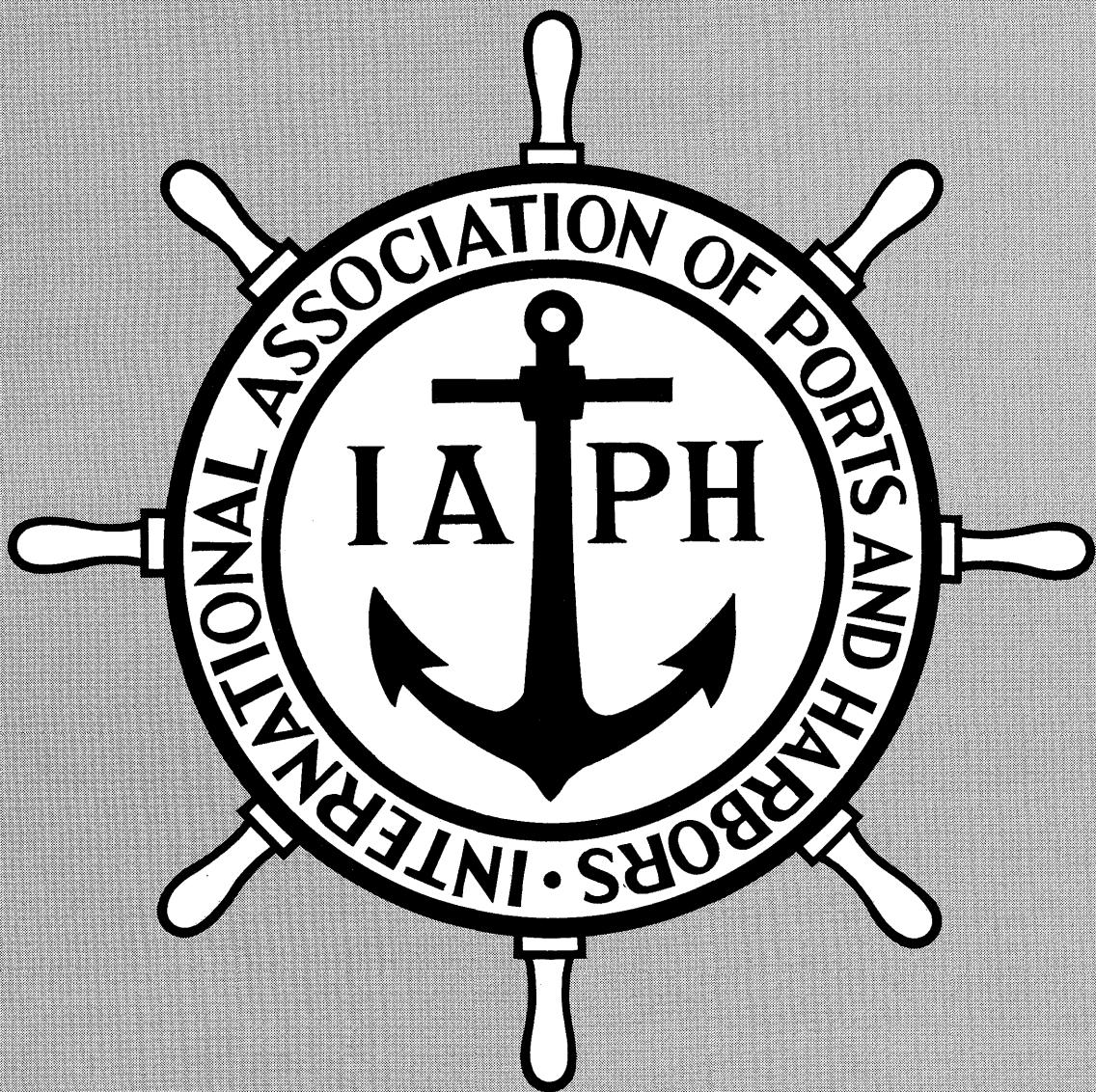


# PORTS *and* HARBORS

April, 1968 Vol. 13, No. 4



MELBOURNE CONFERENCE IAPH MARCH 1969

**THE INTERNATIONAL ASSOCIATION OF PORTS AND HARBORS**

# THE PORT OF KOBE

## *—Modern, Efficient Port With Elegance—*

The Port of Kobe, a fine, natural port in the heart of the vital Osaka-Kobe industrial area of Japan, served as a main gateway for shipping and trade between Japan and the Asian continent from ancient times. Described as the "Naples of the Orient," Kobe is renowned for its scenic beauty with the Rokko Mountain Range forming a colorful background to the port city. The headland of Wada to the south at the mouth of Kobe Bay protects the port from high seas.

It is nearly 100 years since Kobe was opened as one of the first trade ports of Japan. Today it is one of the major export ports of Japan and handles cargoes representing 30 per cent of the value of Japan's total export trade.

In parallel with the recent growth of Japan's economy, ships and cargoes arriving at Kobe from abroad have been increasing in number and tonnage. This growth has made the expansion of waterfront facilities here essential. In the light of this demand, the construction of the Maya pier terminal was undertaken in the eastern section of the Port in fiscal 1959 to increase foreign trade facilities. The Maya terminal, to be completed at a total cost of ¥22 billion by the end of fiscal 1966, is to be a massive and up-to-date unit of four piers capable of accommodating eighteen 20,000-tonners at one time. In order to deal successfully with containership services, preparations are in full swing to make the Maya Pier No. 4 a container terminal to welcome the first container carrier in the summer of 1967.

On the other hand, to connect the Maya terminal now under construction and the Shinko pier terminal already in operation, a semi-suspension bridge, the first of its kind in this part of the world, was completed in June, 1966. This bridge has contributed to a great improvement of the port facilities and functions.

Thus, the Port of Kobe handles more than 7,200 foreign service ships and 42 million tons of foreign and domestic cargoes yearly. It is under a rational management with the motto of "inexpensive, speedy and reliable cargo handling."

With the objective of preparing itself for the world's expanding economy, the Port of Kobe has taken a step forward this year in greeting the container-ship age by beginning its five-year project to construct a 1,000-acre island for increased facilities.





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# PORTS *and* HARBORS

## Forum on Port Problems :

### *International Convention on Containers*

*(at Genoa International Fair)*

## Compendia of Speeches

October 19 and 20, 1967

*(Press Releases)*

### Series I

#### **"The Italian Ports and the Development of Containerized Traffic"**

**Gen. Luigi Gatti, Vice-President of the Genoa Port Authority**

The evolution in the means of transportation and the modernization of sea ports take place at variable speeds, as a result of which the ports risk appearing degrading factors of the economy, and this particularly with respect to the development of containerized traffic. But in this field of traffic a sense of realism must prevail, also because:

a)—not all goods can be containerized;

b)—the container system presupposes high and stable currents of traffic in a complete circuit, by increasing the tendency of concentration of traffic in a few ports, located on the main routes of land transport, and served by distributing centers with a double function.

In connection with the Italian ports, a yearly containerized traffic of about seven million tons can be assumed, subdivided in numerous currents; this gives rise to the difficulty of choosing the type of ship to be used for that traffic, in other

words in which case container ships and in which case conventional ships may also carry containers. This creates the necessity of determining which ports should be equipped as container terminals.

Considering Italy's geographical position which is very favourably placed to handle the containerized traffic between continental Europe, the Mediterranean basin and the countries of the "Third world," the assumption appears realistic that two container terminals should be equipped to handle the traffic of the Northern Tyrrhenian Sea and of the Northern Adriatic Sea, to which would also converge overseas traffic and national and international surface traffic.

Of course the ports that would act as terminals for container ships will have to dispose of an adequate network of roads and railways, in addition to appropriate regulations, in particular for customs purposes.

*At Genoa*—a first container terminal measuring 34,000 square meters will be created in the Ponte Libia/Ponte Canepa area (works to begin in the first months of 1968)

and will be equipped with two cranes of 32 and 45 tons in addition to two gantry cranes for stacking and reshipment of containers from land to railway and vice versa. At a later date a container terminal will be obtained by means of the transportation of the Nino Ronco pier into an operating area of 90,000 square meters.

Later still, it will be possible to transfer the container terminal to the new port basin of Voltri. In the meantime the port of Genoa disposes of special hauls for coast-wise traffic lines that use container ships and "ro-ro" service ships.

*At Trieste*—by 1968 an area of 90,000 square meters will be available (it can be increased further to 110,000 square meters by 1970) destined to function as a container terminal which will also serve the "Centro Internazionale Ortofrutticolo" (International Center for Fruits and Vegetables).

*At Livorno* — by 1968 the container terminal planned by American Export Isbrandtsen Lines, of 110,000 square meters, should start its activity.

*At Naples* — the creation of an operating area of 100,000 square meters for containers at Molo Flavio Gioia is being planned.

All these cases represent authentic container terminals equipped with adequate means for handling this traffic, and connected with inland areas by means of rapid and efficient connections. Other projects are under study in connection with the ports of LA SPEZIA, SAVONA, VENEZIA. However, care must be exercised to limit these initiatives in order not to create dispersion.

One thing is essential—that all bureaucratic and customs obstacles be removed; these still hamper free circulation of containers both in Italy and in the Common Market area.

## **"How Italy Faces the Revolution of the Container System"**

**Dr. Luigi Fabiano, Vice-President of "Cisco"—Italian Institute for Studies on Containers**

What has so far been done in Italy in order to insert ourselves in the container system? Italy, through U.N.I. (Italian institute for Unification) takes part in the work carried out by I.S.O. TC 104; while Italian industry has tried to follow step with the new technology, and today it is ready with its potential to meet any request with the production of competitive equipment (containers, cars, vehicles, cranes, etc.).

Numerous organizations have been created in order to study the new container procedures applied to goods traffic: a work group has been set up in the Autumn of 1966 by the Ministry of the Merchant Marine; at Trieste a project has been created for the distribution of vegetables and fruit of the central and Eastern Mediterranean towards North European markets; studies on international traffic are carried out by Italsider, Dalmine, Fiat, Barilla, and by government bodies (State Railways, Alitalia, Finmare), and private ones such as shipowners, automotive carriers, etc. . . . ; "Rivalta Scrivia" has under way surveys in order to create an efficient switching center for containers in the hinterland of the Northern Mediterranean ports; at Genoa, "Cisco" (Italian Institute for Studies on Containers) has been created to which Institutes and Companies adhere that are interested in the new system, whose implementation is hindered by the non-approval of the new law which modifies the length and capacity of automotive vehicles.

The State Railways have inserted themselves into the new system as members of the "Pushing Group" within the "Union Internationale des Chemins de Fer" (U.I.C.).

Unfortunately the container revolution has found the ports unprepared, and consequently the risk is run of seeing our ports dropped out by the international con-

tainer routes. In addition customs, legal, banking insurance and other such problems will have to be solved, and the labour and port remuneration systems will have to be modified.

Italy's active participation in international meetings for the unification of the dimensions and specifications of containers; the creation of CISCO; the launching of the first International Show of Containers; the organization of the Congress which completes it; the surveys and the accomplishments under way, and above all the will on the part of qualified operators to proceed together in overcoming the obstacles and implement the planned program, confer added hope and certainty that in Italy also it will be possible to set up in the near future a transport system integrated with containers.

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## **"How to Start a Container Terminal Operation and Survive"**

**Mr. Sol Tanne, Managing Director of Tanne-Thomsen Associates N.V.—Rotterdam**

The preparation of a container station requires a forecast of the complex problems which must be solved and of the investments of capital in equipment, infrastructures, and of the size of the surface which will have to be prepared for that purpose, keeping into account also the others' experiences. This because, being a completely new field in constant evolution, it would be easy to make gross mistakes of estimates and costs.

First of all it is necessary to establish the needs and the nature of the service which the container station will have to fulfil, that is the objects which must be attained. As a container station will have to serve a particular hinterland, it will be necessary to obtain as much information as possible on the nature of that hinterland: type and volume of cargo, which traffic will be "from door to door" and which from port to port, the average productivity of work in the interested area, pressure of the unions and of the public powers in establishing the operations. All this serve to provide a systematic programming base, keep-

ing into account also the rate of increase foreseeable in traffic, which can affect remarkably not only the initial size of the station but also the future needs of expansion. Also the effects of the cultural and social milieu in which the system must operate will have to be analyzed: conditions and traditions of the harbour work, type of labour available, interferences of the public power, flexibility of the labour etc.

Other elements of evaluation concern the infrastructures which the container station will have to possess: lift trucks, frames, travelling platforms, aerial platforms, utilization of helicopters for the transfer of the containers, etc., without arriving to conceive the launching (although foreseeable) of the containers by means of rockets.

The technological evolution of the sector is so dynamic that new equipment and new types of hoisting equipment loaders, articulated trailers, etc. are invented and constructed every day.

Soon the competition between the different container stations will be very hard because their number is growing, while the quantity of cargo available for each one of them will be still rather scarce. This justifies the need of a rigorous respect of the timing of the different phases of the container transport, as well as of all the administrative documentation accompanying it, and of the training of the labour used for it.

Of course in a very near future containerization will prevail on all the other transport systems, due to the numerous advantage that this system offers to the carriers, to the goods and towards packing and insurance costs. Anyway the ground is covered with traps and troubles for the incautious who will proceed without an adequate and rigorous preparation.

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## **"Modern Terminals, the Key to an Efficient Handling of Containers"**

**Mr. Remsen B. Henry of A. T. Kearney & Company Inc.—Chicago (U.S.A.)**

As for the engineering of any plant, in order to define the most



appropriate dimension and type for a container ship terminal, it is necessary to predetermine the level of activity which will be handled in this terminal: this involves a deep market study of the potential traffic of the shipping companies, and of that created in the inland cities, and what part of this traffic can be containerized.

The main factors of this research regard the number of ships to be berthed in the terminal, the number, size and flow of containers, the percentage of filling of the terminal traffic, the number of trucks and of railway cars which will enter and leave the terminal, the weekly demand of traffic, the periods of peak activity, the characteristics of the load. All this must be predetermined in order to define the size of the terminal, and of the equipment, the demand for ground cranes. Particular attention must be devoted in determining the methods of handling the containers on the yard and the relative equipment required, such as trucks with semi-trailer, lifting trolleys, autovans and lifting equipment, stacking cranes, warehousing, filling and emptying of containers, the use of fork trucks, of palets, of wheel barrows, of switching elevators, of multifork trolleys, etc.

A great deal of attention must be devoted to determining the traffic flow from the ship or from the hinterland up to the container warehousing area and to the filling shed.

In order to obtain a perfect and rational functioning of a container terminal a close integration and succession of the various phases of the operating is important in which the documentation of the load also acquires particular importance, together with the planning of communications between the various control points.

#### **"Prospects of Italian Shipowners in Container Traffic"**

**Commander Francesco Barbaro of Villain & Fassio and Compagnia Internazionale—Genoa**

Italian shipowners intend to participate actively in the "revolution"

that has taken place in transports with the introduction of the containers, thoroughly considering, however, with the necessary caution, every aspect of the problems that this revolution has created particularly in connection with the equipment of ports. The shipowner who must replace a conventional liner, still in perfect condition of efficiency, with a new container ship, and purchase the containers to equip the ship and create an adequate stock (two and a half times the number contained in the ship) will be confronted with costly financial investments that could be compensated, with time, by the exceptional speed of loading and unloading operations.

Containerization has two positive effects on costs: reduction of the handling cost of the load in ports, per paying unit and considerable reduction in the stays of the ship in port; as a result of this the same service will be performed with three ships instead of with five. However, all this is directly dependent on the organization and equipment available at ports of loading and unloading.

At Rotterdam ships can unload containers at an average of 30 units (both 20 feet and 40 feet) per hour, which corresponds to an average of at least 500 tons/hour per crane. The performance presently obtainable in the port of Genoa for the general load is below 10 tons per hour and for containers, three to four units per hour, provided the ship can unload them by its own means—otherwise nothing. This is why in Italy it will not be possible to speak of container traffic until a number of the major ports are adequately equipped, and foremost among all, Genoa. If necessary let private initiative be encouraged to launch in the construction and operation of terminals, but Italy must have its modern, efficient, adequately equipped ports, otherwise Italian shipowners will have to give up liner services.

The competitive factor must not be overlooked. The exporter, the forwarding agent, the importer, have quickly learned not to be able to do without the container, so that

the marine liner service, which can offer it also for longer distances, can compete with those that do not have that possibility. A typical example is that of rags from America to Prato, via Rotterdam, in containers. Italian shipowners must therefore adopt quickly, as a means of defense, the container transport system, by using standard type ships or specialized ships, which they will have to build at the earliest. However, the reluctance in building these new ships is due to the lack of adequate port facilities which in the present stage does not permit a satisfactory use to be made of the new ship.

There is also the insurance aspect of the container problem. The international insurance market intends to set higher premiums for container ships and for containerized cargo, as a result of greater risks (displacement of the rudder because of the different distribution of the loads, with consequent damage to the superstructures and the upper works of the ship), while some insurance companies intend to fix premiums on the basis of the value of the containerized cargo, even when the ship receives a fixed freight per container; as a result it is to be reasonably expected that insurance premiums will represent a further factor in increased costs to the shipowner.

In conclusion it can be said that it is necessary to create as quickly as possible, efficient and specific equipment in the principal Italian ports; it is necessary to create national and international coalitions, as done by the "Atlantic Container Lines" which groups three Swedish companies and three large English, French and Dutch companies, thus representing one of the greatest marine organization in the world.

#### **"Shipper and Carrier, Partners in Costs and Profits"**

**A. T. Desmedt, President of American Export Isbrandtsen Lines Inc.—New York**

The advent of the container as a unit of transport has completely revolutionized the nature of shipments by sea and the very charac-

teristics of the conventional ship. In the new system of combined transport, the goods are placed in a container in the place of origin, and its itinerary will be based on speed and economy; the container will be loaded on barges, by train or by truck or by a combination of these means, up to the terminal port where it will be loaded on the ship, carried overseas and connected with the other part of the system up to final destination point. By this means great savings will be achieved.

