

PORTS *and* HARBORS

February, 1972 Vol.17, No. 2

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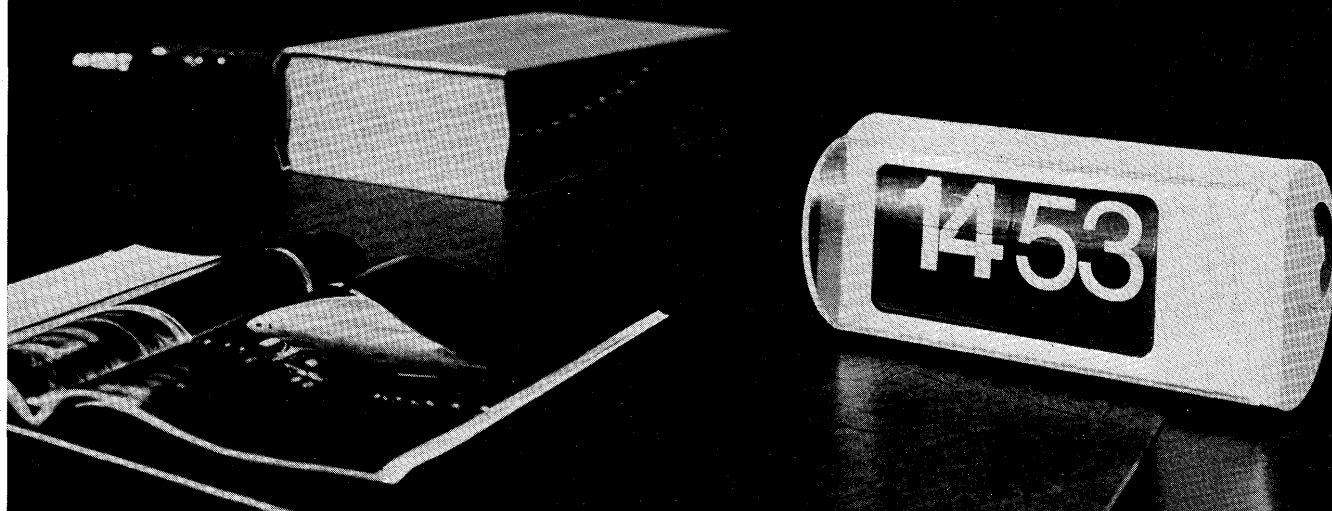


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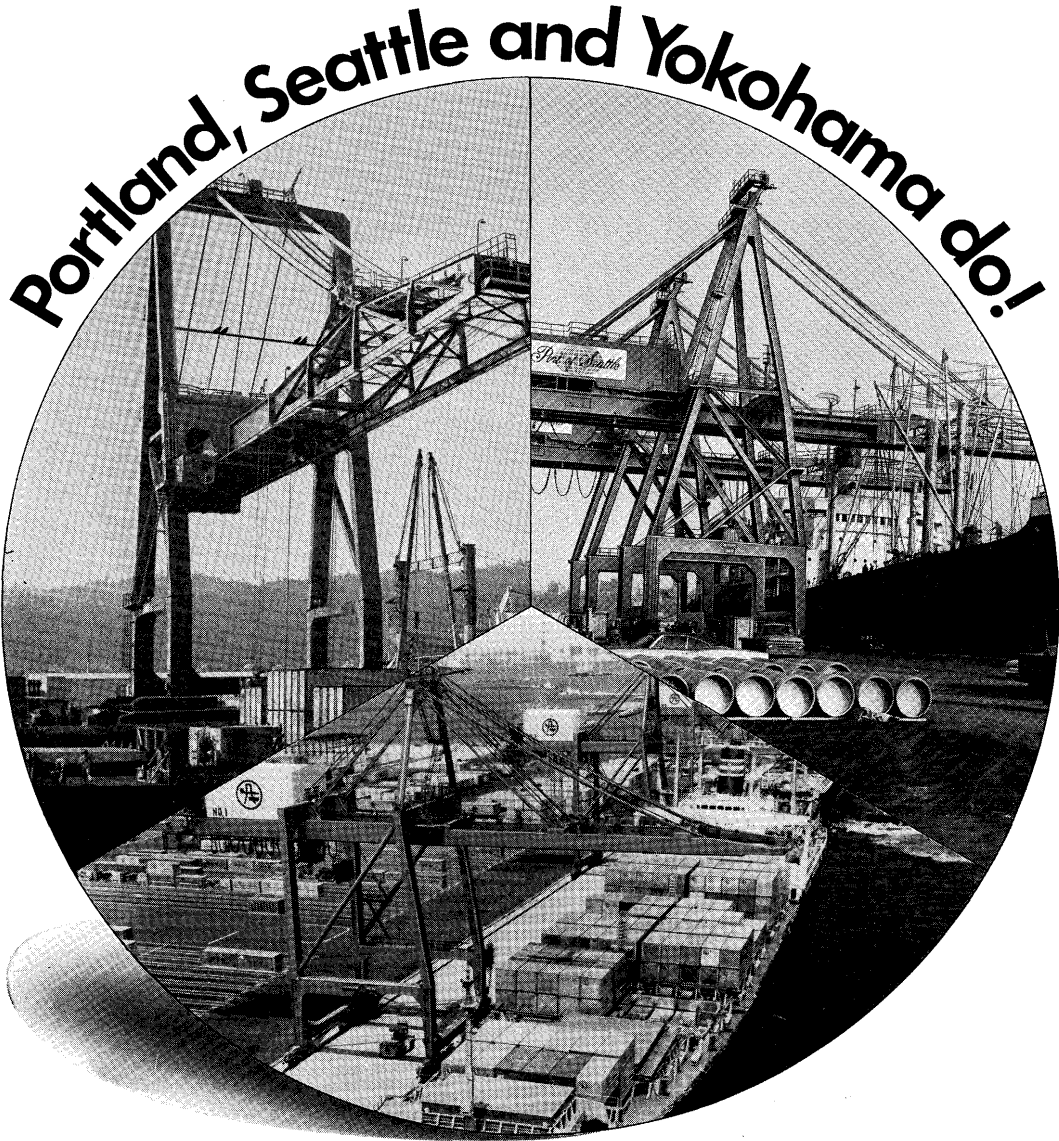
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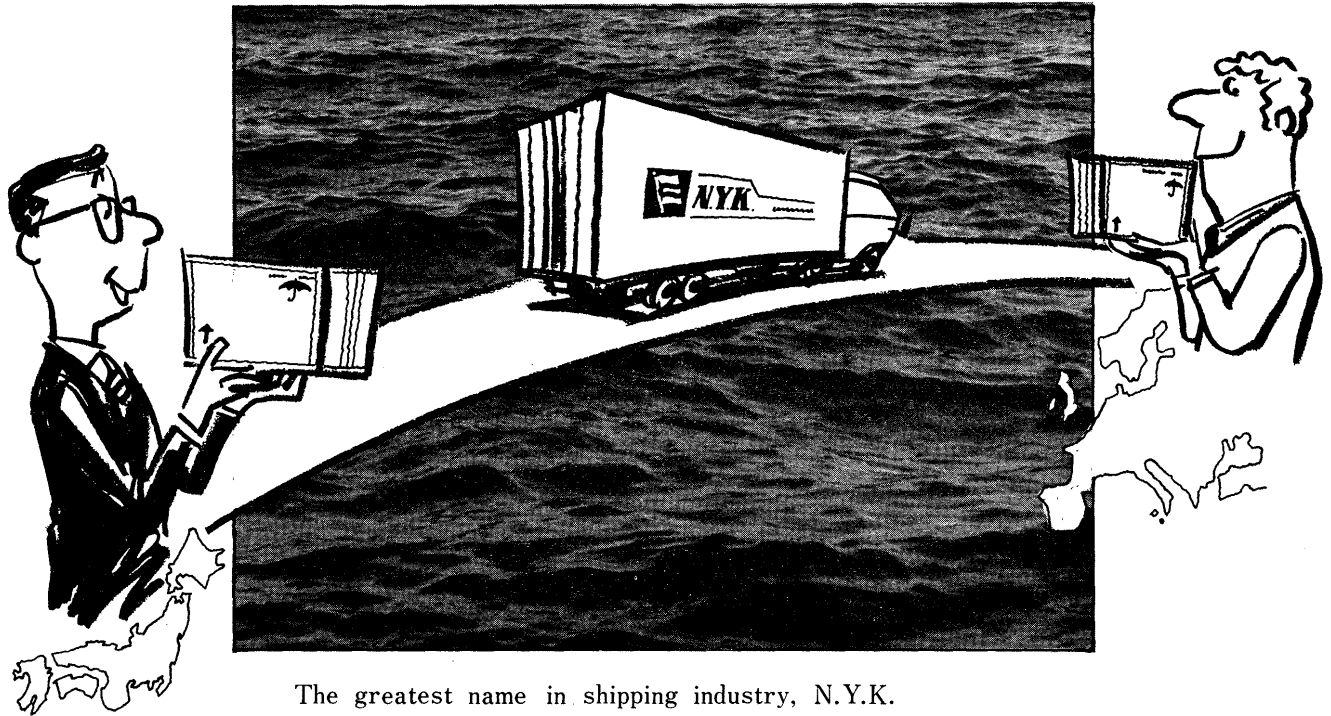


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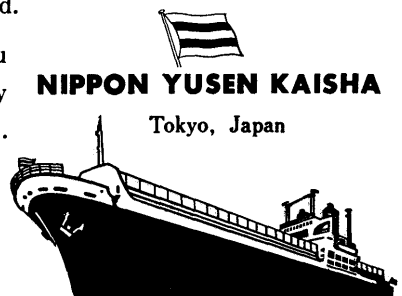
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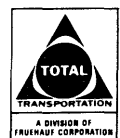
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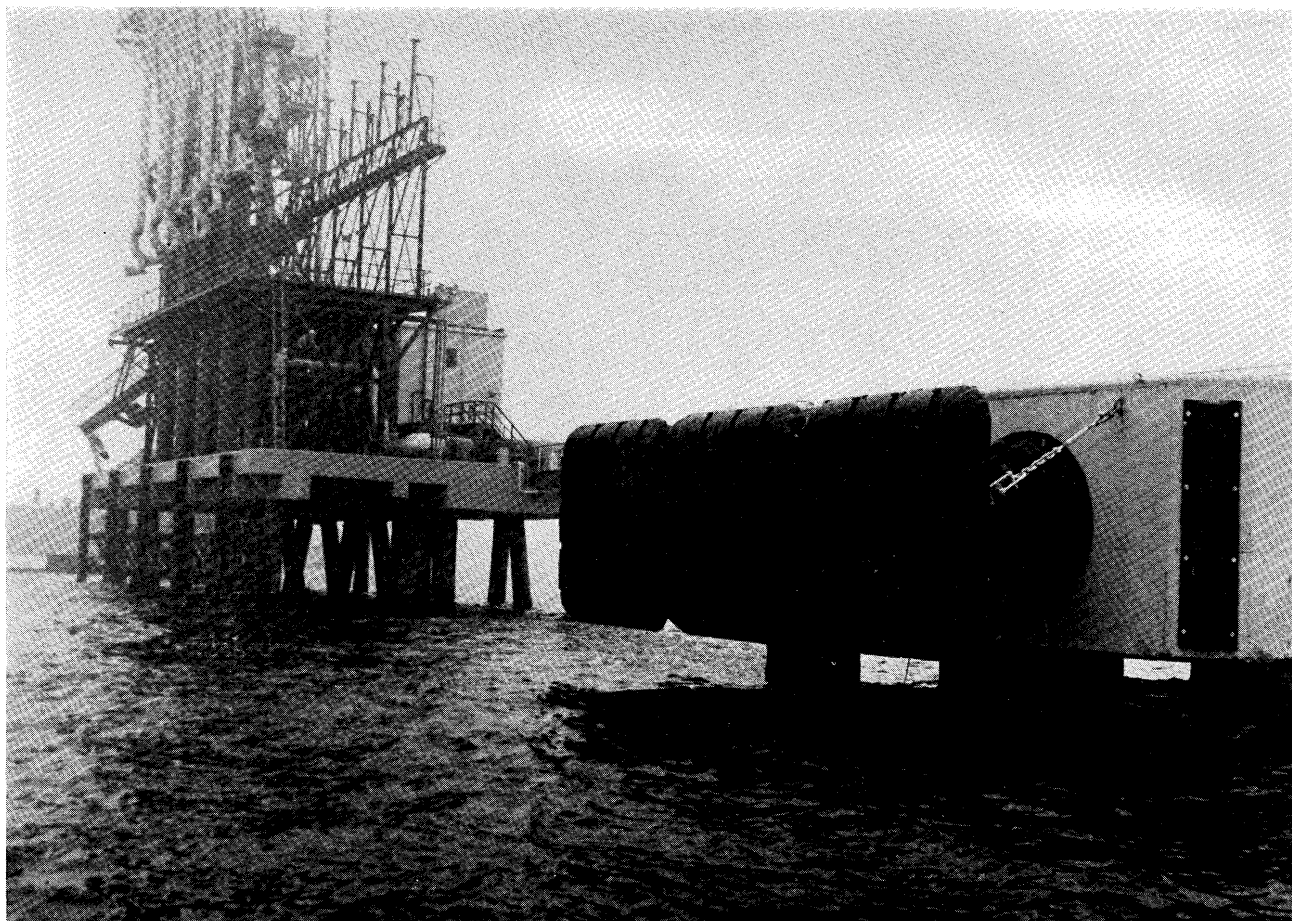


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CONTENTS

	Page
Minor Papers of the 7th Conference :	7~19
10. Construction of an Oil Terminal in the Seine Bay Paul Bastard, Director General, Port of Le Havre.....	7
11. Methodology for Port Site Selection Dr. S. K. Bhattacharya, Chief Hydraulic Engineer, Calcutta Port Commissioners	11
12. How Large City Ports Should be in the Age of Transportation Revolution Kiyoshi Kano, General Manager, Port and Harbor Bureau, City of Osaka.....	15
Topics :	
Containerization in Japan (Japan Container Association).....	20
Some Observations Made by Port Users Ir. F. Posthuma	23
Record Berth Throughputs at British Ports, N.P.C.....	24
IMCO As Seen by IAPH (Report No. 17)	25
UNCTAD Port Management Course in Sweden	28
Ports :	
Major Expansion at Houston	30
Los Angeles Marina Development	31
Kobe Pictorial	38
Orbiter Probe (International News):	27~42
President King Honored	27

The Cover :

In the foreground is the man-made harbor complex created by dredging channels. The near-square space in the center is a 100-acre eastward extension of Pier G, and another oblong flat lot across water is a 55-acre expansion of Pier J. Both are being developed into container terminals.

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A black and white photograph of a large gantry crane at a port. The crane is lifting a large, dark, curved object, likely a ship's hull section, from the water. The crane has a complex lattice structure and a long horizontal beam. The ship is docked at a pier, and the water is visible in the foreground.

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PORTS *and* HARBORS

Minor Papers Reproduced: The across-the-page-line articles printed here (numbered consecutively) are reproductions of Minor Papers from literature distributed at the 7th Conference in Montreal.

(10) CONSTRUCTION OF AN OIL TERMINAL IN THE SEINE BAY

BY

PAUL BASTARD

DIRECTOR GENERAL
PORT OF LE HAVRE AUTHORITY

Western Europe will consume 8 to 900 million tons of oil products in 1975 and 1.000 to 1.300 million tons in 1980, 600 million tons of which coming from the Middle East. With an hypothesis favourable to the pipe-lines, one may imagine that 300 million tons will be dispatched from the Mediterranean Sea towards Europe; the balance, viz. 300 million tons, taking the Cape route. With an hypothesis very unfavourable to pipe-lines, one may imagine that, via the Cape, the traffic will represent annually 450 million tons of oil.

The development of new needs to be satisfied in the near future, dictates a change in the maritime transport scale leading to a new increase in the tanker size. The growth of the fleet of tankers over 200.000 tdw is particularly spectacular; whereas the first ship of this type was put into service in 1967, the tonnage of the vessels of this class sailing in 1972 will represent more than the half of the dead-weight of the world's tanker fleet.

The freight savings obtained by the use of large vessels involved the growth of the ship dimensions with the development of the technology in ship building (welded construction, better steel quality, ship lines more elaborated, engine improvement, etc.)

From this arise, in respect of port facilities considering the draught of these ships, problems of another order than those which have been resolved at present, and the Port of Le Havre Authority has been led to study the conditions of resolution.

The site in the Seine Bay is favourable for the construction of facilities able to receive these vessels. The deep water level (—30,00) (this giving 36 to 38 m. water height at each high tide) is relatively close to the shore; 25 km. West from the actual port, on the same latitude, in the Parfond area; 10 km. from the coast off the "Cap d'Antifer" (this is to say 20 km. in the North of the actual port).

On the other hand, the Seine Bay is situated in the vicinity of the large oil products consumption centre formed of the Parisian area. The capacity of the refineries situated in the immediate hinterland represents more than the half of the French consumption.

These are the reasons why, in December 1969, the French Government took the decision that, at the right moment, an oil terminal should be constructed, which would give the possibility to operate 500.000 tdw tankers and more, giving to the Port of Le Havre the following oil traffic, supplying the need in oil of the refineries situated in the Parisian area:

1975	—	60 million tons
1980	—	86 million tons
1985	—	110 million tons
1990	—	125 million tons
2000	—	180 million tons

More than a half of this tonnage will be supplied by the Persian Gulf. This will run in connection with long distance transport.

Furthermore, the construction of an oil terminal receiving very large tankers will bring the improvement of the hinterland towards other Western European countries by means of pipe-lines, reshipment, or by lightening large ships who will continue their route calling at less deeper ports. These conditions led the Port of Le Havre to seek for other solutions outside the harbor, including the construction of a terminal in deeps allowing the calls of tankers up to 500.000 tdw and later on, 1.000.000 tdw. It is within this frame that the oil terminal project in the Seine Bay is placed, on the "Parfond" site, or more likely off "Antifer". It involves (fig. 2) the construction off-shore, of a break-water providing a shelter where the amplitude of the swell will not be more than 2 m., allowing tugs to operate, as well as the servicing units. Berthing-places will be constructed along this break-water connected to the coast by sea-lines.

The project has been studied allowing the improvement of the equipment, according with the traffic development. Thus, from the outset the incoming of the installation is insured.

The length of the break-water, 1.500 m. long for the first stage, is sufficient to provide sheltered waters allowing towing and berthing. Along the break-water, the construction of a wharf will allow a 40 million tons traffic (i.e. on the basis of a hundred calls a year by 400.000 tdw tankers).

In a second stage, a lengthening of 1.000 m., will provide 2.500 m. length of sheltered waters. Then it will be possible to consider the construction, at the Western edge of this break-water, of a new section, having another orientation, with a length of 500 m., improving the protection of the site against the swell. The lay out of this structure is studied to avoid the change of the currents able to occur due to the presence of the structure, and permitting the tankers to carry on their manoeuvre facing the current.

During this second phase, three more berthing-places will be constructed, either for unloading, or reshipment on smaller tankers leaving for other ports. This terminal might then assume a 160 million tons traffic yearly.

At a third stage, the shelter-harbor will be completed by a new extension of the break-water, with another change in the direction, so as to be fish-hook shaped in order to provide enough sheltered water. A fifth berth would be constructed and the traffic of the whole installation raised to 200 million tons a year.

