reflect a significant growth in sea-going traffic;

te Tunnel, Honshu-Shikoku Bridge and others, are certain to be undertaken increasingly in the years to come.

With regard to this situation, Mr. Ishida confides, "IHI has already blueprinted a number of ingenious equipment such as the telescopic type undersea observation vessel and IHI type mobile working station for marine civil engineering that is scheduled to be used in the bridge pier foundation work of the Honshu-Shikoku Bridge.

"By drawing on our firm technical experience gained through the construction of our special purpose vessels and by mobilizing our Steel Structure Division's marine structure designing techniques, our Transportation Machinery Division's material handling system techniques, we are capable of systems development envisioning the construction of an offshore airport such as the one being contemplated in Osaka Bay, which is considered as the one of the big projects for Osaka after EXPO '70 held there this year, or construction of an offshore power generating plant and remotecontrolled submersible drilling rig for deep-sea oil fields, which cannot be brushed aside as a mere dream," concludes Mr. Ishida, talking of the future.

and if this trend continues, seagoing traffic in 1970 should exceed 22 million tons, considerably higher than the 19.72 million tons recorded in 1969.

Interestingly, the municipal figures do not agree with those published by the Central Bureau for Statistics in The Hague, as those figures are based on data supplied by the customs authorities. Since that authority does not register arrival of goods until the goods reach their final destination, the CBS statistics do not reflect such a rise as yet.

The reason the municipal figures are so much higher is that they include the temporary storage of bulk cargoes—such as grain, ore and coal—and all these scored a record high in 1970. The total tonnage of sea-going cargo in the first six months of 1970 reached 10.5 million tons, compared to 9.02 million tons in the same period in 1969.

Much of this increase was reflected in ore and mineral oils which registered gains of 64 and 16 per cent respectively. The introduction of modern cargo handling techniques is seen in Amsterdam very well, with the result that while the total number of ships handled in the port fell slightly to 3,873, total capacity of the ships handled rose again (to 37.01 million cubic metres).

Port traffic based on trade

Amsterdam is first and foremost a trading city. Trade has made the city what it is today and deep in the heart of every true Amsterdammer lies the barterer, the trader who derives his pleasure as well as his means of living from exchange of goods. And this keen interest in trade is reflected in the port statistics as well.

Amsterdam got its start by trading in fish, beer and salt, during the 17th Century—the city's Golden Age—beaver fur, skins and hides, stockfish, pepper and nutmeg were vital to the city's commerce. Amsterdam still trades in stockfish today and there remains a Stockfish Guild Fund from which widows and orphans receive their sustenance.

The city trades in coffee and cocoa. The former commodity was first received in 1616 when the first coffee plant was brought from Moccha to Amsterdam. From the municipal botanical garden, Louis XIV got a cutting of a coffee tree, from there coffee went to Martinique and in 1767 Brazil got its first coffee plant: a descendant of the first Amsterdam planting.

Amsterdam's trading history ties in with the history of the city itself and there are thousands of fascinating histories which can be told of the inter-relationship of the two. In the next pages, we talk with the people from **Julius Hollander**, Amsterdam's leading hide importer. Its history and its current dealings are typical of Amsterdam itself.

Norway's most pleasant export is Thor Heyerdahl, therefore, we include a few words on him and his latest vessel "**Ra II**" which came to Amsterdam aboard a KNSM ship last month; presumably the 12 ton "Ra" and the 50 tons of sea-water which had soaked into the papyrus craft will be reflected in the port statistics for the second half of 1970.

Passengers, too, are important to Amsterdam and 450 of them, aboard the Swedish-America Line's **Kung**sholm recently paid Amsterdam a visit. They are only a part of the more than 125,000 passengers who pass through port facilities each year, but read on and learn why they brought along the world's oldest firing cannon.

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List of Japanese Ports

as of October 1, 1970 (Source: Bureau of Ports and Harbours, Ministry of Transport, Japan) Rearranged in English by Takuji Nakanii, Under Secretary, IAPH

1. SPECIALLY DESIGNATED MAJOR PORTS:

Governing Body (In brackets: Name of Prefecture in which the Name of Port Port is located) Muroran City Gov't (Hokkaido) Muroran Chiba Prefectural Gov't (Chiba) Chiba Tokyo Metropolitan Gov't (Tokyo) Tokyo Yokohama City Gov't (Kanagawa) Yokohama Kawasaki City Gov't (Kanagawa) Kawasaki Niigata Niigata Prefectural Gov't (Niigata) Shizuoka Prefectural Gov't (Shizuoka) Shimizu Nagoya Port Authority* (Aichi) Nagoya Yokkaichi Port Authority* (Mi'e) Yokkaichi Osaka City Gov't (Osaka Pref.) Osaka Osaka Prefectural Gov't (Osaka) Sakai-Sempoku Kobe City Gov't (Hyogo) Kobe Hyogo Prefectural Gov't (Hyogo) Himeii Wakayama-Shimotsu Wakayama Prefectural Gov't (Wakayama) Shimonoseki City Gov't (Yamaguchi) Shimonoseki Tokuyama-Kudamatsu Yamaguchi Prefectural Gov't (Yamaguchi) Kitakyushu Port Authority* Kitakyushu (Fukuoka)

-17 ports in total-

II. MAJOR PORTS:

Name of Port	Governing Body (In brackets: Name of Prefecture in which the Port is located)
Wakkanai	Wakkanai City Gov't (Hokkaido)
Tomakomai	Tomakomai Port Authority* (Hokkaido)
Hakodate	Hakodate City Gov't (Hokkaido)
Otaru	Otaru City Gov't (Hokkaido)
Kushiro	Kushiro City Gov't (Hokkaido)
Rumoe	Rumoe City Gov't (Hokkaido)
Tokachi	Hiro'o Town Gov't (Hokkaido)
Aomori	Aomori Prefectural Gov't (Aomori)
Hachinohe	Aomori Prefectural Gov't (Aomori)
Ohminato	Aomori Prefectural Gov't (Aomori)
Miyako	Iwate Prefectural Gov't (Iwate)
Ohfunato	Iwate Prefectural Gov't (Iwate)
Kamaishi	Iwate Prefectural Gov't (Iwate)
Shiogama	Miyagi Prefectural Gov't (Miyagi)
Ishinomaki	Miyagi Prefectural Gov't (Miyagi)
Akita	Akita Prefectural Gov't (Akita)
Funakawa	Akita Prefectural Gov't (Akita)
Sakata	Yamagata Prefectural Gov't (Yamagata)
Onahama	Fukushima Prefectural Gov't (Fukushima)
Hitachi	Ibaraki Prefectural Gov't (Ibaraki)
Kashima	Ibaraki Prefectural Gov't (Ibaraki)
Kisarazu	Chiba Prefectural Gov't (Chiba)
Yokosuka	Yokosuka City Gov't (Kanagawa)
Ryozu	Niigata Prefectural Gov't (Niigata)
Naoetsu	Niigata Prefectural Gov't (Niigata)
Fushiki-Toyama	Toyama Prefectural Gov't (Toyama)
Nanao	Ishikawa Prefectural Gov't (Ishikawa)
Kanazawa	Ishikawa Prefectural Gov't (Ishikawa)

Tsuruga Tagonoura Kinu'ura Mikawa Owase Maizuru Han'nan Amagasaki-Nishinomiya-Ashiya Higashi-Harima Sakai-ko Hamada Saigo Uno Mizushima Okayama Fukuyama Onomichi-Itosaki Hiroshima Kure Iwakuni Mitajiri Ube Onoda Komatsujima Tachibana Takamatsu Sakaide Matsuyama Uwajima Niihama Imabari Yawata'hama Toh'yo Kochi Susaki Hakata Kanda Karatsu Imari Nagasaki Izuhara Gohnoura Fukue Sasebo Misumi Yatsushiro Minamata Oita Tsukumi Beppu Saheki

Fukui Prefectural Gov't (Fukui) Shizuoka Prefectural Gov't (Shizuoka) Aichi Prefectural Gov't (Aichi) Aichi Prefectural Gov't (Aichi) Mi'e Prefectural Gov't (Mi'e) Kyoto Prefectural Gov't (Kyoto) Osaka Prefectural Gov't (Osaka) Hyogo Prefectural Gov't (Hyogo) Hyogo Prefectural Gov't (Hyogo) Sakai-ko Port Authority* (Tottori & Shimane) Shimane Prefectural Gov't (Shimane) Shimane Prefectural Gov't (Shimane) Okayama Prefectural Gov't (Okayama) Okayama Prefectural Gov't (Okayama) Okayama Prefectural Gov't (Okayama) Hiroshima Prefectural Gov't (Hiroshima) Hiroshima Prefectural Gov't (Hiroshima) Hiroshima Prefectural Gov't (Hiroshima) Kure City Gov't (Hiroshima) Yamaguchi Prefectural Gov't (Yamaguchi) Yamaguchi Prefectural Gov't (Yamaguchi) Yamaguchi Prefectural Gov't (Yamaguchi) Yamaguchi Prefectural Gov't (Yamaguchi) Tokushima Prefectural Gov't (Tokushima) Tokushima Prefectural Gov't (Tokushima) Kagawa Prefectural Gov't (Kagawa) Sakaide City Gov't (Kagawa) E'hime Prefectural Gov't (E'hime) E'hime Prefectural Gov't (E'hime) Niihama Port Authority** (E'hime) Imabari City Gov't (E'hime) Yawata'hama City Gov't (E'hime) E'hime Prefectural Gov't (E'hime) Kochi Prefectural Gov't (Kochi) Kochi Prefectural Gov't (Kochi) Fukuoka City Gov't (Fukuoka Pref.) Fukuoka Prefectural Gov't (Fukuoka Pref.) Saga Prefectural Gov't (Saga) Saga Prefectural Gov't (Saga) Nagasaki Prefectural Gov't (Nagasaki) Nagasaki Prefectural Gov't (Nagasaki) Nagasaki Prefectural Gov't (Nagasaki) Nagasaki Prefectural Gov't (Nagasaki) Sasebo City Gov't (Nagasaki) Kumamoto Prefectural Gov't (Kumamoto) Kumamoto Prefectural Gov't (Kumamoto) Kumamoto Prefectural Gov't (Kumamoto) Oita Prefectural Gov't (Oita) Oita Prefectural Gov't (Oita) Oita Prefectural Gov't (Oita) Oita Prefectural Gov't (Oita)

PORTS and HARBORS

Hosojima Aburatsubo Kagoshima

Nishino'omote

Naze

Shibushi

Sendai

Miyazaki Prefectural Gov't (Miyazaki) Miyazaki Prefectural Gov't (Miyazaki) Kagoshima Prefectural Gov't (Kagoshima) -86 ports in total-

III. LOCAL PORTS:

Number	of Ports	Name	of Prefecture	in which the
(Names	omitted)	Ports	are located	
	28		Hokkaido	
	8		Aomori	
	2		Iwate	
	6		Miyagi	
	3		Akita	
	2		Yamagata	
	6		Fukushima	
	6		Ibaraki	
	6		Chiba	
	15 .		Tokyo	
	4		Kanagawa	
	8		Niigata	
	1		Toyama	
	9		Ishikawa	
	4		Fukui	
	13		Shizuoka	
	12		Aichi	
	19		Mi'e	
	4		Shiga	
	3		Kyoto	
	4		Osaka	
	25		Hyogo	
	14		Wakayama	
	4		Tottori	
	75		Shimane	
	47		Okavama	
	40		Hiroshima	
	20		Yamaguchi	
	10		Tokushima	
-	66		Kagawa	
	47		E'hime	
	17		Kochi	
	4		Fukuoka	
	7		Saga	
	65		Nagasaki	
	48		Kumamoto	
	19		Oita	
	12		Miyazaki	
	146		Kagoshima	
	9	29 nort	s in total_	
	—e		o m total	

Remarks:

The classification of "Major Ports" and "Local Ports" is in compliance with Paragraph 2, Article 2 of Port and Harbor Law of Japan, and that of "Specially Designated Major Ports" with Paragraph 2, Article 42 of the same Law and with Article 1-3 of Enforcement Regulations for Port and Harbor Law. Besides the above-categorized there are a great many small coastal ports, eg. fishery, shelter, etc., which are not opened to foreign trade.

Notes *: Port Authority based on Local Autonomy Law of Japan.

**: Port Authority based on Port and Harbor Law.

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Orbiter Probe

IAPH News:

Statement by Mr. Ben E. Nutter

Chairman, IAPH Committee on Containerization (Executive Director, Port of Oakland, Calif., U.S.A.)

The IAPH Committee on Containerization held a committee meeting in Oakland, California to discuss committee activities. It was concluded that coordinating the dissemination of information for each port having container facilitieseither in operation, under construction or planned—could be helpful to other ports now in the planning stage for container terminal facilities as well as ports having existing container terminal facilities. Ports in the planning stage for new container facilities would know of these developments, and in this way a port could obtain more detailed information by contacting that port directly to aid in their planning.

A questionnaire form was developed and copies sent to all member ports of IAPH requesting they supply the requested information and submit directly to Ports and Harbors for publication.

Following the publication of the information for container facilities now in operation, under construction or being planned at the time of the initial request, we request all ports to submit information direct to Ports and Harbors as plans are finalized for new container terminal facilities. It is anticipated that at annual intervals, all the information previously submitted will be updated and published.

On behalf of the Containerization Committee of IAPH, I thank the ports involved for supplying the information on their container facilities. We are hopeful the publication of this information will be of value to all ports. This is a new



Mr. Ben E. Nutter

endeavor and may require modification to make it fully effective and useful. If you have any suggestions, I would appreciate receiving them.

ICC 23rd Congress

Paris:—The XXIIIrd biennial Congress of the ICC (International Chamber of Commerce) will be held in Vienna, Austria from 17th to 24th April 1971.

New Tonnage Record

Baltimore, Md., December 23:— The Port of Baltimore set a new tonnage record during 1970, as projected totals for the first year of the new decade surpassed all previous annual figures in the port's history, a study by the Maryland Port Authority revealed today.

In announcing the 1970 totals, Joseph L. Stanton, Executive Director of the state agency, noted that the projected figure exceeded the previous record—set 13 years ago by more than two million tons.

According to estimates by the

Port Authority's Statistical Department, 33,152,000 tons of foreign commerce will have been loaded and discharged in Baltimore by the end of the current calendar year. The old record was set in 1957, when 31 million tons were handled.

The 1970 figure also represents a dramatic increase over total foreign commerce tonnage of 26,150,455 recorded last year in the port of Baltimore.

Value of the export and import shipments was tentatively set at \$2,600,000,000, compared to the 1969 total of \$1,939,070,254.

The record tonnages were carried on some 4,670 vessels, 3,200 of which gained access to the port via the Chesapeake & Delaware Canal. (Maryland Port Authority News Release)

Port Handbook

Baltimore, Md., January 19:---The Maryland Port Authority today announced publication of its 1971-72 Port of Baltimore Handbook, a 128-page volume describing in full detail the ports of the state.

Designed to be used as a sales tool in attracting additional waterborne commerce to Maryland harbors, the Handbook is being distributed to shipping interests and international business houses throughout the world. It will serve as the port of Baltimore encyclopedia during the next 24 months.

The current issue is the seventh MPA printing of the biennial publication. A total of 15,000 copies have been prepared for distribution.

The Port Handbook is divided into four sections: background and description of the state's maritime commerce; statistical data; directory of services and advertising. Advertisements purchased by the private business enterprises in and around the Port of Baltimore made this publication self-supporting.

Copies of the new Port of Baltimore Handbook are available on request from the MPA Communications Department; Pier 2, Pratt Street; Baltimore, Maryland 21202 (Telephone: 383-5721). (Maryland Port Authority News Release) Congratulations to the International Association of Ports and Harbors for taking a leadership role in assisting new, and developing ports throughout the world, from the Port of Oakland "The Shipping Machine."



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New Rescue Boat

Boston, Mass., Dec. 29:—Construction of a new and unique 78foot fire/rescue boat for use in Boston Harbor and adjacent waters has been authorized by the Massachusetts Port Authority (MPA).

The \$477,190 craft, which will augment the City of Boston fireboats, is scheduled for delivery in November 1971 and will be paid for completely by the Port Authority, at no cost to the City of Boston or other municipality. The operating expense of the boat, including the salaries of its five man crew, will also be completely paid for by Massport. The boat will be named the F. V. Howard W. Fitzpatrick, after the late Sheriff of Middlesex County who served as a member of the MPA from 1964 until his death in February 1970.

Massport Chairman John Larkin Thompson described the new steelhulled craft as being "essential for the maximum protection of lives and property along the Boston, Chelsea, Everett, Winthrop, Quincy and other communities as well as in the harbor itself".

The design of the diesel-powered boat incorporates several features which will give it the flexibility and capability to perform a wide variety of fire/rescue operations, including:

Remotely controlled, dual nozzles located at the bow just above the waterline to help extinguish under-pier chemical or conventional fires:

A hydraulically-powered 54-foot boom with a 45-foot reach to fight fires either in ship holds or on piers;

A water curtain, or sprinkler washdown system, to protect the vessel and crew from intense heat;

A 6,000 gallon per minute pumping capacity, the largest capacity and most complete foam system of any fireboat in the harbor.