When this new idea will be accepted, the railway companies and automotive carriers will no longer have to build costly superstructures on their vehicles: they will simply exchange the containers.

The shipping companies have taken or are taking the initiative to create transports by means of containers, securing the fundamental equipment for storage, container stocks, the structure of rail cars and of trucks having the shape of containers and, at the start also trolleys for trucks. Sea carriers, in direct contact with shippers, the consignees and their forwarding agents, are in the best conditions in order to introduce the system to all interested parties. The forwarding agents would certainly have an interest in using this equipment, but as they do not presently possess one to replace, it cannot be expected that they procure themselves a system for the future.

It is therefore convenient and acceptable that the shipping companies themselves supply the equipment by making the barges, the trucks, the rail cars fit to function as connecting links of a complex transportation system. The system will comprise cooperation agreement between the various types of carriers; in other words a more economical use of the equipment: a higher volume of goods handled will be obtained by means of a reduced number of personnel at a cost considerably lower, with substantial savings in the final distribution of goods in all the world. In order to carry this out, it is necessary to put aside the traditional reaction to the invasion of the re-

spective fields of action: the task of the forwarding agent, of the truck driver of the railway does not end at the edge of the water, nor does that of the shipowner start only from that point. Each one is a link of a chain which propels a transport unit from the warehouse of the supplier to the distribution center of consumer. If some of the links of this chain were not to function properly, all the others will bear the consequences.

It must be seen to it that the equipment be at the disposal of all the links to the chain, so that the forwarding agents, the railways, the automotive carriers, the shipping companies, have access to the computers, to the "pools" of containers and to reciprocal services, thus offering the most vast and efficient transportation system that could be conceived. Shippers will have to convince customs authorities to allow that the containers proceed to their destination and that the controls be made at these destinations.

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#### **"System of Transport by Containers between the United Kingdom and Australia"**

**Mr. Peter William Yardwood,  
General Manager of Associated  
Container Transportation Limited**

At the beginning of 1969 a service of transport by containers on the commercial route United Kingdom—Australia will start to operate. An accurate study has been made to know the particular kinds of goods and the amount of same moving yearly in this traffic sector in both directions, and it has been found out that at least 80% of the cargoes moving from the United Kingdom and from the Continent towards Australia can travel in containers; this percentage can reach for some goods (after a certain period from the institution of the service) up to 85~86%. At the beginning the service will start with the adoption of 20' ISO containers, with the possibility however that the 40' one is adopted later. Studies were made also on the type of container to be used in this traffic: whether in steel or in aluminium

or in other materials, and whether refrigerated or not.

Special ships ("container-ships") have been designed and are going to be constructed to adapt them in the new system: each one of them will be able to transport 1,143, 20' containers, 330 of which refrigerated. Each ship will operate according to a weekly schedule between Tilbury, Fremantle, Melbourne and Sydney. Coasting vessels will be added to these ships for service between the minor ports and the main terminal ports. The latter will be equipped with gantry cranes, capable to lift 45 tons, while very fast travelling cranes will move the containers around the mooring area and will transfer them from and to the trucks or the rail cars.

The inland warehouses play a very important role in the "chain" transport system: these sheds are being terminated in the U.K. and will enter service before 1969; the same thing will occur near the Australian ports. A remarkable aspect of the system is represented by the rates which will be agreed upon so that they can be a real benefit for the shipper compared with conventional transports.

A single accompanying document of the goods will replace the proliferation of conventional documents: it will have customs, banking and insurance validity. All the transport system will operate on the bases of this document.

The goods shipments will be "instituted" by the shipper on the basis of the F.C.L. (Full Container Load), or upon the basis of the L.C.L. (Less than Container Load).

It is possible to foresee to speed by which the use of containers will spread, above all in the old world. What seems probable is that after 1969 the speed of the tendency towards unification and containerization will increase.

In all the major ports of the world there is the consciousness that if they want to remain in a competitive position, they must provide for the equipment for this new kind of transport. And this is what many of them are doing.

(More in the Next Issue)

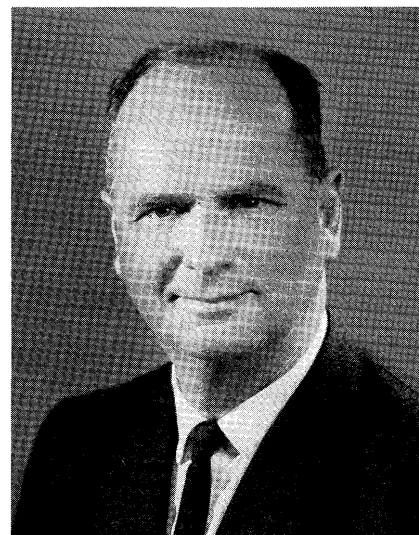
# *Port Adelaide*

## *The Capital Port of*

### *South Australia*

**By J. R. Sainsbury, E.R.D.,  
M. Inst. C.E., A.M.I.E. (Aust.), M. Inst. T.**

*Director of Marine & Harbors  
South Australia*



**Mr. J. R. Sainsbury**

#### **Introduction**

Port Adelaide, the capital port of South Australia, was founded in 1836 and in the subsequent years has expanded and developed to such an extent that it is now possessed of over 4 miles of deep sea berths, handles around 4,000,000 tons of cargo annually and is equipped with modern and efficient bulk loading plants for handling coal, phosphate rock, grain, salt, etc.

Overseas passenger liners call regularly at the Outer Harbor where there are four berths ranging in depth from 33 ft. to 35 ft. L.W. and a swinging basin 1,800 ft. long by 1,380 ft. wide. (Fig. 1)

In addition to providing berthing accommodation, transit shed facilities, etc. for a very large volume of overseas and interstate shipping, the port also provides accommodation for a trailer-ship service to Port Lincoln and Kangaroo Island, the intrastate ketch traffic and the local fishing industry. Special berths at which modern handling equipment has been provided by the industries concerned are also available for the import of limestone and sulphuric acid and the bulk export of soda ash.

Port Adelaide, in common with all other ports in the State (excepting the few that are privately owned) is owned and administered by the Department of Marine and Harbors, a Government Department under the control of the Minister of Marine. This Authority controls the navigation, provides

the pilotage service and constructs and maintains the necessary berths, wharves, cargo sheds, stacking areas and internal roads in the port. It is also responsible for the deepening and cleansing of the channel and shipping berths. It does not, however, generally engage in stevedoring or haulage activities which are performed by private companies, the only exceptions being the bulk handling plant at Osborne for coal, phosphate rock and other minerals and the No. 27 bulk loading berth for grain and salt, both of which are operated by departmental labour.

Towage in the port is performed by a private company equipped with 5 tugs, four of which are diesel powered and of the latest design.

The Department owns and operates a 60-ton floating crane and a small supplementary fleet of mobile cranes and forklift trucks, all of which are available for hire.

The stevedoring and haulage companies are well equipped with modern cargo handling machines including 40,000 lb. fork-lift trucks, heavy lift mobile cranes and straddle trucks such that the rate of clearance of cargo from the port's sheds and wharves is one of the best in Australia.

Port Adelaide is also the envy of other capital ports in the spaciousness of its wharf aprons and large areas for the open stacking of cargo at the rear of most of its cargo sheds. So big in fact are these stacking areas that little, if anything needs to be done to ac-

commodate the expected container traffic. (Fig. 2)

Rail tracks connected to the State's main railway system are laid on most of the wharves and through the open storage areas of all the interstate and overseas berths.

#### **Detailed Description**

Entrance is made to Port Adelaide from the St. Vincent Gulf by way of a channel 600 ft. wide and 33 ft. deep at low water within the protection of two extensive rock breakwaters. (Fig. 3)

The tidal rise is about 8 ft. on springs and 5 ft. on neaps and occasionally reaches 12 to 13 ft.

The Outer Harbor of Port Adelaide is situated on the south bank of the entrance channel just within the breakwaters and, as stated previously, consists of 4 berths each 600 ft. long with depths alongside varying from 33 ft. to 35 ft. L.W. Four cargo sheds, a 60-ton shear leg crane, a modern restaurant and the Signal Station complete the scene in this part of the port which is connected by good road and rail systems to the Inner Harbor.

About 60 overseas passenger vessels a year call at the Outer Harbor in addition to general cargo vessels and tankers, and the number of passengers handled annually is about 20,000.

A seven mile long 27 ft. deep (L.W.) channel leads from the Outer Harbor to the Inner Harbor. This channel is currently being deepened to 30 ft. L.W. and widened to a minimum width of 500 ft.,

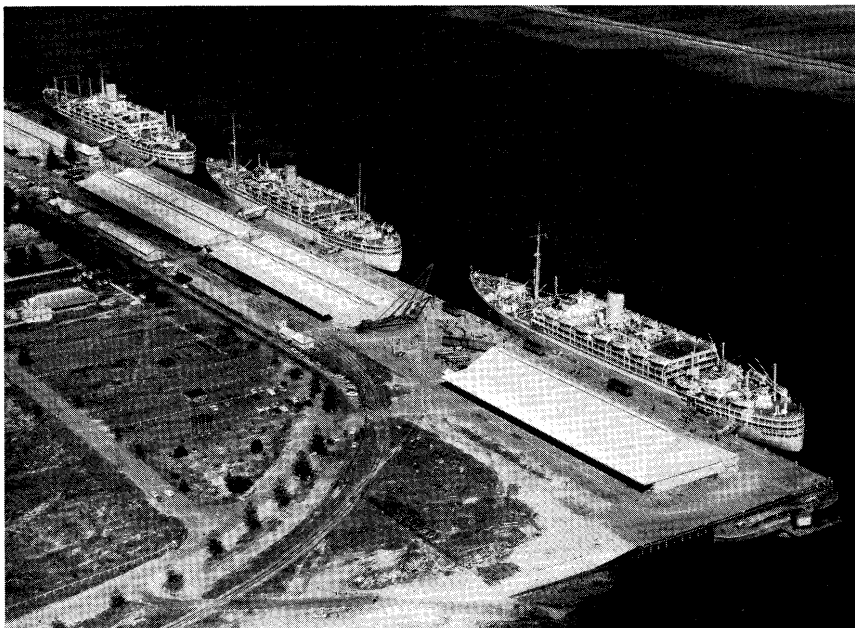


Fig. 1. Overseas passenger liners at the Outer Harbor, Port Adelaide.

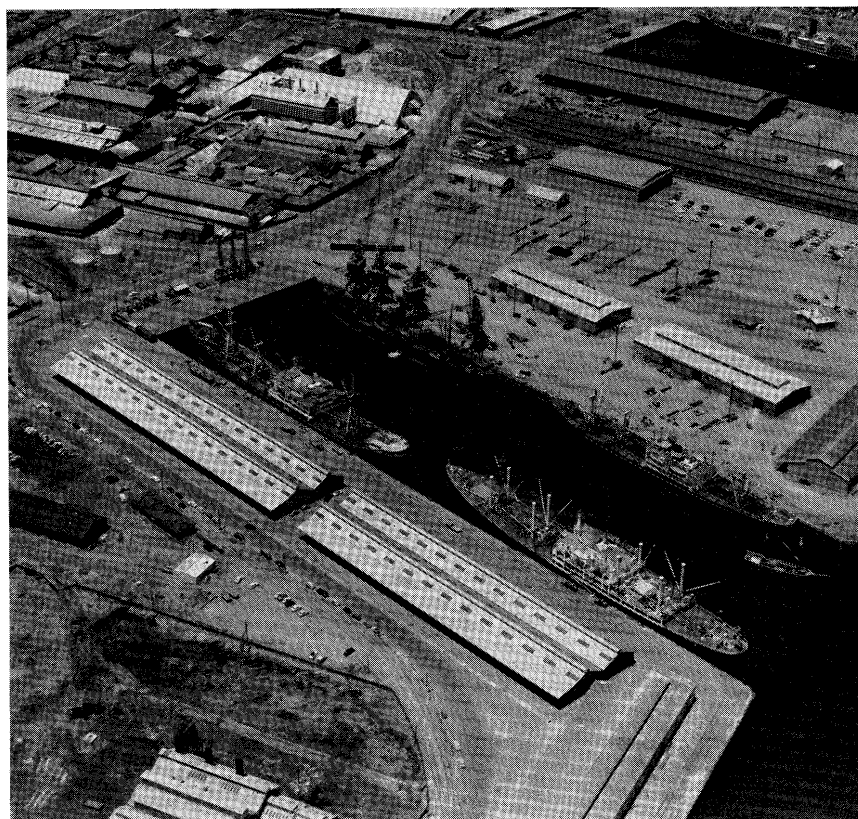


Fig. 2. No. 2 Dock, Port Adelaide.

which work should be completed within the next 3 years. The deepening has already been completed for the first four miles from the Outer Harbor to Osborne which lies on the starboard hand of the river and where is situated the Authority's Bulk Handling Plant.

This bulk handling facility consists of 2 berths (32 ft. and 25 ft. L.W. depths respectively) equipped with 6 grabbing cranes of a 9-ton nominal capacity, belt conveyors, elevated storage bins, cargo stacking apron and two weighbridges. A 500 ft. long lay-by berth is also provided. (Fig. 4)

Unloading rates of 11,000 tons per two consecutive shifts of 8 hours have been achieved at this plant and the maximum annual throughput has exceeded 1,000,000 tons.

Built originally for the discharge of coal, the facility now handles phosphate rock, limestone, gypsum, sulphate of ammonia, sulphur and potash inwards and iron oxide, coke and cement clinker outwards.

Total traffic including coal now aggregates about 600,000 tons annually.

A little further upstream at Osborne and still on the starboard side of the river lies the alkali works of the Imperial Chemical Industries of Australia and New Zealand Ltd., the biggest such works in the southern hemisphere. A 400 ft. long wharf with a depth alongside of 24 ft. L.W. is provided for handling the company's traffic which consists mainly of soda ash, caustic soda, lime, etc. The I.C.I. have constructed a bulk loading plant on this berth capable of loading soda ash at a rate of 120 tons per hour.

About 2 miles further upstream and again on the west bank of the river are situated four oil tanker berths, which annually handle about 350,000 tons of petroleum products and the Adelaide Cement Company wharf which is equipped with two modern bulk unloading devices with a combined capacity of 500 tons per hour. This latter berth handles about 300,000 tons of limestone annually.

Opposite the oil berths on the other side of the Port River is the bulk grain loading berth with a



Fig. 3. Aerial View of Port Adelaide. Inner Harbor in foreground, Outer Harbor, top left.

depth of 35 ft. L.W. The wharf is equipped with two travelling loading gantries, with a maximum loading rate of 850 tons per hour. This loading facility is backed up by grain silos belonging to the S.A. Co-operative Bulk Handling Ltd. with a total storage capacity of 3½ million bushels. (Fig. 5)

From this point onwards the river is fully developed on both banks for port purposes and is known as the Inner Harbor (Fig. 6)

On the east bank there are no less than 20 berths numbered 1 to 20 the majority of which are provided with spacious shed accommodation. All these berths are of modern steel and concrete construction with depths varying from 27

to 32 ft. L.W.

Berths Nos. 16 to 20 have been allocated for the use of composite or unit load ships and a very large area of 20 acres to the rear of these berths has recently been cleared, paved and floodlit for the open stacking of cargo, containers, etc.

Berths Nos. 13 and 14 (in No. 2 Dock) are provided with four 6-ton electric travelling cranes equipped with double hooks for the handling of pre-slung cargoes of steel sections and timber and also magnets and cactus grabs for the handling of pig and scrap iron. These two berths have a depth of 30 ft. L.W. and handle about 300,000 tons annually.

The remaining berths Nos. 12 to

1 are given over to the general cargo requirements of the port. No. 6 berth will be used from 1969 onwards as the terminal for the container feeder service between Adelaide and Melbourne (estimated annual traffic 300,000 tons) and No. 5 berth is currently in use for vessels engaged in the interstate container traffic. The cargo shed at this latter berth has been modified to handle container traffic. The doorways have been widened to 36 ft., the floor reconstructed to carry 40,000 lb. forklift trucks, a 20-ton weighbridge installed and modifications are in hand to raise the level of the bottom chords of the roof trusses for the double stacking of I.S.O. containers.