The crude oil storage would find place inside the break-water or in a tank-farm on the shore. Connection between the terminal and shore made by under-water pipes. Pipe-lines will carry crude oil either towards the refineries of the "Basse Seine", or towards the hinterland.

Also have been studied the possibilities of single buoy moorings. Such a solution is only possible for oil-traffic, where berthings constructed in sheltered areas might insure other traffics such as those in connection with large bulk-carriers.

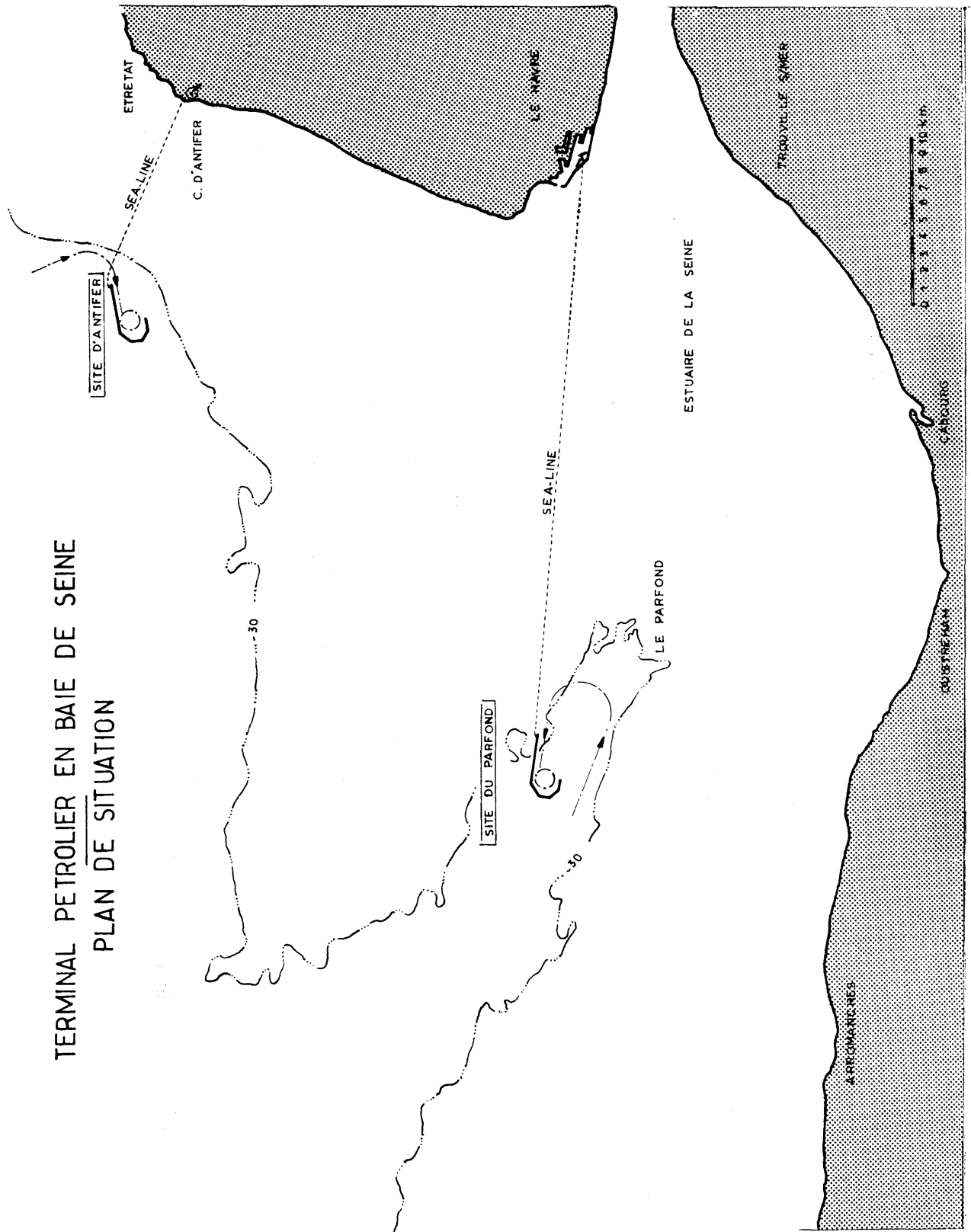
The traffic likely to be provided by the oil terminal has been studied according to:

- The actual hinterland of the port of Le Havre (Parisian District) supposing that, progressively and according to the evolution of the oil fleet, half the traffic of this hinterland (corresponding to the Persian Gulf-Le Havre shippings) would be ensured by ships up to 500.000 tdw and more.
- Enlargement possibilities of this hinterland owing to resending by pipe-lines or reshipment on ships of smaller tonnage.

The results of these studies are the following:

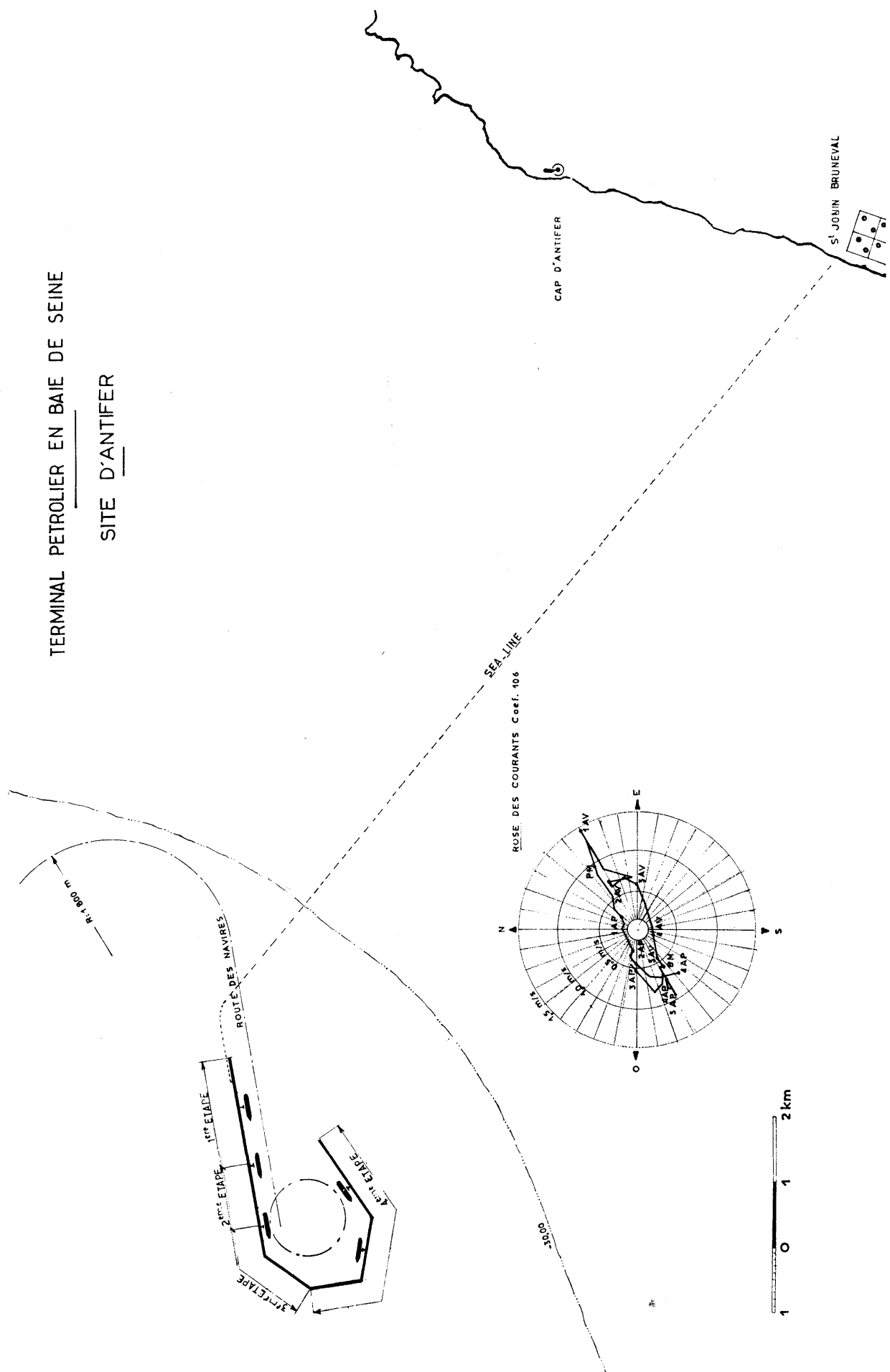
	<u>1974</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
		(in million tons a year)		
Low forecast:	22	67	90	124
High forecast:	36	83	114	150

The costs of the works to be carried out in a first stage are appraised at about 300 million Francs, the total cost of the following stages at about 1.100 million Francs. Under such conditions, and in total economy, the incoming rate is nearing 13% for a traffic foreseen on a pessimistic hypothesis for 1974. It increases then very rapidly. Being of about 41% for a 40 million tons traffic and 50% for a 80 million one.



TERMINAL PETROLIER EN BAIE DE SEINE PLAN DE SITUATION

TERMINAL PETROLIER EN BAIE DE SEINE SITE D'ANTIFER



(11)

METHODOLOGY FOR PORT SITE SELECTION

BY

DR. S. K. BHATTACHARYA

CHIEF HYDRAULIC ENGINEER
CALCUTTA PORT COMMISSIONERS

For serving a designated hinterland several potential sites may exist in which a port may be located. In this paper, a methodology for port site selection based on least cost of transportation has been suggested by setting up a simple model of the variable cost components and the restraints due to physical and other limitations. The model can be extended to include various other cost parameters and restraints that are inherent due to local characteristics.

1. Introduction

Along sea coasts and tidal channels and embayments, technically it may be feasible to locate a port in several sites. The selection of port site to be adopted among several alternatives may be based on the consideration of least unit cost of transportation through the port. However, the unit cost of transport of maritime cargo from the exporting country to the importing country is made up of several components which enter into the total cost. These are, (a) cost from the factory of the producing country to the export port, (b) warehouses, transit and port charges of the export port, (c) shipping charges, and (d) cost of handling in the importing port, warehousing and distribution to the consuming centres. It is, however, seldom possible to take all these into account as most of them remain outside the control of the planners while siting a port in a specific region or country.

2. Cargo characteristics and system of transport

The cargo again determines the sizes and types of vessels, which, in turn, indicate the pattern of handling and storage facilities required in the port together with the distributory system from the port to the consuming centres. For a port predominantly catering a special type of cargo, like oil, iron ore or general cargo, specific assessment can be made giving due weightage to the cargo characteristics. Various cost factors which enter into the process may be evaluated for each port site for relative comparison among them.

In selection of ports the functional requirement of the port need to be defined as specific objectives, e.g., the handling capacity, the size of vessels, which must be met both technically and economically and also specific constraints which need to be observed. These constraints may be in the navigable depth in the approach channel to the port, tidal conditions, lock facilities, etc. Cost of alternative schemes to rectify the restrictions may be incorporated. The entire process from the time of arrival of the ship in the deep waters of the port through pilotage, lockage, handling, storage and distribution, becomes a system. The objective in this analysis is to set up a model taking into consideration technical feasibility and economic cost to attain the objectives within the limitations of the constraints imposed. The methodology formulated has been developed in very many economic activities and widely used in large sectors of industry. The method provides a logical step-by-step process whereby the most efficient and economic method of transportation of cargo can be found by determining the least cost. The port which is chosen amongst several

alternatives may not require the least capital or the least operating cost, but the transportation system through the port will provide the most economical method.

3. Initial assessment

The first requirement is to identify approximately the site which seems promising and to eliminate those which are grossly non-competitive. Admittedly, in port site selection, like, perhaps, in any large-scale projects, local and regional political pressures play important part. The effect of discarding the technical and economic considerations in selecting a particular site in preference to others, can, no doubt, be assessed in terms of loss of benefits.

In cost studies certain premises and assumptions are inevitable. Nonetheless, while adopting the assumption past data or analysis of similar situation elsewhere become valuable. Mention was made of considering the whole transportation process as a "System" within the system for which several alternatives may exist. To examine these, the system for cost purposes can be broken down into sub-systems. The logical step-by-step process of the sub-systems may be set up for relative assessment of least cost among the alternatives available in the sub-systems, e.g., selection of the type of breakwaters, locks, type of cranes, etc.

4. Formulation

We shall first consider a case with simple objective and constraints. Let the objective of the port selected, to handle a quantity of cargo, be expressed as monthly tonnage. Let the candidate Port A objectives and constraints be defined as follows:—

L = Monthly target of tonnage of cargo required to be handled.

N_A = Capacity of Port A to handle traffic in lots in tons. The monthly capacity may be governed by such restrictions as the adequacy of the tidal rise, lock capacity, other navigational restrictions, like night navigation, etc.

C_{A1} = Set up cost for tonnage handled. It includes maintenance dredging, lighting, depreciation of machinery and equipment, etc.

C_{A2} = Direct charges per ton, for pilotage fees, labour power, etc.

P_A = Warehouse, transhipment charges, etc.

E_A = Administrative cost of the port which is not a variable of the tonnage handled.

5. Solution

The transportation cost for a lot of N_A tons is the sum of set-up costs and direct charges, i.e. $C_{A1} + N_A C_{A2}$. Assuming that tonnages are cleared at an uniform rate, a lot will be cleared in N_A/L months. Consequently, L/N_A lots will be cleared in a month.

Hence, monthly cost and direct cost of handling cargoes will be

$$\frac{L}{N_A} (C_{A1} + N_A C_{A2}) \quad (1)$$

Due to difficulties of distribution, average level of holding is, say, $\frac{N_A}{2}$.

The value per ton of holding will be

$$\frac{C_{A1}}{N_A} + C_{A2} \quad (2)$$

Hence, average value of holding per month is

$$\frac{N_A}{2} \left(\frac{C_{A1}}{N_A} + C_{A2} \right)$$

i.e.,
$$\frac{C_{A1} + N_A C_{A2}}{2} \quad (3)$$

From the accounting point of view, it may be necessary to include a share of the overhead on holding value. However, this overhead is not a function of the lot tonnage. If the monthly inventory carrying charges is expressed as a percentage P_A of average value of holding, the cost of transportation, K_A , at Port A per month may be completed. This is,

$$K_A = \frac{L C_{A1}}{N_A} + L C_{A2} + P_A \frac{C_{A1} + N_A C_{A2}}{2} + E_A \quad (4)$$

Optimum tonnage to be brought in per lot is the value of N_A which will minimise the total monthly cost. Assuming N_A can vary continuously, i.e., within the capacity of the Port, any traffic can be handled in stipulated lots. The optimum value of N_A may be found as follows:—

$$\frac{K_A}{N_A} = - \frac{L C_{A1}}{N_A^2} + \frac{P_A C_{A2}}{2} = 0 \quad (5)$$

$$\text{or } N_A = \sqrt{\frac{2LC_{A1}}{P_A C_{A2}}} \quad (6)$$

Assuming this value of N_A , the minimum cost for operating Port A can be found. Similarly, we can find for the Port Site B from a set of value of L , C_{B1} , C_{B2} , P_B a corresponding N_B giving the minimum cost and calculate K_B for comparison and select the Port Site after obtaining the least cost for all candidate port sites.

6. Discussion on limitations

Consider that the lot tonnage that minimises cost is not achievable because of the limited availability of some facilities, e.g., warehouse space or the extreme weather conditions or the crane facilities. It has already been stated that the average holding level is half the lot tonnage. Now if one ton requires, say, W_A cft. of space, the average space occupied during a month is $\frac{1}{2} W_A N_A$.

$$\text{If } S_A \text{ is the actual space available, the restraint is } \frac{1}{2} W_A N_A \leq S_A \quad (7)$$

Now, it is required to calculate the optimum lot to evaluate the minimum transportation cost.

A quantity λ_A may be defined such that*

$$\lambda_A < 0 \text{ when } S_A - \frac{1}{2} W_A N_A = 0 \quad (8)$$

$$\lambda_A = 0 \text{ when } S_A - \frac{1}{2} W_A N_A > 0 \quad (9)$$

*($S_A - \frac{1}{2} W_A N_A < W_A$ is not admissible, so not considered).

Then, $\lambda_A (S_A - \frac{1}{2} W_A N_A)$ is identically equal to zero. Hence, the cost K_A is not changed the term is added.

$$K_A = \frac{LC_{A1}}{N_A} + LC_{A2} + P_A \frac{C_{A1} + N_A C_{A2}}{2} + \lambda_A (S_A - \frac{1}{2} W_A N_A) \quad (10)$$

While K_A has not changed the partial derivative of K with respect to N_A has changed to —

$$\frac{\partial K_A}{\partial N_A} = -\frac{LC_{A1}}{N_A^2} + \frac{P_A C_{A2}}{2} - \frac{\lambda_A W_A}{2}$$

For minimum cost

$$-\frac{LC_{A1}}{N_A^2} + \frac{P_A C_{A2}}{2} - \frac{\lambda_A W_A}{2} = 0 \quad (11)$$

$$\text{or } N_A = \sqrt{\frac{2.L.C_{A1}}{P_A C_{A2} - \lambda_A W_A}} \quad (12)$$

For each port site, the quantities L , C_{A1} , C_{A2} , P_A and W_A are known, but λ_A will be unknown. However, for any arbitrary assigned value of λ_A , N_A and hence $\frac{1}{2} W_A N_A$ (the average total storage space required) can be calculated. If $\frac{1}{2} W_A N_A$ exceeds S_A then lot sizes are too large. In this case, decrease λ_A repeatedly and recompute until $\frac{1}{2} W_A N_A = S_A$ has been obtained. If, $\frac{1}{2} W_A N_A$ is less than S_A for negative λ_A , set λ_A equal to zero. The resulting ' N_A 's will allow the smallest possible total costs for the port with limited warehouse space S_A , which may be calculated for comparison.

If we assume one of the competitive ports requires extra dredging charges D proportional to lot tonnage outturn N_A , then that may be included in the equation for total cost:—

$$K_A = \frac{LC_{A1}}{N_A} + LC_{A2} + \frac{P_A}{2} N_A C_{A2} + \frac{P_A}{2} C_{A1} + DN_A \quad (13)$$

For minimisation —

$$\frac{\partial K_A}{\partial N_A} = -\frac{LC_{A1}}{N_A^2} + \frac{P_A}{2} C_{A2} + D = 0 \quad (14)$$

$$\text{or } \frac{LC_{A1}}{N_A^2} = \frac{P_A C_{A2} + 2D}{2}$$

$$N_A = \sqrt{\frac{2.L.C_{A1}}{P_A C_{A2} + 2D}} \quad (15)$$

Again, this value of N_A can be utilised to calculate transporting charges for the particular port for comparison with others.

7. Conclusion

The formulation discussed is only an outline of various other restrictions and items that can be included in the cost function and suitable solution obtained for selection of port site amongst several alternatives.

Many of the technical problems that are encountered may be overcome by additional investments which can be incorporated as direct charges per ton handled. The time of construction has also an important effect. A construction of a port may be completed in less time at a particular site thus bringing in benefits earlier than other ports. Similar factors may be considered to constitute part of the set-up cost per ton or as direct charges, according to the nature of cost and accounting procedures adopted.