Its speed—up to 15 miles per hour—shallow draft design, complete all-weather navigation, communications and rescue equipment, combined with SCUBA (Self Contained Underwater Breathing Apparatus) equipment and platform, make it an extremely valuable craft for nearly all harbor rescue requirements. There are also provisions for 10, 15-man life rafts, resuscitator, and a 13 foot Boston Whaler tender.

The boat was designed by John W. Gilbert Associates, Inc., marine architects of Commercial Wharf, Boston, and it will be constructed by the Grafton Boat Co., Inc., Grafton, Illinois, builders of special purpose and other utility craft. Grafton was awarded the contract as low bidder. (News from Massport)

Season's Record

Duluth, Minn., December 30:— Paced by a record-setting year in grain shipping, the Port of Duluth-Superior established a season's record for export-import cargo in 1970, the Seaway Port Authority of Duluth announced Saturday.

International cargoes totaled 4,709,365 tons, the Port Authority reported, breaking the port's previous record of 4.2 million tons set in 1966.

On a comparative basis, the 1970 tonnage outstripped 1969 by 68.8 per cent. The 1969 total was 2,789,-560 tons.

This was Duluth-Superior's 12th year as a world port and, since the 1959 opening of the St. Lawrence Seaway, the port now has moved 36.7 million tons of export-import cargo.

A major increase in grain exports—triggered by a 38-million bushel sale of government-owned export barley in the spring and a flurry of fall activity in exports of wheat, corn and oats—accounted primarily for the big tonnage year.

Grain shipments for the season, including domestic movements to other U.S. Great Lakes ports, were at an all-time high of 230,032,000 bushels, or 6.06 million tons. This included 4.1 million tons moving in export, another port record.

The old record for grain exports was 4.05 million tons, set in 1966, and the 1969 total was 2.4 million. Thus, grain exports for 1970 were up by 84.7 per cent compared with the previous year.

Included in the grain exports were 2,933,360 tons carried to St. Lawrence River ports for transhipment overseas (an increase of 129

per cent over the 1,279,086 tons moved in 1969) and 1,166,858 tons shipped on oceangoing vessels directly overseas (an increase of 24 per cent over the 940,690 tons in 1969).

Indicative of the late-season spurt in grain exports, the total number of oceangoing ships to call at the port through August was 81, compared with 100 for the same period a year ago. By season's end, the port had handled 185 oceangoing ships, compared with 172 in 1969.

In other commodity areas, tonnage increases were recorded in exports of grain by-products (up 2.7 per cent, from 237,922 tons to 244,300) and miscellaneous bulk products (up 45.1 per cent, from 123,904 tons to 179,831) and in grain imports (up 93.7 per cent, from 14,160 tons to 27,432).

All exports were up 70.2 per cent (from 2,716,666 tons to 4,626,206) and all imports were up 14 per cent (from 72,894 tons to 83,159).

Decreases were recorded in exports of general cargo (down 26.9 per cent, from 98,718 tons to 72,-183) and bulk liquids (down 18.4 per cent, from 36,346 tons to 29,-674) and in general cargo imports (down 5.2 per cent, from 58,734 tons to 55,727).

Final figures for domestic cargo movements have not yet been compiled, but preliminary statistics indicate the port's combined domestic-international traffic for 1970 will exceed 40 million tons for the second year in a row. (Seaway Port Authority of Duluth)

Public Container Terminal

Long Beach, Calif.:—Transocean Gateway Corporation, which operates the only public container terminal on the Pacific Coast at Pier J in the Port of Long Beach, is being assigned Berth 245 adjacent to its present facilities at Berths 246 and 247 to bring total terminal acreage to 32 acres.

In addition, the Long Beach Harbor Department will construct a 60,000 square foot addition to Transocean's container freight station on Berth 246.

Under terms of an agreement approved October 19 by the Long Beach Board of Harbor Commissioners and effective January 1, 1971, Transocean is exercising its option for preferential assignment to the 13.3 acres of Berth 245, including 700 feet or wharf. This brings their total wharf length to 2200 feet.

L. W. deNeveu, Transocean's Director of Marketing and Planning, said that his firm has ordered a second crane for delivery this fall. Transocean will also provide the engineering design work for the freight terminal, which is expected to cost approximately \$600,000.

Construction of the terminal is scheduled to start by the time that Transocean begins operating out of Berth 245 the first of the year, Thomas J. Thorley, general manager of the Port, indicated. Orient Oevrseas Container Line is the present tenant of the Transocean container terminal. (Port of Long Beach)

Crescent Terminals, Inc.

Long Beach, Calif.:—Crescent Terminals, Inc. has just signed a ten-year lease of Berths 206 and 207, Pier F, with the Harbor Department, involving 200,000 square feet of transit sheds, nearly 15 acres of paved open area and 1,200-feet of wharf.

Announcement of the agreement, which is effective immediately, was made jointly by Crescent president John A. Hyland and Thomas J. Thorley, General Manager for The Port of Long Beach.

The facility, described as the newest and most modern in the port, will accommodate the eightship fleet of Tokyo Kaiun Kaisha of Tokyo, which is represented on the Pacific Coast by Fritz Maritime Agencies.

Toko is a leading steel carrier between Japan and The Port of Long Beach, and plans on berthing 100 ships at the facility during the coming fiscal year. (Port of Long Beach)

Sunkist Lemons Exported

Long Beach, Calif.:—Just six months after opening its Far Eastern export terminal at Berth 1, Pier A. Sunkist has shipped two

million crates of oranges, lemons and grapefruit from the Port of Long Beach to Kobe, Yokohama and Hong Kong, representing a delivered value of some \$10-million.

On hand to mark the occasion of the two-millionth crate being loaded aboard the "Golar Tryg" were T. L. Dukatz, asst. export sales manager with Sunkist, and K. Erik Baur, vice-president and general manager of Salen-Interocean, Inc., shipping agent for the packer. Salen Reefer Services operate a fleet of 135 refrigerated vessels worldwide, with weekly departures here.

Representing The Port of Long Beach were H. E. Ridings, Jr., Harbor Commission president, and Harbor general manager Thomas J. Thorley. Miss Harbor, Candy Hiroto, was given the honor of labeling the landmark shipment.

Dukatz noted that with each crate weighing some 40 pounds and containing an average citrus count of over 100, the first half of 1970 saw one-fifth of a billion pieces of fruit shipped to the Orient from Southern California Sunkist growers. He added that Orientals are great consumers of fruit all over the world, with nearly 20 countries shipping oranges to Japan.

The Norwegian-flag vessel is taking on a typical load of 108,000 crates of oranges and lemons before departing on the Westward voyage.

Sunkist also exports citrus fruit to Tahiti, Honolulu, New Zealand, Australia, Okinawa, Singapore and Taiwan. The Singapore sailing requires 30 days at sea, but the fruit suffers less than three percent spoilage, thanks to modern refrigeration and handling techniques, Dukatz added.

Last year's 4.4 million Sunkist export total is expected to near the 5 million level in 1970, he predicted. (Port of Long Beach News)

Car Import

New Orleans, La., January 25, 1971:—A \$2,000,000 terminal facility for handling automobiles imported through the Port of New Orleans will be placed in operation this month. The facility includes the former Ford Motor Company plant in St. Bernard parish.

This announcement was made by E. S. Reed, executive port director and general manager; L. B. Wilkes, chief operating officer of Southern Service Company, terminal operator, and St. Bernard Parish sheriff Jack Rowley.

Wilkes said his company has renovated the Ford plant and is adding other planned improvements, including wharves and storage areas. The terminal is expected to handle about 70,000 automobiles in 1971, mainly from continental Europe, Japan and the United Kingdom, with a projected capacity of more than 100,000 units annually, Wilkes said.

The port in 1968 handled 59,900 imported cars. In 1969, the total amounted to 68,866; and in the first nine months of 1970 a total of 56,471 units were accommodated.

Reed said there is great need in the port for the new terminal to meet growing importation of automobiles in this area. He praised Service Company for investing its private funds in the enterprise, and expressed appreciation to the St. Bernard parish officials for their "splendid cooperation and assistance in helping bring this important port facility to fruition."

Reed said the new terminal will enable the port to handle all foreseeable demands for storage, servicing and shipment of imported automobiles. He said the terminal is a good example of a private enterprise project that carries no port funds, but that greatly benefits port operations and the state's economy. (Port of New Orleans)

Public Bulk Terminal

New Orleans, La., January 14:— Again the Public Bulk Terminal at the Port of New Orleans has shown a sharp increase in yearly tonnage handled.

According to port statistics, the versatile bulk cargo facility handled 1,797,059 tons in 1970, a 51 per cent increase over 1969. The average annual per cent growth since the terminal opened in 1961 is 79.5 percent, making this one of the fastest growing port facilities anywhere.

The Americas

Bulk cargoes such as coke, sugar, coal, manganese, alumina, and many others, can be transferred to the terminal between ships, barges, rail cars, trucks and open or closed storage areas. The Public Bulk Terminal is located on the port's Gulf Seaway near its junction with the Industrial Canal. This area had been marked as the major locality of the port's 30-year, \$400 million Centroport re-development plan.

Among vessels and vehicles whose cargo was unloaded at the Public Bulk Terminal were 114 ships, 145 barges and 3,000 rail cars. Cargo was loaded aboard 102 ships, 552 barges and 4,435 rail cars.

Among new cargoes handled at the terminal in 1970 was salt shipped to New Orleans for use by Carey Salt Company, which last year leased a facility adjacent to the Public Bulk Terminal and converted it to a salt processing plant. Port authorities are encouraging other industries to set up operations in the port and to make use of port facilities such as the Public Bulk Terminal. (Port of New Orleans)

1970, A Good Year

New Orleans, La., Jan. 4:—It's been a good year for the Port of New Orleans.

Tonnage of cargo moving over facilities increased by about 15 percent. Work on the new France Road container terminal is well underway, using State funds provided in 1969. The new executive port director and general manager, E. S. Reed, is getting into full stride on a number of important programs. The Interstate Commerce Commission has approved a change in railroad rates that puts New Orleans and other Louisiana ports in a vastly improved competitive position among other Gulf and Atlantic ports. The first two LASH (lighter aboard ship) vessels in operation anywhere in the world established regular sailings from here. New trade development offices were opened in Brussels, London and Panama. Port and city efforts resulted in plans for the construction of a new flour mill on the Industrial Canal.

All this puts the port well on the way-for the time being-into its 30-year CENTROPORT redevelopment plan. Getting the \$400 million necessary to finance the enormous project will not be easy, however, and despite the pluses listed above, 1970 was not entirely a bed of roses for the port. When the Louisiana public rejected 53 proposed constitutional amendments this year, included in the lot were two port proposals-one dealing with the sale and leasing of port properties, and another dealing with the establishment of port industrial districts.

Getting back to statistics, U.S. Department of Commerce figures for the entire port show 21.5 million tons, a 15 percent increase over 1969. This is based on actual nine months and a projected three months period for 1970.

The first berth of the France Road container terminal is expected to be ready for use by late 1971. More berths of the projected nineberth facility are already well along in the planning and site preparation stages.

Work continues on additions to the Public Bulk Terminal and on improvements to existing wharves. New port tariff rates put into effect this year will help this work to continue. Reconstruction has always been of major importance to this, one of the oldest ports in the country and the nation's number two port. (Port of New Orleans)

NDT Conference

New Orleans, La., December 29: —Allen V. Junkin, Far East Trade Director for the Port of New Orleans, has been named conference chairman for the upcoming Third Far Eastern International Transportation Conference.

The conference is sponsored by the Yokohama-Tokyo Chapter of the National Defense Transportation Association and will be held at the Hilton Hotel in Tokyo April 18-21.

This is the only conference of its kind in Asia. Speakers and some 300 delegates will come from the United States, Japan and key Far Eastern countries. They represent

industrial, commercial and military transportation interests in these areas.

"Our idea for this coming conference is to stress the relationship between the Far East and the United States," said Junkin. "Our coverage will not go beyond this sphere. We feel this will provide an element of expertise to this special regional conference."

Tentative plans for the four-day meeting include the following topics and panels:

International Symposium—Trade trends between the United States and the Far East.

Protectionism Panel—Effect of nationalism and economic protectionism on trade patterns.

Personal Property Panel—Trends associated with the transient world society.

Intermodal Panel—Reactions in the Far East to rail, motor, air, water transportation systems in the intermodal era.

Land, Sea and Air Panel—Importance of these transportation systems to Southeast Asia.

Shippers' Symposium—Viewpoint of shippers on future transportation trends.

Col. Robert H. Campbell of the 65th Military Airlift Support Group, Yokota Air Base, is conference program chairman.

There will also be various exhibits, a separate ladies' program, and social activities such as luncheons, a cocktail party and a banquet.

"We expect action to be born from the meeting," Junkin continued. "This is not just a speaker's forum. We plan to issue communiques to the press on conclusions and ideas put forth by the panel." Junkin has headed the Port of New Orleans Far East Trade Development office in Tokyo since 1967. He is a native of St. Paul, Minnesota, and prior to his transfer to Japan, he served in New Orleans' trade development office in Chicago.

Junkin's participation as chairman for the third conference is another landmark in the close trade relationship between New Orleans and the Far East. At last year's conference, one of the principal speakers was Robert R. Barkerding Sr., then executive director of the Port of New Orleans. Among world nations, Japan is the port's number one customer in value and tonnage of both exports and imports. (Port of New Orleans)

List of Ship Services

New York, N.Y., Jan. 19:—The 1971 edition of the Port of New York Steamship Services Directory has been issued by The Port of New York Authority for use by importers, exporters, freight forwarders and other business organizations and government agencies.

The 16-page Directory, published annually since 1955, lists the names, addresses, telephone numbers and pier locations of 184 steamship lines and their agents offering regularly scheduled services from the New Jersey-New York port on international, intercoastal and coastwide routes. It also contains a listing of some 300 world ports in 130 countries and an index, by country, of steamship services available from the Port of New York to those ports.

Copies of the new Directory may be obtained without charge from the Port Promotion Division, The Port of New York Authority, 111 Eighth Avenue, New York, New York 10011. (News from The Port of New York Authority)

More Rail Facilities

New York, N.Y., Jan. 14:—The rail freight handling facilities at the Brooklyn-Port Authority Marine Terminal will be expanded to speed the dockside movement of exportimport cargo, according to an announcement today by James C. Kellogg III, Chairman of The Port of New York Authority, following the monthly Board meeting of the bi-state agency.

The expanded rail facilities will consist of a 220-foot-long and 24foot-wide covered steel platform at rail car elevation, to be built in the upland area of Piers 4 and 5, now leased to Universal Terminal & Stevedoring Corp. The new platform will permit more efficient use of existing New York Dock Railway tracks at the site. The car-floor height of the platform will enable mechanical equipment to enter the cars for fast, uninterrupted loading and unloading operations in all kinds of weather.

This improved rail facility, to cost an estimated \$133,000, will be served by the New York Dock Railway carfloat station on the north side of Pier 4. It will complement the rail freight handling service that has been available on New York Dock Railway trackage at Pier 11 for the past 18 months. Last year 440 rail cars carrying some 13,000 tons of oceanborne cargo were handled at Pier 11. (News from The Port of New York Authority)

Annual Report

Norfolk, Va., December, 7:— The first Foreign Trade Annual Report for the Ports of Virginia has been published by the Virginia Port Authority. Reflected in the report is Virginia's leadership in World Trade.

Highlighted in the Annual Report are trade statistics covering bulk, general, export and import cargo, as well as a description of advantages that place the Ports of Virginia in a favorable position to meet shipping needs.

An impressive increase in foreign waterborne commerce handled at the Ports of Virginia during the year 1969 was indicative of Virginia's trade importance. Total trade amounted to over 48.6 million tons during the year, an increase of 13.8 percent over the 42.7 million tons handled the previous year. Virginia's 1969 total amounted to approximately 10 percent of the nation's foreign trade for this period.

Bulk cargo increased by 14.1 percent during 1969. General cargo, which includes goods of high value and produces the most economic benefit to the region, moved ahead by a substantial 9.3 percent.

The container revolution found the Port of Hampton Roads ready to meet the growing demand for specialized container equipment and facilities. During 1969, the Port's second full year of handling container traffic by specialized facilities, 41,790 containers were handled, compared to 23,485 container handlings during 1968, a 78 percent increase.

The 1970 Foreign Trade Annual Report for the Ports of Virginia is available upon request from the Virginia Port Authority. (Virginia Port Authority)

Potash in Vans

Oakland, Calif., January 14:— A bulk shipment of 138 tons of potash transported from the Port of Oakland recently bound for Hawaii normally would have aroused little curiosity.

But the fact that the bulk product was moved for the first time in containers made the shipment revolutionary.