Opposite berths Nos. 1 to 20 and



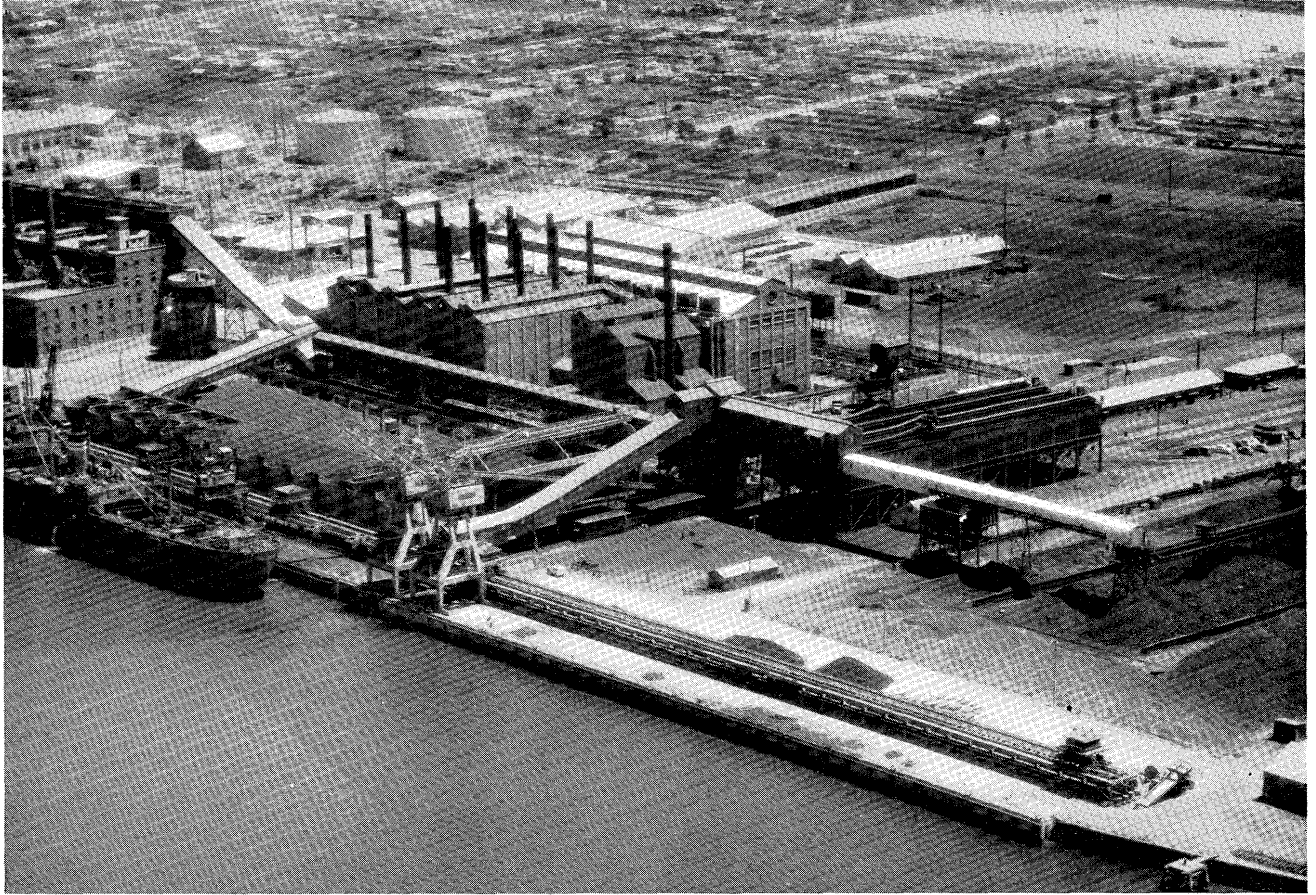


Fig. 4. Bulk Handling Plant, Osborne, Port Adelaide.

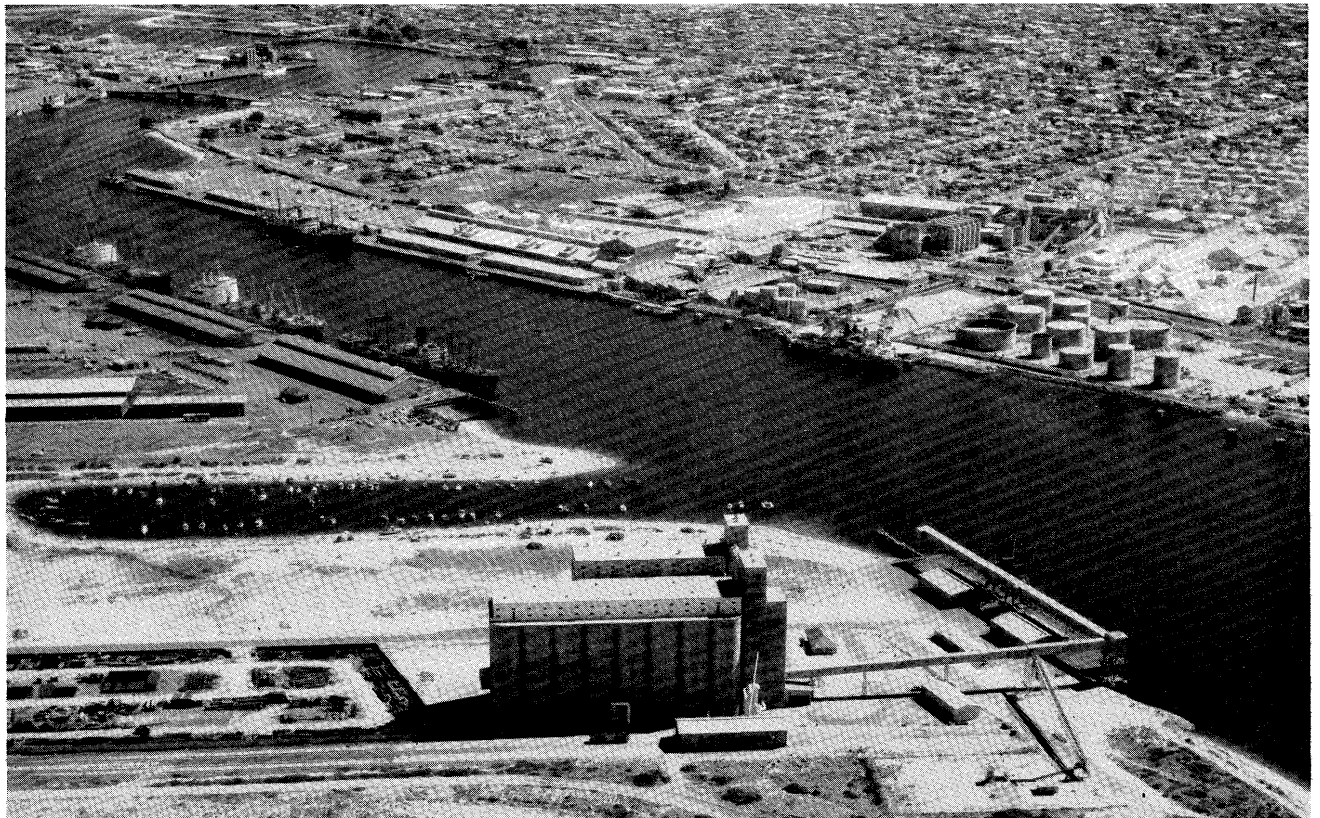


Fig. 5. Bulk grain loading berth in foreground, berths 'D', 'E', 'F' and 'G' in middle background also fertilizer & cement works & tanker berth (extreme right).

on the other side of the river are berths "D," "E," "F," "G" and "H" also used for general cargo purposes. A 800 ft. dia. swinging basin at the entrance to No. 1 Dock and a marine fire station complete the list of the more important port facilities in this locality.

Upstream of No. 1 berth and beyond the Birkenhead lifting bridge lies another section of Port Adelaide comprising 2,700 ft. of wharves variously used for the import of raw sugar by the Colonial Sugar Refining Co., Ltd., the intrastate trailer ship "Troubridge," ketch traffic, the laying-up of vessels either for survey or sale and depot for the fishing fleet.

Also situated in this reach are the Adelaide Ship Construction Pty. Ltd.'s ship building yards and slipways, numerous smaller slipways for the construction and repair of large fishing vessels, the Naval Depot and finally the Port Authority's extensive central workshops, slipway and mooring facilities for dredging and other port maintenance craft. (Fig. 7)

#### Other Port Facilities

Other shipping facilities available in the port include the following:—

- (i) Two large storage sheds well back from the wharves which provide covered accommodation for slow moving cargo thus enabling valuable quay and transit shed space to be cleared quickly.
- (ii) A modern incinerator for the disposal of ships' galley refuse and garbage coupled with a daily collection service.
- (iii) International Maritime V.H.F. radio equipment (24 hour watch).
- (iv) Commonwealth Quarantine Station.
- (v) Reception facilities for oily waste (500 tons capacity).
- (vi) Ship to shore telephones at most berths.
- (vii) Oil bunkering service.
- (viii) Ship repair facilities.

#### Planned Improvements

The following improvement works are scheduled for completion within the next 3 years:—

- (i) Deepening the Port River to 30 ft. L.W. and its widening to a minimum width of 500

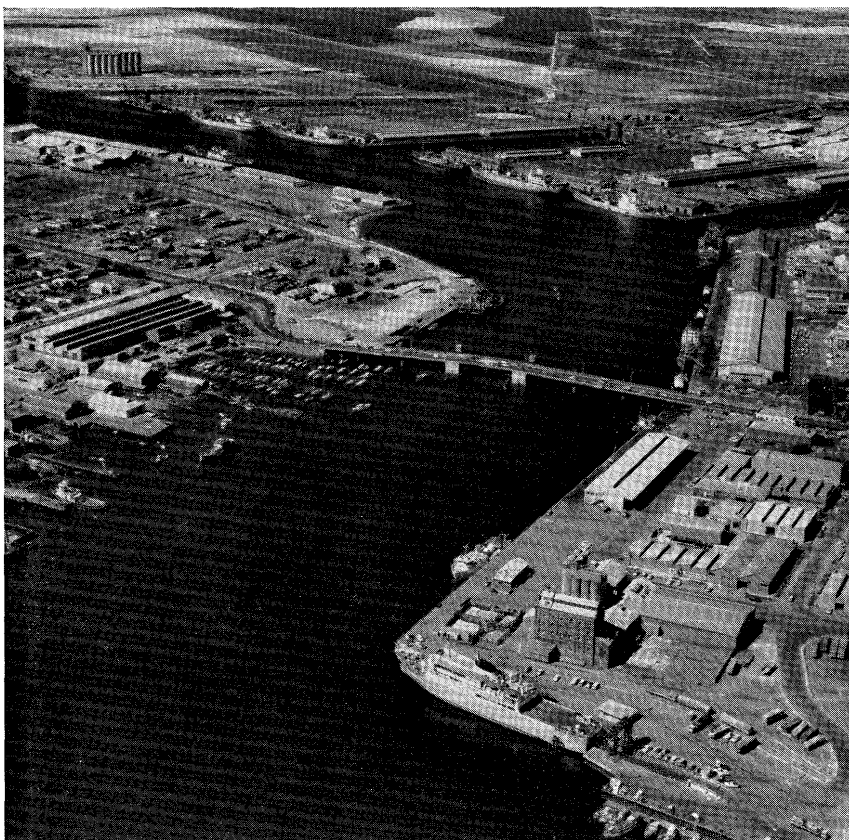


Fig. 6. Inner Harbor, Port Adelaide, looking North East.

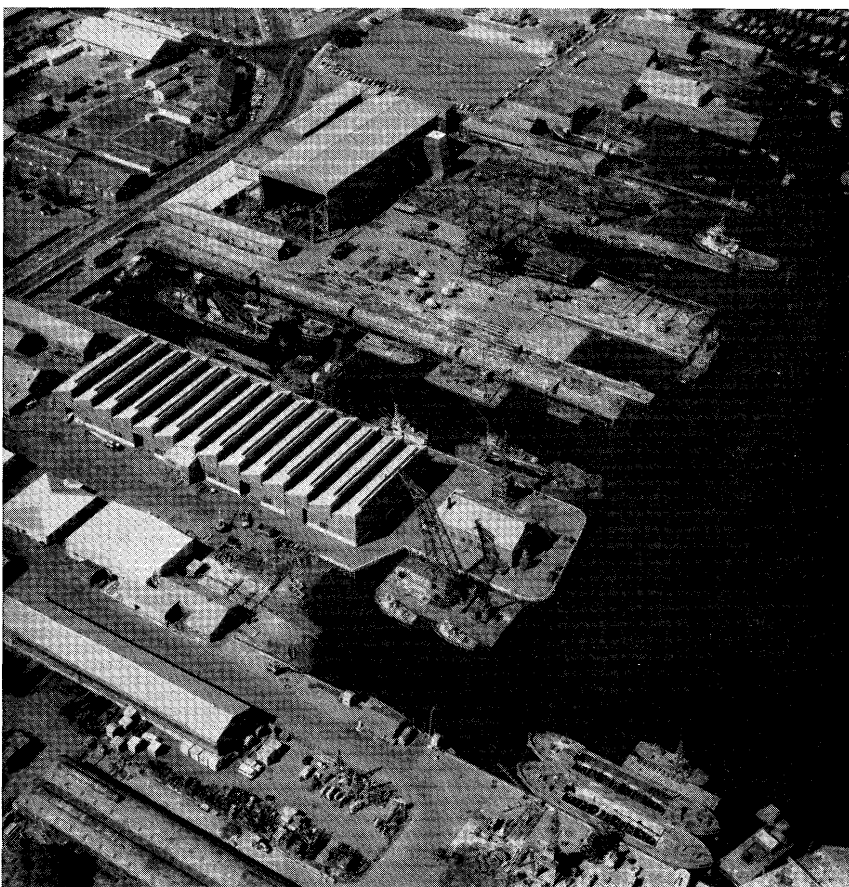


Fig. 7. Port Authority's central workshops, private shipbuilding yards & slipways at Inner Harbor.

- ft.
- (ii) Provision of a 1,050 ft. diameter swinging basin for the Inner Harbor.
  - (iii) Construction of an interstate trailer ship berth in the Inner Harbor.
  - (iv) Completion of a passenger terminal building and related amenities at the Outer Harbor.
  - (v) 40-ton capacity portainer crane for Berths 18 to 20.

#### Industrialization

The Port Authority is actively engaged in the creation of industrial sites on both sides of the Port River involving the eventual reclamation of about 2,000 acres of swamp land with dredged spoil. To date some 300 acres have been completed and 20 sites sold or leased.

The banks of the Port River are already industrialised to a large extent the more prominent establishments being as follows:—

Electricity Trust of South Australia (3 Power Stations)  
 Imperial Chemical Industries  
 Colonial Sugar Refining Co., Ltd.  
 Sulphuric Acid Pty. Ltd.  
 Fertilizer Works (3 Companies)  
 Adelaide Cement Company  
 S.A. Gas Company  
 Adelaide Milling Co.  
 Adelaide Ship Construction Pty. Ltd.  
 S.A. Co-operative Bulk Handling Ltd.

Various wool stores, timber mills, oil storage depots, small boat yards, etc.

#### Vital Statistics

Port Adelaide's relative importance is high-lighted by the following vital statistics for the year 1966~67.

Total Length of All Shipping

Berths: 24,600 ft.

Number of Berths: 43

Depth of Water in Channel:

33 feet at L.W. from sea to Outer Harbor.

27 feet at L.W. from Outer Harbor to Port Adelaide (currently being increased to 30 feet).

Depth of Berths:

Inner Harbor, maximum for general cargo berths, 32 feet L.W.; 35 feet L.W. at Bulk Loading Berth for grain and salt exports. Outer Harbor, maximum 35 feet L.W.

Number of Ships Per Annum:

During the past five years there have been an average of 2,300 arrivals each year.

**Largest and Deepest Draft Vessels Recorded at Port Adelaide to Date:**

The largest and deepest draft vessels recorded at Port Adelaide to date are:—

### Largest Vessels

	Net tons	Gross tons	Length Overall Ft.	Date
Inner Harbor—S.S. "Panamanian"	9,391	15,575	615	26/10/43
Outer Harbor—M.V. "Mobil Energy"	16,520	31,456	736	7/1/63

### Deepest Draft Vessels

	Net tons	Gross tons	Draft	Date
Inner Harbor—				
M.V. "Orari"	6,228	10,350	32 ft. 11 in. forward) 32 ft. aft )	31/10/44
Outer Harbor—				
S.S. "Hertford"	6,776	10,923	35 ft. 2 in. forward) 20 ft. 10 in. aft )	31/3/41

**Cargo Handled for Year Ended 30th June, 1967:**

Port Adelaide accounted for 22

per cent of cargo handled at South Australian ports. The following table shows imports and exports at Port Adelaide:—

	Imports tons	Exports tons	Total Cargo tons
Overseas	856,978	730,812	1,587,790
Interstate	944,766	253,171	1,197,937
Coastal	614,603	236,364	850,967
Total	2,416,347	1,220,347	3,636,694

Principal Exports — Wheat, barley, salt, soda ash, wool, scrap iron, flour, skins, wines and fruits.

Principal Imports — Petroleum oils, iron and steel, coal, limestone, phosphate rock, timber and sugar.

Traffic Through the Port over past 5 years

1962~63	3,930,642 tons
1963~64	4,368,369 tons
1964~65	4,547,888 tons
1965~66	3,712,897 tons*
1966~67	3,636,694 tons*

\* Oil pipe line from Oil Refinery to Port Adelaide in operation in lieu of tanker deliveries.

#### Port Charges

Port charges compare favorably with the average of other Australian ports. Wharfage varies from \$0.60 per ton outwards and \$1.00 per ton inwards for general cargo down to \$0.15 per ton for salt and gypsum, with most of the bulk commodities being \$0.30 per ton and less.

Tonnage rates are levied on the gross registered tonnage of vessels calling at the port and are currently 1.25 cents per ton for the first 24 hours and thereafter 0.3125 cents per 6 hour period.





Mr. Austin J. Tobin

***Statement by***  
**Austin J. Tobin, Executive Director**  
**The Port of New York Authority**  
**before the**  
**Waterfront Commission of New York Harbor**

*at*

*Port Newark, New Jersey*

*Tuesday, February 20, 1968—10:30 A.M.*

*(News from The Port of New York Authority)*

We welcome the Commission's invitation to the Port Authority to present its views on the important question of whether there is an adequate supply of labor to meet the needs of the shipping industry in the Port of New York.

The Port Authority, as the joint Agency of the States of New York and New Jersey, is charged with the duty and responsibility of protecting and promoting the commerce of the Port of New York and with the development of modern and efficient transportation and terminal facilities for the Port. We have always recognized that the services of longshoremen and other dock workers are as vital to our Port as its natural advantages, its piers and docks and business and trade services—all of which have combined to make the Port of New York the premiere United States port and one of the great centers of world trade. We want to keep it that way.

The Commission Resolution authorizing this hearing notes that a preliminary survey made by the Commission has indicated "that a serious shortage of longshoremen in certain areas of the Port may exist." Your Resolution concludes that it is "in the public interest to determine whether such shortages as may exist are adversely affecting the economy of the Port."