(12)

HOW LARGE CITY PORTS SHOULD BE IN THE AGE OF TRANSPORTATION REVOLUTION

BY

KIYOSHI KANO

GENERAL MANAGER
PORT AND HARBOR BUREAU
CITY OF OSAKA

Introduction

The history of the growth of ports in Japan makes it obvious that ports and cities are related closely mutually accelerating their growth and development each other. Especially in Japan surrounded by

seas, as it is, on all of her four sides, the role played by ports for the growth of cities has been exceedingly great.

In particular, Japan's three large cities of Tokyo, Osaka and Nagoya, being the pivotal cities in east Japan, west Japan and central Japan respectively, have a port with the dual nature, commercial and industrial.

In undertaking further developments of these so-called city ports, two factors at least will have to be taken into careful account.

One factor relates to their function as the terminal outlet for the movements of commodities circulating into and out of big cities.

The selection of the area adjacent to big-city ports as the sites for industrial plants may be said to have come to an end with the close of the 1960's, as seen from its relation to various problems faced by cities.

On the other hand, the technological developments in industrial production have shown vast strides during the past decade. Commodities are now produced in tremendous quantities, making the problem of transporting them an extremely acute one especially in large cities.

By keeping pace with this, the technical renovation in the field of transportation has likewise made a noticeable advance, foreshadowing a great metamorphosis in all systems of commodity movements. The preponderantly grave significance of the term "transportation renovation" may fully be comprehended, when this fact is taken due notice of.

Another factor requiring attention pertains to the utilization of city ports for the urban renewal.

Each city is now confronted with a multitude of such problems as traffic congestion, housing difficulties consequent a rapid concentration of population in the urban areas, rapidly spreading sprawling, pollution of atmospheric air by the exhaust gases discharged from automobiles and factories, and the qualitative deterioration of water. The city ports are expected to play an increasingly vital role for the solution of all such problems.

From these standpoints, the Port of Osaka is now being developed for ultimate transformation into a model marine commodity circulating city fully meeting the requirements of the contemporary age which is featured by a revolutionary renovation introduced into the mechanism of transportation.

History of Osaka Port

With its history dating back to more than ten centuries, the port of Osaka is one of Japan's oldest ports. It has consistently played an important part through all these years as the gateway for her economic, social and cultural activities.

Osaka Port, which had been just a river port, became to be known widely as a port of foreign trade about 70 years ago when the gigantic plan for the construction of a modern port in Osaka was projected.

Needless to say, Osaka could hope for its growth as modern city only with the completion of this ambitious project.

Ever since, Osaka Port has continuously achieved its rapid growth. With 31,000,000 tons of cargo handled in 1939, Osaka Port then found itself at the top of other ports of Japan.

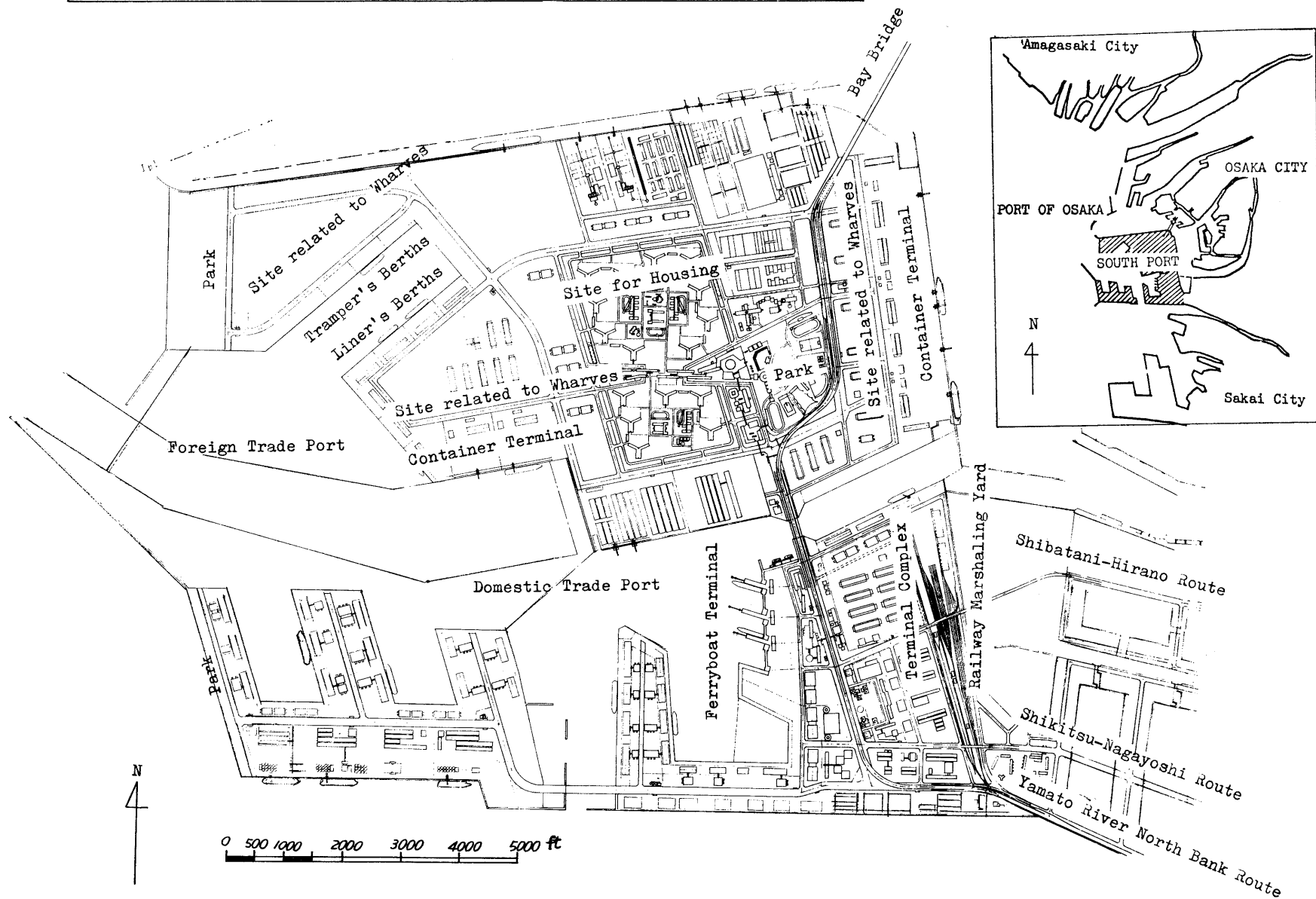
For a time after World War II, Osaka Port remained inactive, but as Japan's economy steadily resumed its activities, the volume of cargo handled at the Port increased year by year, it even amounted to more than 50 million tons in 1969. Thus, it has now grown into one of the leading ports in the world.

Resume of Osaka South Port Project

The Port of Osaka has, in its immediate hinterland, greater Osaka, the economic activities of which are brisk with a population of more than 7,600,000.

Its share in the shipments of manufactured goods and business transacted are 12% and 20% respectively, while, in the volume of foreign trade accomplished through it are 25% for export and 20% for

MASTERPLAN OF OSAKA SOUTH PORT



import as against the overall volume of business carried out throughout the country.

Also, from a geographical point of view, Osaka Port offers a high percentage of share in the marine transportation.

The Osaka South Port Area, the development of which is now being energetically carried out by the City of Osaka, comprises of the reclaimed land covering an area of 9 million square meters. The actual work of its development was started in 1958, and the target year of its completion is 1975.

For the utilization of this vast expanse of land, corresponding to no less than 5% of the entire city area of Osaka, the following plans are contemplated:

1. Construction of modern wharves matching the current age of transportation renovation;
2. Development of commodity distribution facilities to meet the requirements of its hinterland urban area;
3. Construction of business center, city housing, and parks and green areas within the Port area offered as a place of living.

It is planned that, with the execution of these three fundamental policies, the Osaka South Port reclaimed land be transformed into one of the Osaka City's business subcenters to play a vital role as a marine distribution center.

Construction of Modern Wharves

As port facilities for the Osaka South Port reclaimed land, modern wharves with a total of 94 berths will be constructed. Of the total, 7 berths are exclusively for containership liners of foreign commerce. Two of these container berths were completed in 1969 and are now in full operation, accommodating containerships sailing between Japan and Australia. Furthermore, 14 berths are planned to be constructed for conventional cargo vessels, and thus, the port facilities will be greatly implemented to make it operate as an export port of general cargo, most of which is originated in the city area constituting the Port's immediate hinterland.

14 more berths are also planned to be constructed for cargo trampers engaged in foreign trade in order to cope with ever-increasing cargo such as imported foods and construction materials.

For meeting the requirements of domestic trade wharves, on the other hand, the construction of the total of 59 berths is projected. Included in the project is the construction of 6 berths for ferry-boats and 15 berths for domestic trade liners of general cargo, forming one of the functions carried out traditionally by Osaka Port, thereby modernizing the facilities of internal maritime transportation.

Besides, wharves exclusive for automobiles, iron and steel, and berths for domestic feeder service of ocean-going containerships, totalling 38 berths, are being planned to be constructed.

With these construction projects, the Osaka South Port reclaimed land will be a modern port town capable of handling cargo in the quantity of no less than 22 million tons per year (excluding cargo carried by ferry-boats).

Construction of Integrated Transportation System

Available behind the site for wharves is an area covering a total of 7,800,000 square meters for the construction of various facilities associated with the function of wharves, including warehouses, open-air storage and cargo marshalling depots.

Medium — and small — size truck terminals studded now in the city area will be readjusted or amalgamated into larger units for the collection and distribution of cargo in a rationalized efficient commodity distribution system. For this purpose, a 200,000-square-meters terminal complex will be built.

Moreover, this terminal complex will have truck terminals at its center, it being purported to serve, integrally with its neighboring railway marshalling yard and berths for sea transportation, as an integrated land-and-sea transportation system.

With the construction of the wharves, facilities relative to the wharves and a terminal complex it is expected that the Osaka South Port Area will play a vital role as a vast distribution center not only for Osaka alone, but also for the whole area of western Japan.

Development of Living Space

In the heart of the Osaka South Port reclaimed land will be constructed a 250,000-square-meters parks and green areas, around of which an 800,000-square-meters area will be developed for the site of high-rise apartment houses, together with primary and middle grade schools, shopping centers and recreation facilities.

The object underlying this plan is to construct a business subcenter of 50,000 population of Osaka and is to make it possible for the citizens of Osaka to utilize the place for their enjoyable living in the port area, which now alienated from them will be brought closer to them again.

Furthermore, in the business center of the Osaka South Port Area, as contemplated now, will be concentrated such facilities as foreign trade, financing and commerce, thereby contributing to the renewal of Osaka as a nation's distribution center.

Improvement and Construction of Road

Network to and from Osaka South Port Area

Improvement and extension are now being made on the three existing access roads to the southern part of the Osaka South Port reclaimed land from urban areas in its hinterland. Moreover, now under construction is a "Bay Bridge" (the clearance: over 51 meters above sea level), which upon completion would no doubt be a shortcut linking the northern part of the Osaka South Port reclaimed land with downtown Osaka.

By the north-south routes with a total of 18 lanes, these routes have been planned to eliminate traffic congestion even with unexpected accidents.

These access roads will be linked directly with the city's arteries, inner-city expressway and inter-urban trunk roads. Besides, the coastal expressway, connecting the ports along Osaka Bay will pass through the Osaka South Port Area. Thus, a vast road network truly befitting an ideal distribution center will be constructed.

Summarization

The development of ports may not be considered apart from cities. For the growth of cities, a smooth distribution of commodities is indispensable, and in this sense, it is obvious that the ports are destined to play a very large part in the development and growth of cities. Many cities are known to have been born along with ports and to have perished along with the ports.

Now, the significance of big city ports has been rediscovered from a new point of view, and in this sense, the development project of the Osaka South Port Area has been commenced.

The newly-born maritime distribution center is expected to signify the best possible gift to the City of Osaka.

Containerization in Japan

As of April 1971

(Extracted from brochure issued by
Japan Container Association)

1. History of Containerization in Japan

Japanese international trade has shown remarkable progress with her economic growth.

In 1970, Japan imported 614 million tons of cargo, amounting to 18,900 million dollars, and exported 45 million tons, totalling 19,300 million dollars. This means, on a daily basis, that more than 1.7 million tons were imported and more than 100 thousand tons exported by sea. It is not only a very urgent need for the business circles in Japan but also an important task for the transportation industry that such quantities of freight must be transported and handled rapidly and economically.

In regard to the history of containerization in Japan, the state-owned Japan National Railways (JNR) has been continuing their study in a unique way since 1931, although it was discontinued temporarily because of World War II and other reasons. In 1959 they used steel 5 ton containers on freight cars for specialized uses. In recent years, JNR has been making efforts to establish container train service over the nationwide railway system in response to the increase of sea-borne container services.

In 1956, Nippon Express Co., Ltd., the biggest land transport corporation in Japan, adopted the small aluminum collapsible containers for domestic transport. In 1958, ex-Mitsui Steamship Co., Ltd. used small-size plywood containers in marine transportation for the first time.

In 1964, persons concerned with shipping, shipbuilding and other industries established the Japan Container Association, the Association began to promote the steady development of containerization in Japan.

In 1966, seeing that containerization had gradually become more

prominent, both at home and abroad, the Ministry of Transport (MOT) created the "Society for the Study of Marine Container Transportation" under the united efforts of the government and the industries concerned. The Society discussed the question for two months and then published their research work entitled "Problems on Marine Container Transportation". On September 12 of the same year, the Council for Rationalization of Shipping and Shipbuilding Industries presented a report entitled "Study and Recommendation on Transportation System for Marine Container" to the Minister of Transport. Based on the recommendation of this report, Japan's container transportation has been progressing steadily.

In order to develop container transportation in an orderly manner, it is necessary to effectively coordinate the activities of a large number, and various fields of organizations. To accomplish the above aim, Japan depends on the aggressive efforts of the Japan Container Association (JCA), which brings together the excellent knowledge and influence of the shipping, shipbuilding, manufacturing, land transport, trading, warehousing, insurance, banking, and port business circles. In December 1966, the Association began its project as a corporate juridical body, jointly controlled by the Ministry of Transport and the Ministry of International Trade and Industry.

Both the starting of the container service between the United States and Europe by Sea Land Service Inc. in the spring of 1966, and the first call of a full containership to Japan by Matson Navigation Co., in the autumn of 1967, gave added impetus to Japanese container development.

Container transportation is an

innovation in transportation technology requiring a large investment in equipment and facilities. For efficient utilization of such investment, the following activities were recommended by the Government: grouping of steamship companies, unifying terminal management, and maximum utilization of vessels, containers and related equipment.

At the opening of the container service between Japan and the U.S. Pacific Southwest coast in September of 1968, six Japanese shipping companies were reorganized into two groups, and they planned joint use terminals and adoption of a space charter system.

In regard to building specialized piers for container use, the Keihin (Tokyo Bay) and Hanshin (Osaka Bay) Port Development Authorities were inaugurated in 1967.

Meanwhile, JCA studied the standardization of containers and transportation and cargo handling equipment from an international point of view. JCA made the original plan for JIS (Japan Industrial Standards) freight containers for international trade. Furthermore, the Association representatives attended the meetings of the ISO (International Standards Organization) frequently gaining remarkable results.

Containers and other related equipment were developed by many manufacturers and these were put into mass production.

Concerning internal transportation, steamship companies established special enterprises for container transport in cooperation, with trucking companies.

Many rules and regulations are improved and amended as the fundamental bases of containerization in Japan.

In the autumn of 1968, when the Hakone Maru, the first full container ship owned by Nippon Yusen Kaisha, was put on the trade route of Japan/U.S. Pacific southwest coast, and five other full container ships entered into the same service one after another, Japan rushed into the age of containerization.

We have already proven that cargo can be shipped more cheaply, quickly and safely in containers. However, as we try to realize the ideal of containerization . . . "door-to door" . . . there are still some

obstacles before us.

We should accomplish our goal step by step by getting over these impasses. In order to promote the normal development of "Containerization in Japan", Japan Container Association is tackling the task for solving many problems in the fields of law, organization, etc. and reforming the structure of the distribution of goods, by keeping in close contact with Ministerial agencies and all the industries concerned.

2. Remarkable Development of Container Service

Containerization is rapidly progressing in the Japanese shipping industry. The first call of full container vessel at Japanese ports was in 1967 when Matson Line commenced the container service between California and Japan, just one year later, in September of 1968, the container service by Japanese full container vessels was started on the same route.

The six major shipping companies of Japan—Japan Line, Kawasaki Kisen Kaisha, Mitsui-OSK Lines, Nippon Yusen Kaisha, Showa Shipping Company and Yamashita-Shinnihon Steamship Company—under the guidance of the government and the Ministry of Transport in particular, containerized the following routes:

Table (1)

Japan and the Far East/Europe container service will be opened towards the end of 1971, to which 25 large-sized and high speed container vessels will be assigned, including 5 Japanese vessels. Containerization of the Japan/New York trade was commenced by U.S. Lines on a weekly basis in October, 1970, and in 1972, Japan will join the same service. The project of Japanese containership service in near future is as follows:

Table (2)

3. Recent Japanese Policy on Port/Harbor Construction in Response to Containerization

The establishment of a "Port Development Authority" such as Keihin/Hanshin Port Development Authorities has been promoted with the aim to cope with containerization and at the same time, to solve the shortage of conventional liner berths.

Table (1)

(as of March 1971)

	(Japanese vessels)	When commenced	(Non-Japanese vessels)
Japan/California (PSW)	6 vessels	1968	10 vessels
Japan/Australia	4	1969	3
Japan/PNW	3	1970	6

Table (2)

(as of March 1971)

Year	Route	Number of vessel	Capacity of each vessel (20' container equivalent)
1971	Japan/Europe	5	1800
"	Taiwan·Hong Kong·Korea/		
"	U.S. Pacific Coast	3	300 40' cont.
1972	Japan/PSW	3	1000
"	Japan/New York	7	1800
1973	Japan/PSW or PNW	3	1000

Regarding "Port Development Authority", port/harbour facilities have been constructed completely at the expense of the central government and local authorities for public use for many years. However, it has recently become clear that exclusive use of port/harbour facilities is more efficient than public use of them from the point of view of liner vessel operation, especially container vessels.

In addition to the above it has been found out that local authorities are not capable enough to finance the costs for construction of port/harbour facilities when more facilities are urgently needed.

For these two reasons mainly, it was decided to construct necessary liner berths as well as container berths financed partly by exclusive users of the port/harbour facilities concerned, together with the financial help from the central government and local authorities as hitherto.

Port Development Authority (P.D.A.)

In October, 1967 two organizations were established in Tokyo and Kobe—Keihin/Hanshin Port Development Authority—.

(a) The Whole Project of P.D.A.:

The original project was started in October, 1967, to complete within 8 years 11 container berths and 26 liner berths; Keihin and Hanshin

P.D.A. were respectively to offer the facilities for the exclusive use of special users (liner operating shipping companies or terminal operators and stevedoring companies) with the amount of \$127.5 million for Keihin and of \$126.1 million for Hanshin.

The above-mentioned original scheme of the construction was altered and enlarged as follows, covering 1967–1975 (as of January, 1971; the whole scheme remains yet as a draft).