Traditionally, bulk commodities like potash have been considered economical for shipment only in extremely large quantities and have been transported primarily by barges or bulk ships.

But a new business along the Oakland waterfront may be a force in changing that theory. Don Vandeberg in July founded Bulk Transfer Inc. near Port of Oakland marine terminals facilities and announced that the company would provide the intermodal service of transferring rail or truck bulk shipments into ocean containers.

While a small number of concerns in several other U.S. port cities handle a limited number of commodities in a like manner, Vandeberg's company is believed to be the nation's only firm transferring a wide range of products.

The company can move 60 tons per hour of any dry flowable product from hopper equipment into freight vans. Other services offered by the firm include arranging for container drayage, fumigation and agricultural inspection.

Shipping bulk goods in vans has several advantages, but simply stated it "offers the protection of the container package, yet allows the economics of bulk handling," Vandeberg says.

The recent shipment of potash provides a good example.

Normally the product would arrive at a port from Kaiser Chemi-

The Americas

cal facilities in Wendover, Utah, be off-loaded from a truck or rail car and loaded by mechanical bulk handling equipment aboard a barge. Upon reaching Hawaii, bulk handling equipment would again be needed to discharge the potash before it could be put into a truck for movement to its ultimate inland destination.

Previous to Vandeberg's system, the only available alternative method was to bag the product and ship it in the same manner one would any general cargo, but at a higher, non-bulk rate.

Containerization eliminates several costly steps in either operation.

When the potash arrived at Bulk Transfer, equipment rapidly moved it from rail cars into containers. The vans were trucked the short distance to the Oakland docks where giant cranes loaded them aboard the Matson containership Hawaiian Enterprise. Similar cranes were used to discharge the vans upon the ship's arrival in Honolulu. The potash remained in the same container for the entire journey from Vandeberg's facility to Hawaii distributors.

"Because of containerization, handling costs at the destination end are virtually eliminated and distribution costs are reduced sharply," Vandeberg says.

"Our system allows companies to operate with a minimum of inventory because they no longer need to ship large lots to qualify for bulk rate status," he says. "And as container space increases in the shipping industry, rates quoted on bulk commodities in vans is becoming quite competitive with "bulk aboard ship" rates.

Vandeberg sees a bright future for his new operation. He feels that a wide range of bulk commodities will be shipped more frequently in containers. High-value ores, specialty clays and a host of agricultural products are all well-suited for containerization, he feels.

"I think there has been a need for this system ever since the container age began," Vandeberg says. "People are just beginning to realize how versatile a container can be." (Port of Oakland)

Operations Manager

Whyte replaces Curtis Smith, who held the job for 14 years under the old Commission of Public Docks. Smith becomes Industrial Marketing Director of the consolidated CPD-Port agency.

Operations Manager overseas all functioning of the three marine cargo terminals of the Port.

Other Operations changes include Don Aspros, formerly Superintendent at Terminal 1, becoming Asst. Operations Manager; Carl Leach, Asst. Superintendent at Terminal 1 replacing Aspros and Bob Driscoll, Asst. Terminal 4 Superintendent being named Terminal 2 Superintendent.

Hansen also announced that Ray Bader, former Terminal 2 Superintendent, has been named to the newly created position of Manager of the Container Terminal at T-2. He will be assisted by Dick Boyle and Richard Artle as Superintendents of the Container Yard and Container Freight Station respectively.

Over-all Terminal 2 Superintendent Driscoll is in charge of all berthing at the five berth Terminal 2 and will overseas handling of all cargo except containers.

Whyte joined the Dock Commission as a Berth Agent in 1951. He was Superintendent of Terminals 2 and 4 before becoming Assistant Operations Manager. (The Port of Portland News Release)

PFEL Manager's View

San Diego, Calif., January 20:-The maritime industry is waging a war for survival in this country against all other nations of the world and losing, it was declared last night by Robert D. Kleist, regional manager in the southwest for Pacific Far East Line, Inc.

Kleist, a veteran sales executive for West Coast marine shipping interests, told members of the San Diego Propeller Club that the gross national product of most nations in the world is increasing "by at least 7 or 8 per cent, Japan's is 12 per cent", as compared to less than 4 per cent in the U.S. last year.

"Japan is the acknowledged leader today in maritime shipping throughout the free world and growing stronger," he noted after briefly reviewing his experiences in that country for the last few months as a temporary representative of his firm there. An international trade war is being waged against the U.S. by all free nations "not to mention those behind the Iron Curtain," he said, and described this country's trade position today as "precarious".

He expressed concern about American business and its overseas investments of in excess of \$100 billion, tracing these to "efforts to help the rest of the world. Now we find ourselves trying to compete with this Frankenstein we created." He said a trip through Southeast Asia convinced him that Japan, not the U.S., is now the world's most dominant international trade force. "They know what is going on. Japanese trading companies are active everywhere. I couldn't even get an audience with the manager of the U.S. Trade Center in Japan, despite excellent credentials and introductory letters from the Los Angeles Chamber of Commerce. But it's no problem chatting with Japanese trade center managers."

He said there is concern throughout Southeast Asia about U.S. protectionist policies. Noting this is an era now of high competition for international trade he stated flatly that "isolationist policies are not going to work."

Kleist also said that the first LASH (lighter aboard ship) vessel owned by his firm is scheduled for a maiden voyage to San Diego the latter part of August. These ships feature large cargo combinations of containers and barges. The barges can be floated to and from the mother ship, picking up shipments anywhere along the waterfront much like box cars from a train which will be good for ports like San Diego, he explained. Advantages of loading and unloading times of these barges were cited too, by Kleist. The new concept is not without its problems, he noted, "labor required is now being debated" but expressed optimism that a fair settlement will be worked out.

He told the San Diego marine representatives too that the U.S. Maritime Administration has approved purchased by his company of the Oceanic Steamship lines and its cruise and freight vessels, along with the two containership vessels now under construction. (Port of San Diego News Release)

Bulk Loader Tonnage

Revenue received by the District from tonnage passing through the bulk loader totaled \$166,668.70. In 1969 tonnage totaled \$203,958.35 in revenues to the District.

The second half total for 1970, however, increased dramatically over the first six months: from \$71,548.90 to \$95,119.80 "and we are keeping our two-man marketing team constantly on the go in promotion attempts to assist all marine operations oriented businesses at the Port", according to William L. Dick, Director, Trade and Community Relations. (Port of San Diego News Release)

Holland Terminal

Tampa, Fla., Jan. 12:—Tampa Port Authority will dedicate the site of its proposed new general and bulk cargo terminals on East Bay Channel and Turning Basin and name it Holland Terminal in honor of Florida's retired Senator Spessard L. Holland of Bartow.

A resolution providing for the dedication and naming was adopted by the Authority at its regular monthly meeting January 12.

The resolution pointed out that Sen. Holland worked long and hard while a member of the U.S. Senate to obtain Congressional

Authorization for deepening the Tampa Harbor Channels from their present 34 feet to 44 feet. The authorization was contained in the Omnibus River and Harbor Bill which was signed by President Nixon on January 2.

Several of Sen. Holland's former colleagues in the Senate and members of the House of Representatives have been invited to attend the dedicatory ceremonies which will be held at 3:30 p.m. Sunday, February 7. Those who have accepted include Sen. Jennings Randolph of West Virginia, chairman of the Senate Public Works Committee and Rep. Jamie Whitten of Mississippi, a member of the House Appropriations Committee and of the Subcommittee on Public Works. Also to be present are Sen. Lawton Chiles, recently elected to Holland's seat in the Senate; Rep. Sam Gibbons of Tampa, and Florida's Lt. Gov. Tom Adams.

State Sen. Louis de la Parte will make the dedicatory address.

The 589th Air Force Band of MacDill Air Force Base will be present to provide music.

Many of the VIP's will remain in Tampa on Monday, Gasparilla Day, to view the parade and to take part in social activities.

A special souvenir program, containing information about the new terminal and the port will be distributed to those attending. The program will feature a history of Tampa Bay compiled by Tampa historian Tony Pizzo, author of the book, Tampa Town.

Construction of new cargo facilities on the East Bay Channel and Turning Basin has long been a dream of the Tampa Port Authority. The most modern in cargo handling facilities are planned. The new terminal will have the effect of removing general cargo terminals from the perimeter of downtown. Tampa. These terminals are now cramped for space due to the expanding traffic of the port. Relocation will also aid in relieving traffic congestion in the downtown port area.

The terminal will be located on the west side of the new East Bay Channel and Turning Basin which

was constructed by the Port Authority at a cost of approximately \$5 million. Already on the east side of the channel is located the most modern phosphate-loading complex in the world, built by private interests at a cost of more than \$30 million. This complex is now in operation.

The public is invited to the dedication ceremonies. Access to the site is just off 22nd Street near the 22nd Street Causeway. Signs will be erected to direct members of the public.

The entire port community of the Port of Tampa is expected to be on hand for the event. (Tampa Port Authority)

New Container Terminal

Melbourne:—A second all-container terminal is being established in the Port of Melbourne at a cost of \$3.6 million, to cater for the extension and expansion of cellular container shipping services out of the port, particularly to the north American continent.

Work has started on the terminal which will be owned by ACTA Pty. Ltd., the Australian subsidiary of the British ACT shipping consortium, and it will be located on a 20 acre area leased from the Melbourne Port Authority immediately behind two new berths under construction on the east side of the Swanson Dock container complex.

The other all-container terminal is owned and operated on the west side of Swanson Dock by Seatainer Terminal Pty. Ltd., which is partly owned by OCL, the other British container shipping consortium. This terminal lies behind Berths Nos. 1 and 2 West Swanson Dock.

ACTA is already involved in container and unit-load depot operations through its subsidiary Freightbases Pty. Ltd., and with the establishment of the terminal will be directly involved in both types of container handling.

Both the terminal and depot are expected to operate and exploit business opportunities independently.

The new terminal is being established principally to cater for five

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ships of the new container service known as the Pacific America Container Express Service (PACE Line), which will come into operation about next April between Australian and New Zealand ports and the east coast of North America.

The service will be run by five cellular container ships, three of which will be owned by ACT, one by the Australian National Line, and one by OCL.

Negotiations are in progress at the moment for the new Line to be admitted to the Australia, US, Atlantic, and Gulf Conference and to the Australia, Canada East Coast, St. Lawrence and Lakes Conference of which the individual shipping companies of the ACT consortium and the other Pace Line partners are already members.

Companies in the existing conferences are Maritime Fruit Carriers, Reefer Express, Atlanttrafik, New Zealand Shipping Company, Farrel Line, Port Line, Ellerman and Bucknall, Blue Star and Columbus Line.

Four of the 715 ft. long ships on order for the new service will have a total capacity of 1,067 containers, while the fifth and the third to be owned by ACT will have a capacity for 1,400 containers.

As is customary in the North American service there will be a greater proportion of refrigerated containers, and Pace Line is also catering for a larger number of 40 ft. containers which will give a break-down on board the 1,067 container ships of 556 refrigerated containers below deck, 52 40-ft. general cargo containers below deck, with 423 20-ft. and 36 40-ft. containers carried on deck.

A feature of the Pace Line will be a heavy, lift hold served by a 40-ton deck crane in the forward portion of the vessels, but which can also be converted to take containers if required. This hold is designed for 168,000 cu. ft. of heavy lift cargo or 30 containers.

The new container handling terminal is being designed to give the maximum open stacking area possible with a minimum of administration and control office space. The terminal will be worked on the "container park" principle in which full containers are stacked to a maximum of two high, probably on a 1.2.2.1 basis.

The terminal will also have a container cleaning and repair facility while the administration and amenities block will be basically a two-storey building with a control centre on a third storey overlooking both the terminal and the adjoining 20 acre depot of Freightbases Pty. Ltd (Melbourne Harbor Trust Port Gazette, Dec., 1970)

Liners Withdrawn

Melbourne:—The growing impact of containerisation on a number of activities associated with the transportation of cargo by sea was again evident last month (November) in the announcement of the British Shipping company Shaw Savill that three cargo/passenger ships would be withdrawn from the UK-Australia-New Zealand service.

The liners concerned are the 18,565-ton "Akaroa", which paid her first call to the Port of Melbourne in July, 1968, the 18,595-ton "Arawa", first call April, 1969, and the 18,575-ton "Aranda", which first visited Melbourne in June, 1969.

The Shaw Savill Line, in a comment on the announcement, said that when it was decided to introduce the three vessels in 1968, it appeared their cargo carrying capacity would be required in the short term, pending containerisation development, as well as boosting the Line's passenger carrying capacity.

However, the advance in the container service between the UK and Continent and Australia had caused a drop in the anticipated requirements for conventional tonnage in the trade. (Melbourne Harbor Trust Port Gazette, Dec., 1970)

Australian Ports

Container Terminal Ports: Brisbane, Sydney, Melbourne, Fremantle, Burnie

Roll-on, Roll-off Unit Load Ports: Brisbane, Mackay, Townsville, Cairns, Darwin, Sydney Melbourne, Geelong Adelaide, Port Lincoln, Kingscote Hobart, Bell Bay (Launceston), Devonport, Burnie, Narracoopa (King Id.) Roll-on Roll-off Ports (Potential): Newcastle, Port Kembla, Whyalla, Kwinana Bulk Loading

Ports:

Brisbane, Weipa, Hay Point, Gladstone, Mackay, Cairns, Darwin, Groote Eylandt, Gove, Lucinda Point, Sydney, Newcastle, Adelaide, Ardrossan, Point Giles, Ballast Head, Rapid Bay, Port Lincoln, Port Pirie, Wallaroo, Whyalla, Thevenard, Stenhouse Bay, Fremantle, Kwinana, Dampier, Port Hedland, Koolan Island, Bunbury Port Huon, Port Latta (Cargo Handling Quarterly, Melbourne, December 1970)

ICHCA Australia

Melbourne:—The ICHCA Australian National Committee's third 2-Day Symposium was held at the New South Wales Maritime Services Board's headquarters building, Circular Quay, Sydney, on October 14 and 15. Chaired by Mr. D. J. G. Strang (Chairman of the Australian National Committee of ICHCA) the Symposium was attended by Lt. Col. Charles Earle, D.S.O., O.B.E., Secretary-General for ICHCA, London.

Officially opened by Mr. W. H. Brotherson, C.B.E., President of the New South Wales Maritime Services Board, the Symposium was moderated by Sir Gordon Wallace, Q.C., of the New South Wales Supreme Court, who, at the conclusion of proceedings, reviewed the discussions and summarised the Symposium's findings.

When officially opening proceedings, Mr. Brotherson said his Board was particularly pleased to have ICHCA members and delegates present at its headquarters. It was important that the Port of Sydney should identify itself with any activity calculated to improve efficiency in transportation, particularly that which concerned trade by sea with other countries.

As a background to the Symposium, Mr. Brotherson submitted that in October, 1968—less than two years ago—there were no container facilities in the Port of Sydney. Today, there were two large container terminals and rollon, roll-off berths as well, all handling large volumes of interstate and overseas cargo.

"At the 30th of June last," Mr. Brotherson said, "1.2 million tons of general cargo in the previous twelve months had moved through the port in containers. This represented 20 per cent of the general cargo trade, and 90 per cent, of it had moved through the container terminals. Conventional wharves received the remaining 10 per cent."

Mr. Brotherson pointed out the extent to which the Port of Sydney is expected to service the needs of containerised cargoes by the end of 1971. This was indicated by the fact that the overseas container ships calling at Sydney then will comprise 33 cellular ships of substantial size. Added to these were the three Australian coastal container ships which have been operating for some appreciable time.

After recounting this situation, Mr. Brotherson revealed that in order to accommodate the increased traffic with maximum efficiency, the Maritime Services Board will construct a new "common user" container ship terminal at Glebe Island where 22 acres are now available with provision for another 10 acres to be developed later. The first. Glebe Island berth would be available to shipping in June, 1972.

This would mean that the Maritime Services Board would vacate its present common user container ship terminal at White Bay, the President explained, and the facilities there would be offered on lease to private operators—possibly Seatainer Terminals would use it as an extension of their adjoining White Bay facility.

Before officially declaring the

MARCH 1971



Artist's conception of Kobe's export automobile shed when completed.



Symposium open, Mr. Brotherson also outlined the progress in developing Botany Bay as an ancillary to the Port of Sydney. Already there was a heavy demand there for industrial land. Seventeen of the nineteen applicants represented bulk industries requiring the use of sea transport.

"The theme of the ICHCA Symposium is commendable," Mr. Brotherson said, "container operations have been beset with industrial disturbances, and the success of the system depended upon close programming which can only work with continuity of operations." (Cargo Handling Quarterly, December 1970)

Automobile Shed

Kobe, January 20:—The picture shows the conception of the proposed "Shed of Automobiles for Export", which has been under construction at the Maya-Piers of Kobe Port since October 1970 towards the completion in October 1971.

Though the number of automobiles exported from the Kobe Port was only 16,000 during 1966, it has shown a remarkable increase to be 63,000 in 1969, and is expected to reach as many as 100,-000 in 1972. To cope with such a situation, the Shed has been designed for an exclusive use for this cargo.