The Port Authority is in complete agreement with your own finding that there are indications of serious shortages of longshoremen and other waterfront workers here

in Port Newark and Port Elizabeth. The Authority is convinced that these shortages are adversely affecting the economy of the entire Port.

In response to widespread and alarming complaints that we had been receiving from the shipping companies and the stevedoring firms which operate here at the Newark and Elizabeth Docks, the Port Authority had made its own survey of the manpower situation and requirements here.

The findings of that independent survey are, as I have noted, in complete accord with the preliminary findings of the Commission's study.

We found that there is an urgent need for hundreds of additional port workers here in this part of the Port of New York. The shocking truth is that there are unfilled job opportunities here everyday for 1,000 additional men—at a time that so many able-bodied men in Essex and Union Countries are looking for work and on relief.

At the direction of the Governors and Legislatures of the two States, the Port Authority has, over the past two decades, constructed over \$300 million of docks, piers and other waterfront facilities here in the Port of New York. We have built over \$120 million of modern docks and terminals along some three miles of the Brooklyn shore and \$190 million here along the New Jersey side of the harbor. In

addition, the City of New York has built \$125 million of waterfront facilities over the same period along the Manhattan and Brooklyn shores.

Here in Newark and Elizabeth, we have provided the world's greatest container terminal. In the age of containership operations, these docks not only anticipated the technological revolution of container handling, but they are also unrivaled at any port in the world.

Despite these magnificent physical facilities, we are confronted today with the threat—and indeed the action—of substantial shipping companies which are shifting their cargoes to Baltimore and Norfolk because, as they have said to us, labor is available at those ports. By contrast, here at Newark and Elizabeth, men who want to work, and are willing and able to work, cannot take advantage of the hundreds of job opportunities that are available here everyday. These jobs go unfilled as a result of self-defeating, man-made barriers that bar these workers from the waterfront in Newark and Elizabeth.

The Atlantic Container Line, the consortium which includes the Cunard and French Lines, Swedish American, Swedish Transatlantic, Holland America, Wallenius and Moore-McCormack, operates today out of forty acres on the south side of the Elizabeth Channel with four

great new containerhips and another six under construction and being delivered at the rate of one every three months. I have here their notice to all of their general and inland agents directing them to "emphasize the port of Baltimore over the Port of New York" because "the labor situation in Baltimore is decidedly better than in New York." On February 7 they sent out an embargo notice, as follows, to all shippers, forwarders and truckers:

"Due to acute shortage of labor in the Port of New York, it is with regret that we must advise you that effective immediately the (Atlantic Container Line) terminal will no longer receive LTL freight on Thursday PM and also Friday. . . ."

"Shortage of manpower forces us to take the above step. . . ."

In the face of increasing complaints about the lack of manpower, the Port Authority conducted an inquiry among the shipping and stevedoring companies at Port Newark and Elizabeth with respect to their labor shortages. The results are startling and convince us that unless the men who so desperately need work in the areas around the Newark and Elizabeth Docks are given the opportunity to work there, the shipping companies will divert their cargoes to other ports which have an adequate and willing labor supply and where men are not barred from the docks by man-made regulations and arrangements.

Under the law creating the Waterfront Commission, it is directed to open the Register whenever the number of eligible longshoremen fall below requirements for longshoremen in the Port of New York. In the light of the situation which is dealt with in the Commission's Resolution calling for these hearings, and in the light of the findings of the Port Authority's independent study of the situation, it is abundantly clear that this directive of the statute requires the opening of the Register at this time. Indeed, if that course is not followed, the entire Port of New York—not just Newark and Elizabeth, but the entire Port area—will have been dealt a crippling blow. This is why Governor Hughes, in his public

statement, urged that the Commission hold these public hearings looking to the opening of the Register; a statement in which he emphasized "a need for prompt action" and said that he did not want to see the Port of New York "lose the initiative it has gained in becoming the container capital of the world."

Nevertheless, from what I read in the newspapers, I understand that the spokesmen for the ILA will appear here to urge that the Commission should keep the Register closed. If this happens at a time when our government and our more enlightened business and labor leadership are all trying so hard to find employment opportunities for the people in our beleaguered urban areas; if this happens—job opportunities on our doorsteps for a thousand men a day who are barred from filling those jobs and working for a living—then I cannot imagine a more sorry spectacle or one that presents a more discouraging prospect for the future of our democratic society.

Here are some more excerpts from letters submitted to us by shipping companies, agents and stevedores at the Newark and Elizabeth Docks:

Thor Eckert & Company, Steamship Agents, advises us on behalf of their principals, Orient Overseas Line, that:

"... Dock labor (at Port Newark) is nowhere near sufficient and we understand from our stevedores that on many days they receive only half of the extra labor men, machine drivers, checkers, etc. that are required to handle our large volume of deliveries.

"During the years 1963~65 and a good part of 1966, we experienced exceptionally good results with our vessels, averaging three days in port for discharge and loading, whereas, now vessels are averaging more like six days. As you can readily see, the additional three day's vessels cost when multiplied by approximately fifty-five vessels calling here last year, the amount of extra expense is in the hundred of thousands of dollars per year.

"In addition, a factor even more important than the expenses incurred is the tremendous number

of complaints received from our important importers concerning congestion, delays, etc. Many have asked us to leave Port Newark and others have quite frankly informed us that if we continue at Port Newark, they will no longer be able to support the Orient Overseas Line."

Bristol City Line writes us under date of February 2, 1968 that:

"We have lately had both ships waiting for berths and waiting for gangs. As an example, we had reason recently to ask for seven gangs on two successive days and were allocated one."

On the same date, February 2, Norton Lilly & Company, Steamship Agents for services operating all over the world from Port Newark, wrote us that:

"... the question of labor shortages in Port Newark. As you know, this has been a matter which has been constantly becoming more serious and causing undue delay to vessels berthed in Port Newark. It seems to me it is a question which should be given the highest priority by The Port of New York Authority, the Waterfront Commission, and Longshoremen Unions."

The Crossocean Shipping Company advises, under date of February 6, 1968, that:

"... our terminal operators, ITO, have consistently found that they have been unable to secure the labor which they require—which includes clerks and checkers who are needed to maintain a normal operation."

"(As a result) we have been doing everything we can to discourage our ships from loading and discharging at Port Newark, due to the problem of securing the necessary labor, not only longshoremen, but, as mentioned above, clerks and checkers in order to maintain normal operations. . . ."

Motorships of Puerto Rico advises, under date of January 25, that:

"... The labor situation at Port Newark has deteriorated to the extent that the economies effected by operating in the most modern facilities on the coast have been overwhelmed by the



lack of manpower to permit effective operations."

"... It would appear that the closing of the Register stalemated the growth of the local Port Newark labor pool. It would also appear that the amount of labor presently available to service the Port Newark-Elizabeth area approximates about 60% of that required."

Motorships, Inc., which operates an extensive shipping service between Newark and European ports, and who are the agents for the shipment of Volkswagens and other automobiles into and out of Port Newark, have written to the New York Shipping Association, under date of January 25, 1968, that:

"You are undoubtedly aware that the longshore labor shortage at Port Newark has now reached the acute stage . . . and is now costing the steamship owners and terminal operators, using the Port Newark facilities, substantial out-of-pocket losses."

This shipping line concludes:

"The longshore labor pool available to the users of Port Newark must very definitely be increased in some manner, sufficient to meet the requirements of the users of the seaport, otherwise many of the users may be forced to seek other locations, possibly at one of the outports, where they can operate logically and economically."

Pittston Stevedoring Corp. advised us, under date of January 19, 1968, that:

"Much has been written and said with respect to the deplorable situation that exists in Port Newark. Port Newark boasts some of the finest physical facilities in the Port of New York, yet many steamship companies and terminal operators are finding that it is becoming almost impossible to work and prosper under the conditions that exist."

Our report on the conditions at the Grace Line Terminal at Port Newark reveals that at best that terminal is manned only to the extent of 65% of its needs and requirements. Grace has a chronic shortage of banana handlers. Their normal requirement for an entire banana working period (two to

three days every week) is for 180 men but the most that they have been able to recruit is 120, a level of labor that is highly inefficient and delays the ships. So too they advise us that they can only obtain about 65% of the longshoremen and checkers they need and that their costs generated by these labor shortages are so critical that their continued operation is dependent upon a substantial and immediate improvement.

To summarize then, our job requirement study establishes that at least 1,000 new longshoremen and other dock workers are needed at Port Newark and Elizabeth.

The components of this figure are:

- (a) Each and every day the shipping companies and stevedores at Newark and Elizabeth are unable to fill 380 longshore and other waterfront jobs.
- (b) Though there is a requirement for a minimum of 300 workers on overtime shifts every night, the two ports are, for all practical purposes, shut down at night because these additional longshoremen are not available from the current Register.
- (c) There is an urgent need for at least 50 more coopers, carpenters and maintenance men at Newark and Elizabeth.
- (d) In about two months ITO plans to open its vast new public container terminal on the south side of the Elizabeth Channel. United States Lines and other large and well-known shipping companies will begin their operations from that terminal and will require at least 300 more longshoremen, checkers and clerks.

Although these hundreds of jobs go unfilled every day and night only an average of about 90 registered longshoremen are interested in traveling from New York to work at jobs at Port Newark and Elizabeth, and this in spite of the attraction of an \$8.25 daily premium for workers coming to Newark and Elizabeth from New York.

Thus, it is clear that, taking into account these existing shortages and future requirements, Port Newark and Elizabeth offer immediate full time employment opportunities for

over 1,000 new men.

These 1,000 jobs are new jobs and each one means an approximate salary of \$7,500 a year. What we are talking about then is an annual payroll of \$7,500,000 which is available to many who are now unemployed but which they can realize only if this Commission will give them the opportunity to become eligible to work for it.

The shipping companies are willing to employ them, the Port Authority has provided the physical facilities on which they can work, the ships have been, or are being built, and the importers and exporters are anxious to move their cargoes through these modern, efficient docks and terminals. It would be a calamity to lose this opportunity because of the lack of men who are barred from these jobs by today's closed Register.

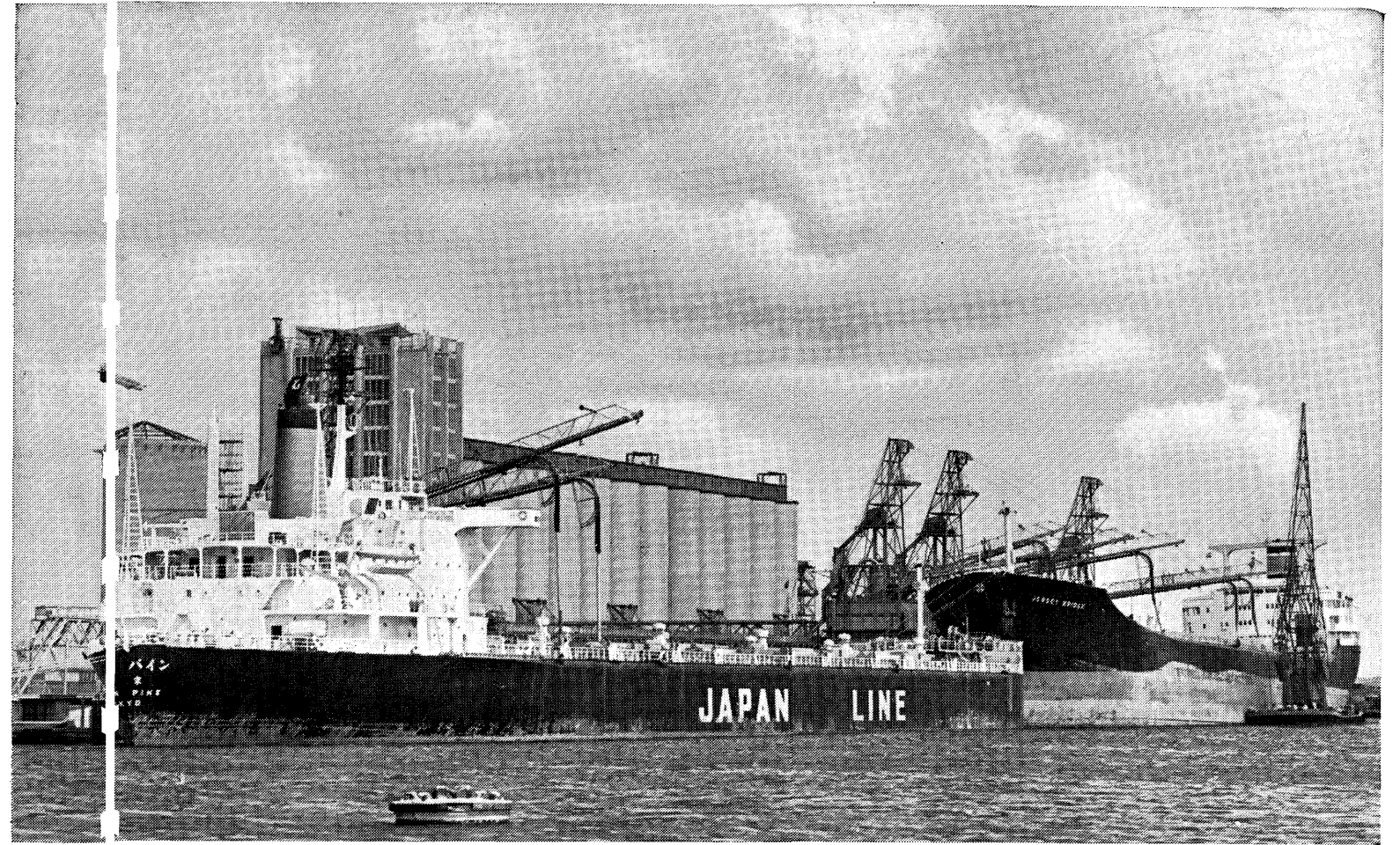
The consequences to the Port as a whole can best be appraised by examining the penalties being incurred each day here at Port Newark and Port Elizabeth by the shipping industry. I have quoted from the communications of some of the shipping and stevedoring companies complaining that the shortages of waterfront labor are producing substantial delays in all phases of the stevedoring operation. Without enough longshoremen or checkers, cargo simply cannot be transferred to and from trucks, which in turn causes the two-fold evil of long delays to truckers and dead time for the shipping industry and the importer or exporter. Cargoes stand idle as well as the ships. Each day that a ship stands idle in this Port results in a penalty of about \$5,000 to the shipping company alone. There is no way to compute the losses to the importer and to the exporter and the truckers whose entire operations are backed up because there are no men to move the goods.

We do know that shipping companies have been billed by truckers for overtime charges due to inability to load or unload ships. Pittston Stevedoring Corporation has advised the shipping association that:

"Some truckers are advising their clients (at Port Newark) that increased or surcharges will be put

(Continued on Page 20)

# why amsterdam?



- Amsterdam has a harbour with the most up-to-date equipment and working-methods, accessible to ships with a draught of 45'.
- Amsterdam has excellent connections with the entire European hinterland by rail, inland waterways and a network of modern highways.
- Amsterdam is the most important centre of finance in the European Common Market.
- Amsterdam lies at 20 minutes' distance from the ultra-modern International Airport Schiphol.
- Amsterdam, and the entire Amsterdam area, has plenty of room for commercial and industrial establishments situated along deep water quays.

# have a closer look

for information apply to: the Amsterdam Port Association, Havengebouw, de Ruyterkade 7, Amsterdam.

(Continued from Page 17)

into effect promptly. Trucks are waiting often from three to six hours to be serviced. This is an intolerable situation."

The shipping companies also tell us that the shortage of labor has compelled them to advise their customers that they can no longer accept cargo. Motorships, Inc., in fact, recently surrendered a valuable contract it had enjoyed for five years involving the unloading of export automobiles from railroad cars. The company was forced to do this, and I am quoting Mr. Nils O. Seim, President of Motorships, Inc., because:

"Longshore labor could never be secured in adequate supply for this activity."

ITO advised us that just this past January, due to a lack of longshoremen, it was unable to unload a ship for seven days; with a full crew the stevedore could have unloaded that ship in one day. These critical shortages—and they are happening every day—if not prevented by the opening of the Register to obtain at least an additional 1,000 workers, will completely undermine the States' program for the continued development and the continued economic health of the Port of New York.

The investment already made by the two States, through their joint Port agency, of \$178,000,000 at Port Newark and Port Elizabeth alone, would be futile if the shipping companies decide that Baltimore or Philadelphia or Norfolk have a better labor situation. And the two States would certainly question our planned investment of an additional \$150 million by 1975 for new piers and docks throughout New York Harbor if the shipping companies and stevedores were not able to find the men to work the ships. If this is to be the consequence of a closed Register, the workingmen of New York and New Jersey have been dealt a cruel injustice by those who should be most responsive to, and responsible for, their welfare.

The Port Newark-Port Elizabeth complex today produces an annual payroll of \$43,480,000. The payroll is there because the facilities that have been provided at Port Newark

and Elizabeth are ideal for the handling of container cargo, imported steel, scrap iron, imported automobiles and many other categories that move in the stream of America's trade with the rest of the world. Here we have space for container packing and unpacking, and as these continue to be built and as container cargoes continue to be generated, additional longshore employment opportunities will become available. There are great open areas available for the efficient movement of over-the-road trucks to and from the pier areas and for their unloading. There are unmatched distribution facilities where the goods can be stored after the free time on the dock has expired, and there is every modern special facility required for a modern-day terminal operation.

While these facilities are here in Newark and Elizabeth, they serve the entire Port and the Port of New York District, since they require back-up services and facilities which produce business for banks, insurers, importers, exporters, freight forwarders and customs brokers, many of whom are located in Manhattan. As you are well aware, one person in four depends for his livelihood on the Port's ability to continue to provide facilities and services for the movement of cargoes.