K. P. D. A.

Container berth	
Tokyo	11
Yokohama	6
Conventional liner berth	
Tokyo	10
Yokohama	12
Amount of budget	
approx. \$280 million	

H. P. D. A.

Container berth	
Kobe	9
Osaka	7
Conventional liner berth	
Kobe	21
Osaka	7
Amount of budget	
approx. \$268 million	

Some of the planned container berths have been already completed and leased exclusively to some container vessel operators.

(b) Particulars of berths constructed by P.D.A.:

Container Berth

Length of Wharf: 250 m, 300 m
Depth of Yard: 300 m, 350 m
(including APRON)
Number of Cranes: 1 unit or 2 units
Capacity of Cranes: 30.5 t (NET)
C.F.S.: 5,000 m²
Depth of Water: 12 m

Liner Berth

Length of Wharf: 200 m
Depth of Yard: 90 m
(including APRON)
Shed: 6,000 m²
Depth of water: 10 m
(c) Financial status of P.D.A.:

In spite of the fact that the whole project was planned and the whole necessary amount of the budget was fixed, in accordance with the budgetary performance in Japan, the budget for the two P.D.A.'s for the construction in the following years is assessed every year by the Ministry of Finance and shown in the general national budget. Their annual budgets for each year since their start are as follows:

	Keihin P.D.A. (\$ million)	Hanshin P.D.A. (\$ million)
1967	5.8	8.1
1968	13.9	13.9
1969	18.1	19.4
1970	25.0	25.7
1971	38.2	36.8

The annual budgets shown in the above have been actually financed in the following way:

10%—To be given by the Central Government to P.D.A. as capital without interest out of the Government's annual budget.

10%—To be given by the local authorities concerned (Tokyo/Yokohama municipal authorities for the Keihin P.D.A. and Kobe/Osaka municipal authorities for the Hanshin P.D.A.) to both P.D.A.'s on the basis of the amount to be spent in each area within the year, as capital without interest out of their annual budgets.

40%—P.D.A.s issue Bonds with an annual interest of full 7.2% and Central Government

(Ministry of Finance) accepts the whole amount of the same.

40%—P.D.A.s issue Bonds with an annual interest of full 7.5% and exclusive users accept the same on the basis of the actual construction costs of the berths which the users have been allocated through Public Subscription conducted by the P.D.A.s.

The above-shown interest rates of the Bonds are being considered to change more or less in accordance with the monetary market situation at the time of issuing the Bonds.

(d) Main items of "rent" for a berth:

(1) Depreciation reserves for the whole facilities.

(Terms and Duration are different with respect to the individual facilities, for example, wharf, 50 years, C.F.S., Shed, 30 years and Crane, 15 years).

(2) Interest paid to Bondholders. (The amount of Bonds is 80% of the whole construction cost).

(3) Expense for repair (estimated).

(4) Expense for administration.

(5) Others (Yearly rental charge of K.P.D.A.'s Honmoku container berths will be about 666,700 dollars each).

Increase of Container Cargo

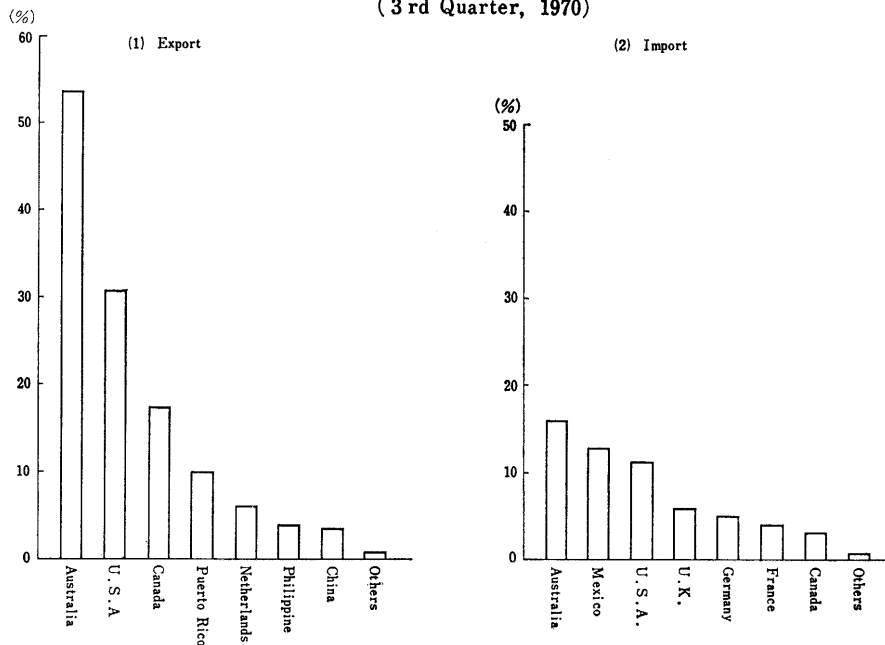
(\$ 1,000)

	Export			Import		
	Total Revenue	Revenue of Containerized Cargo	Share of Containerized Cargo	Total Revenue	Revenue of Containerized Cargo	Share of Containerized Cargo
1st Q 1969	3,308,496	232,100	7.0	3,421,199	81,900	2.4
2nd Q "	3,870,693	285,287	7.4	3,599,301	102,340	2.8
3rd Q "	4,239,934	385,352	9.1	3,883,326	105,251	2.7
4th Q "	4,570,891	452,751	9.9	4,119,706	160,006	3.9
1st Q 1970	4,116,283	425,763	10.3	4,401,008	198,254	4.5
2nd Q "	4,656,348	522,358	11.2	4,681,045	218,914	4.7
3rd Q "	5,041,946	648,316	12.9	4,830,804	261,286	5.4
4th Q "	5,503,109	746,235	13.6	4,968,311	319,182	6.4

Source: Ministry of Finance

Share of Containerized Cargo for Major Countries

(3rd Quarter, 1970)



Source: Ministry of Finance

Some Observations Made by Port Users

During the International Port Forum 1971 at Rotterdam

by Ir. F. Posthuma, Managing Director
Rotterdam Municipal Port Management

(Reprinted from Rotterdam Europoort Delta, 71/2)

During the International Port Forum 1970, organized by the Stichting Havenbelangen (the Foundation for promoting Port Interests), port users mentioned various problems which they had noted in Rotterdam-Europoort. These problems can be broadly divided into four categories:

1. the shortage of transshipment capacity in the ore and grain sector;
2. the lack of good facilities for handling iron and steel products;
3. the trend towards monopolization in the handling of goods as a whole;
4. the environmental hygiene.

These categories of problems naturally touch upon the spheres of the Municipal Port of Rotterdam and I would like to give my opinion on these subjects.

With 1 It is completely incorrect to say of the port infrastructure that it is a restrictive factor concerning possibilities for handling ores and grain. When mention is made of a shortage of sites this only applies to the shortage of industrial sites and not, at present, to transshipment sites. Furthermore, it is a fact that larger ships can now be received in Europoort than was previously the case and this has only added to the possibilities of low-cost overseas arrival of ores and grain. A typical example is the establishment of Bunge in the area. The Municipal Port of Rotterdam can, therefore, provide the essential development of the infrastructure and has not failed to do so, but it is up to trade and industry to ensure in good time the necessary adaptation or modernization of the suprastructure. If this is overlooked or done to an insuffi-

cient extent, then one is faced with temporary bottlenecks or rather serious congestions. Congestions sometimes also arise as a result of rather sudden changes in the arrivals pattern or composition of the goods-package. An example is the sharp rise in derivatives in the grain sector. This has led, among other things, to delays in the handling of LASH ships. The considerable flexibility of trade and industry, however, has enabled this gap to be filled, namely by announcing on the one hand the construction of special installations for handling derivatives and, on the other, the purchase at short notice of additional floating elevators. In the ore sector, the situation has clearly been eased by the new ore terminal in Europoort. As is known, second major ore terminal is being planned on Maasvlakte, west of Rotterdam.

As temporary bottlenecks also play into the hands of other ports, it is necessary, I feel, that trade and industry—by means of both economic and technical research (and possibly working together to cut costs)—should continually orient themselves so that capacity adjustments can be made well in time.

With 2 The transit possibilities for iron and steel products are closely linked with a large number of factors, of which the following are extremely important. In the first place, optimum functioning of the transport chain is essential, which means that the financial risks of shippers and receivers must be minimized. In this connection, mention can also be made of the so-called delivery conditions. In sea transport, in addition to the need of a minimum liner services packet,

there is also a need of a kind of joint-cargo services in order to be able to charter suitable ships for such cargoes. It is, of course, also necessary to have appropriate transshipment facilities, including the necessary specialized staff. As it is likely that one can reckon on increasing outgoing and incoming 'steel flows' in the future, it would seem the time has come for trade and industry to pay greater attention to this end, and, at the same time, to include in its contemplation the possible competition possibilities (from the LASH ship, among others).

With 3 The term 'monopolisation' is a somewhat 'loaded' concept. It must be admitted that in situations where harbour sites rapidly tend to become scarce, chances of 'monopoloid' market forms increases. The Municipal Port of Rotterdam has, therefore, always advocated a sufficient reserve of sites so that requests by new companies could be met as far and as long as possible. It cannot, however, be denied that other factors also play a role. Firstly, the fact must be mentioned that, for technological reasons, there is a general tendency in the transshipment sector towards continual expansion of capital intensity. Installations are increasingly bigger and more complicated so that only the very big concerns or groups of companies are able to raise the necessary capital. This 'consortium' forming is found, in particular, in the ore, grain and container transshipment sectors. On the other hand, and particularly in Rotterdam, one sees new industries emerging from these sectors. If the transport means too, tends towards greater capital intensity, the inclination also arises to dominate the transport chain in its totality mainly for economic reasons. This trend is found, for example, in container transport in particular. Similar tendencies have also been found for some time now in industry. It must be expected that such trends will manifest themselves increasingly in the future as a result of the technological and economic developments now in progress. The disadvantages which this state of affairs could mean for the shippers can be effectively offset by new firms joining in the transshipment and transport makers. As long as the

participants in this market can make their investments profitable, it will not be difficult to encourage new companies to venture into these markets. A situation of 'perfect competition' (a market with many suppliers and buyers) cannot, however, be expected where there is increasing capital intensity—not even in Rotterdam (with its relatively large number of market parties). In fact, there has never been such a situation. If one now wanted a situation of absolute 'perfect competition', such a desire would have to be termed unrealistic. This applies even more so for ports where the government has a say in the handling of goods.

With 4 The problem of 'environmental hygiene' is being given—quite rightly—more and more attention in the highly-developed, industrialized countries. Because of its rapid industrialization Rotterdam-Europoort is also being increasingly confronted with this extremely complicated problem. Recent legislation to combat air and surface-water pollution marks the beginning of a national campaign against these evils. In addition, more and more voices are being raised in favour of tackling these problems at international level, which is partly meant to prevent competition distortion. In view of the technological developments, it would seem most probable that one will be able, at an increasing extent, to control environmental pollution, in a technical sense. Undoubtedly there are a number of potential economic brakes which can delay this process. I am referring to the fact that physical control of the environmental pollution problem will have a cost-price increasing effect, and the resulting consequences (notably reduction of demand) can only be avoided if the spendable income rises at least proportionately. But this implies the possibility of maintaining a situation of constant economic growth. Conversely it could be argued that a continuous economic growth is a condition for the proposed solution of the environmental pollution problem and that such solution should therefore not be sought by any means in the direction of reducing or even discontinuing economic growth.

Record Berth Throughputs at British Ports

NPC Analysis of Container and Roll-On Traffic

During 1970 nine berths at British ports, designed to cater for container and roll-on traffic, between them dealt with almost five million tons of cargo. At one berth alone throughput exceeded 900,000 tons.

'Never before has so much general cargo been moved so quickly across so few berths', comments the National Ports Council's Chief Statistician, Mr. Brian Wilson, in a new publication in which Britain's container traffic is analysed 'in depth'.*

British ports now have over 80 container and roll-on berths in established operation, and three types of berth are included in the Council's analysis: container terminals equipped with special-purpose gantry cranes; roll-on berths dealing with the vehicle-ferry type of traffic; and other lift-on berths equipped with jib or scotch-derrick cranes for ship loading and discharge.

An unexpected feature of the analysis is the high throughputs achieved at the latter types of berth—'both the less publicised roll-on and the scotch derrick berth types have exceeded considerably their generally accepted maximum levels' writes Mr. Wilson.

The highest throughput for an individual berth, 911,248 tons, was achieved at a container terminal with gantry-crane equipment, but the next highest figure was recorded at a roll-on berth, with 659,542 tons, and a second roll-on berth also had a throughput exceeding 600,000 tons. (Roll-on berths also carry considerable numbers of accompanied cars which are not included in the cargo tonnages). Six scotch-derrick berths all had throughputs exceeding 200,000 tons, the highest figure recorded being 246,501 tons.

Mr. Wilson points out that at all

three types of berth the highest throughputs were achieved at those with single-user operation. The busiest common-user container terminal had only 51 per cent of the throughput of the busiest single-user terminals; the corresponding figures for common user scotch derrick and roll-on berths being 74 per cent and 47 per cent respectively.

In order to provide useful comparisons between the various methods of container handling and the differing size of berth, throughputs are analysed in terms of throughputs per crane, throughputs per foot of quay, and throughputs per acre of parking space provided behind the berth. The highest number of container units lifted by a single crane during the year was 43,651, by a gantry crane; the highest figure for a scotch derrick was 37,992 containers. Throughputs per linear foot of quay ranged up to 2,278 tons at a single-user container berth. The highest throughput per acre of parking space was 196,170 tons, at a common-user lift-on berth.

One section of the analysis deals with transshipment and feeder traffic. Transshipment container traffic is developing, particularly on the trade route between Europe and the USA, where three specialized container shipping companies employed their own or chartered feeder vessels to carry about 300,000 tons of cargo (20,711 loaded containers) between various British and European container terminals during 1970. This volume of transhipped tonnage amounts to about 16 per cent of the total direct USA/GB traffic for the same period—at the six individual British container terminals mainly involved it represents about a quarter of the traffic on this trade route, and at two ports the proportion is as high as one half.

Other Details

Freightliner services now account

* Container and roll-on port statistics, Great Britain 1971: Part 2. Published by the National Ports Council, 17 North Audley Street, London W1Y 1WE. Price £1.00.

for appreciable and growing numbers of the containers which move through British ports. In 1969 they carried 102,000 loaded and empty units; and in 1970 the number rose to 139,459 units at those ports directly serviced by Freightliners Limited—about 25 to 29 per cent respectively of their total network carryings.

Among the various sizes of containers in use, the 40 foot unit was used for a rapidly growing number of movements: 19,000 in 1969 and 50,000 in 1970, predominantly on the deep sea trade route with the U.S.A. where it accounted for 27 per cent and 39 per cent of all loaded unit movements for the two years respectively. Originally all these containers were 8 feet high, but now the 8' 6" high units at one major port account for nearly three-quarters of the 40 foot containers employed by those operators who are not using the 8' 6" high unit exclusively.

Average weights of container contents have been calculated for various sizes of containers, and from a much larger sample of statistics supplied by port and shipping operators it is now possible to distinguish between the different trade routes. The twenty-foot units, for example, averaged around 8 tons of cargo in the Swedish trade in both directions but with the Netherlands the export containers carried just under 10 tons and the import containers just over 11 tons of cargo; on the Australian route gross weights of import containers i.e. inclusive of container tare, averaged 15.7 tons. Very wide variations about these mean weights have been found when individual weights of 12,560 containers were classified. Over one third of the 20 foot units at four deep-sea ports in the North American trade contained below 9 tons of cargo each, so that twin loading onto road chassis for more commercial inland haulage may be practicable in many instances.

The new publication, which also gives details of the broad commodities carried in containers, is the first of a series of occasional statistical reports in depth on various aspects of container and roll-on port traffic. Emphasis has been placed on early and authoritative data using sampling where possible: the Council

IMCO As Seen by IAPH

Reports by observers from IAPH at IMCO sessions

Report No. 17

Date: 1st–5th November, 1971

Place: IMCO Headquarters, London

Session: 12th Session, Sub-Committee on Safety of Navigation

Observer from I.A.P.H.: Captain R. A. Gibbons, Haven Master, Port of Bristol Authority

Text of Report

The Sub-Committee elected:

Chairman — Capt. F. Sohnke
(Federal Republic of Germany)

Vice-Chairman—Capt. W. S. G. Morrison (Canada)

A summary of the Agenda is as follows:—

1. Adoption of the Agenda.
2. Information on decisions taken by the Maritime Safety Committee at its 24th Session.
3. Matters related to traffic separation.
4. Revision of the Collision Regulations.
5. Efficiency of sound signals.
6. Unification of buoyage systems including Wreck marking in International Waters.
7. International co-ordination of promulgating navigational warnings to shipping.
8. Electronic navigational aids—performance standards:
 - (a) Giro compasses
 - (b) Radar reflectors
 - (c) Symbols for radar controls.
9. Consideration of standards of training of Masters, Officers and Seamen. Formulation of I.M.C.O. views for consideration by the Joint I.M.C.O./I.L.O. Committee on training.
10. Any other business.

Working groups were engaged during the Session on Agenda Items, 3, 5, 7 and 8.

are very grateful for the special studies undertaken on their behalf by a number of port and other organizations including Overseas Containers Limited and H.M. Customs and Excise.

9th December 1971.

Agenda Item 2—Decisions taken by the Maritime Safety Committee at its 24th Session.

The Committee approved all new traffic separation schemes and amendments to the existing ones recommended for adoption by the 11th Session of the Sub-Committee, and requested their submission to the Assembly for endorsement. The Committee approved the system of traffic separation schemes in the Dover Strait and adjacent areas, and the Committee agreed upon other matters concerning the deep draught route. The Sub-Committee was instructed to consider dates of implementation of new schemes and to review schemes already adopted taking into account the appropriate delineation of the schemes, the sufficiency of marking of aids to navigation and any other practical factors.

The Committee approved recommendations on performance standards for radio direction finding systems and echo sounding equipment, and requested the subsequent submission to the Assembly for adoption. The Sub-Committee on the Safety of Navigation and on Radio Communications were instructed to consider the question of the proliferation of Racons and to prepare the necessary specifications.

The Committee decided to establish a Sub-Committee on Standards of training and watchkeeping.

The marking and signalling requirements for Ocean Data Acquisition Systems (O.D.A.S.) prepared by the Sub-Committee have been approved by the Committee and submitted to the Inter-Governmental Oceanographic Commission of the UNESCO.

Agenda Item 3—Traffic Separation Schemes.

There was some discussion on the adequacy of marking in the light of the M.S.C.'s instructions and in relation to the Agenda Item 6. The working group consisted of the representatives of the Governments of

seven nations and the International Chamber of Shipping and the International Hydrographic Bureau. The working party considered in detail the schemes submitted by member Governments and their report was afterwards examined in Sub-Committee. Recommendations concerning a large number of traffic separation schemes were considered with some emphasis on the need for adequate delineation of the schemes, and the presence of adequate navigation marks. The working group considered and listed schemes which they considered adequately delineated and marked, and there were eight in the Baltic Sea, thirty in Western European waters, three in the Mediterranean Sea, two in the Indian Ocean and adjacent waters, three on the North American Atlantic Coast, three on the North American Pacific Coast and one in the Bass Strait, Australia.