The specifications of the Shed

Asia-Oceania

are:---

- 1. Space of the site: 16,936 sq. m
- 2. Floor space: 6,357 sq. m
- 3. Total floor space: 23,524 sq. m
- 4. Structure: 4-storeyed shed composed of 2 buildings (Bldg.-A and Bldg.-B) connected with each other by a passage on every floor except the ground floor. Among the Shed floors the ground floor of Bldg-A itself is prepared to be a cargostation of Japan National Railway. Its proposed name is Maya-Piers-Station and it will open in April 1972 for various cargoes' handling to and from the Piers.
- 5. Ability: 1,800 automobiles at a time
- 6. Administration / Management body: A company, invested by the related business and Kobe City Government, is to be organized shortly. (News Release from Port and Harbor Bureau, Kobe City Government)

Berths Leased

Kobe, January 4:—The Han-Shin (Osaka-Kobe) Port Development Authority, which is constructing the Port-Island in Kobe Port towards its completion in 1975, announced on December 22, 1970, that it had determined the lessees of proposed container berths No. 2 to No. 8 in the Port-Island for their exclusive use. As you are aware, the Berth-No. 1 is already in use of Sea-Land Services, Inc. and U.S. Lines, Inc.

They were chosen out of many applicants, whose subscription had been invited publicly by the Authority since July 2, 1970.

The names of proposed tenants for the respective berths are as follows:—

- Berth-No. 2....Cooperative use of Japan Line and Yamashita-Shinnihon Line
- Berth-No. 3....Nippon Yusen Kaisha (N.Y.K.)
- Berth-No. 4....ditto
- Berth-No. 5....Cooperative use of American President Lines and American Mail Line



Berth-No. 6....United States Lines Berth-No. 7....Osaka-Shosen & Mitsui-Sempaku Kaisha (Mitsui-

Berth-No. 8....ditto

O.S.K.)

(News Release from Port and Harbor Bureau, Kobe City Government)

Containerships for OCL

Tokyo, January 18:-The keel of the first OCL (Overseas Containers Ltd., England) fully cellular containership for the Far East service was laid recently at the Hamburg Yard of Howaldtswerke Deutsche Werft A.G., the biggest shipbuilding firm in West Germany. She is due to be delivered and placed into service by January 1972 between Japan and Europe. Four other containerships, which OCL have ordered from the same shipbuilder, will have their keels laid within the year and they are all scheduled to join the Japan-Europe service before the end of 1972.

These vessels, each of 58,000 gross tons with a capacity in the region of 2,000 twenty-foot containers, will operate at a service speed of 26 knots, which will give them a sealeg transit time between Japan and Europe of 22 days via Panama.

OCL already have six containerships in service between U.K. and Australia. (OCL Press Release)



Marine work craft "Ukishima" (photo above) was recently launched by Yorigami Maritime Construction Co., Ltd., Kobe. The craft is capable of pile driving, crane operation and other marine works. (Port and Harbor Bureau, Kobe City Government)

Test Container Shipment

Tokyo, January 12: — OCL (Overseas Container Ltd.) carried out the first test container shipment to England of canned salmon, the biggest item in exporting foodstuff from Japan to England, recently at Yokohama Port in preparation for the start of full-scale container



Tokyo, December 7:- Shibata Industry Co. at 2-6 Kanda Awajicho, Chiyoda-ku, Tokyo, has introduced to the market new Circular Rubber Fenders of original designs. Because of the circular structure, the Circular Feners have omni-directional strength. They have superior durability as they have no sharp edges.

service between Japan and Europe early next year.

"The test revealed the need of some improvement in accommodation concerning loading containervan with cartons," the shipper disclosed.

The canned salmon of 4,400 cartons, about 45 tons, were loaded into two 20 foot container-vans and taken aboard respectively two conventional vessels, Glen Line's PEMBROKESHIRE and Blue Funnel's PRIAM.

"Although we can expect some advantages in container transpor-



Tokyo, January 28:- "Golden Clover", a 162,039 dwt (89,000 gross ton) ore/oil/coal carrier, is to be delivered to the Liberian Clover Transports, Inc. at the Yokohama Yard of Mitsubishi Heavy Industries Co. on January 29, 1971.

tation over conventional way such as little injury of the loads, as a whole that does not bring shippers outstanding benefit at least under the existing circumstances, because the freight is more expensive than conventional way. But I think the containerization of shipment of foodstuff as well as other items is inevitable from now on for the consignees generally desire it earnestly since in container transportation unloading and delivery will be done in absolutely effective and economical manners. Actually we took part in the test shipment partly because the consignee, John West Foods Ltd., the biggest foods trading firm in England, has asked for it." commented Mr. Ken Komatsu, Foodstuff Department of Mitsui & Co., Ltd., who is the shipper of the test container loads.

Mr. Yoshimi Kumon, First Foodstuff Department Of Mitsubishi Shoji Kaisha, Ltd., the other shipper, pointed out the problem related to loading process as follows.

"The process of loading containervan with cartons took rather long time and much labour since it was done by hand. It is to be desired that the facilities related to loading process is improved and the loads of the cartons on pallets will be shoved in the containers by forklifts." (OCL Press Release)

Reefer Service

Tokyo, January 26: — Federal Steam Navigation Company Limited, a member of the P&O Group, announced in London yesterday that it would take delivery of the first of a series of fast fully refrigerated ships in November this year.

Building contracts have been taken over or placed with yards in Norway and West Germany. Other contracts may follow. As they are delivered through to May 1974, the ships will operate an entirely new world-wide service carrying refrigerated goods. The decision to start this service was announced recently (17 December).

Chairman of Federal Steam, H. T. Beazley, said the ships would have a capacity of between 360,000 cu. ft. and 475,000 cu. ft. and a speed of 22 knots.

"We expect to take delivery of two ships, each of 475,000 cu. ft. capacity and 10,000 dwt from A/S Bergens Mekaniske Verksteder

Europe-Africa

of Bergen, Norway in November 1971 and July 1972." Mr. Beazley said. "This is an existing contract we have taken over."

Federal Steam has signed a contract with Lubecker Flenderwerke A.G. of Lubeck, West Germany, for two ships each of 450,000 cu. ft. capacity and 9,600 dwt. They will be delivered in February and June 1973. (P&O Information Service)

Challenge of Sea Trade

Antwerp:—In the frame of the Norwegian Week in Antwerp, on 21 October last, a symposium was held, the theme of which was: "The challenge of the sea-borne trade of tomorrow". The opening statement of the symposium was delivered by Mr. E. Amlie, Consul General of Norway in Antwerp, who introduced the speakers and the panel members to the audience.

First speaker was Mr. Α. Stromme Svendsen, Professor, Director of the Institute of Shipping Research (The Norwegian School of Economics and Business Administration). In his lecture dealing with the topic: "The prospects of world trade, ship types and port requirements", lecturer pointed out the enormous evolution of sea-borne traffic during the past ten years. This evolution created bottle-necks in the ports which i.a. can be removed by:

- -larger vessels (especially bulk cargo vessels)
- -a faster turn-round of the vessels
- -adaptation of the port equipment
- -larger areas behind the quays
- -better social conditions

—better education fort port-labour. Consequently this evolution is a challenge to shipping, which only can be met by internationalisation and integration of the shipping companies, by better planning based on research instead of on casual work based on tradition.

Second speaker was Mr. L. Johnson, Principal Surveyor—Det norske Veritas. Topic of his lecture: "New concepts in the design of ships". Mr. Johnson said that the three main demands made by both shipowner and shipbuilder upon a ship's design are reliability, feasability and low costs. These criteria also apply to the mammoth tankers and mammoth bulk carriers, on order or already built, requiring a rationalisation of the shipbuilding process (use of computers).

Mr. A. Hoie, Director—Fred Olsen & Co Shipowners, was the third speaker. The topic he dealt with was: "Norwegian shipping meets the challenge of changed circumstances".

- -Norwegian shipping must pay primary attention to satisfying that part of the world demand for shipping services which can use labour saving (= capital intensive) ships;
- -The Norwegian shipping industry must put a strong emphasis on all sorts of rationalizing devices on board and ashore (technical novelties);
- -Norway must realise that it cannot remain competitive in the more traditional forms of shipping (high crew costs).

This changed circumstances in Norwegian shipping resulted into a trend towards joint ventures in recent years (on a national as well as on an international level). In view of the fact that 93% of the Norwegian fleet never calls at Norwegian ports, it is obvious that Norway is vulnerable to any flag discrimination.

The lectures were followed by a discussion led by a panel, presided over by Mr. A.S. Svendsen. Norwegian panel members were Mr. G. Fredriksen (Det Bergenske Dampskibsselskab), Mr. O.A. Larsen (Det norske Veritas) and P. Meyer (Shipowner), whereas from the Belgian side the panel members were Mr. C. Evrard (Manager of Belge"), "Compagnie Maritime Mr. F.A. Van Dycke (Technical Manager of "Boelwerf") and Mr. R. Jacobs (General Manager of the Antwerp Shipping Federation). During the discussion a particular interest was paid to the influence and the evolution of the new techniques in sea-borne traffic (containers, unit loads, lash etc.).

It was the task of Mr. Walter H. Oosterrieth, President of the Port of Antwerp Promotion Association, to close the debate. After giving a summary of the various lectures, he thanked the speakers and the panel. He also expressed his gratitude for the opportunity offered to broaden the information on the Norwegian flag (ranking fourth in Antwerp). Speaker said to be convinced that the entry of Norway into the E.E.C. is a feature not to be underestimated for the defense of free trade and the freedom of the seas.

After the discussion the film: "Ships of Norway" was shown and a reception was offered by the "Norwegian Shipowners' Association". (Antwerp Port News, November)

New General Manager

Edinburgh, 5th January:--Mr. John H.D. Sutton, M. Inst. T., has to-day taken up his appointment as General Manager of the Forth Ports Authority. Based at Tower Place, Leith, Edinburgh, he is now responsible for all aspects of the administration of Docks Headquarters and the ports of Leith, Grangemouth, Granton, Methil, Burntisland and Kirkcaldy and the former Forth Conservancy Board.

Mr. Sutton, aged 47, was born in Lancashire, and after serving at sea as a navigating officer in the merchant navy during the war, he joined the overseas staff of the John Holt and Company (Liverpool) group of companies. Throughout his service in the former French and British Territories in Africa, Mr. Sutton was engaged in the shipping agency and forwarding business of the group. For the last six years, before his return to the United Kingdom for family reasons, he was General Manager and a Director of Holts Transport Ltd. which operated its own port and inland water transport service in Nigeria. After his return to the United Kingdom in 1961 Mr. Sutton became Assistant General Manager of the Blyth Harbour Commissioners and for the last five years he has been General Manager of Cork Harbour Commissioners. (Forth Ports Authority)

New Zealand Meat Trade

Liverpool, 17th December:—The Port of Liverpool has mounted a concentrated marketing drive in England and New Zealand over the past three months in close co-operation with shipping lines, stevedoring firms, cold storage companies, meat hauliers and trade interests.

The conclusion of an investigation in the U.K. into the streamlining of meat discharge and distribution methods by the New Zealand Meat Producers' Board could have resulted in the loss of this trade to Liverpool, with substantial losses of other allied New Zealand imports.

All interests involved in New Zealand meat importation at Liverpool made sacrifices and eliminated their traditional rivalries in the over-riding need to retain the business for the Mersey.

It was considered that the cooperative efforts of all the Liverpool interests combined with the natural advantages of Liverpool as a New Zealand meat importing, storage and distribution centre were entirely suited to the new distribution planning, and additionally were most likely to enable high quality New Zealand meat to continue to be sold at a competitive price to the 16 million consumers living within a 100 mile radius of Liverpool.

Unions concerned with stevedoring and other firms involved are being kept fully informed of the efforts to retain this meat trade at Liverpool in view of the threatened adverse effect on their members should it have been lost to the Port.

The Chairman of the Mersey Docks and Harbour Board, Mr. John G. Cuckney, commented at Liverpool today: "We are confident that the Port of Liverpool will play its full part in the new streamlined distribution pattern for New Zealand meat. We are very impressed with the co-operative spirit of all concerned in the meat trade through this great Port.

"We would stress, however, to all concerned that the ships new scheduled for Liverpool must maintain the programme, particularly

MARCH 1971

over the next year if the New Zealand meat trade is to continue at Liverpool and the planned increases on present schedules are to be achieved." (Mersey Docks and Harbour Board)

Management Changes

Liverpool, 16th December:—Mr. James Mundy, Joint General Manager of the Mersey Docks and Harbour Board, is to be retired on December 31st.

Aged 61, Mr. Mundy has served with the Board for some 45 years and was appointed Joint General Manager in 1969. Following the war, when he was engaged on special work connected with the emergency arrangements for the port, he spent some time in the Traffic Department as Assistant Chief Traffic Manager acquiring detailed experience of port work.

He was appointed Assistant General Manager in 1963 and became Joint General Manager in December, 1969, when the present Director General Mr. R.S.F. Edwards, took over as Chief Executive of the Board.

Mr. Mundy is married and lives in Gayton, Wirral.

By reason of this, Mr. G.W. Brimyard, B.A., aged 45 years, who was appointed Joint General Manager in March, 1970, will assume the title of General Manager.

Educated at Wolstanton Grammar School, Staffordshire and Selwyn College, Cambridge, he entered the service of London Transport Executive in 1949 and took charge of the Southern Section of London Transport's Public Relations Office.

He joined British Railways in 1957 as Public Relations Officer, Great Eastern Line, and in 1960 became District Commercial Officer, Norwich.

Mr. Brimyard was promoted to be District Passenger Manager, Manchester, 1962 and Divisional Freight Manager, Manchester, in the following year. He returned to London in 1965 to become Freight Marketing Manager, Euston, and in 1967 was appointed Regional Passenger Manager, Euston, becoming Freight Manager, London Midland Region, in the following year.

Mr. Brimyard is married with a son and a daughter and lives in Gayton, Wirral.

Completing the Management will be Mr. Benjamin Holt, aged 54 years, who has spent his working life in the service of the Board. He was appointed Assistant General Manager in January, 1969, and will continue in that capacity. (Mersey Docks and Harbour Board)

Mr. Gifford Speaks

London, 15th January: — More than 40 of Britain's most senior port executives attended a conference in London to discuss the use of work study at ports as a means of improving cargo handling performance.

The conference was organised jointly by the National Ports Council and A.I.C. management consultants. It was attended by representatives both of port authorities and of leading private cargo handling companies operating in ports.

The Conference chairman was Mr. Morris Gifford, Director-General of the National Ports Council. He said that the aim of the conference was to convince management at the highest level that the application of work study to cargo handling was a practical proposition.

"This is the area in which I believe there is the greatest scope for improvement, to the benefit of the entire port industry", he declared.

Mr. Gifford said that work study was already used extensively by ports in areas other than cargo handling, but many ports managers did not believe that it could be applied to cargo handling operations, because of the great variety and range of cargoes which had to be dealt with.

Two ports—Felixstowe and the Tees—had now found that it could be done. The purpose of the conference was to use the experience of these ports to illustrate what could be done.

"At both ports work measurement was an integral part of agreements with the dockworkers, and is the basic yardstick by which the agreements are monitored", he said. "In



The photo shows the whole Container-Terminal project at Bremerhaven. The "Terminal on the Sea" lies open to the river estuary so that the ships do not have to pass through the lock. The completion of the first berth is planned for the beginning of 1971 (approx. 140,000 sqm) while the second berth will be available during the year 1971. The final construction of the new river-quay will contain three berths for full-container ships and will be equipped with container bridges or special cranes for container handling 450,000 sqm). Furthermore it is possible according to traffic requirements to extend the container marshalling yard up to 2,000,000 sqm. Depth of water 41', which will later be deepened to 46'. The special characteristic of this plant is, that it can be entered from all sides as there will be direct connection between the Nordhafen and the riverquay.

both ports the results have been good".

Mr. Gifford pointed out that a great advantage of work study was that it was a means of bringing about an improvement without the necessity for heavy capital investment.

"It does require investment in people, in the form of training and education—an area of investment which is sometimes neglected, less heavy than that required by major new capital installations but which can prove equally if not more rewarding".

Mr. Gifford added that the acceptance of work study clearly depended on the attitude of the workers, and an important aspect of the conference was consideration of the development of mutual trust between management and men. He welcomed Mr. Tim O'Leary, of the Transport and General Workers' Union, who addressed the conference on 'The Trade Union View of Work Study'.

Representatives of the Felixstowe

Dock and Railway Company and the Tees and Hartlepools Ports Authority addressed the conference and also took part in an open forum which closed the proceedings.