We are proud of our work here in Newark and Elizabeth which made the Port of New York ready for the containership revolution. For only in this area of the Port could we provide the extensive areas of waterfront and upland that are required for efficient containership operation—some 8.25 miles of wharves and docks which will provide berthing space for 67 ocean-going containerships and cargo ships, backed up by 1,626 acres of upland and 7,200,000 square feet of terminal space.

We think that with assurance of an adequate labor supply, the future of the Port of New York will be most promising. In just two months, as I have noted, we will open three additional berths and 85 acres of land on which the International Terminal Operating Company will serve the new containership fleet for the United States

Lines. Other large steamship lines as well will use this large public container terminal.

Construction is also proceeding rapidly on the new four-berth terminal to serve Cunard, French, Swedish-America, Wallenius, Swedish Transatlantic and the Holland-America Line. Ten huge containerships will be handled at this facility, as I have noted, and four of these are already in service at Elizabeth.

I should note also that these 10 new containerships and another 10 under construction for United States Lines and Moore-McCormack represent an investment by the carriers themselves of over \$350 million, a tremendous investment which reflects their confidence in the future—and also a reliance on the availability of enough men to work the ships and handle their great cargoes.

We cannot overlook the fact that the reason for the creation of the Waterfront Commission of New York Harbor was the finding and determination by the States of New York and New Jersey in 1953 that the regulation of longshoremen and stevedores is necessary "for the protection of the public safety, welfare, prosperity, health, peace and living conditions of the people of the two States." (Article I, paragraph 4 of the Waterfront Commission Compact) Among other regulations, the States, therefore, established a longshoremen's Register to include "all qualified longshoremen eligible, (as determined by the Commission after application of statutory standards) for employment as such in the Port of New York District." (Article VIII)

At that time and until 1966 any person who met the eligibility requirements had a clear right to be registered as a longshoreman, subject to removal from the Register if he failed to work a minimum number of days each year. The purpose of the latter provision was stated in the Compact to be "to bring the number of eligible longshoremen more closely into balance with the demand for longshoremen services within the Port of New York District *without reducing the number of eligible longshoremen below that necessary to meet the require-*

*ments of longshoremen in the Port of New York District."*

The 1966 amendment to the Waterfront Commission Compact, permitting the closing of the Register nevertheless preserved the above-quoted requirement that the Commission has the duty to insure that there shall always be a sufficient number of eligible longshoremen to meet the requirements for their services in the Port of New York District. We submit that the record I have described of acute shortages in longshore labor at Port Newark and Elizabeth suffices without more to warrant the implementation of the Commission's powers to open the Register so that it will include a sufficient number of eligible persons to meet the clear and compelling demand for their services here.

There is no realistic alternative available to remedy the shortage. It is true that the Commission in deciding whether or not to accept applications for the longshoremen's Register is required "to encourage the mobility and full utilization of the existing work force of longshoremen," and I am certain that you will be reminded of this by others who will testify here and that they will urge that mobility within the existing work force is an adequate remedy.

The facts which we have experienced completely negate this suggestion. Today, men from New York City are working Port Elizabeth and Port Newark as longshoremen. They receive \$8.25 a day more from the carriers here than they would if they were working in New York. Nevertheless, only an average of 90 men a day come over from New York to work at these premium rates. When we are faced with a demand for 1000 additional longshoremen, it would be rash and reckless to expect that the demand can be filled by workers from New York. There has been no evidence that the union or the Shipping Association have been able to provide an adequate work force for Newark and Elizabeth from other sectors of the Port.

Neither the ILA nor the New York Shipping Association has come forward with any other constructive solution for the crisis con-

# **Antwerp Container Terminals Facilities on World Scale**

**By R. Vleugels  
General Manager**

## **Port of Antwerp**

Antwerp is the leading European port for general cargo. It owes this dominating position to the skill and the rate of speed of its cargo-handling.

It now gets ready to face the challenging growth of its specific traffic by building up-to-date container facilities in view of the increasing containerisation and of the developing traffics with the U.S.-ports in prospect.

It may be worthy to recall two main features of the Antwerp quay-outlay which are especially valuable in respect of the ever growing tendency to containerisation:

- 1) All berths, in Antwerp, are fitted for handling semi-container ships. Most striking indeed, is the width of all wharf aprons alongside the deep-water quays of the Leopold Dock, the IVth, the Vth, the VIth and the VIIth (Churchill) Harbour Docks which are all at least 120 to 150' wide and equipped with

fronting the Port of New York. As a matter of fact, I am informed that certain shippers have not even received replies to their letters to the New York Shipping Association requesting relief from the critical labor shortages which have plagued their operations at Newark and Elizabeth.

In conclusion, we urge that the Commission act immediately in the public interest, and particularly in the interest of the continued welfare of the Port of New York and the available men, who are ready, able and willing to work its docks. The spectacle of men standing unemployed on the streets while 1000 jobs go begging here in Port Newark and Elizabeth is so shocking that it cannot and should not be countenanced.

trucking roads and railway tracks;

- 2) On the backland of special berths for handling all-round containerships, large areas are still available, admirably located for providing the required stuffing, storing and marshalling yards;
- 3) All container terminals are very close to each other; moreover, they are doubled with roll-on/roll-off facilities in the immediate vicinity.

## **1. Hessenatie-Neptunus Ltd.**

At the west-side of the Southern quay of the VIIth Harbour Dock (Churchill Dock) the Hessenatie-Neptunus s.s. is building a container Terminal covering 30 acres.

Behind 3,280' long deep water (50') berthing facilities, a great marshalling yard will soon be available with a consolidating shed of 1,000' x 82' (about 7,500 sq. m.).

In a first stage, a berth of 1,500, with a wharf apron of about 40' depth has already been put into operation.

About that time two — Boomse metaalwerken — 35 t gantry cranes with an outreach of 115' will be ready to operate with an infrastructure of 2,620' track, adaptable speed and spreader for 20' to 40' containers. Advantage will be taken of these cranes to organize the marshalling yard, 1 single and 3 double rows of containers with a 16' lane between rows to allow side-loaders to operate (on or off railcars, trucks-preparing outbound containers from and to consolidation sheds-corrections).

Over the whole length of the wharf-apron a 156' wide overhead-crane will be of great help for the stacking of the containers.

One side-loader (25 t), straddle carries, a weighing bridge (60 t capacity) and two tugmasters are



furthermore under construction or ordered.

In order to be able to handle container/ro-ro ships, such as these ordered by the Atlantic Container Line (A.C.L.), an additional ro-ro jetty of 197' by 65' capable to carry 120 tons loads, with berthing facilities on both sides, is being built.

On the backland of the Hesenatie-Terminal there are additional 25 acres for car and trailer parking. A second stage extension with additional container stacking areas and warehouse facilities is provided.

## 2. Westerlund Corporation Ltd.

At the southern quay of the Churchilldock, Westerlund Corporation Ltd. obtained a concession mainly destined to the handling of containers. The total surface of this site amounts to 18 acres. Immediately behind the quay-apron a closed shed of about 3 acres and providing for a useful space of 4.3 million sq. ft. is being erected. In this shed a free height of 33 ft. allows the efficient storing of unitized products such as paper-rolls and bags of paper-pulp. Moreover the use of handling machinery f.i. carriers, straddle-carriers and side-loaders will be facilitated by large entries being 66 ft. in width.

From now on the company has already planned the construction of another warehouse, in order to be able to cope with the expected increase of traffic. This firm already disposes of a specialized equipment, allowing the quick and modern handling of forest products. With the aid of forklifts, paper-rolls weighing 4½ tons can be handled.

A gantry-crane for the handling of containers has been ordered. Its characteristics are the following:

- a) a maximum lifting capacity on the hook of 38 tons;
- b) a lifting capacity on the automatic spreader for containers of 30 tons;
- c) a radius of 140 ft. on both sides of the pivot;

Behind the gantry-tracks an open quay-apron of nearly 3.5 acres is located within the reach of the container-transporter-bridge. This enables a quick loading and unloading of the container-ships moored and thus ensures a high renta-

bility of the same.

In order to make at any time the gantry-crane quite adaptable to all heavy loads a full choice of spare parts are always available. Further plans deal with a fenced area of 4.5 acres for the parking of trailers.

In april of next year the terminal will be put into operation.

## 3. Noord Natie Ltd.

On 1st September 1968 a new container- and heavy-unit-terminal will be put into operation at the southern quays of the Churchill-dock. This new berth for container-ships has a length of 1,177 ft. The whole surface of the terminal will be 32 acres of which 16 acres consists of metalled stacking areas.

A first closed shed with an area of 521,739 sq. ft., provided with all facilities regarding the storing and the handling of containers and heavy-units, has been planned. The plan conceived will also enable the manipulation of forest-products such as wood, paper and paper-pulp.

As regards the hoisting-engines, we mention that a gantry-crane with a capacity of 53 tons and two electric quay-cranes will be installed.

They will have the following detailed characteristics:

- a) gantry-crane:
  - length at the dock-side 139 ft.
  - length at the land-side 107 ft.
  - speed of the lifting-movement 105 ft/min.
- b) two electric quay-cranes:
  - lifting-capacity of 20 t at 82 ft. and 10 t at 147 ft.
  - lifting-height of 164 ft.

It should be emphasized that the electric cranes are equipped with the latest innovations in the field of security and speed. Moreover, the overall installations are conceived in such a way that an adaptation with a more extended modern equipment will always be possible in the near future.

## 4. Gylsen Stevedoring Cy

Also on the southern quay of the VIIth Harbour Dock (Churchill Dock), but on the East end of it, will be located the containerships berth (2,300' length) of the Gylsen Stevedoring Cy.

The berth will be equipped with a multi-purpose container gantry-crane having 98' reach from quay

over shore and 123' reach from the quay over water.

This container-bridge will have a full lifting-capacity on spreader of 30 t for 20' ro 40' containers. The hook-capacity for heavy loads will be either 1 × 38 t or 2 × 19 t. By adapting a scraper with a 25 t net capacity it will be possible to handle also bulk cargo. The two cranes are presently under construction at Boomse Metaalwerken s.a.

The Gylsen berth will also be equipped with six 10 t general-cargo cranes with 147' reach.

On the backland, the new container-berth will dispose of a 46 acres area for stacking of containers and marshalling of trucks.

## 5. Antwerps Havenbedrijf Pays Ltd.

On the northern quay of the Churchill Dock (50' depth of water) the "Antwerps Havenbedrijf Pays Ltd." is building a new container-terminal with 2,250' length of quay. Covering 18 acres, it comprises a 170' wide heavy-load capacity wharf apron in front of modern sheds, 7 acres marshalling areas for containers and iron, including 5 sets of rail tracks and easy road access.

Two closed sheds have been built in according to the latest requirements of the handling and the warehousing of general cargo. They measure 300' by 147' linked up by an open shed in order to make the quay-apron more accessible to railway traffic.

Extension for marshalling, storage and stuffing of containers will be possible on a 22 acres optional area behind the terminal. At present this consolidating and storage center is largely ready for use.

The new installations, scheduled for completion early 1968, are designed to serve the needs of containerised and unitised cargoes in a most modern way and to handle all-round containerships together with roll-on/roll-off ships and side-loaders.

They will also provide easy port facilities for multi-purpose ships, which will carry cargo in combination of containers, unit-loads and conventional methods, and for coasters and lighters as well.

A large lifting equipment will be available, giving possibility to han-



dle heavy loads at a high output:

- 1) One 45 t container gantry-crane for 40 ton or two 20 ton containers and heavy lifts. This crane will also be equipped for handling bulk cargo by adapting a scraper with a 16 t net capacity. The hook capacity for heavy loads will be either  $2 \times 20$  t or  $1 \times 40$  t. The reach of this crane with a 45 t load will be 106'6" from quay over water and 83'6" from quay over shore.
- 2) Two container-cranes with full capacity of 20 t at 72' reach and gradually declining to 7.5 t on 131'. Speeds of these cranes are comparable with those of general cargo cranes. They can work in combination to handle lifts up to 35 tons.
- 3) Two general cargo cranes with each a capacity of 8 tons at 85' and 3.5 tons at 131'.

#### 6. Corns Swarttouw Antwerp Stevedoring Cy Ltd.

The concession granted to Corns Swarttouw's Antwerp Stevedoring Cy Ltd. has a total surface of 18.5 acres, an additional site of 11 acres has been given in option. The company, specialized in the handling and storing of general cargo, is building now a brand new terminal at the afore-mentioned area, situated along the northern quays of the Churchilldock.

Two up-to-date and spacious warehouses will be at the disposal of the port customers. Besides, the covered surface of 4.3 acres, a large open trailer- and container-park of 4.7 acres will be put in use within a few months.

Along the berths, 2,459 ft long in total, 8 quay-cranes are being installed. Six of them have a lifting capacity of 8 tons and a maximum radius of 131 ft while the other two units have a lifting power of 28 tons each. The last ones have been fitted with electronic devices in order to use them together for the handling of heavy lifts and large containers.

#### 7. The T.E.R.R.E.-Terminal of the Belgium Railways.

In the center of the triangular area (150 acres), situated between the VIth and the VIIth Harbour Dock, right on the rear of the Hes-

**IAPH News :**

## Orbiter Probe



The Late Mr. W. J. Amoss

Mr. W. J. Amoss, Director of the Port of New Orleans, La., U.S.A., passed away early Sunday April 7, according to the cable received

Monday by Mr. Allen V. Junkin, Jr., the Far East Trade Director in Tokyo for New Orleans, from Mr. James W. Martin, Trade Development Director.

In a flurry of distress, telegrams of condolence were sent immediately to Mr. J. Melton Garrett, President of the Board of Commissioners, from Dr. Chujiro Haraguchi in his capacities as the President of the IAPH and Mayor of Kobe, and from Mr. Toru Akiyama in his capacities as the Secretary General of the IAPH and privately as Mr. Amoss' personal friend.

Mr. Gaku Matsumoto, formerly Secretary General and now a Founder Member of IAPH and the President of the World Trade Center of Japan, wired his deep sympathy in view of his long friendship with Mr. Amoss. Dr. Hajime Sato also cabled condolences as the Direc-

senatie Container Terminal and between the general cargo berth and the Container and Unit Load Terminal of the Gylsen Stevedoring Cy, the Belgian Railways (Société Nationale des Chemins de Fer Belges) is building a 4 track-marshalling yard, totalling 1,300' sidings and surrounded with a fenced storing and stacking area for containers which are not to be stuffed or forwarded immediately. The yard is to be equipped with a travelling overhead crane with a 30 t lifting capacity.

This railway container terminal is intended to function as a terminal for the T.E.R.R.E. (Trans European Rail Road Express)-trains which will unite the port of Antwerp directly with Italy before the end of this year.

Moreover, this railway container

terminal will be in direct junction with the big railway shunting station "Antwerpen-North" which is right in the neighborhood, so that direct connexions can be set in between this place and the T.E.E.M. (Trans European Express Marchandises)-trains which link Antwerp with the great railway centres of Europe.

A tracking road, parallel for the total length of the yard, gives direct connexion to the new inter-European highways E 3 and E 10 which are crossing only 2 miles far.

The Belgian Railways' terminal will provide for flat-cars which are specially suitable for containers as to the height of the car and the tolerable speed (high speed cars). The container-trains will run on a special schedule in order to ensure a maximum of delivery speed.

tor General of Japan Port and Harbor Association and as former Director of the Harbor Bureau of Japan's Transport Ministry. Mr. Gengo Tsuboi, IAPH Director for Japan, Managing Director of Japanese Shipowners' Association and Vice-President of Tokyo Tanker Company, did the same out of his long acquaintance with Mr. Amoss.

More about Mr. Amoss will follow in the next issue.

## Conference Papers

The Organizing Committee of Melbourne Conference plans to have six main papers, as mentioned in Melbourne's proposition (Ports and Harbors, February, 1968, page 6). At the Executive Committee Meeting in New Orleans in January, it was agreed that the Committee members, after returning home, would individually approach the slated speakers and report back to the Organizing Committee in Melbourne.

With regard to the short papers, equivalent to the 10-minute speeches at the Tokyo Conference, nine of them are wanted. All IAPH members are invited to submit summary papers to reach the following address by the end of April:

Mr. N. L. Fidge, Secretary  
Conference Organizing Committee

C/-Melbourne Harbor Trust  
Commissioners  
29 Market Street, Melbourne  
3000

AUSTRALIA

CABLE ADD:

"HARBOR" Melbourne

The Organizing Committee will then read the summaries carefully and then request the selected speakers to submit the full papers by the end of August, for processing through translation, printing and what not.

A period of two hours is reserved for a panel discussion. Selection of the subject is making progress between the Secretary General in Tokyo and the Organizing Committee in Melbourne.

## Seminarists

On March 8, the Secretary General, Mr. Toru Akiyama, sent out a circular letter to a dozen member ports which had indicated interest

in training programs and seminars. As approved by the Executive Committee in January in New Orleans, the letter requested lists of seminar graduates so that the IAPH Head Office could send a free copy of "Ports and Harbors" for 3 years to each of them.

The eligibility for such offer calls for certain standards in the scale of a seminar; that it should be international, held at regular intervals, and longer than two weeks. Similar service has been awarded in the past to participants of seminars held by the Japanese Government in Tokyo, but this is going to be made worldwide on a common basis.

## Prof. Carroli

Prof. A.P. Natale Carroli, professor at the Accademia Universale Marinara, Genova, Star and Cross of the "International American Academy" (New York), was made Member of the "International American Institute" (Washington, D.C.) and of the "Academy of Science" of Rome. (Orizzonte Dei Cavalieri D'Italia, October~December, 1967, No. 10-11-12)

Prof. Carroli is an individual supporting member of the I.A.P.H.

## UNCTAD

New Delhi:—A massive international aid plan for modernizing ports and inland transport facilities in the developing countries was submitted by Chile and Denmark to the United Nations Conference on Trade and Development here March 17.