The working group agreed that the following schemes should be reconsidered, mainly on account of inadequate delineation or marking by navigational aids. In the Baltic Sea, four, Western European Waters, one, Indian Ocean and adjacent waters, six, and on the North American Atlantic Coast, two schemes.

Agenda Item 4—Revision of the Collision Regulations.

The working group reporting to the Sub-Committee on this item is comprised of the representatives of nineteen Governments and observers from the I.A.L.A., I.C.S., and P.I.A.N.C. The proposed revised Rules included a proposal to change the range of white lights to six miles and coloured lights to three miles based on a transmissivity factor of 0.8. It is emphasized that these proposals were being closely examined by technical experts, as to their practicability and the possible risk of confusion arising out of the use of a yellow light.

The working group in the draft submitted to the Sub-Committee said "the term composite unit means one where pushing vessel and the vessel being pushed become a single unit by means of a rigid connection". The intention is to light such a composite unit as a power driven vessel.

The regulations in respect of

hampered vessels and vessels not under command occasioned considerable debate and the draft as at present now includes a vessel engaged in dredging in this capacity, and a special signal has been devised and provides that:—

A vessel engaged in dredging, which from the nature of the work is unable to manoeuvre as required by the Rules of Part B, shall exhibit the lights and shapes prescribed in paragraph (b) of this Rule and shall in addition, when an obstruction exists, exhibit:

- (i) Two all-round red lights or two black balls in a vertical line to indicate the side on which the obstruction exists;
- (ii) Two all-round green lights or two black diamonds in a vertical line to indicate the side on which another vessel may pass;
- (iii) These lights and shapes shall be exhibited at the greatest horizontal distance that is practicable, but in no case less than 2 metres, from the lights or shapes mentioned in paragraph (b) (i) of this Rule. In no case shall the higher of these lights or shapes be at a greater height than the lower of the three lights or shapes mentioned in paragraph (b) (i) and (ii) of this Rule.

The new Rule C. 14—Anchored vessels and vessels aground—is also relevant in this connection in that as at present drafted sub-section (f) provides:

A vessel when at anchor and engaged in dredging, exhibiting the lights prescribed in Rule C.9(c) (i) and (ii) shall not be required to exhibit the anchor lights or shapes prescribed in paragraph (a) of this Rule.

These two Rules as drafted taken together seem to leave no doubt that it is the intention that dredgers should use this signal whether at anchor, as is the case with most dredgers, or underway, as with some types of suction dredger.

In the light of recent and earlier discussions in London at the Marine Sub-Committee of the Dock & Harbour Authorities' Association your observer has written to Captain Manson, Chairman of the Working Party on the Collision Regulations, and expressed the interest of the

Association in the unification of signals for dredging, and asked him to look into the practicability of widening the scope of activity for which the signal shown above is to be used so as to include other categories of craft which might present a similar obstruction. Such craft would include, for example, vessels undertaking mooring operations and vessels sometimes employed in order to drive screwed moorings into the river or harbour bed. Captain Manson has been told that it has not been possible to consult the I.A.P.H. on this question, and the request is that it should be considered on its merits.

Captain Manson has undertaken to do this and as a preliminary step has passed my letter into his department of the Department of Trade & Industry so that it can be considered during the preparatory work for the next session of the working group.

Rule C. 10 of the new Collision Regulations, as drafted, provides that:

A power-driven vessel proceeding along the course of a narrow channel or fairway, which is able to navigate only within the channel or fairway, may, in addition to the lights and shapes prescribed in Rule C.5 and, having regard to Rule BI/6, exhibit (as an informative signal) where they can best be seen:

- (i) Three all-round red lights in a vertical line or a black cylinder;
- (ii) In addition to the black cylinder, by day, an all-round yellow flashing light.

The whole Rule is subject to further consideration and the words in brackets may or may not be included.

Rule C.14 reads:

- (a) All vessels, when at anchor, (or moored to a buoy) shall exhibit where it can best be seen . . . etc.

Again the words in brackets may or may not be included.

The proposal agreed in the 11th Session of the Sub-Committee that a Manual should be prepared, the contents of which would give the known information on lights, signals, markings and systems which may be encountered at sea, has been deferred for the time being.

(Continued on Next Page Bottom)

Orbiter Probe

President King Honored

New York, N.Y., November 23:—The Port of New York Authority's highest honor for outstanding service, the Howard S. Cullman Distinguished Service Medal, was

Agenda Item 6—Unification of buoyage.

Discussion on this topic was deferred pending the conclusion of the work of the sub-committee for the unification of new buoyage systems which is being proceeded with as a matter of urgency by the National Association of Lighthouse Authorities. It was learned that proposals for what was hoped would be an acceptable system for buoyage for many nations were well advanced. The views were expressed that the most urgent requirement was for a standardization of wreck marking buoys since these could not always be identified from the chart in the case of a recent wreck.

Agenda Item 7 — Navigational Warnings.

The existing system for the promulgation of navigational warnings was examined and it was noted that the recent wrecks in the English Channel had shown some very large gaps in the transmission of messages. A proposal by the Federal Republic of Germany that navigational warnings which were classified as high priority should be prefixed by the radio auto alarm signal so that off-duty radio operators could be alerted was considered. A number of difficulties were seen in this proposal however and reference was made to the dangers arising from widespread use of the auto alarm for dangers which might be well outside the area of the receiving ship.

The observer witnessed no other discussions which were of special interest to harbour authorities.

awarded today to A. Lyle King, Director of the Authority's Marine Terminals Department.

On November 1, 1971, when Mayor John V. Lindsay, Chairman Helen Bentley of the Federal Maritime Commission, Chairman James C. Kellogg, III, of the Port Authority and others of the maritime industry joined together to commemorate the start of construction on the new Consolidated Passenger Ship Terminal, they were also paying tribute to the energy, ingenuity and foresight of Director of Marine Terminals A. Lyle King. To Mr. King, the ceremony marked the successful culmination of five years of imaginative planning and arduous negotiation.

The Consolidated Passenger Ship Terminal is, however, only one of Mr. King's triumphs in his nearly 25 years with the Port Authority. Starting with the redevelopment of tumbledown piers in Newark and Hoboken, Mr. King brought to the port a new concept of modern, efficient cargo-handling terminals built to exacting specifications and capable of meeting the changing cargo needs of steamship lines. He tore down two miles of Civil War vintage piers and structures on the Brooklyn waterfront and rebuilt them in a \$100 million improvement. It was he who envisioned, and was among the first in the world to proclaim, the automation of shipping that would come with the container revolution.

Working hand-in-hand with the pioneering element of the industry, Mr. King led in the program to develop, from Elizabeth marshland, the world's greatest containership docks. His instruction and influence have helped maritime representatives from around the world to go forward with the development of modern facilities in their own ports. His leadership in the modernization and



Mr. A. Lyle King

rebuilding of the New Jersey-New York Port has brought in its wake new high standards of marine operations throughout the world.

His selection to receive the Howard S. Cullman Distinguished Service Medal was made for his "integrity, tenacity and drive" and for his "princeless and distinguished service to the port and to the Port Authority."

Mr. King is President of the International Association of Ports and Harbors and Regional Vice President of the International Cargo Handling Coordination Association. He is a past President of the American Association of Port Authorities.

Mr. King served as a Colonel with the Army Transportation Corps during World War II.

He is married and resides at Foot of Orienta Avenue, Mamaroneck, New York. (The Port of New York Authority)

Container Conference

The UN/IMCO Conference on International Container Traffic is scheduled to be held at the Palais des Nations, Geneva; it will open on 13 November 1972 and its duration will be from four to six weeks.

ICC 23rd Congress

Paris:—The 23rd Congress of the International Chamber of Commerce, headquartered in Paris, (Continued on Next Page Bottom)

UNCTAD Port Management Course Being Hosted by Sweden

UNCTAD Press Release TAD/INF/507

Geneva, 10 December:—An international training course in port management to be financed by a grant from the Swedish International Development Authority (SIDA) is to be organized by the United Nations Conference on Trade and Development, the UNCTAD secretariat announced today in Geneva.

The course will be held in Gothenburg, Sweden, from 3 July to 8 September 1972 and carried out with the assistance of the Chalmers University of Technology and the Gothenburg Harbour Board.

The course, to be conducted in English, is designed for senior management personnel from the ports industry in developing countries. Nominations for the 25 participants are being invited from English-speaking sea-coast countries in Africa and the Middle East.

Consideration will be given to offering future courses to candidates from other countries, and in other languages.

A Planning and Advisory Group, under the Chairmanship of Captain Stig Axelsson, formerly General Manager of the Port of Gothenburg, and Chairman of the Executive Committee of the International Cargo Handling Co-ordination Association (ICHCA), has been set up to plant the course outline.

Mr. Brian Thomas, of the Department of Maritime Studies of the University of Wales Institute of Science and Technology, has been appointed tutor. He will take up his responsibilities in connection with the course on 1 March 1972, at UNCTAD headquarters in Geneva.

The 10-week course will cover four main subjects—port planning, port administration, port economics

and port operations. These basic topics will be studied by the entire group. Moreover, there will be sessions when the course will be divided into specialist groups where subjects of particular interest can be studied in depth.

In addition to frequent visits to the Port of Gothenburg to see such facilities as the Scandiamhamnen Container Terminal for trans-oceanic and feeder services, the Torshamnen Tanker Terminal, the free port installation, etc., the course will include a study tour to several other ports in Europe. Participants will thus have an opportunity of studying how port problems are being tackled in different countries.

It has long been established that cargo handling costs, together with the cost of ships' time in port, constitute a significant portion of the costs of international shipments. Port congestion—which in turn increases the cost of maritime transport—is often due to lack of adequate organization. Training is a pre-requisite for the improvement of the management skills on which the efficiency of ports depend. It is this training that the course will seek to provide.

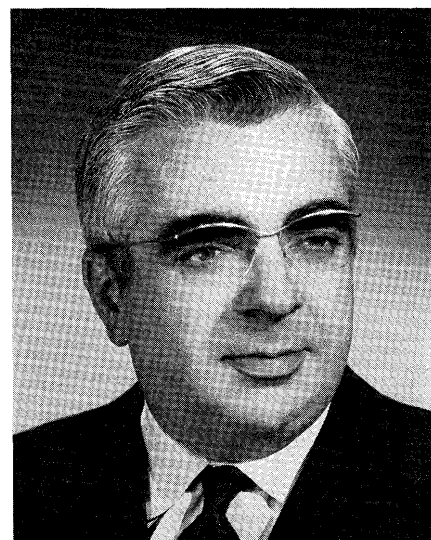
New Chairman

Montreal, December 1st:—Mr. J. M. Chabot, whose appointment as Chairman of the Port of Montreal Authority, has been announced by the Hon. Don Jamieson, Minister of Transport, on the occasion of the first meeting of the new local Port Authority on November 25, 1971.

In addition to Mr. Chabot, the following were named members:

Mr. Régis Trudeau, Consulting Engineer, **Régis Trudeau and Associates**; nominated by the Government of Quebec;

Mr. Yvon Lamarre, Municipal Councillor, designated by the Executive Committee of the City of



Mr. J. M. Chabot

Montreal as the City's representative;

Mr. Aimé Désautels, Architect, Chief Planner nominated by the Urban Community of Montreal;

Mr. J. L. Thom, Executive Vice-President, **Montreal Shipping Limited**;

Mr. Louis R. Desmarais, President and Chief Executive Officer, **Canada Steamship Lines Limited**;

Mr. Arnold E. Masters, President of **Maritime Employers Association**;

Mr. Jean-Marc St-Onge, President of Local 375, **International Association of Longshoremen**;

Mr. P. V. O. Evans, Director of **Furness, Withy & Co. Ltd.**;

Mr. Joachim Carton, President of **March Shipping Limited**;

Mr. Alexander C. Pathy, Vice-President of **Federal Commerce and Navigation Company Limited**;

Mr. Roger O. Beauchemin, Consulting Engineer, **Beauchemin-Beaton-Lapointe**;

Mr. Richard Strauss, President of **Agro Co. of Canada Ltd.**;

Mr. Ian C. Campbell, Vice-President and Treasurer, **Asbestos Corporation Limited** and Founding Chairman of the **Canadian Shipper's Council**. (National Harbours Board, Montreal)

Seaway Closing

Ottawa, December 16, 1971:—The St. Lawrence Seaway Authority

(Continued on Page 30)

France, was held April 17-24 in Vienna where 2,273 participants from 61 countries and 58 international organizations attended. (ICC Information, August 1971)

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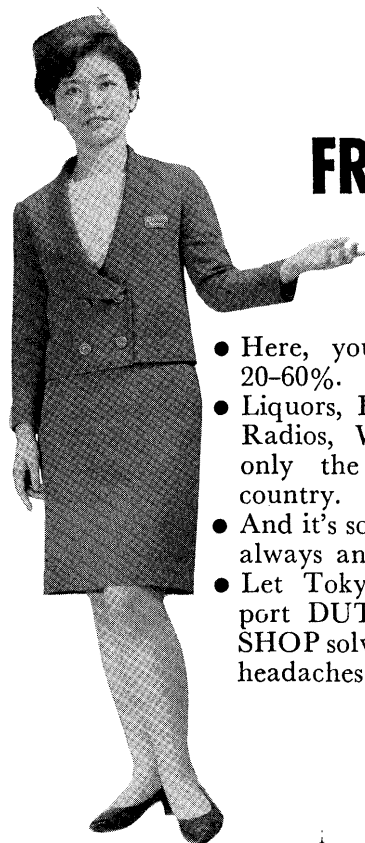
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(Continued from Page 28)

announced to-day it will close the Montreal-Lake Ontario section of the system at noon, Monday, December 20.

It is the latest closing date for the section since the Seaway was opened in 1959, the previous latest date being December 17 last year.

The Authority set December 29 as the official closing date for the Welland Canal but it will be kept open on a daily basis depending on weather and traffic conditions, until January 7, 1972. The Welland was closed last year on December 30.

The Authority also revealed to-day that as the season ended it was expected that 1971 cargo volumes on both the Montreal-Lake Ontario section and the Welland Canal section would exceed last year's totals of approximately 51,170,000 and 62,960,000 tons respectively.

The decision to close the Seaway's Eastern region on Monday was made as the last four of a record number of ocean ships still in the system as winter approached, were expected to clear Montreal's St. Lambert Lock by Sunday if weather permits.

When the last of the ocean ships transits St. Lambert, Seaway workers will have cleared 375 ocean vessels since November 14 when a record 247 such ships were in the system compared with 126 on the same date in 1970.

The Seaway was kept open on a daily basis after a previously announced December 12 closing date, to clear the 65 ocean ships then remaining in the Great Lakes. There were only 12 ocean ships above St. Lambert on the same date in 1970.

Seaway workers and pilots had to contend with congestion, high winds and intermittent fog in the last two weeks of the navigation season to clear the record number of ocean vessels while continuing to handle the normal traffic requirements of more than 400 inland ships.

After reporting on November 5 that there were 217 ocean vessels in the system and about 100 more destined for Great Lakes ports before December 12, the Canadian and U.S. administrations warned the shipping trade that entrance should not be contemplated beyond an early date.

Major Expansion of Houston Bayport Division Barge Channel

Houston, Texas, December 15:—A major expansion of Houston Area deep water port facilities was disclosed today with the Port of Houston's announcement of a \$19 million project to enlarge its Bayport Division to accommodate ocean-going shipping.

Expansion work will begin later this year for completion in 1973, providing a new, 36-foot-deep ship channel and turning basin with

Four days later, the trade was advised that, with 215 ocean vessels then in the system, ships should not enter after November 12 unless they were willing to accept the responsibility of being trapped for the winter.

A priority rating was established under which late entries, designated as X-vessels, were required to yield priority of transit to lakers and ocean vessels already in the system.

Despite the warning there were 87 X-vessels in the system by December 6—the last entry date for an ocean ship.

When it became apparent by November 17 that the non X-vessels were not clearing inland ports early enough to leave the system without unduly congesting the final days of navigation, the priority service was dropped for downbound vessels.

The decision brought a rapid increase in the number of downbound ships. But despite this, as late as a week ago, when water temperatures dropped to 33 above at St. Lambert Lock and 1½ inches of ice formed on the edges of the South Shore Canal, Seaway officials doubted they could transit all of the ships then remaining in the system.

However, the mild spells that swept into Eastern Ontario and the Montreal area on December 9 warmed up the water and stopped the ice formation. And despite fog and high winds in the next week the backlog of congestion was broken. (The St. Lawrence Seaway Authority)

16,000 linear feet of berthing capacity. The channel is being engineered for an ultimate 45-foot depth.

All financing by the Port of Houston to expand the Bayport Channel will be by means of revenue bonds which will be retired solely from revenues derived from Bayport Division operations. Arrangements have already been made for sale of these bonds.

The Bayport Division barge channel, owned and operated by the Port of Houston, is a public port facility located on Galveston Bay. The facility, part of a 720-acre site originally donated to the Port by Humble Oil & Refining Company, lies adjacent to the 8,750-acre Bayport Industrial Development where fourteen firms have plants in operation. Several other industrial concerns are active in the immediate area.

At present, the barge channel extends 1.2 miles inland, has a 100-foot bottom width and a depth of 12 feet. The present turning basin is 300 feet by 800 feet.

When expanded, the channel will extend approximately 1.8 miles inland, will have a 300-foot bottom width along with the 36-foot depth. The turning basin will be approximately 1,900 feet square with an effective ship turning diameter of 1,600 feet.

As part of the construction, Port Road will be extended east from its present terminus at the intersection of Old Highway 146 to Todville Road, a distance of 1.4 miles. The Port Road extension will provide a more direct route to New Highway 146 from Todville.

Expansion of Bayport Channel, open to barge traffic since January, 1966, has been planned since the early 1960s when Bayport was announced. To date, it has been used by firms in Bayport, NASA's Manned Spacecraft Center as well as a number of other industrial firms.

During the excavation phase of construction, a cofferdam will be

constructed across the existing Bayport Division channel to allow excavation "in the dry" on the inland portion of the project. Dredged spoil from the Galveston Bay portion of the channel will be deposited on existing spoil banks in the bay, so that no new banks will be formed.

Before excavation of the channel begins, arrangements will be made to accommodate drainage flows from adjacent areas.

In addition, a small channel will be constructed along the northern and western side of the expanded turning basin area to allow residents of areas west of Old Highway 146 continued boat access into Taylor Bayou. Provision will be made to prevent silting of Taylor Bayou. Construction of the channel will also maintain the existing, natural drainage flow of Taylor Bayou toward Clear Lake.

In accordance with the master plan, the north side of the expanded channel and turning basin will be used for liquid cargo terminaling, with the area east of Boggy Bayou to be reserved for barge mooring facilities. Specialized or general cargo will be handled along the remainder of the turning basin and channel. (Port of Houston News Release)

Another Banner Year

Houston, Texas (Special):—Tonage at the Port of Houston through October was running twelve per cent ahead of record-breaking 1970 and all indications point to another banner year according to figures compiled by the Port Authority.

Through the first ten months just over 57 million tons of cargo had moved in or out of the Port by deep-sea vessel and barge, compared to some 51 million tons for the same period a year ago.

At the present rate of handling more than 5 million tons monthly, Houston can project another 10 to 11 million tons by the end of the year and a record-shattering 67 to 68 million tons for the year, says George W. Altwater, executive director.

This would be three to four million tons more than the 64.6 million ton record set last year.