A.I.C. management consultants were consultants to the Tees and Hartlepools Port Authority in the introduction of work study at the port; the National Ports Council have acted in a similar capacity at Felixstowe and assisted in the work at the Tees. (National Ports Council)

(Continued on Next Page Bottom)

Full-Container Service from Bremerhaven to Australia Via Bremen Bremerhaven

Just as the last decade ended favourably, there has been a promising beginning to the seventies for the Ports of Bremen. The choice of specialized transport services has been widened. The LASH service and the former six full-container services, which have been in operation on the route between Bremen/ Bremerhaven and the U.S.A., have been joined by a fully containerized liner service to Australia. This service was officially started with the

New Container Crane

London, 18 December:—Sections of the £226,000 transporter crane ordered by the British Transport Docks Board for their container berth at Queen Elizabeth Dock, Hull, from Clyde, Crane and Booth, Ltd., have now begun to arrive on site. Delivery of all the parts will be completed by the end of January.

Erection of the crane, which will lift a 35-ton payload, will commence immediately and is expected to take 15 weeks. After testing the crane should become operational by the end of May. The crane will be capable of handling 40 containers per hour.

The Docks Board have also provided five straddle carriers and other shore handling equipment for the container berth which is situated in the south east corner of Queen Elizabeth Dock. A 41-acre marshalling area has also been provided adjacent to the berth.

The terminal will be operated on a common-user basis, but the first service to use the berth will be a container service between Hull and Rotterdam to be operated by North Sea Ferries five times a week in each direction. This service will commence as soon as the crane is operational. (British Transport Docks Board) departure of the "Melbourne Express" of the Hapag-Lloyd AG shipping Line.

The introduction of this new service of the Australia Europe Container Service is seen by the Ports of Bremen as proof of their particular efficiency and also as the result of an ambitious policy in the ports. The development of container transpot to and from the United States, which took place within only $4\frac{1}{2}$ years in a way that was hardly predictable beforehand, is being logically and systematically continued on the Europe/Australia route. After all, the Ports of Bremen can point out that since the introduction of transcontinental container transport in May 1966 more than 250,000 containers (approx. 400,000 on a 20-ft basis) with over 2.7 million tons have been moved to and from the Ports of Bremen and Bremerhaven so far. This volume of overseas traffic, which has indeed so far not even nearly been achieved by any other European port, can be classified as follows:

(Container Marine Lines Division), Atlantic Container Line, Seatrain Lines, Inc. and the United States Lines, together with eight semi-container lines and a number of feeder services, are among those lines that regularly call at the Ports of Bremen in this special branch of sea transport. Whether a similar stormy development will also take place in the new full-container service between Bremerhaven and Australia depends to a very great extent on how the timetable of the Australia Europe Container Service is planned. At the moment Bremerhaven offers from now on a number of outgoing as well as incoming shipping possibilities by the fully containerized vessels of AECS. But only the promised improve and extended timetable will make it possible to effect the flow of cargoes via Bremerhaven with a minimum of costs and also to be able to take full advantage of the excellent geographical position of this port, both to the sea and to the hinterland; indeed a port, which in every respect takes into consideration the intentions of the shipping companies to load and discharge their expensive vessels quickly and safely direct on the coast, thus optimizing the turnround of their vessels and avoiding the navigation of river channels.

The fact that the rapid clearance of the capital-intensive vessels in

Year	Container absolute	Turnover Figures on a 20'-basis	Tons
1966 (from May)	8 335	16 670	72 462
1967	35 358	51 258	318 310
1968	46 873	69 848	464 553
1969	73 334	118 001	822 129
1970 (9 months)	79 500	138 408	965 417
1970 (estimated)	110 000	180 000	1 300 000

This is a very satisfactory record on the U.S. route for both the container shipping lines and the Ports of Bremen, which can be shown with pride. For it is a fact that Bremen/Bremerhaven hold in this branch of commerce the top position not only with regard to the movement of containers but also with regard to the number of fullcontainer lines: Hapag-Lloyd Container Lines, Sea-Land Service Inc., American Export Isbrandtsen Lines Bremerhaven is fully guaranteed by reason of the efficient handling facilities and a smoothly running organisation is confirmed not only by the high turnround speeds, which have been achieved for years on the U.S. route, but also by the loading and unloading of the first full-container vessel on the Australian route, the "Jervis Bay", on the 1st November, 1970. 237 incoming and outgoing containers in only five-and-ahalf hours are evidence enough of the efficiency of this port.

It will be possible to improve these achievements still further in the future. For, after the completion of the "Terminal on the Sea", which is direct on the outer River Weser and only a few nautical miles from the North Sea, the Ports of Bremen will be in position to control the movements of containers, both inwards and outwards, even better. This terminal is already an example of a port policy which is definitely directed at the future. After all, computers, radio supervision, loudspeaker systems and television installations will belong to the everyday equipment of this terminal as much as all the other technical installations which are necessary for the smooth running of a modern port. Thus a further step towards the industrialisation in the Ports of Bremen will be taken.

The ports of the future must be highly mechanized in order to make the excellent performance of today gradually the normal performance of tomorrow. Also the profitability of the more modern vessels with increasing capital intensity must be taken into consideration. The Ports of Bremen are making every effort to achieve this aim. The investments of the Ports of Bremen already characterize these efforts towards thinking in terms of the future in the development of vessels and ports.

The new container service between Bremerhaven and Australia will indeed have a decidedly positive influence on the total amount of goods handled by the Ports of Bremen. Because of this, the Ports of Bremen can be very optimistic when forecasting the total port turnover for 1970. 17.7 million tons moved in the first nine months of this year give good reason to forecast a figure of about 24 million tons for this year. This is a result, about which nobody need not be at all disappointed, especially because well over 50%, namely about 12.5 million tons, will be general goods.

Bremen, 24th November, 1970

Free Port of Hamburg Its Functions and its Significance

Reprinted from "Ship via Hamburg" May/June 1970

For more than eight decades, the Free Port of Hamburg has been an international concept for a liberal and universal trade policy. Its foundation goes back to the Customs Union Agreement signed on 25. 5. 1881 by the German Empire and the Free and Hanseatic City of Hamburg. Through this agreement, Hamburg, with the exception of a section of its port which became designated as "Free Port", was integrated into the customs territory of the German Empire. This was the first step in the transition from a Free Port City, as it was originally, to a city with a Free Port. Inaugurated on 15. 10. 1888, the Free Port has meanwhile stamped the character of the Port of Hamburg and in particular, has significantly strengthened its function as a commercial, transit and traffic centre.

Today, the Free Port of Hamburg consists of the larger, "old" Free Port and—separated by an arm of the River Elbe—of the Waltershof Free Port which was set up in 1910. An area of ca. 15 sq.kms., it forms the nucleus of the port. It comprises practically all the transit sheds, the entire warehouse area and numerous industrial plants.

The land in the Free Port is owned wholly by the Hamburg State. In this way, speculation, with its undesirable consequences for cost and price structure in the port, is prevented and those industries, warehousers, quay operators or other enterprises, which appear particularly suitable from the point of view of port policy, can be located here. Privately owned firms have the possibility of entering into longterm lease agreements.

The most important customs regulations for the German free ports are compiled in the Customs Act of 14. 6. 1961 and in the General Customs Regulations of 29. 11. 1961. According to these, free ports are duty-free areas which serve the transhipment and storage of commodities for foreign trade purposes and also shipbuilding.

Within the Free Port, there are no restrictions of any kind through customs formalities for shipping and goods traffic. Goods can be transhipped, transported, traded, stored for any length of time and in unlimited quantities, inspected, sampled and, to a certain degree, undergo warehouse handling, i.e. repacking, refilling, splitting, etc., insofar as no tariff advantages result, that is, the tariff burden is not reduced through such handling, without customs clearance and the attendant costs. Only when the goods are moved out of the Free Port across the customs boundary into the customs territory must they be presented for examination at one of the exit points and either be cleared or subjected to a special customs procedure. Moreover, treatment and processing of commodities for commercial purposes is allowed in the "Old Hamburg Free Port" without customs restrictions.

Advantages of the Free Port

The Hamburg Free Port offers advantages particularly for import and export, transit traffic, commission storage and the treatment and processing of foreign, unentered commodities. Briefly, these advantages are as follows:

... for import and export ...

If a commodity is imported via the Free Port, it does not mean that entrance taxes (customs duties, import turnover tax, other excise duties) are waived wholly or in part. But the advantage to the importer is that that section of the German Customs Law which applies when the customs boundary is crossed is not put into effect. Thus, for example, a shipment of coffee can be discharged at the quayside without customs formalities and transferred to a transit shed. The coffee can be sampled, repacked, taken to a Free Port warehouse and stored there-all without customs formalities and without any intervention whatsoever on the part of the customs authorities. As no limits are imposed for the duration of warehousing or for the amount which may be stored in the Free Port, the importer is able to store his coffee ----to keep to this example----without paying duty until it crosses the customs boundary for selling inland. Only then do the entry taxes for each quantity become due for payment. In this respect, the Free Port proves to be, for the import trade in particular, an instrument for delaying customs payments indefinitely and indeed, without having to provide security. Less capital is tied, there is no loss of liquidity or interest. The importer can keep extensive stocks; at the same time, this can have a regulating effect on the domestic market.

The Free Port also facilitates export to a considerable extent in that —apart from exist clearance—it allows goods to be forwarded to the ship and be freely moved about.

... for transit traffic ...

The Free Port affords unrestricted freedom for transit traffic in the widest sense. Here too, goods can be transhipped or stored in transit sheds or warehouses without being subject to customs formalities. The transit merchant can tranship from one seagoing vessel to another, to inland waterways craft or to road or rail vehicles or vice versa without being bound by any restrictions.

... for commssion storage ...

The customs facilities in the Free Port create a favourable basis for commission business, i.e. storage of commodities which are uncertain of selling. The possibility of having unrestricted access at all times to goods stored in the Free Port is a consideration of great importance for the German importer or the foreign exporter. Prompt delivery from the warehouse combined with the possibility for prior inspection of the goods by the purchaser is a definite advantage which increases sales prospects and strengthens the market position of the buyer. All this adds up to the fact that besides German importers, overseas export-

ers are taking increasing interest in using the advantages of storage in the Hamburg Free Port for the sale of their products in Europe.

... for treatment and processing ... Beyond the normal functions of German free ports, the treatment and processing of commodities for commercial purposes is allowed without any customs restrictions in the old Free Port of Hamburg. This legal position offers a favourable prerequisite for the location of industries primarily interested in export. The Free Port is particularly beneficial for industries who obtain their raw materials and primary products from overseas and then reship the manufactured products. Within easy reach of shipping facilities, they avoid transport costs, customs formalities and costs for customs supervision.

The main industry in the Free Port is shipbuilding which, together with sub-contractors and suppliers, comprises 50 firms employing ca. 23,000 persons.

Modern Facilities for Transhipment and Storage

The Free Port of Hamburg offers special handling facilities for all commodities in world trade. At present, 69 transit sheds with a total area of 720,000 sqm. and a large number of warehouses with a storage area of 607,000 sqm. are available for the transhipment of general cargo. In addition, there are modern handling facilities for bulk goods, grain silos with stationary and floating grain elevators and special-purpose transit sheds among which the banana shed and the "Overseas Centre" for consolidated export cargo are worth special mention. The terminals for container and roll-on/roll-off traffic are also situated in the Free Port.

14,000 trained dock workers are available. If necessary, loading or discharging can take place "round the clock", i.e. 3 or 4 shifts within 24 hours. Experienced firms—warehousers, etc.—ensure proper storage and careful handling of goods entrusted to them.

Moderate Control

In contrast to customs law, the Free Port occupies no special position in foreign trade law (legal basis: Foreign Trade Act of 28. 4. 1961, Ordinance for the Implementation of the Foreign Trade Act of 22. 8. 1961). The foreign trade regulations allow foreign goods intended for transit, re-export within the framework of transit trade, treatment or processing for account of firms outside Free Port territory or warehousing to enter the Free Port without import formalities and to leave again for foreign destinations without any complicated procedure. Import documents are required only if the goods are to remain on German territory (inland or Free Port).

Customs control in the Free Port is moderate and hardly apparent. Its object is to safeguard customs and excise security in the Free Port by ensuring that special prohibitions and restrictions which apply to persons, goods, premises, rooms and water areas are observed in accordance with the customs and excise provisions.

This control has always been exercised by a Hamburg authority the Free Port Office, which in this respect has the function of a main customs department. Furthermore, the Free Port Office attends to tasks relating to foreign trade law, EEC law and foreign trade statistics as well as economic matters in its capacity as department of the Hamburg Authority for Trade and Economics.

Safety and order in the Free Port is the responsibility of the relevant authorities in the other parts of the port and city, such as the police and fire service.

22 Customs-Houses on the Free Port Boundary

The Federal Customs Administration which has offices at various points on the boundary attends to customs formalities here. In general, persons and goods entering the Free Port are not subject to control. Provided that no goods are being carried, persons can leave the Free Port almost without being checked. There are 33 land, rail and water crossing points along the 28 km Free Port perimeter. 22 customs-houses carry out customs examination. For practical purposes, some offices are responsible for imports and others for exports. Furthermore, there are customs-houses whose officers speci-



Following the decision by the N.S.W. State Government to develop the northern foreshore of Botany Bay as a port/industrial estate, the Maritime Services Board has finalised developmental proposals and the initial construction work for the first major reclamation and armoured embankment associated with the complex will commence early in 1971. This stage, when completed, will be orientated

towards the accommodation of deep-draft vessels, but port facilities to serve all trades will be constructed as demand dictates.

MSB749

alise in the clearance of those commodities which require specialised knowledge and examination facilities or which have to undergo a particular clearance procedure. The largest customs offices, comprising 30 or more clearance stations and a staff of ca. 150, are among the most modern of their kind in the Federal Republic.

DEVELOPMEN

In its territorial expansion and original legal form, the Free Port of Hamburg has remained virtually unaffected by the political and economic changes of the past decades: clear proof of its valuable function and necessity. In Hamburg it will continue to be regarded as the suitable solution for ensuring maximum facilities for overseas trade and traffic. No other customs system can offer greater advantages, can be freer than the Free Port of Hamburg.

5th Port in Europe

Le Havre, January 11:--The merchandise traffic that passed through Le Havre in 1970 rose nearly to 60,000,000 tons, marking an increase of 17% compared with the figure registered in 1969.

It must be underscored that this increase was attained not only in bulk merchandise but also in general merchandise. The port traffic has doubled in 4 years.

Having passed Genoa, Le Havre now holds the fifth place among European ports. (Port Authority of Le Havre)

Biggest Tanker in Fos

Marseilles, January 1971:—At the year's debut, the oil port of Fos has had an important date in its history.

In putting in fully loaded at Berth No. 3 on January 9, the Greek tanker "Andros-Orion", 247,000 dwt, broke the record held until then by "King Alexander The Great".

Coming from the Persian Gulf (Djebel Djana), the tanker has unloaded its crude oil cargo at the rate of 10,000 ton/hour. Let us point out also that it was her inaugural voyage.

The greatest tanker ever received at the Fos port installations will take to the sea again on a new voyage for a destination in the Persian Gulf.

Let us recall that, since the South European Pipe Line went into service, the capacity of refineries of the Berre-Fos region has increased from 14 million tons in 1962 to 34 million tons in 1970. The projected capacity of expansion is 45 million tons.

Along with the remarkable fact that a tanker of 250,000-ton generation called, the set of basins of the Port Authority of Marseilles is characterized by the permanent occupation of the berths at piers. (Port Authority of Marseilles)

New Containerships

Bremen:—A new epoch is now commencing of the just as short as it was quick and, indeed—sensational—development, occurring in the transocean container trade between the USA and Europe- after

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the four year constitution-phase from 1966: this will now undoubtedly be marked by larger and faster ships; a concentration and extension of the liner services; and a computer-guided operation system. The Bremen ports, which enjoy the longest and richest experience in the USA-Europe container trade, are prepared for the new chapter of container-development. An extensive 'Terminal on the Sea' is at present in course of being produced at Bremerhaven, direct on the Outer-Weser, only a few miles distant from the Northsea. It is on this terminal that the full-container ships of the so-called "third generation",-having a capacity of from 1,800 to 2,000 containers, a length of from approx. 300 metres and a speed of up to 33 knots-will berth:-ships which have already been ordered for the USA and fareast trades. These super-containerships can practically only be serviced in the immediate vicinity of the coast, as the risks involved in manoeuvering in the closed waters of rivers are no longer acceptable —and such passages for these expensive units (approx. DM 100 millions) are no longer profitable. It is for this reason that Bremerhaven's 'Terminal on the Sea' is the terminal of the future: for the computor, the VHF, the tanoy-relay system, are all integral, natural parts of the installation, as is the T.V. screen, enabling its monitors to keep control over all movements in the terminal. (Bremen Air Mail, December)

Containers, A Salvation

Bremen:—The Bremen Senator for Ports, Shipping and Traffic, Dr. Georg Borttscheller, writing in the latest issue of the North-German paper "Wirtschafts-Correspondent", made the point that the considerable impetus in the field of international cargo-handling in recent years was only at all possible of being coped with, because of the real saving achieved in time, men and berths with the container form of traffic. It is often not realised that in boom periods it is not only the industry which has to combat with long delivery times and increased prices, but also that the maritime economy is faced with problems which are not always easy to overcome. It would be fruitless to calculate-wrote the senator under the heading "The Seaports in Times of Boom"-just how many more berths, shed-space, cranes and other port installations would have been necessary, if the containerized goods would have had to be handled by conventional means. On the other hand Bremen/ Bremerhaven is doing everything to ensure that also the conventional methods of cargo-handling-which still account for 90 percent of the general cargo-are kept up to standard, allowing them to perform satisfactorily in the face of constantly increasing demands. Thus DM 200 millions have been invested in new harbour installa-



tions, cranes and sheds from 1960 to 1966, 40 new floating and shore cranes, 150 new localised conveyance appliances, a new switch-tower and additional port construction will have required a further DM 55 millions by 1971. In Bremen and Bremerhaven there is always a receptive ear for all types of trafficand innovations-and one will, also in the future, be keeping well in step with technical development. (Bremen Air Mail, December)

Longer Wharf

Lourenço Marques: — Work is going on at good speed to add a further 380 metres to the length of the "Gorjão" wharf at the port of Lourenço Marques. It must be finished in February 1971 and will cost Esc. 97.000.000,000. The completion of this project will take about 660 days and over 200 people—technicians and labour—are working on it.