In a declaration and joint draft resolution, the two countries told the conference shipping committee there was an urgent need for practical measures to be taken to provide finance and technical assistance for modernization of transport in the poor countries.

It was realized, however, that limited financial resources prevented them from using their own capital for the necessary investment.

"On the other hand," added the declaration, "shippers and shipowners both have a common interest in port development and the advantages which would result."

Chile and Denmark then proposed that developed countries

should, either directly or through international and regional financial institutions, give favorable consideration to requests from developing countries for financial and technical assistance to enable them to speedily develop and modernize their ports and interconnected inland transport networks.

Loans for these purposes, and for dredging equipment, should be made available at low interest rates and on long repayment terms, it added.

Liner conferences and similar shipping organizations should, added the resolution, also take into account in their planning the need for cooperating with port authorities in the developing countries to assist them to use their modernized facilities to the best advantage.

Shipowners were also reminded that when port improvement schemes lead to a reduction in their costs, they should review and then adjust their freight rates.

Apart from the financial aid measures recommended, the declaration acknowledged that technical assistance would also be needed to make the best use of the new facilities.

It recommended, therefore, that the UNCTAD secretariat should make a study on the effect of technological changes on traffic trends and port facilities in the developing countries.

The draft resolution will now go before the conference Shipping Committee.

Meanwhile, the United States and Canada advocated the virtual removal of all restrictions on imports of primary commodities from the developing nations in a joint proposal.

The proposal was submitted to the conference committee which is considering liberalization and expansion of trade in commodities of interest to developing nations.

After commenting that inadequate progress had been made in liberalizing commodity markets as agreed at the first UNCTAD four years ago, the statement asked developed nations not to impose new penalties on primary commodity imports from the developing countries, and to refrain from increasing

any existing barriers.

It also asked the UNCTAD secretariat to compile a complete list of tariff and nontariff restrictions on commodities introduced by developed countries since 1964, and to set target dates for their elimination. (Japan Times)

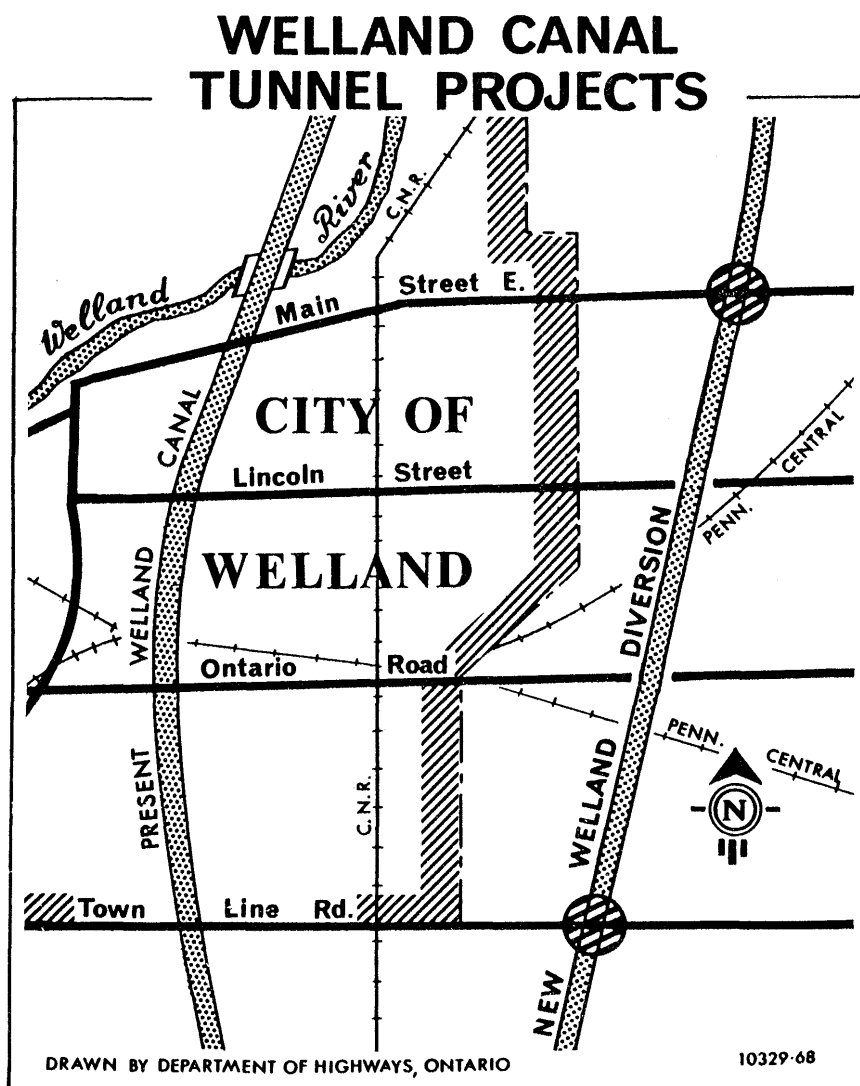
### ARELAP

Bogota, Colombia:—Regional Association of Pacific Latin-American Ports (ARELAP — Asociacion Regional Latinoamericana de Puertos del Pacifico) has had two meetings during 1967, first at Vina del Mar, Chile, April 16~19, 1967 (Agreement which inspired the creation of the Association), and then at Bogota, D.E., Colombia, November 20~23, 1967. (The Statute of the Association approved.)

The Association was organized by Ports of Colombia Authority, Colombia, Chilean Port Authority, Chile, Guayaquil Port Authority, Ecuador, and Callao Port Authority, Peru. Any other port administrations and authorities of those Latin-American countries which have ports on the Pacific Ocean may also join.

The ARELAP was inspired by the recommendations of the Permanent Technical Committee on Ports (of the Inter-American Economic and Social Council of the Organization of American States), the conclusions of the Bogota Declaration, of the Tequendama and the VIIth Period Sessions of the Port and Navigation Training Center of the United Nations.

Its basic objectives are: To foment the development of the ports of member nations; To plan and carry out united operations for resolving unilateral or multilateral problems in port matters; To act jointly when one or some member nations are affected by unilateral dispositions of Shipping Conferences or other bodies; To serve to recognize the full rights of these nations to participate in every conference related to maritime traffic; To conciliate establishing coordinated governmental organizations of port activities of the respective nations; To promote exchange of information on various technical as-



Circles on the above map show the locations of the two proposed Welland Canal tunnels to be built at Townline Road and Main Street East in conjunction with the construction of the new canal bypassing the City of Welland. Both projects are scheduled for completion in the Spring of 1971. (The St. Lawrence Seaway Authority)

pects and on port operation; To promote exchange of information with international organizations having direct or indirect relationships with the objectives of the Association.

### Low-Cost Port

Baltimore, Md.:—Low-cost port? It's Baltimore. Joe Wachtman, maritime editor of the News-American in Baltimore asks then answers his own question in the headline of the February 28 issue of his week-day column. He then goes on to explain how and why in the text of his column.

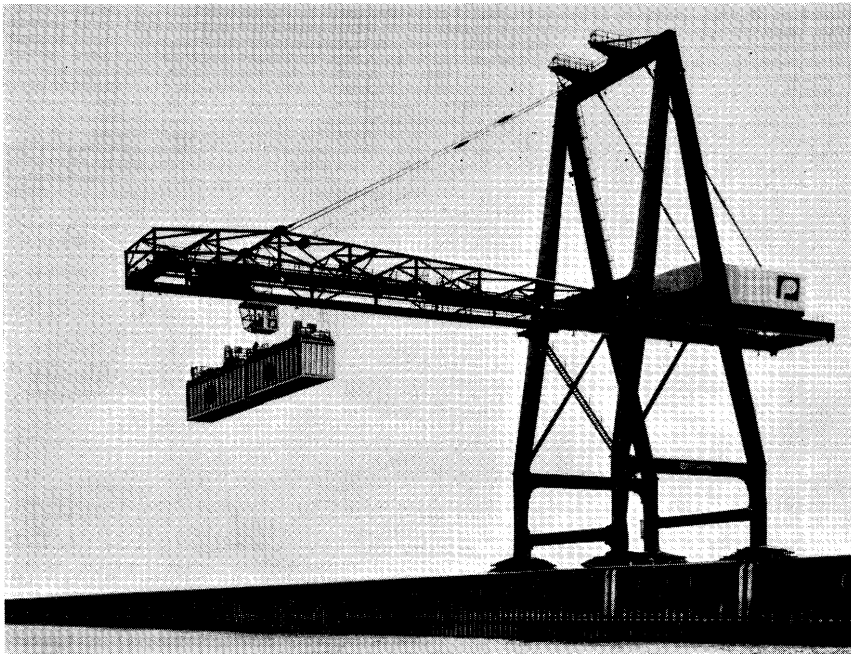
"American-flag steamship lines

interested in increasing their revenues might be well-advised to study a report—which they paid for—prepared by a nationally-known management research firm.

"The report, by Harbridge House of Boston, is aimed at showing a correlation between "The Balance of Payments and The U.S. Merchant Marine," but some incidental figures on vessel costs and port charges are of more than passing interest.

"They indicate that a ship pays nearly  $2\frac{3}{4}$  times as much in port charges per visit to New York than to Baltimore. In Philadelphia the port charges are about  $1\frac{1}{2}$  times

## Twin-Lift for Los Angeles



This is an artist's rendering of the world's first crane capable of handling two unattached 20-ft. containers simultaneously. It will go to work at the Port of Los Angeles September 1 to service a fleet of containerhips operated by a combine of four Japanese shipping firms. Called the "Twin Lift Portainer," it was designed and built in Alameda, Calif. by the materials handling division of Paceco. The crane will speed ship turnaround time by loading or off-loading two containers in the same time required to load or off-load a single container. It will also handle a single 20-, 30-, or 40-ft. container or interlocked 20-ft. units. (PACECO)

those in Baltimore.

"The port charges on a C-2 cargo ship are listed at \$5,718 per visit to New York, \$2,866 to Philadelphia and \$2,003 to Baltimore. On a new C-3, the port charges are \$5,766 in New York, \$3,467 in Philadelphia and \$2,059 in Baltimore.

"This spread is even more notable when it is considered that Baltimore is known as a "weekend port," and that ships worked on weekends and holidays pay overtime rates for labor.

"Although there is no direct comparison, it would also appear that Baltimore port charges are lower than those of San Francisco and Los Angeles as well.

"For a new C-3, Baltimore's port charges of \$2,059 per visit compare with \$2,575 for Buenos Aires, \$1,162 for Montevideo and \$1,315 for Santos. On an old C-3, the charges

are \$2,059 for Buenos Aires, 786 for Montevideo and \$1,352 for Santos.

"Port charges for an old C-3 at Los Angeles are \$3,799 and at San Francisco \$4,334.

"Baltimore's C-2 charges of \$2,003 also compare favorably with the \$2,187 at Bremen and \$2,799 at Hamburg, according to the study prepared for the Committee of American Steamship Lines.

"The report also shows vessel costs per day in port, with and without subsidy. These are: C-8—\$1,690 and \$3,149; Old C-3—\$2,139 and \$3,659; New C-3—\$3,098 and \$5,572; New C-4—\$3,777 and \$7,632.

"These latter figures make it apparent why quick turn-arounds in port become more important the larger and new the vessel may be." (Maryland Port Authority News Release)

## Cotton in Containers

Long Beach, Calif.:—The first container load of cotton ever to be shipped to Japan in loaded aboard the K Line's Belgium Maru in the Port of Long Beach. Holding 54 bales, the container, along with another, was loaded in the Imperial Valley and railed to Long Beach. Jim Strowger, Southern District Manager for Kerr Steamship Company and ship's agent, said the experimental shipment eliminates an unloading step at dockside and increases ship's loading from the conventional 50 bales per hour to 500 bales per hour. (Port Ambassador, January)

## Economic Benefit

New Orleans, La.:—Port related salaries and wages were 23.3 per cent of total estimated salaries and wages in metropolitan New Orleans during 1966, and the total economic impact of the community of port wages and salaries was \$2,869,491,008.

These figures are the result of a study of the port's economic impact on New Orleans prepared by the port's statistics department using figures supplied by various sources.

According to tonnage figures released by the U.S. Army Corps of Engineers and benefit-per-ton estimates arrived at in a study by the American Association of Port Authorities, total direct community benefit from port commerce in 1966 was \$614,189,000.

Of this figure, 58.4 per cent (\$358,686,376) constitutes salaries and wages to employees engaged in work directly related to port operations. This percentage was determined by analysis of the records of a typical New Orleans steamship company, showing that payrolls and wages were 58.4 per cent of their total expenditures in this port. Other ports use figures as high as 73.5 per cent.

According to the State of Louisiana Division of Employee Security, \$1,536,856,852 was paid out in salaries and wages in metropolitan New Orleans in 1966.

The port operations salaries and wages figure of \$358,686,376 is 23.3

per cent of the metropolitan area total.

Wages and salaries turn over eight times in a spending channel before coming to rest, according to a generally accepted economic theory in use by the U.S. Chamber of Commerce and the Chamber of Commerce of Greater New Orleans. Thus it can be said that the total economic impact on the community of port salaries and wages in 1966 was \$2,869,491,008. (New Orleans Port Record, March)

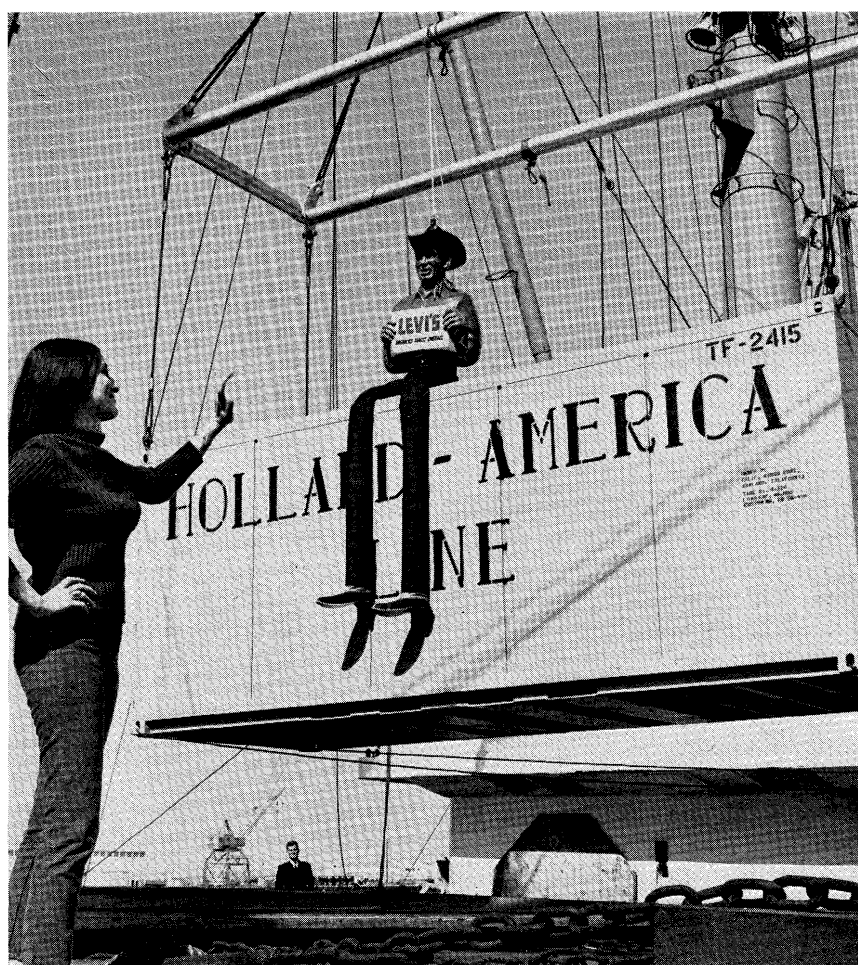
### Urge to Merge

New York, N.Y.:—Coordinated intermodal transport, with its inherent economies for export-import shippers, is slowly but inexorably moving closer to reality as realignments of ownership are announced by major carriers and forwarders serving the New York-New Jersey Port.

United States Lines Company has revealed it will acquire all the stock of the Waterman Steamship Corporation, now jointly owned by Waterman Industries Corporation and the United States Freight Company. These two firms would receive U.S. Lines convertible preferred stock in return for shares of Waterman Steamship. The intermodal implications of the agreement, still subject to necessary stockholder approval, are found in the 35 subsidiaries of U.S. Freight, including the nation's largest domestic freight forwarding organization; a large foreign freight forwarding concern; trucking operations; roll-on, roll-off ships; a container manufacturer; and other transportation interests.

Alexander Purdon, president, U.S. Lines, and C. Russell Moir, chairman, U.S. Freight, both expressed the view that "the resulting combination of services will create a transportation network capable of providing an international system of intermodal transport adaptable to the expanding needs of the foreign commerce of the United States. The organization will be fully equipped to meet the challenge facing the American Merchant Marine today as a result of the rapidly developing containerization movement." (Via

## From Oakland to France



Pretty Nancy Hill waves bon voyage to Levi Strauss' biggest customer as he and a cargo container carrying 11,500 pairs of Levi's depart the Port of Oakland for France. Holland-America Line's Moerdyk carried the 5-ton shipment, the first containerized load of Levi trousers to pass through the Port. (Port of Oakland)

Port of New York, December)

### Give and Take

Oakland, Calif., March 4:—The Port of Oakland today took a step toward relieving the City of Oakland of some of the burden of paying off \$5.5 million of a \$10 million general obligation bond issue which helped finance Oakland International Airport.

The Board of Port Commissioners authorized an expenditure of \$603,340, to be made from Port revenues, to meet the fiscal 1968-69 payment due on bond principal and interest.

Normally such a payment, made annually until the bonds and interest costs are retired, would be

made from City funds.

Port Commission president Peter M. Tripp said the Port took the action to help the City with its growing financial burden. Tripp said increased Port revenues made the payment possible.