Five-Phase Plan in L. A. for Marina Development

Port of Los Angeles

Public Relations Division

Los Angeles, Calif., Nov. 8:—Members of the California State Department of Navigation and Ocean Development, at their regular bi-monthly public meeting held Monday, November 8, at the Port of Los Angeles, reviewed with Los Angeles Harbor Commissioners a five-phase plan for marina development in the harbor's West Channel area which could provide nearly 3,000 new boat slips at the port.

Los Angeles Harbor Commission President John J. Royal said there are five principal advantages at the

There was a momentary drop in October tonnages when worldwide shipping slowed due to the East and West Coast dock strikes, but Houston stayed open and by the end of the month was crowded with vessels discharging and loading cargo.

Foreign trade general cargo for October only was running ahead of October 1970 with 250,000 tons of imports but only 142,000 tons of exports. Imports continued to run nearly a million tons ahead of 1970 for the first ten months with roughly 2.75 million tons of foreign general cargo imports in 1971 as against 1.75 tons of imports through October of 1970. Total foreign general cargo through the period, both export and import, stands at 4.5 million as against 3.6 million for the same period a year ago.

Foreign bulk cargo, much of it wheat, is running nearly 3.5 million tons more than 1970, with exports of 10.25 million tons as against only 2.9 million tons of imported bulk. Domestic barge traffic is running about 2.3 million tons ahead, at 19.1 million tons while coastwise deepsea movements, largely bulk petroleum, at 17.6 million tons is only half a million tons above the same period in 1970. (Port of Houston)

West Channel area for marina development:

1. Compatibility with the surrounding area, which already includes several small craft facilities.
2. Nearness to the outer harbor avoids traffic with commercial shipping in Main Channel.
3. Vehicular traffic to and from the area will by-pass main harbor areas, minimizing street traffic congestion in busier waterfront areas.
4. Long surge waves in this area are not as serious for small craft as they are for larger commercial vessels.
5. Small craft can reach open water for sailing or cruising much more quickly than from other harbor locations.

"With these and other considerations in mind," Royal said, "the Planning and Research Division of the Harbor Department has attempted to arrive at some master planning concepts for this area that will maximize its use for small craft and other recreational activities."

The start of the first phase of the plan, presented in color slides by the port's Director of Planning and Research, Donald A. Walsh, was signaled the day before the meeting when members of the state commission visited the site of a proposed new small craft launching ramp at Cabrillo Beach and joined with harbor commissioners to "break ground" with a gigantic anchor, indicating the imminent start of phase one construction.

The ramp, financed by a state grant of \$350,000, will include parking, boat wash rack, rest rooms and other facilities. It is expected to be ready for use by April or May of 1972.

Phase two of the program is a 1,500-boat small craft marina north of the new launching ramp, to be known as the North Basin Marina. Expected cost would be \$4 to \$6 million and application for construction funds will be made to the State Department of Navigation and Ocean Development. This development would not eliminate the existing swimming beach and could provide a basis for its enlargement.

Phase three involves the improvement of Watchorn Basin and presumes that this existing small craft basin will not be filled in and utilized for bulk handling purposes. While most of this work could be done with state funds, it is hoped that long-term leases could be given present marina operators there, giving them incentive to finance part of the work themselves. It is estimated that about \$1.5 million total would provide an additional 200 slips at this location and upgrade the existing floats.

Phase four of the plan involves the lower bluff area of Fort MacArthur and could only be undertaken if the property is released by the U.S. Army to the State for recreational purposes.

Preliminary layouts indicate space for up to 600 slips plus a boat hoist fronting on the West Channel. Cost, which could vary considerably depending on how the earthwork was handled, would probably be about \$2.5 million.

Whether or not this property will be made available may be indicated by a land use study being prepared for the Department of Defense for release in mid-November. The study is to determine whether land at any of the military installations in Southern California can be declared surplus.

Phase five, if realized, would fill in most of the remaining water area in West Channel with boat slips, adding about 600 to the total project, and would involve the termination of the Navy lease on their fuel depot at Berths 37-39. Since this is the last element of the plan, its implementation would probably be three to five years away, under the most optimistic assumptions about completion of the first four phases. Therefore, the Navy's con-

tinued use of the area for the 1970-1975 period would probably not cause a delay in the overall completion of the marina development, providing ultimate termination of their lease could be agreed upon.

A Harbor Department study of revenues derived at the Navy fuel facility for the past two years, when compared with estimates of revenues to be expected under the five-phase West Channel marina plan, indicates a possible rise in the rate of return to the Harbor Department from the present 6.6 percent to a yield of 7.7 percent.

P.A. of N.Y. & N.J.

New York, N.Y., Dec. 16:—The Port Authority will recommend legislation to the States of New York and New Jersey to change the name of The Port of New York Authority to "The Port Authority of New York and New Jersey," according to an announcement today by Authority Chairman James C. Kellogg, III. The change in name is being recommended for the purpose of identifying more accurately the status of the Port Authority as a bi-state agency of the States of New York and New Jersey. (News from The Port of New York Authority)

Acting Executive Director

New York, N.Y., Dec. 15:—Matthias E. Lukens, Deputy Executive Director of the Port Authority, has been appointed Acting Executive Director by the bi-state agency's Board of Commissioners, according to an announcement today by Chairman James C. Kellogg, III.

Austin J. Tobin, who has served as Executive Director since 1942, recently announced his forthcoming retirement effective March 31, 1972.

Chairman Kellogg also announced that a special committee of the Board will be formed to recommend to the Board the nomination of an Executive Director.

Matthias E. Lukens

Mr. Lukens has served as Deputy Executive Director of the Authority since 1961. He joined the Port Authority in 1947. His achievements in the Authority were recognized by

the Commissioners last month when they awarded him the bi-state agency's highest award, the Howard S. Cullman Distinguished Service Medal. He was cited for his "very great record of exceptional service, and for his major contributions to the success of the work and programs of the Port Authority over the past quarter of a century."

Since 1962, when the Port Authority acquired the former Hudson and Manhattan Railroad, now PATH, Mr. Lukens has taken on increased responsibilities in the area of rail transportation. He is Senior Vice President of the Port Authority Trans-Hudson Corporation, the rail transit operating subsidiary of the Port Authority.

During 1969 and 1970, Mr. Lukens served as President of the Airport Operators Council International.

Mr. Lukens was graduated from the University of Cincinnati with a degree in Commercial Engineering in 1935 and from Syracuse University with an M.S. in Public Administration in 1937. He was awarded an Honorary LL.D. degree from the University of Cincinnati in 1968. During World War II, he served as a Lieutenant Colonel in the United States Army Air Force and holds the Legion of Merit.

Mr. Lukens is a charter member of the National Academy of Public Administration and a member of its Executive Committee. He has served as National President of the American Society for Public Administration. He is Vice President and a member of the Board of Directors of the West Side Association of Commerce. He is also a member of the Research and Technology Advisory Council of the National Aeronautics and Space Administration, and member of the Executive Committee of the New York Chamber of Commerce.

Mr. Lukens, who is 59, is married to the former Madeline Whelan. They have four children and live in Port Washington, Long Island. (News from The Port of New York Authority)

New Terminal Manager

New York, N.Y., Nov. 29:—The appointment of Jens M. Rommer-



Mr. Jens M. Rommerdahl

dahl of Bay Ridge, Brooklyn, as Manager of the Consolidated Passenger Ship Terminal under construction by the Port Authority in mid-Manhattan, was announced today by Austin J. Tobin, Executive Director of the bi-state agency.

Mr. Rommerdahl brings to this new position more than twelve years of experience in the handling of large numbers of people and in the management of terminal and transportation facilities. He has served as Manager of the George Washington Bridge Bus Station, and of the 15-story Port Authority Building at 111 Eighth Avenue, and as Superintendent of General Maintenance at Kennedy International Airport.

The Consolidated Passenger Ship Terminal involves the reconstruction of the barnlike and obsolete Piers 88, 90 and 92 on the Hudson River between 48th and 52nd Streets, to provide six ship berths with the most modern passenger facilities. In addition, Pier 40 at Houston Street will be improved as a companion three-berth facility, thus providing a total of nine steamship berths to accommodate trans-atlantic and cruise liners.

When the terminal is completed, it is estimated that 750,000 ocean-going travelers will enter and leave the Port of New York through this comfortable and attractive facility during the first year of operation.

Mr. Rommerdahl, who has been with the Port Authority since 1954, was born in Norresundby, Denmark. He joined the Danish merchant

marine after graduation from high school and served on American, British and Danish ships in the Atlantic and Pacific.

Mr. Rommerdahl holds a Bachelor of Science degree from New York University's School of Commerce and has attended New York University's Graduate School of Public Administration.

He is a member of the American Society of Public Administration and the Manhattan Real Estate Board. Mr. Rommerdahl is also active in Danish-American social clubs and charitable organizations; he is a member of the Board of Directors of the Danish Athletic Club, of the Advisory Council of the Danish Seamen's Church and has served as Master of Frederick Lodge, the only Danish-speaking masonic lodge in the United States. He is also a member of the Royal Danish Yacht Club, of the New York Life Saving Association and of the Salem Lutheran Church.

Mr. Rommerdahl, who is 49 years old, is married to the former Carla Fredericks of The Bronx. They have two sons: Lance, 22, who is serving with the U.S. Army in Viet Nam, and Kurt, 18, who is attending Wagner College. (News from The Port of New York Authority)

ICHCA U.S. Symposium

Oakland, Calif., December 16:—The first U.S. cargo systems technical conference of the International Cargo Handling Coordination Association will be held April 20–21 in Oakland, Calif., Ben E. Nutter, Executive Director of the Port of Oakland and President of ICHCA's U.S. National Committee, announced today.

The two-day symposium had originally been scheduled for last Sept. 16 and 17, but was postponed because of the West Coast longshoremen's strike.

Shipping and transportation executives from throughout the world, labor leaders and government transportation officials will gather at the Oakland Hilton Inn for the event to discuss a wide range of topics relating to the efficient movement of cargo from origin to destination.

Entitled "The Challenge of the

Change in Intermodal Cargo Distribution," the conference will include panel discussions on innovations in marine terminal design and operation, new developments in refrigerated cargo movements, port labor productivity in practice, out-ports and feeder systems and new developments in intermodal handling of containers by air.

Nutter will serve as keynote speaker for the conference, with Dr. Weldon B. Gibson, Executive Vice President of Stanford Research Institute, giving an April 21 luncheon address on "Impediments to Intermodalism."

Registration or requests for further information should be directed to the U.S. National Committee of the International Cargo Handling Coordination Assoc. Inc., c/o Port of Oakland, 66 Jack London Square, Oakland, Calif. 94607. (Port of Oakland)

Patrol-Fire Boat

San Diego, December 7:—Latest addition to the San Diego Unified Port District Harbor Police fire fighting equipment is a combination police patrol and fireboat, the "Harbor Island".

She made her official debut Monday, December 6 with a full complement of newsmen, photographers and Port officials aboard.

After a ride on the bay passengers transferred to the Harbor Police craft "Point Loma" and followed along as the "Harbor Island" crewmen took her for a high speed run demonstrating the vessel's ability to rapidly reach a fire scene.

The craft, built by Atlantic Research Corporation at a cost of \$216,835, is able to generate 300 foot streams of water from its fore and aft mounted remotely controlled fixed nozzles. The same nozzles can also generate a dense fog screen.

The 42-foot "Harbor Island" will provide fire protection primarily in the central-industrial areas of the bay. This will result in an improved fire insurance rating for the San Diego Bay area.

The vessel will be operated on an around-the-clock basis, normally with a two man crew. Operation of the boat and the fire fighting equipment

is remotely controlled from the main cabin.

For self-protection, when working close to a fire, the vessel is equipped with a bow spray system.

In the words of Port Board of Commissioners Chairman Harvey Furgatch, "Hopefully, she will never have to be used."

But, if the time comes, the "Harbor Island" should prove to be an invaluable addition to the Port's fire fighting capability. (Port of San Diego News Release)

Color Folder Available

San Francisco, Calif., November 15:—A color brochure picturing the container-age complex of new piers being constructed by the Port of San Francisco is now being mailed worldwide by the Port Commission.

And the brochure features a new name adopted by the port for its fast-developing India Basin area—"Multiport."

The term was coined to indicate the versatility of the planned complex in handling every type of intermodal vessel calling at west coast ports.

Central facilities in the Multiport project are the LASH (Lighter Aboard Ship) terminal now nearing completion at Pier 96 and an advance-design container terminal, Pier 94, slated for construction starting early in 1972 on a 110-acre site adjoining the unique LASH facility.

San Francisco voters have approved a \$34,000,000 bond issue for construction of the four-berth container terminal and its extensive intermodal facilities.

Also illustrated in the Multiport brochure is Pier 98, a two-berth container pier planned for later development.

The brochure predicts the Multiport project will provide "the greatest concentration of land-sea cargo facilities on the Pacific Coast."

Copies of the folder can be obtained by writing to the port's trade promotion department, Ferry Building, San Francisco, Calif. (Port of San Francisco)

Christmas Gift

Seattle, Wash., December 17:—As

big as it likes to think of itself, the Port of Seattle was still surprised to learn that one of its Christmas presents will weigh a full ton.

That's the gross weight of six large bales of Sorb-Oil being presented to the Port next Tuesday morning by Innova Corporation, for use at Sea-Tac International Airport and, if needed, on the waterfront. Sorb-Oil, in case you didn't know, is the wood fiber material which blots up oil instantly. Its first use was for mopping up oil spills on water, but it has been found to be as effective a blotter on hard surfaces, too.

Innova's Christmas gift to the Port will be stored in the fire station at Sea-Tac and will be used primarily to clean up the fuel and oil spills which occasionally occur around the areas where airliners are serviced. A secondary use of the Sorb-Oil will be to combat any oil spills which may take place near the Port's dock facilities.

Officials of the Ports of Seattle and Tacoma will be on hand to receive the "present" which Innova's imaginative public relations director, Don Riley, will deliver—gift wrapped, he says—at 10:45 Tuesday morning at the Sea-Tac fire station. Innova has also promised a demonstration of the product's capabilities for the benefit of the Port officials. (News Release from Port of Seattle)

Japanese Xmas Oranges

Seattle, Washington, Dec. 6:—The first shipload of Japanese Christmas oranges arrive at the Port of Seattle on the Sea-Land containership "St. Louis". About 2,800 boxes will be discharged on December 7 at Sea-Land's Terminal 5 headquarters.

The second shipment arrives December 9 aboard the American Mail Line vessel "India Mail". Over 12,000 boxes in loose, palletized loads will be discharged here. The final shipment of the season will be 17,600 boxes in containers on Sea-Land's "Philadelphia" on December 10.

Taky Kimura, president of Great Empire Trading Company, Seattle, is the sole importer for these little zipper-skinned Christmas stocking-stuffers. The oranges were allowed

to re-enter the U.S. only three years ago after an absence of 27 years because of restrictions imposed by the U.S. Department of Agriculture. The Kimura family labored many years to reverse the decision and succeeded in 1968. Great Empire Trading Co. is the sole importer for Washington, Oregon, Idaho, Montana and Alaska which are the only 5 non-citrus growing states allowed to receive the oranges by the USDA rules.

Kimura says he will receive 32,542 boxes this year, about 2 million oranges. He could distribute many times that number but Japanese shippers have been cautious about shipping to the United States because of longshore strikes and the awkwardness of the pressures to get shipments safely off ships which are being faced with a resumption of a West Coast tie-up. Additionally, there are only 5 growing areas in Japan designated as approved by the USDA for shipment to the United States thus adding further complications to Kimura's imports.

Kimura says he will have the Unshu oranges, as he calls them, on the retailers' shelves the week of December 13th. (News Release from Port of Seattle)

Port Development Plan

Tampa, Fla., November:—A complete plan of port development, including harbor deepening and construction of new general and bulk cargo and cruise terminal facilities was adopted by the Tampa Port Authority on November 11, 1971. The adoption of the far-reaching and imaginative plan was a decisive move on the part of the Authority Board calculated to keep Tampa in the forefront of the nation's ports. Implementation of the plan will meet port needs into the next century. The plan encompasses full recognition of the environmental aspects of Tampa Bay, a primary concern of the Authority. It seeks the balance between continued economic vigor and preservation of the natural environment which is a requirement for the continued health and well-being of the area served by the port.

As part of the over-all project, Authority Chairman Delmar B. Drawdy appointed board member Lester Hirsch as chairman of the *Environmental Committee* of the Board. In accepting the position Mr. Hirsch pledged a campaign of cooperation with all community interests to establish liaison in order to obtain all public viewpoints.

As outlined by Port Director Guy N. Verger, the development plan includes:

(1) *Deepening of the harbor channels*; (2) *Design and construction of five general cargo berths at Holland Terminal on East Bay*; (3) *Design and construction of bulk cargo berths on Sparkman Channel at Hookers Point*; (4) *Design and construction of a cruise berth at Holland Terminal if deemed feasible*.

In order to achieve these goals, the Authority: (1) Selected the firm of Frederic R. Harris, Inc., New York, highly experienced in port engineering, as consultants and for preliminary engineering; (2) Selected Pierce, Wulbern and Murphey Corporation, Tampa, as fiscal agents; (3) Approved a package of bills to be presented to the Hillsborough County Legislative Delegation designed to increase the financial capability of the Authority. In addition, the environmental study of Tampa Bay, a joint project of the Authority and the U.S. Geological Survey, will continue to provide needed environmental and engineering data.

Accomplishment of harbor deepening, deemed of primary importance, will be approached from *two directions*: Cooperation with the State Department of Transportation, and maximum efforts to obtain federal funding for the project. The cooperative effort with DOT is a plan for providing needed road building base from the material dredged from the channels, thus relieving the federal government of a great deal of the funding. DOT requirements are nearly 40 million yards in the next five years. The material would be stockpiled on uplands. Details are now being worked out between DOT and the Authority.

The legislative program includes a request to increase the millage authorized the Authority from a half to a full mill within the 10-mill cap;

authorizing a referendum to increase the millage of the Authority by two mills for a two-year period above the 10-mill cap; authorizing the issuance of general revenue bonds if approved by referendum; direct appropriation of \$500,000 by the state for seed money which will be repaid; and a provision that part of the state severance tax on phosphate be used for port and harbor development. (Tampa Port Authority News Letter)

All Time Cargo Record

Toledo, Ohio, October 27:—The Port of Toledo is headed for an all-time general cargo record, according to a report submitted to the board of directors of the Toledo-Lucas County Authority by the agency's General Manager John A. McWilliam. More than 395,000 tons of these non-bulk overseas cargoes moved over Toledo docks through September, approximately 100,000 tons more than any previous year in port history, he said.

General cargo tonnage was up 95% through September. Mr. McWilliam attributed the general cargo increase to a substantially higher volume in imported steel, but said the remaining cargoes showed "healthy increases" as well. He predicted a new record in imported vehicles and said the port has become a major import auto center. Toledo's export auto volume was also up substantially, he said.

Since general cargo statistics are through September 30, they do not reflect major cargo diversions which may result from dock strikes at East and Gulf Coast ports, he said.