The structure is essentially a metallic one in as much as approximately 2,200 tons of piles-made in Japan and imported from there -24 metres long and 40 centimetres wide will be used.

It consists of a main face built of piles displayed in concertina fashion. This will be topped with a concrete wall and trussed on to a second pile face at a distance of 30 metres.

The filling with soil will be made by pumping in some half million cubic metres of sand ejected directly from a dredger that can handle about six thousand cubic metres a day.

The quantity of concrete used to build the above mentioned topping wall is somewhere around 6,000 cubic metres.

The construction was preceded by dredging which cleared approximately 270 thousand cubic metres of mud, substituted by a bed of sand and rocks that will form the foundation of the construction. This preparation was supervised by a driver. The fixation of this face will be made by means of a floating caisson that weighs over 1,500 tons and measures $18.5 \times 10 \times 16.5$ metres, that is successively sunk and re-floated and acts as a working platform bearing the 50 ton hoisting derrick which fixes the piles.

When the building is finished, the caisson will be integrated in the wall of the pier.

The building, which is being carried out by "Construções Técnicas", is supervised by Engineer Rui de Sousa and planning is made by the "PERT" method.

In the end, the depth of water alongside the wharf will be 12 metres and those further 380 metres will allow the berthing of three medium sized ships. (Boletim Portos, Caminhos de Ferro e Transportes de Moçambique, February, 1970)

Present and Future Container Facilities in Major Ports of the World (1)

• Supervised by Mr. Ben E. Nutter, Chairman of the Committee on Containerization of IAPH

Compiled by Miss Kimiko Takeda, Under Secretary of IAPH Head Office

(This series shall last until the June issue. Presented roughly in the order of arrival.)



Oakland, Calif., U.S.A.

PORT OF: OAKLAND		DATE: DECEMBER 8, 19	970
DESIGNATION OF TERMINAL:	PUBLIC CONTAINER TERMINAL		
OPERATOR OF TERMINAL:	MARINE TERMINALS CORPORATIO	N	

	THE OF LIGHT TON	UNDER CONSTRUCTION	FUTURE FLAM
TERMINAL			
Number of berths	2	1	
Length of each berth	768 feet	710 feet	
Land area of each terminal	25 acres		
Dimensions of each terminal	1536 feet x 710 feet		
Depth of water at berths	35' MLLW	- 35' MLLW	
CONTAINER CRANE			
Number of container cranes	I	1	
Lifting capacity of each	40 long ton	40 long ton	
Reach on waterside from front edge of berth	115 feet	115 feet	
Reach on landside from deck rail	82 feet	82 feet	
MODE OF MANAGEMENT			
I. Exclusive lease for specified users			
2. Preferential use			
3. Open to all callers	x	x	
MODE OF OPERATION			
Transtainer operation			
Straddle Carrier operation	x		
Chassis operation	x		
CONTAINER PACKING OR FREIGHT	· · · · · · · · · · · · · · · · · · ·		
Dimensions	50,000 square feet	61,000 square feet	
RAILROAD CONNECTION TO YERMINAL			
(Yes) (No)	Yes	Yes	
· · · · · · · · · · · · · · · · · · ·	Sig	nature: Ben	ELut

Oakland, Calif., U.S.A.

 PORT OF:
 DARLAND
 DATE:
 JANUARY 5, 1971

 DESIGNATION OF TERMINAL:
 SEA-LAND TERMINAL
 DESIGNATION OF TERMINAL:
 SEA-LAND SERVICE, INC.

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	2		
Length of each berth	677.5 feet		
Land area of each terminal	60 acres		
Dimensions of each terminal	1928 feet X 1355 feet		
Depth of water at berths	35 feet MLLW		
CONTAINER CRANE		· ·	
Number of container cranes	3	· ·	
Lifting capacity of each	24.5 long tons		1
Reach on waterside from front edge of berth	104 feet		
Reach on landslde from deck rall	30 feet		
MODE OF MANAGEMENT			
 Exclusive lease for specified users 			
2. Preferential use	x		
3. Open to all callers			
MODE OF OPERATION			
Transtainer operation			
Straddle Carrier operation			
Chassis operation	X		
CONTAINER PACKING OR FREIGHT		1	
Dimensions	98,000 square feet		
RAILROAD CONNECTION TO TERMINAL			
(Yes) (No)	Yes		
	Signat	ure: Imit	Thitte

Oakland, Calif., U.S.A.

PERATOR OF TERMINAL: OAKLA	ND CONTAINER TERMINAL		
	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	1		
Length of each berth	720 feet		
Land area of each terminal	20 acres		
Dimensions of each terminal	1060 feet X 670 feet		
Depth of water at berths	35 feet MLLW		
CONTAINER CRANE			
Number of container cranes	1		
Lifting capacity of each	30 long ton		
Reach on waterside from front edge of berth	102 feet		
Reach on landside from deck rall	90 feet		1997 - A.
MODE OF MANAGEMENT			
I. Exclusive lease for specified users			
2. Preferential use	x		
3. Open to all callers			
MODE OF OPERATION			·
Transtainer operation	x		
Straddle Carrier operation			
Chassis operation			
CONTAINER PACKING OR FREIGHT			
Dimensions	32,000 square feet		
		t	

Oakland, Calif., U.S.A.

DESIGNATION OF TERMINAL: MATSON TERMINAL			
	ON TERMINALS. INC.		
	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
ERMINAL			
Number of berths	2		
Length of each berth	675 feet		
Land area of each terminal	42 acres		
Dimensions of each terminal	1350 feet X 1355 feet		1.1
Depth of water at berths	35 feet MLLW		
CONTAINER CRANE			
Number of container cranes	2		
Lifting capacity of each	28 long tons		
Reach on waterside from front edge of berth	#1 - 69 feet #2 - 105 feet		
Reach on landside from deck rail	#1 - 20 feet #2 - 30 feet		
ODE OF MANAGEMENT			
 Exclusive lease for specified users 	x		
2, Preferential use			
3, Open to all callers			
DDE OF OPERATION			
Transtainer operation			
Straddle Carrier operation	X		
Chassis operation	1		
CONTAINER PACKING OR FREIGHT			
Dimensions	29,000 square feet		
RAILROAD CONNECTION TO TERMINAL			
(Yes) (No)	Yes		

Oakland, Calif., U.S.A.

PORT OF: OAKLAND DATE: JANUARY 5, 1971 DESIGNATION OF TERMINAL: Seatrain Terminal OPERATOR OF TERMINAL: _____ Seatrain Lines

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	1		1. A
Length of each berth	700 feet		
Land area of each terminal	25 acres		
Dimensions of each terminal	1200 feet X 900 feet		
Depth of water at berths	(Trregular snape) 30 feet MLLW		
CONTAINER CRANE			
Number of container cranes	2	1. A.	
Lifting capacity of each	40 long tons	e e general de la composition de la com La composition de la c	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -
Reach on waterside from front edge of berth	90 feet		
Reach on landside from deck rail	90 feet		
MODE OF MANAGEMENT			
 Exclusive lease for specified users 	x		
2. Preferential use			
3. Open to all callers			
MODE OF OPERATION	·····		
Transtainer operation			
Straddle Carrier operation		1. F	
Chassis operation	x		
CONTAINER PACKING OR FREIGHT		·	
Dimensions			
RAILROAD CONNECTION TO TERMINAL			
(Yes) (No)	No		
· · · · · ·	Signat	ure: Ben E	Hutter

New Orleans, La., U.S.A.

PORT OF: B	EW ORLEANS	DATE: DECEMBER 17, 1970
DESIGNATION	OF TERMINAL: FRANCE ROAD TERMINAL	
OPERATOR OF	TERMINAL:	

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths		1 (one)	8 (eight)
Length of each berth		830*	700'
Land area of each terminal		33 Acres	14 Acres each
Dimensions of each terminal		1500'X950'	7000'X1100'
Depth of water at berths		34*	40' maximum
CONTAINER CRANE			
Number of container cranes		Furnished by	Wharf designed
Lifting capacity of each		Operator -	40 tons
Reach on waterside from front edge of berth		Wharf designed for	115*
Reach on landside from deck rali			35'
MODE OF MANAGEMENT			
 Exclusive lease for specified users 	· .	Under negotiation	Not yet determined
2. Preferential use			
3. Open to all callers		1.199	
			tation of the second
MODE OF OPERATION			
Transtainer operation	-		Not yet
Straddie Carrier operation	1	and an training	
Chassis operation		x	
CONTAINER PACKING OR FREIGHT STATION		a grad de ge	1
Dimensions	F .	100*X680*	Not yet determined
RAILROAD CONNECTION TO TERMINAL		1	
(Yes) (No)		YES	XES
• • • • • • • • • • • • • • • • • • •	Sign	tura: X.Z.	Julian
	argia	<u> </u>	000 0

Anchorage, Alaska, U.S.A.

PORT OFANCHORAGE, ALASH	Α	DATE: December 1	7, 1970
DESIGNATION OF TERMINAL:	Terminal No. 1 & 2		
OPERATOR OF TERMINAL:	City of Anchorage		
		INCER CONCERNETION	

•	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	2		
Length of each berth	600' & 610'		
Land area of each terminal	21.5 & 14		
Dimensions of each terminal			
Depth of water at berths	35' MLLW		
CONTAINER CRANE			
Number of container cranes	2		
Lifting capacity of each	27월 tons		
Reach on waterside from front edge of berth	76'		
Reach on landside from deck rail	63'		
MODE OF MANAGEMENT			
I. Exclusive lease for specified users			
2. Preferential use	x		
3. Open to all callers	x		
MODE OF OPERATION			· · · · · · · · · · · · · · · · · · ·
Transtainer operation			· · · ·
Straddle Carrier operation			
Chassis operation	x		
CONTAINER PACKING OR FREIGHT	· · · · · · · · · · · · · · ·		
Dimensions	9600 sq. ft.		
RAILROAD CONNECTION TO TERMINAL		1	
(Yes) (No)	Yes		
· · · · · · · · · · · · · · · · · · ·			

Signatur E. Erwin Davis, Port Director

Savannah, Ga., U.S.A.

PORT OF: SAVANNAH, GEORGIA, U.S.A. DATE: 28 Decem, ber 1970 DESIGNATION OF TERMINAL: Berth No. 58, Garden City Terminal, Georgia Ports Authority OPERATOR OF TERMINAL: Georgia Ports Authority

	IN OPERATION 2/1/71	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL Number of berths	1	N O	Two (2) Additional Berths same as one
Length of each berth	20 Acres	N E	in operation, As Needed.
Dimensions of each terminal	992' x 1501'		
Depth of water at berths			
CONTAINER CRANE			
Number of container cranes	1 plus 2 30-ton Gan- try Cranes		
Lifting capacity of each	45 tons		
Reach on waterside from front edge of berth	113'6"		
Reach on landside from deck rail	113'6"		
MODE OF MANAGEMENT		·	
I. Exclusive lease for specified users			
2. Preferential use			
3. Open to all callers	Yes		
NODE OF OPERATION			
Transtainer operation	Yes		
Straddle Carrier operation			
Chassis operation	Yes		
CONTAINER PACKING OR FREIGHT		a to at include	
Dimensions	100,000 Sq. Ft.		
RAILROAD CONNECTION TO TERMINAL			
(Yes) (No)	Yes		

Signature:

Port Containerization ... Worldwide

PORTS and HARBORS

New York, N.Y., U.S.A.

PORT OF: New York DATE: December 29, 1970
DESIGNATION OF TERMINAL: Universal Terminal - Port Newark, New Jersey
OPERATOR OF TERMINAL: Universal Terminal & Stevedoring Corp.