Tripp emphasized, however, that today's action by the Commission does not mean a blanket approval has been given to repay the entire \$5.5 million with Port funds.

"Since we cannot commit future Commissions to these payments," he said, "we must review this matter on an annual basis."

Sixteen annual payments must be made to retire the bonds. They range from the \$603,340 due this coming fiscal year to the final \$120,-



## *Port of New Orleans Future is at Stake*

On March 18, 1968 Mr. Allen V. Junkin, Far East Trade Director in Tokyo for the Port of New Orleans, wrote to the Secretary General, Mr. Toru Akiyama, in the following tone:

On May 22, 1968, in New Orleans, Louisiana, USA, a public hearing initiated by the Committee on Public Works of the House of Representatives, United States, will be held. The purpose is to review a recent report of the Chief of En-

120 due in fiscal 1984~85.

Though payment by the Port may not result in reduced taxes it is expected to reduce the rate of any increases.

Tripp pointed out that the Port is under no obligation to pay off the bonds.

"When the idea of a new airport was first proposed," he said, "the Port was asked to underwrite all construction costs. The Port could not assume the burden, so the City Council had a \$10 million general obligation bond issue placed on the ballot. The voters approved the issue and the Council made the funds available to the Port with no strings attached."

Tripp added that the Port provided an additional \$3 million from its own revenues, and that the Federal Aviation Agency made \$7 million available to complete the \$20 million expansion.

City of Oakland funds have been used since fiscal 1955~56 for repayments on the bond issue and interest costs.

The Port of Oakland was set up as an independent agency of the City by a publicly approved charter amendment in 1925. Under terms of the amended charter, the Port depends upon its own revenues rather than tax funds to cover operating and improvement costs. (Port of Oakland)

gineers on the Mississippi River—Gulf Outlet.

In particular, this hearing will hear views concerning a provision to **deepen** the Outlet (short cut to the Gulf of Mexico—76 miles vs 100 miles via the Mississippi) to **50 feet and to establish a minimum bottom width of 750 feet.**

Presently the Mississippi Gulf—Outlet is maintained at 36' x 500'.

We are enclosing a copy of notice of public hearing dated February 16, 1968—which explains in further detail the procedure of this hearing and the subject in depth. (See below)

This is an important matter since in the long run it will involve many key segments within international trade—shipping companies, builders; importers and exporters—worldwide.

The demand today, and for the future, is for deep water ports to accommodate the large bulk ocean going vessels—drafts requiring 40, 50 and 60 feet. Soybeans, coal, corn, iron and steel, ore, are a few commodities which require such mammoth vessels.

This hearing is a necessary step towards authorization of such a project—the goal being to greatly deepen the present Mississippi River—Gulf Outlet.

Therefore, your support is needed. ....

Department of the Army New Orleans District, Corps of Engineers New Orleans, Louisiana 70160

16 February 1968

Notice of Public Hearing For Mississippi River-Gulf Outlet, Louisiana (In the interest of navigation)

The District Engineer, U.S. Army Engineer District, New Orleans, La., has been directed to make the review of reports authorized by the following resolutions:

"RESOLVED BY THE COMMITTEE ON PUBLIC WORKS OF THE UNITED STATES SENATE, That the Board of Engineers for Rivers and Harbors, created under Section 3 of the River and Harbor Act approved June 13, 1902, be, and is hereby requested to review the report of the Chief of Engineers on the Mississippi River-Gulf Outlet, published as House Document Numbered 245, Eighty-second Congress, and other pertinent reports, with a view determining whether the existing project should be modified in any way at the present time, with particular reference to provision of a channel having a minimum depth of 50 feet and a minimum bottom width of 750 feet." Adopted 12 June 1967.

"Resolved by the Committee on Public Works of the House of Representatives, United States, that the Board of Engineers for Rivers and Harbors is hereby requested to review the report of the Chief of Engineers on the Mississippi River-Gulf Outlet, published as House Document Numbered 245, Eighty-second Congress, and other pertinent reports, with a view to determining whether the existing project should be modified in any way at the present time." Adopted 19 October 1967.

In order that the report may fully cover the matter, a public hearing will be held as follows:

**Date:**

Wednesday, 22 May 1968

**Time:**

10:00 A.M.

**Place:**

Rooms 13003 and 13004  
New Federal Office Building  
701 Loyola Avenue  
New Orleans, Louisiana

The existing project for the Mississippi River-Gulf Outlet, authorized in 1956, provides for a 76-mile ship channel 36 feet deep over a bottom width of 500 feet from the Inner Harbor Navigation Canal in New Orleans generally southeasterly along the

south shore of Lake Borgne and across Breton Sound and 38 feet deep over a bottom width of 600 feet in the Gulf of Mexico. The project also provides for jetties at the shoreline, a retention dike across Breton Sound, a high-level bridge at Paris Road (La. Hwy. 47), and a new lock and connecting channel to the Mississippi River, when economically justified by the obsolescence of the existing Inner Harbor Navigation Canal, or by increased traffic.

All interested parties are invited to be present or represented at the above time and place, including representatives of Federal, state, parish, and municipal agencies, and those of commercial, industrial, civic, highway, railroad, and water transportation interests, as well as property owners concerned. They will be afforded full opportunity to express their views concerning the character and extent of the improvement desired and the need and advisability of its execution.

Sponsors of the improvement are urged to present pertinent, factual material bearing upon the general plan of improvement desired and its economic justification. They are requested to furnish specific information as to sizes of channels desired, the type, size, and amount of waterway traffic that would require an increase in the size of the existing channel; and an estimate of the annual benefits (savings in transportation costs) expressed in dollars per year that would result from enlargement of the channel. Opposing interests, if any, are urged to state the reason for their position.

Oral statements will be heard, but for accuracy of the record, important facts and arguments should be submitted in writing, **in five copies**, if possible, as the record of this hearing will be forwarded for consideration by the Department of the Army. Written statements may be handed to the undersigned at the hearing or mailed to him beforehand.

It is requested that the foregoing be brought to the atten-

## Gulf Oil

Philadelphia, Pa.:—Another commentary on the Suez was the statement by Gulf Oil Corporation Board Chairman E. D. Brockett that the firm's new 312,000-deadweight-ton tankers—the first scheduled for August delivery—will enable Gulf to transport oil around the African continent at approximately one-half the operating cost per barrel that would be incurred in shipping it through the Suez in 50,000-ton ships.

Mr. Brockett was reporting that the six new mammoth tankers cannot be accommodated at any oil terminal in the world. He said Gulf is constructing an offshore loading berth at Kuwait and a giant transshipment terminal at Bantry Bay, Ireland, to serve as the two ends of the route to be covered by the tankers.

The Gulf executive also commented that serious dislocations, such as those caused by the Suez closing, will not happen again. He reported that there are now 200 tankers on order, each 100,000 tons and over, equal to about 40 per cent of the current world tanker capacity. None of these ships will be able, when fully laden, to get through the Canal. (DRPA LOG, March)

## 10th in U.S.

Portland, Ore.:—Retaining the position it has held for the past half-dozen years, Portland in 1967 again ranked 10th in the nation in number of ship calls, according to reports compiled by the Maritime Association of the Port of New York.

First place again was captured by New York, followed by the Port

tion of persons known to be interested in the matter. Newspapers, periodicals, and radio and television stations may use this notice as a news item. Postmasters and other officials are requested to display this notice prominently.

THOMAS J. BOWEN  
Colonel, CE  
District Engineer

of Philadelphia and Los Angeles-Long Beach.

Others among the country's leaders were San Francisco, Hampton Roads, Baltimore, New Orleans, Houston, Seattle, Portland and Boston. (Portland Public Docks News Release)

## Sea Bottom Contoured

San Diego, Calif., January 8:—An electronic sound picture of the south San Diego bay floor has been painted in depth by oceanics scientists of the Lockheed-California Company, it was reported today.

Under a contract from the San Diego Unified Port District, Lockheed profiled the substrata with low frequency signals that penetrated approximately 150 feet into the bottom over a mile-and-a-half square area.

Port officials said the electronic profile was ordered to give the port fast, graphic information that will be time and money-saving for such projects as:

1. Construction of new marine terminals.
2. Tideland build-up for industrial and recreation purposes.
3. A second entrance to the Bay and other special programs.

Scientists from the Lockheed Ocean Laboratory in San Diego analyzed the thickness, density, and contours of the various bay bottom layers. The survey will determine whether the present bay sediments are suitable for fill material and foundation support, if the underlying formations can be used as a base for fill, and what materials must be completely removed because they do not lend themselves to fill or foundation support.

An intensive electronic acoustical survey covers a wider area at less cost and greater speed and provides a simple graphical display giving much more detail and accuracy than the conventional multiple boring technique that would require hundreds of bay bottom samples to be brought to the surface, according to A. L. Inderbitzen, Lockheed senior scientist in charge of this program.

In this survey, he noted, the few

borings necessary — 16 — helped interpret the acoustical data. This technique is called “correlating lithology.”

Subcontractor to Lockheed was the San Diego branch of the civil engineering firm, Woodward-Clyde-Sherard & Associates, which performed boring operations via a truck and attached rig mounted on a barge.

The barge was towed by a Lockheed hydrojet-propelled craft, the Sea Squirt, whose one-foot draft permits it to operate in very shallow waters. The Sea Squirt earlier carried an E. G. & G. precision boomer used in the first-phase profiling of the substrata. (Port of San Diego)

### **Key to Thru-Shipments**

San Francisco, Calif.:—An intentional “slow start” (in producing results) has characterized the first eight months’ study by a Marine Exchange task force seeking a key to the intermodal movement of unitized—particularly containerized—cargos in international trade.

Under the chairmanship of Alex C. Moshkin, data processing manager for General Steamship Corp., Ltd., the group of experts includes representatives of air, sea, rail and truck carriers plus banking, legal, customs brokerage and freight consolidation members.

A similar Exchange task force labored four years to produce the standard export format subsequently adopted for national use by industry and the U.S. Government in 1965.

The new group was formed in June last year to concentrate on the problems—and potentials—of through shipments, usually by intermodal means, of unitized and containerized freight. Similar studies are underway by the International Chamber of Shipping in London, E.C.E., the United Nations’ Intergovernmental Maritime Consultative Organization, and by other bodies.

Encouraged by offers of assistance from the new U.S. Department of Transportation’s Office of Facilitation, and cooperating with the recently-organized National Committee on International Trade Docu-

mentation, the Exchange team has sifted and weighed the minimum needs of shippers, carriers, consignees and government agencies (here and overseas) plus banking and insurance requirements.

The first approach was to divide the task force into three parts: “internal” (carriers) headed by D. R. Van Iderstine, freight department manager for Pacific Far East Line; “external” (shippers), under the direction of W. R. Reidelberger, vice-president and general manager, Advance Distribution Co., and legal, headed by Lester H. Clark, partner of Graham & James, and Exchange Counsel.

Similar conclusions were reached by each of the sub-groups:

—The urgency of a breakthrough in documentation and procedures for the increasing flow of containerized and similar cargo demands the earliest possible national—and then international—agreement.

—Trade practices (including banking, transportation and insurance) are as much of an impediment as outdated official “red tape.”

—Both inertia in industry and the formidable array of laws and regulations inhibiting solutions can be overcome in a far shorter period than earlier assumed.

—The approach should emphasize conceptual breakout which starts without necessarily referring to current practices.

A possible starting point is the national export format, widely used in the nation’s \$30 billion-plus annual outbound paperwork for shippers’, carriers’ and government forms. But consistent with its own conclusions that a break with the past is essential, the task force has injected such proposals as elimination of “order” bills of lading in ocean shipping.

Spurred by accelerating interest at home and progress in Europe, the San Francisco-based committee has been intensifying its semi-monthly discussions and work group meetings. Its immediate goal: to be able to offer firm, fully intermodal proposals for domestic industry review and by government agencies. The longterm objective: by securing

United States agreement of facilitating intermodal, containerized traffic, this nation will assume leadership in striving for a worldwide system. This would contrast with the present division in “standard formatting” whereby the ECE-developed “layout key” for shipping paperwork has been officially adopted by many nations, but the U.S. format is used for this nation’s massive trade volume. Reconciliation between the two was mutually agreed to be postponed for at least five years. (Marine Exchange, Inc. of the San Francisco Bay Region)

### **Huge Expansion**

Savannah, Ga.:—The Port of Savannah long recognized as the leading general cargo port of the South Atlantic makes bid to also become the leader in dry bulk cargos by announcing plans for a \$9.5 million bulk handling facility as a part of a \$16.5 million expansion package.

The State of Georgia is the largest exporter of clays and kaolin in the U.S. The new Georgia Ports Authority bulk handling facility will afford Georgia exporters great savings in transportation and bagging cost and in turn make their product more competitive in world markets.

In addition to clays the new multi-million dollar bulk terminal will handle all types of ores, minerals, and fertilizer materials.

The new two berth bulk facility will be located on the Authority’s 388 acre deepwater site Whitehall which adjoins the Georgia Ports Authority’s Garden City Terminal of Savannah. Construction will begin this summer and should be completed by late 1969.

Other Georgia Ports Authority construction projects include a \$5 million expansion at Savannah’s Ocean Terminal which will add 2 berths, a transit shed and a warehouse to that facility. At Brunswick a \$2 million expansion is adding still another berth and transit shed extension to the Georgia Ports Authority’s Brunswick operation. When current construction is completed the Georgia Ports Authority will have 26 deepwater operational berths.

## Charges on Exports

Melbourne:—From March 1st of this year wharfage will be imposed by the Melbourne Port Authority on all cargo leaving the port for overseas and other Australian destinations.

An Act of Parliament last December amended the Melbourne Harbor Trust Act and the Acts of the other Victorian Port Authorities to make it possible for Victorian ports to charge export wharfage, in line with other Australian and overseas ports.

It will be the first time in 90 years that charges for the handling of goods being exported, similar to the charges made on goods imported, have been possible.

When the Melbourne Port Authority was formed by Act of Parliament in 1876, the Act precluded the charging of export wharfage in order to assist Victorian primary producers to market their goods overseas.

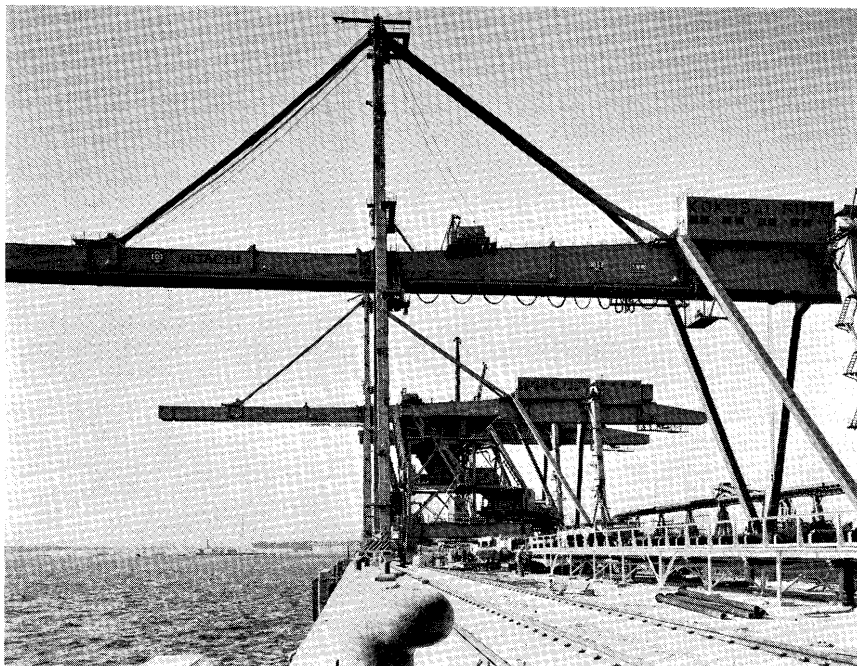
Today, however, this is not as vital as in the past, as Australian export prices are negotiated on a national basis irrespective of port of loading, and all other Australian ports levy export wharfage.

The maximum wharfage charged payable from March 1st is 40 cents per freight ton to overseas destinations, with concessional charges for bulk cargo and for empty returns, including cargo containers, pellets and trays.

As has been the practice, goods manufactured or produced within Australia, and being exported to other Australian ports, are subject to a maximum wharfage charge of 32 cents, with concessional rates for the same classification of goods as in the overseas trade. (Melbourne Harbor Trust Port Gazette)



## 1,000 t/h Unloaders in Yokohama



Three 1000-t/h unloaders are being fitted up by Hitachi Ltd. for Kokusai Futo (International Terminal Co.) in the Port of Yokohama. The horizontal girder that juts out 35 m over water can be hinged upright to the height of 72 m from the ground. The grab buckets come in 3 sizes, 14 m<sup>3</sup> for industrial salt, 9 m<sup>3</sup> and 6.4 m<sup>3</sup> for heavier bulk cargoes. Each unloader is to have a hopper car seen in the center that sends the bulk material off to the 1,500 m belt-conveyor (right background) for distribution to several open storage quarters. The unloaders and hopper cars are all self-propelled. These facilities have been completed and gone into service during April.

## Newcastle

Sydney, December 22:—The Maritime Services Board, at its meeting held on 21st December, 1967, decided to ask the Public Works Department to build a new grain loading berth at Carrington Basin, Newcastle, according to design details prepared by the Board's engineers.

In announcing this today, Mr. W. H. Brotherson, President of the Maritime Services Board, said that the new berth will be some 700 ft. in length and has been designed to cater for the loading heads to be

installed by the Grain Elevators Board.

The programme for the construction of the berth will provide for it to be completed at a time which will coincide with the installation of the loading heads which are planned to be in service by the middle of 1969.

The berth will have a depth of 38 ft. at the face and this will allow for the utilisation of the 36 ft. depths in the main channels of the harbour.