Statistics covering the first three weeks of October showed Toledo's grain export tonnage is up 17%. An outstanding fall harvest and the availability of more ships were cited by Mr. McWilliam as factors primarily responsible for the port's increased grain trade. (Port of Toledo)

Record Grain Loading

Toledo, Ohio, October 28:—The Port of Toledo today set a new single ship grain loading record when a total of 993,824 bushels of corn were

loaded aboard the Canada Steamship Line vessel—BAIE ST. PAUL. Bound for Montreal, the record shipment which totaled 27,827 tons, was loaded jointly at the Mid-States and The Andersons' riverfront terminals by the American Grain Trimmers, Incorporated.

The port's previous record shipment was set on May 9, 1969 when the laker — LAWRENCECLIFFE HALL—loaded a combination shipment of corn and soybeans totaling 983,336 bushels.

The Port Toledo's three waterfront grain terminals have handled a total of 410,000 tons of export grain during the first three weeks of October. This boosts the port's total grain tonnage 17 percent ahead of last year's pace. (Port of Toledo)

New Tallow Terminal

Melbourne:—The Commissioners of the Port of Melbourne have leased a section of land adjacent to the Maribyrong River to enable a private company to build a new terminal for the export of tallow.

Tallow is an important and growing export earner, and the terminal being constructed within the confines of the Port is the first of its kind in Australia.

In 1970 a total of 76,445 tons of tallow was exported through the Port of Melbourne to the following countries: South Africa, 20 per cent; Japan, 19.1 per cent; Netherlands, 13.6 per cent; United Kingdom, 7.7 per cent; France, 5.1 per cent; China, 4.5 per cent; Mozambique, 4 per cent; Pakistan, 3.8 per cent; Philippines, 2.9 per cent; Africa, others, 2.4 per cent and Malaysia, New Zealand, Burma and other countries 16.9 per cent.

The plant, designed to load bulk liquid tallow direct into parcel tankers, is being built on Coode Island where the Maribyrong River meets the Yarra.

Gardner Smith Pty. Ltd., Australia's oldest tallow exporters, are building the plant to meet the pressure of having to load larger and larger tallow shipments into fewer ships at faster rates.

Two developments have brought this about—a dramatic rise in tallow exports, and the withdrawal of many

conventional cargo vessels from service between Australia and certain overseas countries which take a big share of Australian tallow.

Three years ago in 1968 annual tallow exports through the Port of Melbourne were steady at 35,000 tons. In 1969 the volume leapt to 72,000. In 1970 it reached 76,000 and in 1971 should pass 80,000 tons.

The only ships available to lift this additional tonnage are parcel tankers serving mainly Japan, and the Durban-Rotterdam route. These vessels operate under charter party conditions, and demand round the clock loading at minimum rates of 40 tons per hour.

Pumping thousands of tons of tallow into these vessels from fleets of 40 or 50 road tankers in both awkward and costly. More important, this method offers no solution for the future, when even faster loading rates will be demanded, labour costs will rise, and tonnages must increase.

Gardner Smith's plant, located near No. 1 Maribyrnong Berth, will load vessels there through a 500 foot pipeline capable of delivery into the ship at a rate of up to 200 tons per hour.

This is the manner in which tallow is already loaded and discharged in other major world ports such as Los Angeles, Rotterdam and Osaka.

The plant's first stage includes two 1,000 ton capacity storage tanks and, with other facilities including steam plant for heating, will cost approximately \$125,000. A final development of the site allows for a total storage capacity of almost 9,000 tons of tallow. (Melbourne Harbor Trust Port Gazette, August)

Incinerator

Melbourne:—The Commonwealth Government has agreed to reimburse the Victorian Government for the capital cost of an incinerator in the Port of Melbourne for the destruction of ships' garbage and dunnage and the Melbourne Harbor Trust Commissioners have accepted a tender for the construction of this incinerator at an estimated cost of approximately \$800,000.

The Incinerator, which will have the capacity of handling twenty tons

of material per day, is to be constructed on the present site of the Melbourne Harbor Trust Tip on Trust land along Williamstown Road, Port Melbourne.

The Incinerator, which has been specially designed to cope with the high percentage of wet garbage emanating from ships, will greatly assist in the implementation of Commonwealth Quarantine procedures in relation to ship's garbage in the Port of Melbourne. Special provisions have been made to comply with the Victorian Clean Air Act by the incorporation in the unit of an electrostatic precipitator to deal with flue gases.

The successful tender for the design and construction of the Incinerator was submitted by Von Roll—Process Plant Construction Joint Venture. The unit will be constructed locally by Process Plant Construction Pty. Ltd., to the design of Von Roll Limited, who have designed and built many incinerators throughout the world.

Two incinerating cells are being provided. The larger or First Preference Cell has a mechanical grate for agitation of the burning refuse and is intended for use at all times, except when out of service for overhaul, etc. The smaller or Second Preference Cell is intended for stand-by or emergency use only. (Melbourne Harbor Trust Port Gazette, August)

Dredging of Iron Cove

Sydney, 25th November:—The

dredging of the head of Iron Cove to remove the mud flats and to provide a minimum depth of two feet at low water will be put in hand shortly.

This was announced to-day by Mr. W.H. Brotherson, President of the Maritime Services Board, who said that the cost of the work will be of the order of \$474,000, and will be shared between the Ashfield and Drummoyne Municipal Councils, whose boundaries join the area to be dredged, the Metropolitan Water, Sewerage and Drainage Board and the Maritime Services Board.

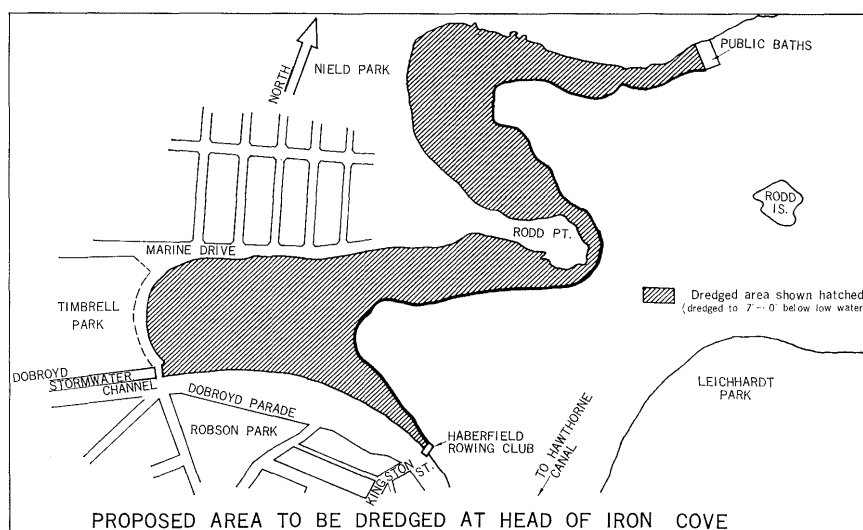
Mr. Brotherson said that the decision to proceed with the work was the culmination of lengthy negotiations between the various bodies concerned.

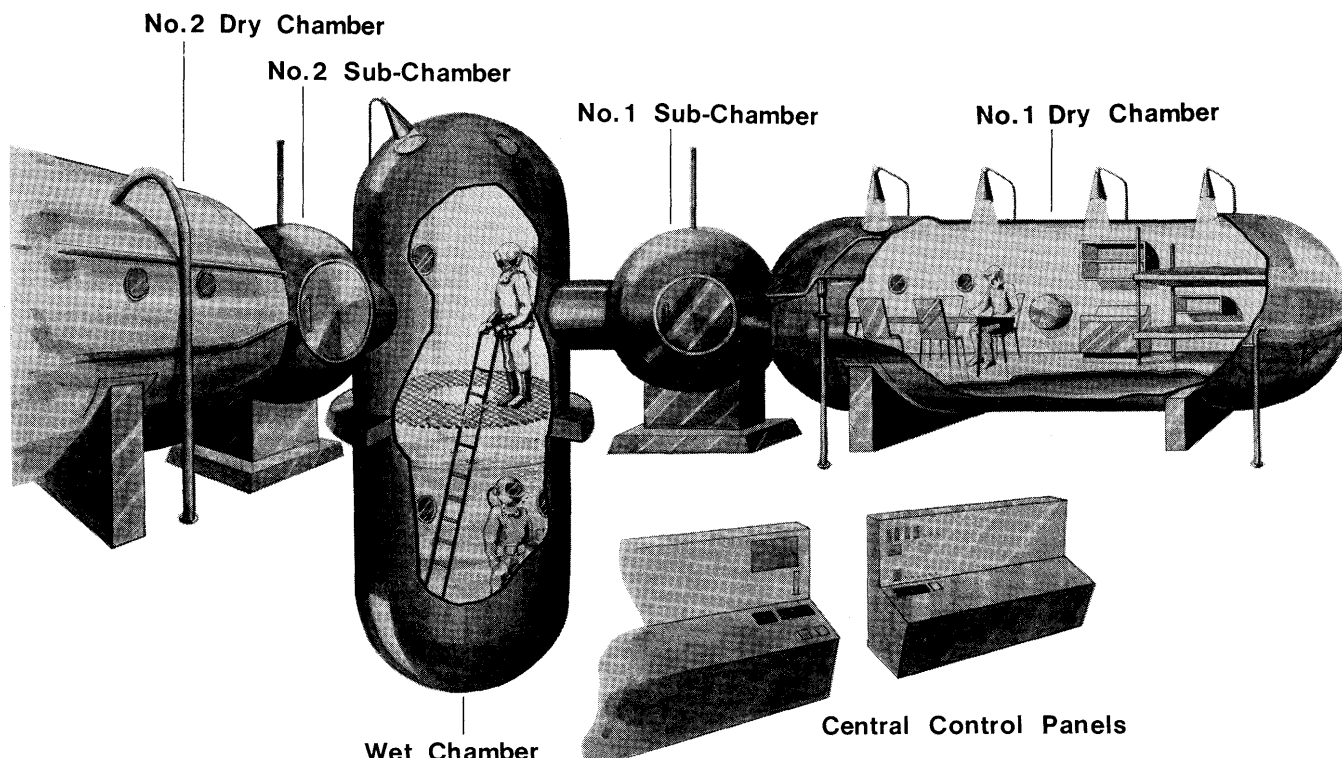
He explained that the head of Iron Cove had been badly silted progressively over many years by sediment carried from the adjoining municipalities into the major Water Board and Council surface water drains in the area.

Because of the non-availability of plant capable of floating in the shallow dredging depth of two feet at low water, a small suction dredge will be used to suck the silt from the mud flats and pump it into deeper water where it can be picked up by normal dredging plant.

Mr. Brotherson explained that this procedure will leave a considerable amount of fine silt suspended and will discolour the water during the period of the operation.

He said, however, that no real alternative is available and the pro-





The Heavy Industries Division of Nippon Kokan has recently received an order for an undersea simulation system from the Japan Science and Technology Agency capable of duplicating conditions at 1,640 feet of depth. The device, depicted in an artist's drawing above, will be used for training of diver-researchers and technicians, improvement of diving techniques and for various experiments including those in the biomedical and psychological field. The new system will cost about three-quarters of a million dollars. Tests will also be conducted in living in an underwater environment at a depth of 1,640 feet for up to one month. The only other such environmental simulator is now owned by Japan's Maritime Self-Defence Force and it only simulates depths up to 800 feet. The new unit will be installed at Oppama, south of Yokohama, at Japan's Ocean Science Centre. It will consist of a dry, wet and sub chambers with a central control system and a capacity to recover and refine helium. Capacity of the wet and dry chambers is 8 persons. (Canada Japan Trade Council Newsletter)

blem will only exist while the dredging work is in progress.

He added that, in his view, the benefits to be derived from the removal of the mud flats ensuring that this section of the Cove will be covered by water at all states of the tide, will more than compensate for the temporary unsightly discolouration of the water. (The Maritime Services Board of N.S.W.)

Shell Oil Refinery?

Hong Kong, 2 December: — In reply to a question at yesterday's meeting of the Legislative Council, the District Commissioner of the New Territories, Mr. D. C. Bray, said that the government would not approve the setting up of an oil refinery on Lamma Island unless it is quite satisfied that there will be no ad-

verse effects on the environment.

Mr. Bray added that the government fully understood public concern over the environmental aspects of such a proposed development. He described the company that had expressed an interest in the site as "well informed and conscientious about precautionary measures it should take at both design stage and in operation." The Shell Oil Co. is evaluating core samples from Lamma Island but has made no decision on where in Asia to set up the HK\$1,500 million (£103 million; US\$250million) refinery. (The Week in Hong Kong)

Positions Re-named

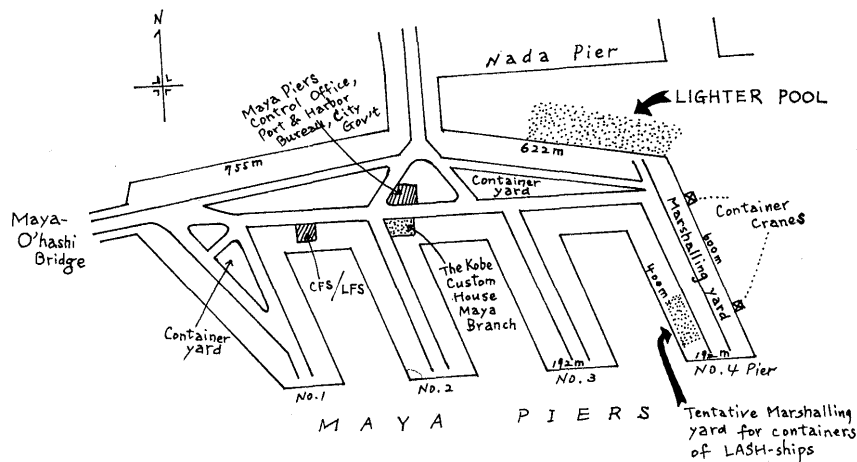
Penang:—To keep in line with the current practice in Government Departments and other Statutory

Bodies, with effect from the beginning of September 1971, the nomenclature of the top Management positions in the Penang Port Commission has been amended.

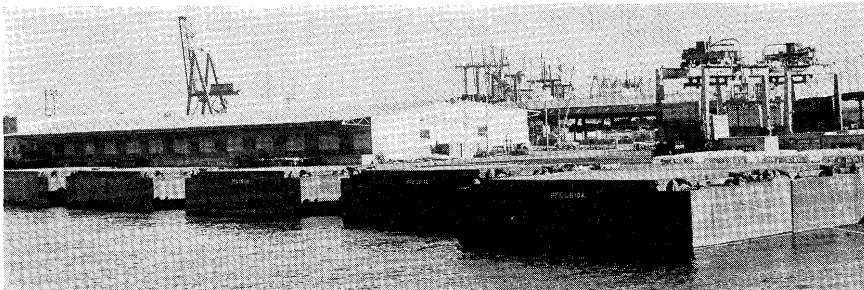
The designation of the General Manager has been changed to Director-General. The post of Assistant General Manager has been abolished and replaced by the Posts of Director of Administration and Director of Operations. These two posts are on the same status as that of the former Assistant General Manager. The Director of Administration is responsible for the Secretariat, Accounts Department, Personnel Department, and Data Processing Department, and the Director of Operations is responsible for Engineering, Traffic, Marine and Pilotage Services.

Inche A. Nallusamy, who was the

Kobe Pictorial



LASH Barge pool in Kobe.



Lighters discharged from the "Golden Bear", the second LASH ship that visited Kobe.



KOBE'S BANANA WHARF—In the foreground is No. 3-Pier of the Hyogo Piers, Kobe Port, which is commonly called "Banana Wharf" as most of fresh bananas imported at Kobe are handled here.

Assistant General Manager, is now the Director of Administration and the post of Director of Operations is for the time being filled by Tuan Haji Mohd. Azuddin bin Haji Zainal Abidin who is also concurrently the Chief Engineer. (Berita Pelabohan, October)

Downtown Redevelopment

Auckland, N.Z., September 17:— The main street frontage and the Square in Auckland's Downtown Redevelopment Scheme are expected to be completed by the end of 1974, the Auckland Harbour Board has been told.

The Board approved changes in Stage 2 of the Scheme which will give increased open space for the public and an additional 14-storey office block on Queen Street, in the centre of the city.

The Board's Chairman, Mr. R. C. F. Savory, said the plans will now enable the Board to complete the Square and the Queen Street side of the Scheme in about three years.

Demolition of buildings to make way for the new office block and an adjacent three level department store was expected to begin in mid 1972. Completion of both were expected by the end of 1974.

"Our main concern is to get the scheme completed and let the public benefit from it," said Mr. Savory. "The early completion of the Queen Street side and the increased open space for the public are very pleasing," he said. "The Board has been told by an independent architect that the whole visual effect of the Square will now be more pleasing, with the office block on Queen Street lending welcome balance," said Mr. Savory.

The report from the Architect said the change was "a natural and healthy expression of the normal growth that occurs when developing a large scheme in the midst of a changing and expanding city." "The developers have introduced the new office block in such a way as to bring the formerly somewhat overpowering scale of this scheme nearer to the scale of the rest of downtown Auckland and this is an improvement," said the report.

Both the department store and the office block will have Queen



Tokyo:—British Ambassador Sir John Pilcher, left, was among the distinguished guests present at a reception in Tokyo on December 14, 1971 to celebrate the inauguration of Overseas Containers Limited's new Far East/Europe container service. In the receiving line were OCL Chairman Sir Andrew Crichton (center), Mr. S. Tada, a Director of Butterfield & Swire (Japan) Ltd. (the OCL agents in Japan), and Mr. A. J. Butterwick (right), OCL's Director of Marketing. (OCL Press Release)

Street frontages, incorporating the open space of the Customs Street-Queen Street corner. The Board's Chief Engineer, Mr. R. A. J. Smith, said: It appears at present at present that a slightly smaller department store is more acceptable in the Downtown area.

"For this reason the department store has been slightly reduced in size and this will enable the scheme to go ahead more quickly." "From a civic design viewpoint the overall scheme benefits from the increased open and space and the addition of the office block," Mr. Smith said. (Auckland Harbour Board News Release)

Dangerous Goods

Antwerp:—The Antwerp Harbour Master's office made some changes in the regulations for dangerous goods in the port of Antwerp.

It concerns:

1. A more flexible system regarding the application for permission;
2. Regulations elaborated in cooperation with INPRO (Information Centre for Dangerous Products) enabling to determine whether dangerous/hazardous products not mentioned in the

IMCO-Code should be directly loaded or discharged without stay in the port area, or may remain there for maximum four days.

In both cases there are no quantity restrictions in the port, unless it concerns inflammable liquids having a flash point equal or inferior to 21°C, the highest allowed quantity of which is determined by Art. 77 of the "Police Rules for the port of Antwerp". (Antwerp Port News, October)

Held in High Regard

London, 3rd December:—The Port of London Authority's Assistant Director-General, Mr. William Bowey said today that the Port of London was held in high esteem in Australasia. Mr. Bowey has just returned from a visit covering New Zealand and Australia during which he met Government ministers and top businessman in all major centres.

'It was refreshing and extremely encouraging to find such a favourable climate after the British attitude of self denigration' Mr. Bowey said. Successes achieved in the Port of London were acknowledged far more widely overseas than they ever had

been in the UK.

'If it is to sell itself abroad', Mr. Bowey added, 'the United Kingdom must have more confidence in itself. The Port of London is an example where great achievements have been made on modernization, providing new facilities, streamlining, establishing new working methods and simplifying documents and charging methods but has received too little acknowledgement in its own country. In Australia, for instance, they are well aware of the importance of all these developments and the way in which they have helped the shipper and shipowner. They have a real understanding of our aims and achievements'.