TERMINAL Number of berths 3 Length of each berth 689' Land area of each terminal 40 acrea Dimensions of each terminal 2058 x 830 Depth of water at berths 33' CONTAINER CRAME 22 Number of container crones 2 Lifting capacity of each 50 T Peach on waterside from front entry 115' Peach on waterside from deck 85' MODE OF NANACCHENY 1 1. Exclusive lease for specified users X 2. Preferential use 3 3. Open to all callers X MODE OF OPERATION X Transtainer operation X Straddle Carrier operation X Dimensions 260 x 800 RAILERAD CONNECTION TO TERMINAL (Yes) (NO) YES		IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
Number of berths 3 Length of each barth 689' Land area of each terminal 40 acrea Dimensions of each terminal 2058 x 830 Dapth of vater at berths 33' CONTAINER CRIME 33' Number of container crones 2 Lifting capacity of each 50 T Reach on vaterside from front erge of berth 85' MODE OF MANAGEMENT 115' 1. 5 xclusive lease for specified users x 2. Prefarential use 3 3. Open to all collers x MODE OF MANAGEMENT x 1. 5 xclusive lease for specified users x 2. Prefarential use x 3. Open to all collers x MODE OF MANAGEMENT x Transtainer operation x Straddic Carrier operation x Straddic Carrier operation 280 x 800 COMMATHER PACKING OR FREIGHT STATION 280 x 800 Dimensions 280 x 800	TERMINAL			
Length of each berth 689' Land area of each terminal 689' Land area of each terminal 2008 x 830 Depth of water at berths 33' COMTAINER CRAME Number of container cranes 2 Lifting capacity of each 50 T Peach on vaterside from front 115' Peach on vaterside from deck 85' NOC OF NUMACEMENY I. Exclusive less for specified users 2 2. Preferantial use 3 3. Open to all callers X NODE OF OPERATION X Transtainer operation X Straddle Carrier operation X Lifting capacity of TREIGHT STATION Dimensions 260 x 800 RAILERAAC CONNECTION TO TERMINAA (Yes) (NO) YES	Number of berths		3	
Land area of each terminal 40 acces Dimensions of each terminal 2058 x 830 Depth of vetor at berths 33' CONTAINER CRIME Number of container cranes 2 Lifting capacity of each 50 T Reach on vaterside from front 115' Reach on landside from deck 85' MODE OF MANAGEMENT 1. Society lease for specified users x 2. Preferantial use 3 3. Open to all callers x MODE of OPERATION Transtainer operation X Straddle Cerrier operation X Straddle Cerrier operation X CONTAINER PACKING OR FREIGHT SIATION Dimensions 260 x 800 RURADC CONNECTION TO TERMINAL (Yes) (NO) YES	Length of each berth		689'	<i></i>
Dimensions of each terminel 2058 x 830 Depth of vater at berths 33' CONTAINER CRANE Number of container cranes 2 Lifting capacity of each 50 T Pasch on variaside from front edge of berth 85' MODE OF MANAGEMENT 1. Sociusive lease for specified users x 3. Open to all cellers x MODE OF OPERATION Transtalion operation X Straddie Carrier operation X Straddie Carrier operation X CONTAINER PACKING OR FREIGHT SIATION Dimensions 280 x 800 RAILERAD CONNECTION TO TERMINAL (Yes) (NO) YES	Land area of each terminal		40 acres	
Depth of vator at berths 35' CENTAINER CRAME 2 Number of container cranes 2 Lifting capacity of each 50 T Peach on vatorside from front ergs of berth 115' Reach on vatorside from deck reli 85' MODE OF MANACEMENY x 1. Sociusitive lease for specified users x 2. Preferantial use x 3. Open to all callers x MODE OF OPERATION Transtainer operation x OCINTAINER PACKING OR FREIGHT SIATION Dimensions 260 x 800 RAILERAD CONNECTION TO TERMINAL (Yes) (NO) YES	Dimensions of each terminal		2058 x 830	-
CONTAINER CRANE 2 Number of container cranes 2 Lifting capacity of each 50 T Reach on waterside from front engle of berth 115' Reach on landside from deck rail 85' MODE OF MANACEMENT 1. 1. Exclusive lesse for specified users X 2. Preferential use X 3. Open to all callers X MODE OF OPERATION Transtainer operation X Straddle Cerrier operation X CONTAINER PACKING OR FREIGHT SIATION Dimensions 260 x 800 RAILEOAD CONNECTION TO TERMINAL (Yes) (NO) YES	Depth of water at berths		35'	
Number of container cranes 2 Lifting capacity of each 50 T Pasch on vaterside from front edge of berth 115' Reach on landside from deck rail 85' MODE OF NAMAGEMENT 11.5' 1. Status less for specified users X 2. Preferantial use X 3. Open to all callers X MODE OF OPERATION X Consist coperation X Straddle Carrier operation X COMMATHER PACKING OR FREIGHT STATION 260 x 800 Dimensions 260 x 800 RAILERAD CONNECTION TO TERMINAL (Yes) (No) YES	CONTAINER CRANE			
Lifting capacity of each 50 T Reach on waters lide from front edge of berth 115' Reach on landside from deck 85' MORE OF MUNACEMENT 1. Exclusive less for specified users 2. Preferantial use 3. Open to all callers MODE OF OPERATION Transtainer operation Straddic Carrier operation Straddic Corrier operation CONTAINER PACKING ON FREIGHT STATION Dimensions RAILROAC CONNECTION TO TERMINAL (Yes) (No) YES	Number of container cranes		2	
Reach on vaterside from front erge of berth 115' Reach on landside from deck relif 85' MODE OF MANAGEMENT 1. Scylesty lesse for specified users x 1. Exclusive lesse for specified users x 2. Preferantial use x 3. Open to all callers x MODE OF OPERATION Transtainer operation Straddle Cerrier operation Straddle Cerrier operation Straddle Cerrier operation CONTAINER PACKING OR FREIGHT SIATION Dimensions 260 x 800 CONTAINER PACKING OR FREIGHT SIATION Vers) (No) YES	Lifting capacity of each		50 T	
Peach on landside from deck ratif 85' MODE OF MANAGEMENT 1. Exclusive lease for specified users X 2. Preferential use X 3. Open to all callers X MODE OF OPERATION Transtainer operation X Straddle Carrier operation X COMPATHER PACKING OR FREIGHT STATION Dimensions 260 x 800 RAILERAD CONNECTION TO TERMINAL (Yes) (No) YES	Reach on waterside from front edge of berth		115'	
MODE OF NAMAGEMENT 1. Exclusive less for specified users 2. Preferantial use 3. Open to all callers MODE OF OPERATION Transtainor operation X Straddle Carrier operation CONTAINER PACKING OR FREIGHT Dimensions 280 x 800 RAILROAD CONNECTION TO TERMINAL (Yes) (No)	Reach on landside from deck raii	t i	85'	
I. Exclusive less for specified users X 2. Preferential use X 3. Open to all collers X MODE OF OPERATION Transtainer operation X Straddic Carrier operation Chassis operation X COMPATING OR TREIGHT STATION Dimensions 260 x 800 RAILERAD CONNECTION TO TERVINAL (Yes) (No) YES	MODE OF MANAGEMENT			
2. Preferential use	1. Exclusive lease for specified users		. x	
3. Open to sil callers Image: Competition operation X Transtainer operation X Straddle Carrier operation X Construct operation X CONTAILER PACKING OR FREIGHT 280 x 800 CONTAILER PACKING OR FREIGHT 280 x 800 CALLER PACKING OR FREIGHT 280 x 800 RAILROAD CONNECTION TO TERMINAL (Yes) (No) YES	2. Preferential use			
NODE OF OPERATION X Transtainor operation X Straddle Carrier operation X Chassis operation X CONTAILER PACKING OR FREIGHT X Dimensions 280 x 800 RAILEDAD CONNECTION TO TERMINAL (Yes) YES	3. Open to all callers			
NODE OF OPERATION X Transtainer operation X Straddle Carrier operation X CONSILE operation X CONTAINER PACKING OR FREIGHT X STATION 260 x 800 Dimensions 260 x 800 RAILROAD CONNECTION TO TERMINAL (Yes) YES		1		
Transtainer operation X Straddle Cerrier operation X Chassis operation X CONTAINER PACKING OR FREIGHT 280 x 800 Tation 280 x 800 RAILROAD CONNECTION TO TERMINAL (Yes) (No) YES	MODE OF OPERATION	and the second second		
Straddle Carrier operation X Chassis operation . CONTAINER PACKING OR FREIGHT . Station . Dimensions . RAILROAD CONNECTION TO TERMINAL (Yes) YES	Transtainer operation		x	
Chassis operation CONTAINER PACKING OR FREIGHT STATION Dimensions RAILROAD CONNECTION TO TERMINAL (Yes) (No) YES	Straddie Carrier operation		x	
CONTAINER PACKING OR FREIGHT 251ATION Dimensions 280 x 800 RAILROAD CONNECTION TO TERMINAL 255	Chassis operation	1		
Dimensions 280 x 800 RAILROAD CONNECTION TO TERMINAL (Yes) (No) YES	CONTAINER PACKING OR FREIGHT			
RATLERAD CONNECTION TO TERMINAL (Yes) (No) YES	Dimensions		280 x 800	
(Yes) (No) YES	RAILROAD CONNECTION TO TERMINAL			
	(Yes) (No)		YES	

Signature:_____

New York, N.Y., U.S.A.

PORT OF: _____ DATE: _____ DATE: ______ DESIGNATION OF TERMINAL: ______ Thermational Terminal Operators. Elizabeth. New Jersey ______ OPERATOR OF TERMINAL: ______ Thermational Terminal Operators

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	3		
Length of each berth	640 L.F.		
Land area of each terminal	92.2 acres		
Dimensions of each terminal	1,920 X 830 dock ar	ea	
Depth of water at berths "	35 ft. MLLW		4 1 A
CONTAINER CRANE			
Number of container cranes	4	· · · ·	
Lifting capacity of each	2-30 ton 2-40 ton		
Reach on waterside from front edge of berth	103 ft.		
Reach on landside from deck rail	87.6 ft.		
MODE OF MANAGEMENT			
 Exclusive lease for specified users 	x		
2. Preferential use			
3. Open to all callers			
MODE OF OPERATION			
Transtainer operation			
Straddle Carrier operation	x		
Chassis operation	x		
CONTAINER PACKING OR FREIGHT			
Dimonsions	1,637,920 sq. ft.		
RAILROAD CONNECTION TO TERMINAL (Yes) (No)	yes - to stripping and stuffing areas.		

Signature:_____

New York, N.Y., U.S.A.

PORT OF: New York

DATE: 12/29/70

DESIGNATION OF TERMINAL: <u>Atlantic Container Lines, Elizabeth, New Jersey</u> OPERATOR OF TERMINAL: <u>Container Terminals New York</u>

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	4		
Length of each berth	660 L.F.		
Land area of each terminal	82.8 acres		
Dimensions of each terminal	2640 X 830 Dock area		
Depth of water at berths	35 ft. MLLW		-
CONTAINER CRANE			
Number of container cranes	2		
Lifting capacity of each	30 tons		
Reach on waterside from front	102'		
Peach on landside from dack	80'		
rall			
MODE OF MANAGENENT			
 Exclusive lease for specified users 	x		
2. Preferentiai use			
3. Open to all callers	:		
MODE OF OFERATION			
Transtainer operation			
Straddle Carrier operation	x		
Chassis operation	x		
CONTAINER PACKING OR FREIGHT			
Dimensions	223,580 sq. ft. Bldgs,223 C&D,218-230-	801-	
RAILROAD CONNECTION TO TERMINAL	302.	[
(Yes) (No)	Yes - To stripping &	1	

Signature:_____

New York, N.Y., U.S.A.

PORT OF: New York DATE: 12/29/70
DESIGNATION OF TERMINAL: SEA-LAND SERVICE INC. ELIZABETH, NEW JERSEY
OPERATOR OF TERMINAL: SEA-LAND SERVICE INC.

4	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	5		
Length of each berth	628 L.F.		
Land area of each terminal	123.3 Acres		
Dimensions of each terminal	3,140 X 830 dock a	rea	
Depth of water at berths	35 ft. MLLW		
CONTAINER CRANE			
Number of container cranes	4		
Lifting capacity of each	27.5 tons		
Reach on waterside from front	102 ft.		
Reach on landside from dock	80 ft.		
MODE OF MANAGEMENT			
 Exclusive lease for specified users 	x		
2. Preferential use			1
3. Open to all callers			
MODE OF OPERATION			
Transtainer operation			
Straddie Carrier operation			1. A.
Chassis operation	x		
CONTAINER PACKING OR FREIGHT			······································
Dimensions	1,053,400 sq. ft.		
RAILROAD CONNECTION TO TERMINAL (Yes) (No)	yes - to stripping an stuffing areas.		

Signature:

Port Containerization ... Worldwide

New York, N.Y., U.S.A.

PORT OF: New York

DATE: ____ December 29, 1970

DESIGNATION OF TERMINAL: Port Newark - Berth 51

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths		1	
Length of each berth		764	
Land area of each terminal		22 acres	
Dimensions of each terminal		Irregular	
Depth of water at berths		35' (HLW)	
CONTAINER CRANE			
Number of container cranes		Unknown	
Lifting capacity of each		at	
Reach on waterside from front		this	
Boach on Jandelde from dock		time	
rall			
MODE OF MANAGEMENT			
I. Exclusive lease for		Unknown	
Specified users		at	
2. Preferential use		this	
3. Open to all callers		time	
MODE OF OPERATION			
	:		
Straddig Carrier operation			
Chassis operation			
CONTAINER PACKING OR FREIGHT			
Dimonsions			
RAILROAD CONNECTION TO TERMINAL			
(Yes) (No)	1		

Signature:____

New York, N.Y., U.S.A.

PORT OF: New York DATE: December 29, 1970
DESIGNATION OF TERMINAL: Elizabeth Port Authority Marine Terminal
OPERATOR OF TERMINAL: Berths 88 - 98

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths		5	
Length of each berth		3@833'; 2@1009	
Land area of each terminal		317 acres	
Dimensions of each terminat		irregular	
Depth of water at berths	i	40 (MLW)	
CONTAINER CRANE			
Number of container cranes		Unknown	
Lifting capacity of each		at	
Reach on waterside from front		this	
edge of berth		time	
Reach on landside from deck rail			
MODE OF NANAGEMENT			
1. Exclusive lease for		Unknown	
		at	
2. Preferential use		this	
3. Open to all callers		time	
HANT OF ANTIAN			
FOR OF CHENTION			
Transtainer operation			
Straddie Carrier operation			
Chassis operation			-
CONTAINER PACKING OR FREIGHT			
Olmens lons			
RAILROAD CONNECTION TO TERMINAL			
(Yes) (No)			

Signature:_____

New York, N.Y., U.S.A.

TCOMMAN	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERRINAL			
Number of berths		3	
Length of each berth		800*	
Land area of each terminal		· 134 acres	
Dimensions of each terminal		irregular	
Depth of water at berths		35' (MLW)	
CONTAINER CRANE			······
Number of container cranes		unknown	
Lifting capacity of each		at this	
Reach on waterside from front edge of berth		Clue	
Reach on landside from deck rail			
MODE OF MANAGEMENT			
I. Exclusive lease for		unknown at	
specified users		this	
2. Preferential use			-
3. Open to all callers			
MODE OF OPERATION			
Transtainer operation			
Straddle Carrier operation			
Chassis operation			
CONTAINER PACKING OR FREIGHT			
Dimensions			
RAILROAD CONNECTION TO TERMINAL			
(Yes) (No)			
	Signat	uro:	

Philadelphia, Pa., U.S.A.

 PORT OF:
 Philadelphia
 DATE:
 January 12, 1971

 DESIGNATION OF TERMINAL:
 Tioga and Packer Avenue Marine Terminal

 OPERATOR OF TERMINAL:
 Tioga - Delaware River Terminal and Stevedoring Co.

Pace	er Avenue - Lavino Shipp	ing Companu	
	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			,
Number of berths		4	
Length of each berth		600' plus	
Land area of each terminal		10 acres for each	
Dimensions of each terminal		irregular	
Depth of water at berths		Constructed for	
CONTAINER CRANE			
Number of container cranes		2	
Lifting capacity of each		45 tons	
Reach on waterside from front edge of berth		113'	
Reach on landside from dack rail		180'	
MODE OF MANAGEMENT			
 Exclusive lease for specified users 		XXXXXX	
2. Preferential use			
3. Open to all callers			
MODE OF OPERATION			
Transtainer operation		Combination of	
Straddle Carrier operation		straddle carrier & chassis	
Chassis operation			
CONTAINER PACKING OR FREIGHT		Initially the tenant	
Dimensions		will use a portion of his transient	
01800001013		shed until he can g	uge his
RAILROAD CONNECTION TO TERMINAL		future requirement	1
(Yes) (No)		Yes	
	Signat	Harris	Fielu
	e guar	Harry J. Pishe	r

Port Containerization ... Worldwide

Kobe, JAPAN

PORT OF:___ DATE: Kobe er 23, 197 DESIGNATION OF TERMINAL: Maya Container Terminal (Public Container Terminal)

OPERATOR OF TERMINAL: Nippon Container Terminal, Kobe Container Terminal, Sankyu Transportation & Engineering Co., Ltd.

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	2		
Length of each berth	984 feet		
Land area of each terminal	40 acres	-	-
Dimensions of each terminal			
Depth of water at berths	39 feer		
CONTAINER CRANE		•	
Number of container cranes	2		
Lifting capacity of each	25 t, 30 t.		
Reach on waterside from front edge of berth	110 feet	-	-
Reach on landside from deck rall	23 feet		
MODE OF MANAGEMENT			
I. Exclusive lease for specified users	x		
2. Preferential use		-	-
3. Open to all callers			
MODE OF OPERATION			
Transtainer operation	r		
Straddie Cerrier operation	x	-	-
Chassis operation			
CONTAINER PACKING OR FREIGHT	256 x 72feet = 18,43	square feet	
Dimensions	367 x 95feet = 34,86	square feet	-
RAILROAD CONNECTION TO TERMINAL			
(Yes) (No)	No	-	-
Signatura: 7 Magata			

Osaka, JAPAN*

PORT OF: OSAKA	DATE: JANUARY 18 1971
DESIGNATION OF TERMINAL:	
OPERATOR OF TERMINAL: HANSHIN(OSAKA BAY) PORT DEVELOPMEN	TAUTHORITY

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL Number of berths	2(NO.1 berth have been equipped with the ramp for ro/ro vessels)	3	2
Length of each berth	250m X 2	250m X 2,300m X 1	250m X 2
Land area of each terminal	150,000M ^{2.}	240,000m ³	150,000m2
Dimensions of each terminal	500m X 300m	800m X 300m	500m X 300m
Depth of water at berths	12m L.L.N.L.	12m L.L.W.L.	12m L.L.W.L.
CONTAINER CRANE			
Number of container cranes	3	1	2cranes for each
Lifting capacity of each	37.5ton X 2,38.0ton X 1	38.0ton	berth:
Reach on waterside from front edge of berth	31.5m	32.0n	+
Reach on landside from deck rail	23.5m	24.5m	
MODE OF MANAGEMENT	·		
1. Exclusive lease for specified users	x	x .	
2. Protorontial use	NO.1 ; Kawasaki Line	NO.3 ; Kawasaki Li	ne ' · ·
3. Open to all callers	NO.2 Nitsui-O.S.K.Lin N.Y.K. Line Y.S. Line (Joint upp)	NO.4 Undecided	· · · ·
HODE OF OPERATION	(egtite ase)	*****	
Transtainer operation	X : NO.2 berth		
Straddle Carrier operation	(NO.1 berth; Operation		
Chassis operation	by telkilityete. /		
CONTAINER PACKING OR FREIGHT			
Dimensions	4,627m~ (for NO.1 ber 2,967m~ (for NO.2 ber	th) th)	
RAILROAD CONNECTION TO TERMINAL			
(Yes) (No)	NO		
	Signat	ire:	••••••••••••••••••••••••••••••••••••••

Kobe, JAPAN

PORT OF:____

DATE: JANUARY 18, 1971

KOBE DESIGNATION OF TERMINAL: PORT ISLAND OPERATOR OF

								•
F	TERMINAL :_	HANSHIN	(OSAKA	BAY)	PORT	DEVELOPMENT	AUTHORITY	

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	1	8	
Length of each berth	300m	250m X 2,300 X 6	
Land area of each terminal	105,000m²	786,000m ²⁻	
Dimensions of each terminal	300m X 350m		
Depth of water at berths	12m L.L.W.L.	12m L.L.W.L.	
CONTAINER CRANE			
Number of container cranes	2	4	2 cranes for each
Lifting capacity of each	385 ton	44.0 ton	berth
Reach on waterside from front edge of berth	31,5m	33.Om	
Reach on landside from deck rall	25.Om	27.0m	
MODE OF MANAGEMENT			
1. Exclusive lease for specified users	x	X NO.2Y.S.Line and Jap	an Line(Joint use)
2. Preferential use	Sea-Land Service Inc.	NO.3 N.Y.K Line	
3. Open to all callers		NO.5 A.P.L. and A.F NO.6 U.S.L. NO.7 UMitsui O.S.K.	L.(Joint use) Line
NODE OF OFFRATION		NO.8 /	
Transtainer operation		io.y undecided	
Straddle Carrier operation			
Chassis operation	, x		
CONTAINER PACKING OR FREIGHT			
Dimensions	6,672m ²		
RAILROAD CONNECTION TO TERMINAL			
(Yes) (No)	NO	NO	

Osaka, JAPAN*

PORT OF :___OSAKA____ DATE: January 6, 1971

Signature:

DESIGNATION OF TERMINAL: OSAKA PORT CONTAINERSHIP WHARP 1 OPERATOR OF TERMINAL: Kawasaki Kisen Kaisha, Ltd.; Australian National Line; and Flinders Shipping Co. Pty. Ltd.