Mr. Bowey said that Government officials and businessmen in Australia had been particularly impressed with the way in which trade between the UK and their country had been handled at 39 Berth, Tilbury Docks and the Grain Terminal and these facilities were often used as examples of how a modern port should operate. (News from PLA)

New Crane for Tilbury

London, 8th December:—The Port of London Authority are installing a new twin-lift Paceco-Vickers Portainer crane on their highly successful container berth No. 41/43 Tilbury Docks. It is rated in the new metric term for a maximum lift of 46 tonnes for container handling and provision is also being made for it to handle conventional heavy-lifts to maximum of about 50 tonnes.

The crane has been in course of erection during recent months and is now undergoing controlled testing of electronic controls and under-load conditions. It will lift twinned 20 ft units or single 30 ft and 40 ft containers.

The crane, costing to the order of £400,000; is expected to come into service in the new year. It will handle container traffic at the multi-user berth where Canadian Pacific ships are regularly handled and from which several short-sea services operate. The berth works on a year-round 24-hour basis and recently handled a record 1,100 containers in one 24-hour period. (News from PLA)

Berth Closures

London, 8th December:—The next phase now due of the rationalization plans announced by the Port of London Authority earlier in the year is being implemented with the closure of certain berths in the Royal Docks in the new year.

Mr. Stanley Peacock, Docks Manager of the Royal Group of Docks, has held meetings with PLA Shop Stewards and with representatives of the shipping companies and stevedoring companies operating in the Royals. He announced and explained these next moves in the total rationalization, which are to close berths A, B, C, D, in the Royal Victoria Dock and Nos: 8, 10/12 and 14 in the Royal Albert Dock, reflecting the continuing moves into containers and unitised loads of formerly conventionally handled traffics.

Mr. Peacock restated PLA aims of berth profitability and the objective of obtaining the further traffic growth being achieved elsewhere in the port. He called for more intensive management of cargoes and ships by berth users to obtain higher throughputs at the remaining berths, and the greater use of through-pallets, block stowage and direct delivery. The very successful vehicle appointment schemes operating in the Royals are already helping operators to tighten up receiving periods and speed up ship turn-round time. Mr. Peacock explained that the Royal Docks would continue to offer adequate capacity for the handling of conventional traffics. (News from PLA)

Revision of PLA Charges

London, 5 November:—At today's meeting of the Port of London Users' Consultation Committee, the PLA management put forward proposals to increase and amend charges which relate directly to items amounting to about two thirds of the Authority's gross revenue.

The increases will amount to a 5% increase in PLA gross revenue from January 1, 1972 and a further similar increase from July 1, 1972. The P.L.A. emphasize that they continue to take every opportunity to keep costs down and are seeking

only modest increases in charges.

Part of the proposals outlined today include a revision of PLA charges schedules aimed at further simplification and smooth transition to metrication, which is being introduced into the Port of London in January next.

Today's meeting is the first step in consultation with port customers before the proposals go before the full PLA Board later this month.

The detailed proposals put before the PUCC today are as follows:

PORT OF LONDON AUTHORITY PORT USERS CONSULTATIVE COMMITTEE, 5th November 1971.

Management Proposals for Charges Review to be Implemented in 1972 General

1. The proposals apply to charges yielding approximately two thirds of the Authority's gross revenue.
2. Services not affected include containers, ship discharge and grain terminal charges.
3. The principal proposal is for an increase in charges equivalent to a 5% rise in PLA gross revenue as from 1st January 1972 with a similar increase on the 1st July 1972.
4. An increase of 7½% is proposed for the following schedules:
 - Port Rates
 - Conservancy Charges
 - Dock Charges
 - Imports
 - Exports
5. An increase of 15% is proposed on the hire of Quay and Floating Cranes.
6. **Miscellaneous Services**
Miscellaneous services such as towage, sale of gas, electricity and water, river accommodation, dues will be increased by various percentages.
7. **Revision of Schedules**
The revision of schedules is a continuing process and not designed to increase PLA gross revenue.

(a) Imports Schedule

Last year, 2,500 rates were reduced to 300. Further simplification will reduce the number of entries to

200. Individual customers will not be greatly affected. Implementation is proposed for 1st January, 1972.

(b) Dock Charges Schedule

It is proposed to continue the simplification of dock charges and reduce the number of rates from 23 to 16. Effect on individual customers will be minor. Implementation is proposed 1st January 1972.

(c) Port Rates Schedule

A further major simplification—the abolition of the distinction between coast-wise/foreign; and imports/exports is proposed. The Authority will discuss fully the suggested revision with the customers concerned. April 1st 1972 is the intended day for implementation.

(d) Conservancy Schedule

It is proposed to rationalize the existing rates to bring them up to date. Those customers concerned will be fully consulted with a view to implementation on 1st April 1972. (News from PLA)

Packaged Timber Service

London, 15th November:—The m.v. 'Carolina' (3,251 gross tons) arrived in India & Millwall Docks yesterday (Sunday) with a cargo of packaged parana pine from Brazil—the first major packaged timber shipment of its kind to be handled in the dock group.

It is expected that about 900 tons of timber will be discharged at No. 31 Berth by tomorrow afternoon and the ship will then sail for Grangemouth.

The 'Carolina' had previously made a successful trial visit to the India & Millwall Docks and this lead to the major load discharged today.

The PLA is hopeful that this is the forerunner of regular packaged timber services for the India & Millwall Docks—the most upriver group of enclosed docks in the Port of London and well suited to handle the smaller packaged timber vessels. (News from PLA)

PLA Property Development

London, 23rd November:—The PLA, as a continuation of their policy of rationalizing port facilities, decentralizing, and realizing the maximum potential of their real estate, announce the sale of their Head Office Building in Trinity Square, E.C.3., to Renslade Investments (Trinity Square) Ltd., a subsidiary of Amalgamated Investment and Property Company Ltd. Renslade Investments and Amalgamated Investment and Property are also carrying out jointly the recently-announced major development of Hay's Wharf.

Contracts were exchanged yesterday for the sale at a price of £9.3 m. which was negotiated by the retained surveyors to the purchasers Henry Davis & Co., Bond Street, W.1. On completion of the contract in June 1972, vacant possession will be given by the PLA.

The prospect of the sale of this and other buildings has been in mind in all the PLA's recent planning with regard to general cost reductions, charges increases and the financing of large new developments.

The Trinity Square Building was erected on the highest point in the City as the headquarters of the PLA and was opened in 1922 by Lloyd George then Prime Minister. The sale includes gardens of approximately $\frac{1}{4}$ acre where the Navy Office of Samuel Pepys used to stand.

The office space of the Trinity Square Building is in excess of modern PLA requirements for key staff at the City office following management re-organization including a greater measure of devolution, staff reductions and the movement of a number of staff to accommodation in the docks.

For its Head Office the PLA will concentrate their City Office staff in St. Katharine Dock House and existing PLA offices nearby in the western part of London Docks.

The sale of this property still leaves the PLA with some 820 acres (out of their total freehold property of 4,800 acres) of land surplus to operational requirements and suitable for development. (News from PLA)



Manchester:—The Bridgewater Department of the Port of Manchester have recently purchased two skeletal tipper trailers from M. and G. Trailers, Lye, Birmingham. The trailers incorporate a hydraulic tipper gear by Edbro Ltd. and are the latest in an extensive list of equipment purchased by that Department for handling I.S.O. containers. They have been purchased in conjunction with Manchester Liners who are extensively developing the field of tipper containers. These containers are fitted with two water tight roof loading hatches and a water tight discharge hatch and initially will carry soya bean meal in bulk but will be available for the carriage of any suitable bulk material. The Bridgewater Dept. now have over 60 trailers equipped for carrying both 20 ft. and 40 ft. containers. (Manchester Ship Canal Company)

Charges in Metric Units

London, 25th November: — In compliance with the decision of U.K. ports generally, the Port of London Authority will change to metric units as the basis for its charges on goods on the 1st January, 1972. Rates will be quoted per tonne (1,000 kilogrammes) or per cubic metre as appropriate.

Main schedules of rates and charges in metric terms will be available towards the end of December 1971 and will apply to all import vessels which "break bulk" on and after 1.1.72, to all goods received for shipment on or after 1.1.72, and also to rent on goods on hand with the Authority at 1.1.72.

Exceptionally Import Charges (apart from Port Rates) on wines, spirits and liqueurs, tobacco, cigars and cigarettes, for good handled at Tilbury Grain Terminal, and for carpets received for storage at

Cutler Street Warehouse, will remain in imperial units until further notice.

The Authority is revising the Standard Shipping Note to comply with the metric system and will begin the run-down of existing stocks of "imperial" notes from early next month. (News from PLA)

Fastest Timber Discharge

London, 1 December:—Dockers employed by the British Transport Docks Board at Cardiff have achieved what is claimed to be a record rate for discharge of packaged timber at a European port. For two days during the unloading of a cargo of Canadian lumber from the 17,500-ton Norwegian motor vessel Belcargu they maintained an average discharge rate of 25.5 standards (about 75 tons) per gang per hour—better than any output known to Cardiff port officials for a similar

cargo at any other European port.

This peak performance was reached on the vessel's third and fourth days in port when 1,403 and 1,409 standards respectively were unloaded. Throughout the operation a maximum of six gangs achieved an overall discharge rate in excess of 22 standards per gang hour in clearing the vessel's total cargo of 4,490 standards (about 13,500 tons) of timber and 825 tons of molybdenite.

A spokesman for the Docks Board at Cardiff explained that higher rates of unloading had been reached over short periods and also where cargoes had been pre-slung at the loading port.

"This latest operation was an example of the sustained high-speed working over a period of days on which we base our claim to be the fastest timber discharge port in the U.K. It is the sort of effort which led Northwood Mills of Canada, the importers of this cargo, to give a "thank you" party for the dockers last month," he said.

Last year Cardiff handled a total of 197,173 tons of timber imports, and up to the end of October this year had dealt with 173,393 tons.

Agents for the Belcargos were K. H. Thomas (Shipping) Ltd., the British Transport Docks Board were stevedores and wharfingers were Fletchers Wharves (Cardiff) Ltd. (British Transport Docks Board)

Locks for Giant Tankers

Bremerhaven:—Among the next major port projects under consideration, once the establishment of the container crossroads of the north have been completed, is that of the enlargement in Bremerhaven of the Kaiser-locks to transform them into super-locks for accommodating giant-tankers of 250,000 to 500,000 tons; Dr. Georg Borttscheller, Bremen's Senator for ports, issued this statement to journalists at the beginning of May. The cost of such a project was estimated by him at DM 150 millions. (Bremen Air Mail, June)

Canal Improvements

Amsterdam:—The Dutch Parliament has recently approved a measure to provide 12.5 million

guilders extra this year for work on the Amsterdam-Rhine Canal. Completed in 1952, the Amsterdam-Rhine Canal has been a bustling inland waterway route between the Port of Amsterdam and the rest of the Continent from the beginning. Recently an extensive programme to widen and deepen the canal and adapt the locks to push-barge use was begun. Completion of the project is expected in 1975. (Amsterdam Promotion)

Container Terminal

Lisbon:—A new stage of the port of Lisbon containerization program has just been materialized: a new gantry crane MAGUE (made in Portugal) with a capacity of 30 tons and reaching 26 meters came into operation.

On the last 28th August, two container ships—the MINHO, arriving from Rotterdam and London, and the TRONTO, coming from Liverpool—were simultaneously discharged at the Santa Apolónia container terminal, as it was used for the first time, beside the container crane LIEBHERR operating since October 1970, the referred gantry crane MAGUE.

So, this is a new and important step for this terminal equipment which is also including 4 great capacity side-loaders (2 of 25 tons and 2 of 36 tons), besides container transport equipment (9 trailers for 40' containers and 3 powerful tractors).

This way the Port of Lisbon Authority is going, at successive and secure steps, and fitting the port of Lisbon to the container traffic which, in the last 31st July had already reached the total amount verified during the whole year of 1970 (12 572 containers up to or over 20'). (Port of Lisbon)

Port of Beira

Lorenço Marques:—The port of Beira has, since years ago, been in the news. This time it is not through the constant increase in traffic which year after year is being handled, and whose figures are always increasing, even at a time when it was said that the port was congested and was not in a condition to handle even one more ton of cargo.

Indeed, it continues to hold the

attention of the whole world, and for this, as we said before, it is news for the Press.

Today for this reason, tomorrow for, that, the truth remains that the port of Beira continues to be worthy of the World's attention.

Afterwards it was the British Prime Minister who was questioned by a member of the House of Lords about the value of the blockade of Beira Port.

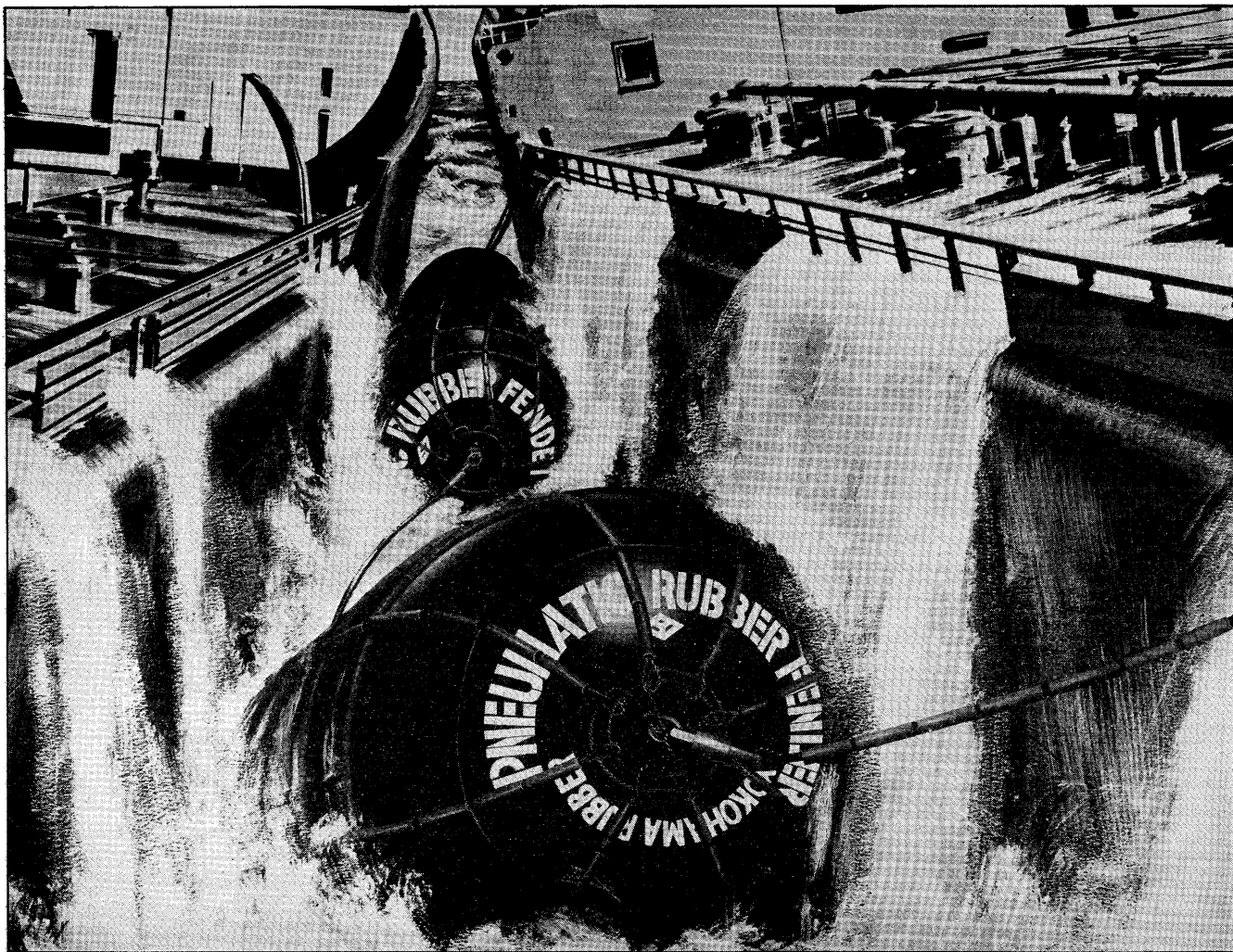
Following on this, it was the Press which published many photographs showing the precincts of the port filled with thousands of vehicles destined for the neighbouring countries (Zambia in this case) which because they were not removed in good time, are causing problems regarding space.

"... This has been creating difficulties in the normal work of the port of Beira", the newspapers state. There is in fact truth in this statement as problems are being caused to those responsible due to the agglomeration of vehicles which are occupying large area and which have not been loaded due to the shortage of trucks from Zambia.

Those responsible for the management of the port have already advised the railway authorities of the neighbouring countries that they will have to take adequate steps to solve the question of this large accumulation of cargo destined for Zambia. (Boletim Portos, Caminhos de Ferro e Transportes de Moçambique, January, 1971)

New Scanstar Service

Barcelona:—With the next sailing of the ship "California Star" from Gothemburg, the beginning of a new service of cellular portacontainer ships will be inaugurated between Europe and the west coast of North America. It is hoped, that by the last quarter of this year, the Scanstar Company will offer a regular service of portacontainer ships every three weeks, and beginning in April of the coming year, a service of four ships of the line. Scanstar will offer a fortnightly service. (Puerto de Barcelona Boletín Informativo, May/June, 1971)



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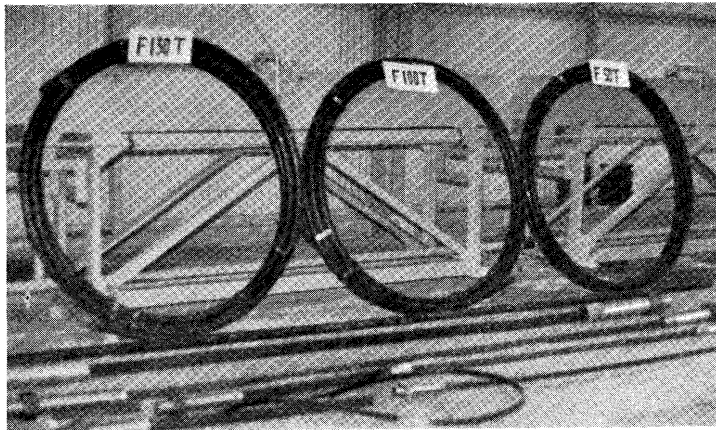
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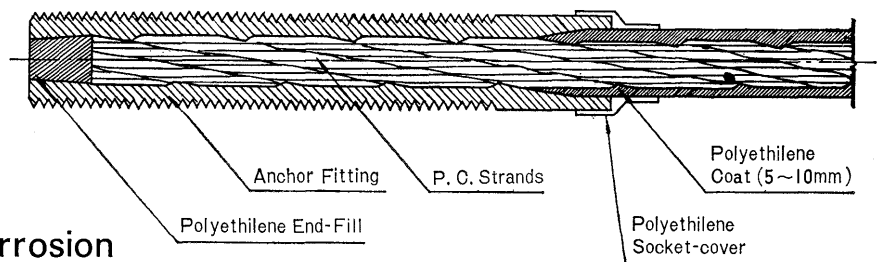
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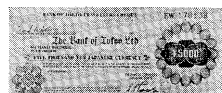
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