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERNINAL			
Number of berths	1		
Length of each berth	896 ft. (273 m.)		
Land area of each terminal	18.9 acres (76,610 sq		
Dimensions of each terminal	984 ft. x 820 ft.		
Depth of water at berths	(300 m x 250 m) 39 ft. DL (12 m.)		
CONTAINER CRANE			·····
Number of container cranes	1		
Lifting capacity of each	30 long tons (30.5		
Reach on waterside from front edge of berth	metric tons) 112 ft. (34 m.)		
Reach on landside from deck rail	69 ft. (21 m.)		
MODE OF HANAGEMENT: Constructed	and leased by the Hansi	in (Osaka Bay) Port	Development
Authority I. Exclusive lease for specified users	· *		1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -
2. Preferential use			
3. Open to all callers			
MODE OF OPERATION			
Transtainer operation			
Straddle Carrier operation	· ·		
Chassis operation	x (and/or for	lift system)	
CONTAINER PACKING OR FREIGHT			
Dimensions	17,418 sq. ft. (5,309 sq. m.)		
RAILROAD CONNECTION TO TERNINAL			
(Yes) (No)			Yes
		Riyosh	- Kano
	Signatu	are: U	

Note: Data of Osaka Nanko marked * are duplicatedly presented both by Hanshin Port Development Authority and Osaka.

Port Containerization ... Worldwide

MARCH 1971

Osaka, JAPAN*

PORT OF :__OSAKA

DATE: January 6, 1971

DESIGNATION OF TERMINAL: OSAKA PORT CONTAINERSHIP WHARE OPERATOR OF TERMINAL: <u>Mitsui O.S.K. Lines, Ltd.; Nippon Yusen Kaisha ("NYK" Line);</u> Yamashita-Shinnihon Steamship Co., Ltd.; and Australia Japan

Container	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	1		
Length of each berth	820 ft. (250 m.)		
Land area of each terminal	10.9 acres (19,000 sq. m.)		х.
Dimensions of each terminal	984 ft. x 820 ft.		1.11
Depth of water at berths	(300 m x 250 m) 39 ft. DL (12 m.)		
CONTAINER CRANE			
Number of container cranes	2		
Lifting capacity of each	30 long tons (30.5		
Reach on waterside from front edge of berth	112 ft. (34 m.)		
Reach on landside from deck rall	69 ft. (21 m.)		
MODE OF MANAGEMENT: Constructed	and leased by the Hans)	in (Osaka Bay) Port	Development
Authority I. Exclusive lease for specified users	x		
2. Preferential use			
3. Open to all callers			
MODE OF OPERATION		****	
Transtainer operation	* (and/or for	lift system)	
Straddle Carrier operation		1110 0,000	
Chassis operation			
CONTAINER PACKING OR FREIGHT			
Dimensions	13,123 sq. ft. (4,000 sq.m.)		
RAILROAD CONNECTION TO TERMINAL			
(Yes) (No)		6	Yes
	Flent	Riyoshi	- Kano,

KIYOSHI KARO, GENERAL MAMAGER

Osaka, JAPAN*

PORT OF: OSAKA DATE: January 6, 1971 DESIGNATION OF TERMINAL: OSAKA FORT CONTAINERSHIP WHARVES 4, 5, 6, 7 OPERATOR OF TERMINAL: Undecided yet.

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths			հ
Length of each berth			820 ft. (250 m.) to
Land area of each terminal			984 ft. (300 m. at the option of
Dimensions of each terminal			users. do
Depth of water at berths			39 ft. DL (12 m.)
CONTAINER CRANE			
Number of container cranes			9
Lifting capacity of each			Undecided
Reach on waterside from front edge of berth			do
Reach on landside from deck rall			đo
MODE OF MANAGEMENT: Constructed	and leased by the Hans	in (Osaka Bay) Port	Development
Authority I. Exclusive lease for specified users			Undecided
2. Proferential use	1		
3. Open to all callers			ngen star i julija
MODE OF OFFRATION			
Transtainer operation			
Straddie Carrier operation			at the option of users.
Chassis operation			
CONTAINER PACKING OR FREIGHT	· · ·		
Dimensions			at the option of users.
RAILROAD CONNECTION TO TERMINAL			
(Yes) (No)		L	Tes
		Riggel	: Ka

Signature: Kano.

Osaka, JAPAN*

PORT OF : OGAKA DATE: January 6, 1971 DESIGNATION OF TERMINAL: OSAKA PORT CONTAINERSHIP WHARE 3

OPERATOR OF TERMINAL: Kawasaki Kisen Kaisha, Ltd.

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN	
TERMINAL				
Number of berths		1		
Length of each berth		820 ft. (250 m.)		
Land area of each terminal		at the option of users.		
Dimensions of each terminal				
Depth of water at berths	· · ·	· ·		
CONTAINER CRANE				
Number of container cranes		2		
Lifting capacity of each				
Reach on waterside from front edge of berth				
Reach on landside from deck rall				
MODE OF MANAGEMENT: Constructed	and leased by the Hans	in (Osaka Bay) Port	Development	
I. Exclusive lease for specified users		x		
2. Preferential use				
3. Open to all callers				
MODE OF OPERATION				
Transtainer operation				
Straddle Carrier operation		at the option of users.		
Chassis operation		1		
CONTAINER PACKING CR FREIGHT				
Dimensions		at the option of users.		
RAILROAD CONNECTION TO TERMINAL		1		
(Yes) (No)		6	Yes	
	Signat	ure: Riyosh	i Kano.	
	KIYOSHI KANO, GENERAL MANAGER			

Nagoya, JAPAN

PORT OF :_____NAGOYA_____ DATE: JANUARY 11, 1971 DESIGNATION OF TERMINAL: PUBLIC CONTAINER TERMINAL OPERATOR OF TERMINAL: NAGOYA PORT AUTHORITY

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	2		4
Length of each berth	470 meters		1,100 meters
Land area of each terminal	105,000 square meters		340,000 square mete
Dimensions of each terminal	(approximately) 220 meters 470 meters		350 meters 1,100 me
Depth of water at berths	(irregular shape) 10 meters		(irregular shape) 12 meters
CONTAINER CRANE			
Number of container cranes	2		8
Lifting capacity of each	37.5 ton		37.5 ton
Reach on waterside from front edge of berth	35 meters		35 meters
Reach on landside from deck rail	7.5 meters		7.5 meters
MODE OF MANAGEMENT			
 Exclusive lease for specified users 			×
2. Preferential use			
3. Open to all callers	×	- -	
MODE OF OPERATION			
Transtainer operation			
Straddle Carrier operation	×		×
Chassis operation			
CONTAINER PACKING OR FREIGHT			
Dimensions	8,760 square meters (approximately)		22,000 square meter
RAILROAD CONNECTION TO TERMINAL			
(Yes) (No)	No		No
	A		

Signature: Mutano Kobayasku Mrector, General Affairs Division



Antwerp, BELGIUM

PORT OF: ANTWERP, Belgium DATE: december 1970 DESIGNATION OF TERMINAL: Container Terminal Churchilldock OPERATOR OF TERMINAL: Hessenatie-Neptunus n.v.

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	4		
Length of each berth	total: 1.025 m		
Land area of each terminal	185.000 m2		
Dimensions of each terminal	irregular shape		
Depth of water at berths	15,25 m		
CONTAINER CRANE			
Number of container cranes	2		
Lifting capacity of each	4o tons		-
Reach on waterside from front edge of berth	32,50 m		
Reach on landside from deck rall	52,50 m		
MODE OF MANAGEMENT			
 Exclusive lease for specified users 			
2. Preferential use	x		
3. Open to all callers			
MODE OF OPERATION	······		
Transtainer operation			
Straddle Carrier operation	x		
Chassis operation	×		
CONTAINER PACKING OR FREIGHT	8.200 m2 6.900 m2 (300x23	(8,7 m)	
Dimensions	7.300 m2 (162,5	x 45 x 6m)	
RAILROAD CONNECTION TO TERMINAL			
(Yes) (No)	yes		R. Vieugels
· · · · ·	Signat	ure:	d. Hund

Antwerp, BELGIUM

PORT OF: ANTWERP, Belgium DATE: december 1970 DESIGNATION OF TERMINAL: Container Terminal Churchilldock OPERATOR OF TERMINAL: _____ Gylsen Stevedoring Company n.v.

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL	_		
Number of berths	3		
Length of each berth	total: 790 m		
Land area of each terminal	268.620 m2		
Dimensions of each terminal	irregular		
Depth of water at berths	15,25 m		
CONTAINER CRANE			
Number of container cranes	2	1.5	
Lifting capacity of each	45 tons		
Reach on waterside from front edge of berth	37,50 m		
Reach on landside from deck rail	48,50 m		
MODE OF MANAGEMENT			
 Exclusive lease for specified users 			
2. Preferential use	x		
3. Open to all callers			
MODE OF OPERATION			
Transtainer operation	x		
Straddle Carrier operation	x		
Chassis operation	×		
CONTAINER PACKING OR FREIGHT	11.250 m2	(10.000 m2
Dimensions	11.290 m2 (190x)	DXTC .CEL	
RAILROAD CONNECTION TO TERMINAL (Yes) (No)	yes		R. Vleugels General Manager
	L	L	
	Signatu	ro: Nuli	Hunger

Antwerp, BELGIUM

PORT OF: ANTWERP, Belgium DATE: december 1970 DESIGNATION OF TERMINAL: _____ Container Terminal Churchilldock OPERATOR OF TERMINAL: Noord Natie s.v.

TEDULINAL	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
I COMINAL			
Number of berths	2		
Length of each berth	total:359 m		
Land area of each terminal	irregular shape		
Dimensions of each terminal	132.000 m2		
Depth of water at berths	15,25 m		
CONTAINER CRANE			
Number of container cranes	1		
Lifting capacity of each	53 tons		
Reach on waterside from front edge of berth	32,50 m		
Reach on landside from deck rail	42,50 m		
MODE OF MANAGEMENT			
 Exclusive lease for specified users 			
2. Preferential use	x		-
3. Open to all callers		e	
MODE OF OPERATION			
Transtainer operation			
Straddle Carrier operation	x		
Chassis operation	×		
CONTAINER PACKING OR FREIGHT	6,500 m2	E0 1/8m)	
Dimensions	0.000 m2 (120 x	JO KOM/	
RAILROAD CONNECTION TO TERMINAL			
(Yes) (No)	yes		R. Vieugeis General Manager
	Signatu	ire:	1. plunyets

Antwerp, BELGIUM

DATE: december 1970 PORT OF:____ ANTWERP, Belgium DESIGNATION OF TERMINAL: _____ Container Terminal Churchilldock_ OPERATOR OF TERMINAL:_____ Antwerps Havenbedrijf Pays N.V.

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	3		
Length of each berth	total 754 m		
Land area of each terminal	irregulàr shape		
Dimensions of each terminal	86.000 m2		
Depth of water at berths	15,25 m		
CONTAINER CRANE			
Number of container cranes	1		
Lifting capacity of each	45 tons		
Reach on waterside from front edge of berth	32,50 m		
Reach on landside from deck rail	25,25 m		
MODE OF MANAGEMENT			
 Exclusive lease for specified users 			
2. Preferential use	x		
3. Open to all callers			
MODE OF OPERATION			
Transtainer operation			
Straddle Carrier operation	x		
Chassis operation	x		
CONTAINER PACKING OR FREIGHT	20.000 m2		
Dimensions	7.500 m2		
RAILROAD CONNECTION TO TERMINAL (Yes) (No)	yes		R. Vleugels, General Manage
		Add	Hungh



Antwerp, BELGIUM

PORT OF: DATE: december 1970 ANTWERP, Belgium ____ DESIGNATION OF TERMINAL: Container Terminal Churchilldock OPERATOR OF TERMINAL: Corns' Swarttouw's Stavedoring Cy n.v.

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	3		
Length of each berth	total:750 m		
Land area of each terminal	75.000 m2		
Dimensions of each terminal	regular shape		
Depth of water at berths	15,25 m		
CONTAINER CRANE			
Number of container cremes	-		
Lifting capacity of each	-		
Reach on waterside from front edge of berth	-		
Reach on landside from deck rall	- .		
MODE OF MANAGEMENT			
 Exclusive lease for specified users 			
2. Preferential use	x		
3. Open to all callers			
MODE OF OPERATION			
Transtainer operation			· · ·
Straddle Carrier operation	x		
Chassis operation	×		
CONTAINER PACKING OR FREIGHT	18.500 m2		R. Vleugels General Manager
Dimensions			
RAILROAD CONNECTION TO TERMINAL	TOP		Autom
(Yes) (No)	345		100 miles

Antwerp, BELGIUM

DATE: december 1970 FORT OF: ANTWERP, Belgium DESIGNATION OF TERMINAL: Container Terminal Churchilldock OPERATOR OF TERMINAL: Westerlund Corporation n.v.

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL		÷	
Number of berths	. 1		
Length of each berth	200 m		
Land area of each terminal	irregular		
Dimensions of each terminal	74.000 m2		
Depth of water at berths	15,25 m		
CONTAINER CRANE			
Number of container cranes	1		
Lifting capacity of each	40 tons		
Reach on waterside from front edge of berth	32,50 m		
Reach on landside from deck rail	52,50 m		
NODE OF MANAGEMENT 1. Exclusive lease for specified users 2. Preferential use 3. Open to all callers	x		
MODE OF OPERATION		·	
Transtainer operation			
Straddle Carrier operation	×		[
Chassis operation	x		
CONTAINER PACKING OF FREIGHT STATION Dimensions	22.000 m2 8.000 m2 (160	:50x6,25 m)	
RAILROAD CONNECTION TO TERMINAL (Yes) (No)	yes		R. Vleugels General Manager
· · · · · · · · · · · · · · · · · · ·	Signat	uro: Nd	Hungels
			~

Antwerp, BELGIUM

PORT OF:____ DATE: ______december 1970 ANTWERP, Belgium DESIGNATION OF TERMINAL: Container Perminal of the Belgian Railroad Company OPERATOR OF TERMINAL: The Belgian Railroad Company

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	-		
Length of each berth	-		
Land area of each terminal	23.200 m2		22.500 m2
Dimensions of each terminal	200 container	5	
Depth of water at berths	-		
CONTAINER CRANE			
Number of container cranes	1		
Lifting capacity of each	30 tons of 22 m reach		
Reach on waterside from front edge of berth	-		
Reach on landside from dock rall	-		
MODE OF MANAGEMENT		·····	
 Exclusive lease for specified users 		-	
2. Preferential use			
3. Open to all callers	x		
MODE OF OPERATION			
Transtainer operation			
Straddle Carrier operation			
Chassis operation	x		
CONTAINER PACKING OR FREIGHT			
Dimensions	-		
RAILROAD CONNECTION TO TERMINAL			R. Vieugels
(Yes) (No)	yes		General Manager
Land			-poort

Helsingborg, SWEDEN

DATE: Dec. 22, 1970 PORT OF: Helsingborg DESIGNATION OF TERMINAL: Public Container Terminal OPERATOR OF TERMINAL: Helsingborgs Hanngods AB

	IN OPERATION	UNDER CONSTRUCTION	FUTURE PLAN
TERMINAL			
Number of berths	Three (3)	-	
Length of each berth	175 meters	- '	
Land area of each terminal	100.000 m ²		
Dimensions of each terminal	200 x 600 m irregular shape		
Depth of water at berths	11,5 meters		
CONTAINER CRANE			
Number of container cranes	One (1)		Two (2)
Lifting capacity of each	45 tons (m)		35 tons (m)
Reach on waterside from front edge of berth	26 meters		·
Reach on landside from deck rail	20 meters		
MODE OF MANAGEMENT			
I. Exclusive lease for specified users			
2. Preferential use	-		
3. Open to all callers	x		
MODE OF OPERATION			
Transtainer operation			
Fork lift-trucks Stradts Carter meratum	x		
Chassis operation	x		
CONTAINER PACKING OR FREIGHT			
Dimensions	20.000 m ²		
RAILROAD CONNECTION TO TERMINAN			T
(Yes) (No)	Yes		
1	Signat	ure: Lucn	Luile

Port Containerization ... Worldwide Π

Boom with us?



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