Mr. Brotherson said that the cost of the construction of the berth is estimated at approximately \$1,700,000. (The Maritime Services Board of N.S.W.)



## It's The Law

Tokyo:—Moichi Miyazaki, director of the Ports and Harbors Bureau, Transport Ministry, on March 11 clarified his bureau's opposition to Sea-Land Service Inc.'s proposed exclusive use of No. 4 berth of D Jetty on the Honmoku Pier, Yokohama.

At a press interview, Miyazaki said he told the Yokohama city government that his bureau would not approve Sea-Land Service's request for exclusive use of the berth on the pier which is a public facility.

However, his bureau is not opposed to Sea-Land Service's temporary use of the berth, for instance, for a one-year period, Miyazaki said. But he believed that the U.S. line will not be satisfied by such an arrangement.

The bureau hopes that Sea-Land will use one of the piers to be constructed by the Tokyo Bay Port Development Authority.

Three berths for container ships will be built in Yokohama by the authority. If they are not sufficient in number, the authority will be able to revise the plan for more berths. (Shipping and Trade News)

## 380,000-T Tanker

Tokyo: —Tokyo Tanker Co., an affiliate of Nippon Oil Co., is ready to order a mammoth tanker of 380,000 DWT, shipbuilding sources revealed March 9.

According to the sources, inquiries, have been sent to Ishikawajima-Harima Heavy Industries Co., Mitsui Shipbuilding and Engineering Co., Nippon Kokan K.K. and Kawasaki Dockyard Co.

The four firms have begun to draw up basic designs for the tanker which would be the biggest in the world, the sources said.

Plans call for the tanker to be 360 meters in length, 56 to 58 meters in wide and 32 meters deep.

It would be able to carry 500,000 cubic meters of crude oil, at a speed of about 15 knots. The vessel would probably be priced at a little less than ¥10,000 million.

The mammoth tanker would be completed at the beginning of 1971,

and would go into service on the route between Japan and the Persian Gulf, according to the sources.

Shipbuilding experts of Ishikawajima-Harima say there is no technological obstacle to the construction of the 380,000-ton tanker. (Japan Times)

## New Bucket Dredge

Auckland: —The new \$NZ 900,000 bucket dredge, "Kerinui," was handed over to the Auckland Harbour Board at a ceremony on 7th February, 1968.

She was blessed by the Port Chaplain, the Rev. J. Lawley Brown and named by the wife of the Deputy Chairman of the Board; Mrs. R. W. Carr.

The "Kerinui" (a New Zealand Maori name meaning "great digger") was built by Auckland firms under the direction of the main contractors and designers, Orenstein-Koppel und Lubecker Maschinenbau of West Germany.

Mason Brothers Engineering Ltd. assembled the hull and super-structure and English Electric, N.Z. Ltd. supplied the engines and installed the electrical equipment.

With a dredging capacity of 300 cubic yards an hour, the "Kerinui" is 160 feet long, has a beam of 35 feet and displaces approximately 900 tons.

To reduce the noise associated with bucket dredges, she has a lubricated bucket line. Her main power units are two English Electric diesels each of 466 horsepower.

One engine runs the bucket line and the other a generator to power the electric winches and auxiliaries. The dredge has a maximum dredging depth of 50 feet.

The "Kerinui" replaces the "Hapai" which was withdrawn from service in December of last year.

The "Hapai" during the 58-year career, moved 28 million yards of material and reclaimed 400 acres of land. She cost \$NZ 80,000.

After trials the "Kerinui's" first task was to join Auckland's suction dredge "Horonui" in deepening the new container berth at Fergusson Wharf, under construction. (Auckland Harbour Board)

## Inland Container Depot

Glasgow:—The first Scottish Inland Container Clearance Depot is to be set up at Braehead, Renfrew, to service Scottish exports and imports and the Clydeport Container Terminal at present under construction at Greenock.

It will be operated by a new company, a consortium of the Clyde Port Authority, Anchor Line Limited, Scottish Area Transport Group Limited and Archibald Young (Storage) Limited and will provide facilities for packing and unpacking containers under Customs' supervision. These facilities will include groupage of export consignments and clearance of containerised import cargoes.

Work has already started on the Braehead site and the depot will be operational by September when the Greenock Container Terminal comes into service. The project, which will cost £150,000, will cover about six acres comprising a shed measuring 500 ft. × 100 ft. and a paved area for parking and handling containers.

The depot is strategically located five miles from the city centre via the Clyde Tunnel, two miles from Glasgow Airport and adjacent to the beginning of the newly opened M.8 Motorway which will ultimately give dual carriageway facilities between the depot and Greenock. The Erskine high-level bridge across the Clyde, at present under construction, will give easy access to the north west. (Clyde Port Authority)

## New Oil Terminals

London:—To support the operation of even larger oil transports there will have to be correspondingly bigger facilities to accommodate them. New terminals are already under construction or projected. In the autumn of next year, for instance, Gulf Oil's £10 million crude oil transshipment terminal at Whiddy Island, Bantry Bay, Ireland, will come "on stream." Six mammoth tankers, each of 312,000 tons d.w., the largest ships yet ordered and now under construction in Japan, will bring oil from the Middle East and elsewhere to Bantry Bay. From there, small "coastal"

tankers of up to 100,000 tons d.w. will distribute the oil to Gulf's refineries in Denmark, Holland and the U.K.

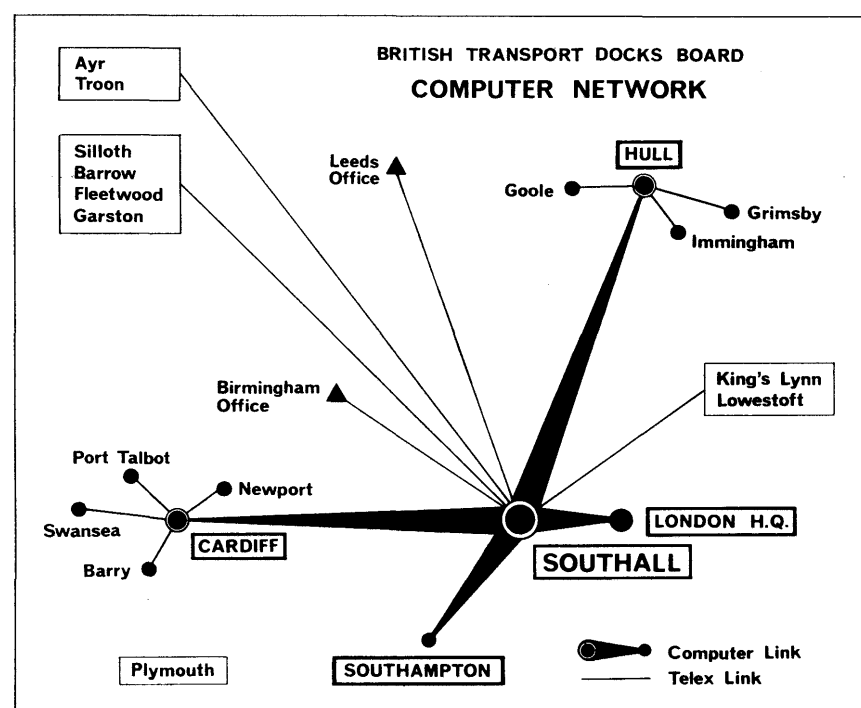
Within the past few weeks, several proposals have been announced to build new facilities in the British Isles to cope with larger oil tankers. Murco Petroleum, the British marketing subsidiary of Murphy Oil Corporation of the United States, has announced plans to build a £15 million oil refinery at Longhaugh Point and an oil terminal at Wemyss Bay, near the Clyde. The Standard Oil Company of California also has plans for Clyde Oil facilities, and consideration is now being given to the provision of berths at Shannon to receive tankers up to 220,000 tons d.w.

The emphasis so far has been on the transportation of oil in bigger units, but it can be only a matter of time before similar attention is directed to the carriage of dry bulk cargoes such as grain and iron ore. This, in turn, will present fresh problems to port authorities, especially in Britain. It also raises the question of whether the port development schemes now underway in this country are sufficiently far advanced to cater for the rapidly progressive trends in sea-borne transportation of cargoes. (The Dock & Harbour Authority, December, 1967)

### Computer-Linked Ports

London:—A computer and information service being set up by the British Transport Docks Board will initially link ten of the Board's 19 ports but could ultimately give an even wider network on a national scale (See diagram). This was revealed today by Dr. Robert L. Drew, port services manager of the Docks Board. A contract worth over £200,000 for an English Electric System 4-50 disc-based computer plus associated equipment has been signed.

"I believe that this network, which we are setting up after long and careful planning, will be unique in the number of centres to be linked in a real time service, and in the distances involved," Dr.



Drew said.

When the first phase of the network becomes operational in the Spring of 1969, the Board's ports at Southampton, on the Humber (Hull, Goole, Grimsby and Immingham), and in South Wales (Newport, Cardiff, Barry, Port Talbot, and Swansea) will be linked on-line to the Computer Centre which is being established by the Docks Board in a specially designed building to be constructed alongside their Research Station at Southall, Middlesex. Other ports and the commercial offices in Birmingham and Leeds would rely initially on commercial Telex links which may be connected to the computer at a later date.

The setting up of the centre is one of the results of the Board's policy to establish a centralised management services department.

"The computer" said Dr. Drew "will be used for speeding up tasks within the Board's ports and at headquarters now carried out by punch card systems or by hand. Later, we shall through its use secure much improved control in the highly complex tasks of operating our ports, and be able to extend our services progressively in speed and efficiency.

Management will have immediate access to information determining proper selection and allocation of materials and facilities in the various tasks. Our computer will be a tame and very flexible beast, and in the longer term managers in the ports and at headquarters departments will be in direct contact to secure answers to such questions as: 'If I do so-and-so, what will the effect be? How will it alter the cost? the quantities involved? the time element?' Accountants will also be provided exceedingly quickly with financial and statistical information.

"The Board serves many leading industries and has some very large customers. More and more organisations will be using computers in the next decade and we'll be able to talk to them in their own language. This applies not only to the Board's customers but to other nationalised industries, and other port authorities."

Recruitment of specialist staff for systems analysis has progressed over the past year and the lengthy job of preparing for the introduction of computer services is well advanced. As far as possible personnel required to work with the computer system are being selected from existing

# *The Dock Strike— Dire Wounds to Nation*

from The PLA Monthly

January, 1968

A nation's economy is an abstract concept. The connection between one's own actions and the end result on the nation's economy seems remote and infinitesimal. One feels like an ant dealing with a juggernaut. How can *my* tiny actions have any effect, is the instinctive reaction to any appeal to pull harder. But any nation's economic health is the sum total of the activities of all its people.

This journal is not the place for the discussion of the polemics of the recent dock strike; it is concerned with recording facts about the Port of London's efforts to contribute to the nation's economic health. In passing, however, let us at once discard the delusion that the fantastic crises which, from time to time, have hit other nations, cannot

staff, and given special courses of training.

## Technical note:

The system will be disc based from the start, and full on-line facilities will be developed round a databank containing management and other records. The aim is firstly to provide a service to each of the ports, but thereafter to build a totally integrated system for management information and control. A communications network will link the ports to the computer centre providing immediate response facilities. Associated equipment will be installed in each of the main port areas. Input to the computer in the main port areas will be by direct transmission to the computer centre. Results from the computer will be printed on a printer with a speed of 750 lines per minute and returned to the ports. (British Transport Docks Board)

happen here. Though in the 40 years or so since it took a barrow-load of German marks to buy a box of matches, governments have learned how to exercise regulating powers over a nation's economy, there is still plenty of room for economic disasters.

In a modern democratic country, a strike is a legitimate means of achieving social justice. It opposes the power of labour against the power of payment. There is nothing new in this kind of equilibrium-making opposition of forces. The important point is that it is a drastic measure, only justified by very dire need. Nearly always its effects are damaging and recognition of this has led all responsible people concerned to develop satisfactory negotiating machinery. The basic principle of such democratic negotiation is that the majority decision prevails and is accepted with good grace by all. Modern society simply could not function in any of its sections if people did not observe the rule of law and order.

The significant thing about the dock strike is that it was an unofficial strike, not backed by the Unions. A minority of those concerned did *not* accept the majority verdict, and went on strike.

Obviously, the issues were not simple. There was plenty of room for misunderstanding, for accusations of failure to make known relevant facts and so on. No one concerned is entirely blameless, if only on the charge of inadequate communication.

But, the fact remains that a deliberate blow was struck at the normal processes of democracy. The PLA is only one of many employers of dock labour in the Port of Lon-

don. It was only one member of the employers' organisation concerned in the negotiations. But, as the port authority responsible to the nation for the overall efficiency of the Port of London, it is very much concerned with the effects of the strike. These effects extend much further than loss of revenue. World confidence in British ports can only be impaired by such strikes. Much of this lack of confidence is unjustified and it is neither true nor fair for many people overseas to make sweeping statements about the inefficiency of British ports. The evidence is otherwise, strikes notwithstanding.

The recent strike held up about £100 million worth of export goods. Dockers lost some £1½ million in wages. Cost to the members of the Chamber of Shipping of the London and Liverpool strikes totalled around £9 million. Port employers paid out about £160,000 in wages to men who reported for duty but were unable to work because of the strike. Before the long-term effects have been overcome, these totals will have been much increased.

Compare these figures with those which tell the tale of the 1960 tally clerks' strike. This strike disrupted the port for four weeks. The trade gap during this period doubled by £110 million compared with an average drawn from the two months preceding the strike. During the strike 190 ships were diverted from London and 125 left the port with incomplete cargoes. Ship owners estimated their losses at £1 million. Import dues lost were estimated at around £400,000. Grain imports lost totalled £20,000 and meat £12,000. Manufacturers exporting through the port estimated their turnover to be down by a total of £20,000.

Anyone who refuses to face the implications of such dire wounds to the nation's economy must be very irresponsible. Anyone wishing to maintain that a strike causing such a wound is justified needs a very, very good case indeed for economically such a strike comes dangerously near the category of a self-inflicted wound. The nation simply cannot afford such strikes for the

simple reason that they cause more hardship than they are intended to alleviate.

"Let there be no mistake," said the PLA's Director-General, "Has this been a victory for anyone? Some dockers have sacrificed their wages and Christmas will not be the festival it could have been in many dockland families. The PLA, which already faced the extra burden of costs following decasualisation, has already lost a considerable amount of revenue and will end the year with a substantial deficit. The whole British economy has been disrupted. Now we have a fresh chance to set things right and make sure that this will not happen again. To the world's businessmen I say, 'Thank you for your patience. We can now work flat out to get the cargoes moving.' To the dockers and union officials I say, 'We can become a united team given the understanding and given the will. Now is *not* the time for recriminations.' To the British public and the British press I say, 'I believe we can now create a new spirit and a new drive in this great industry.'"

### Re-Elected

Rouen:—After one third of the members of the Administrative Council of the Port Authority of Rouen had been replaced, election of President and Vice-President was held. Re-elected were:

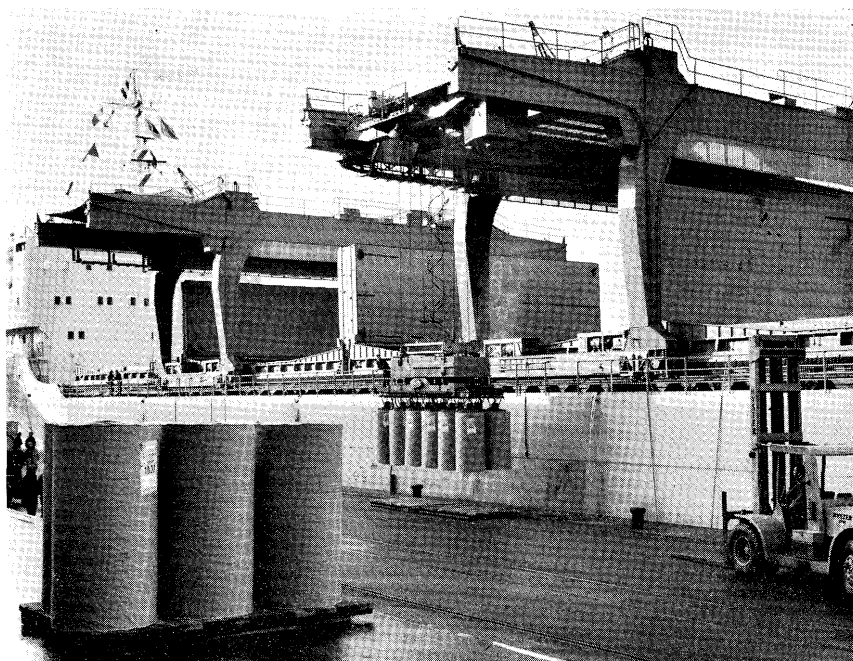
Mr. P. Cintrat, President until 1973, and Mr. F. Bedel, Vice-President until 1969. (Port Authority of Rouen)

### Bremerhaven

Bremen:—Time doesn't stand still in Bremen. Port expansion is constant. Following the modernisation of the port installations in Bremen, which have also been considerably increased with the Neustädter harbour—resulting in the handling capacity of the general-cargo installations being boosted by 30%—, the accent has now been switched to port extension in Bremerhaven. With an expenditure of DM 35.2 millions the present facilities are to be improved and new ones introduced in 1967/68.

It is proposed to invest DM 26.1

## Newsprint Discharge at Rouen



The first discharging of newsprint paper at the shed of C.I.M.E.P. (Consortium International de Manutention et d'Entreposage de Papiers) was carried out already in November 1967 by the coaster "Nova." This shed of 4,300 m<sup>2</sup> is constructed at the level of waggons and trucks for facilitating very rapid horizontal transit. The paper rolls are handled and stocked vertically. (Rouen Port Authority)

millions in the Nordhafen alone. This is to be for the construction of handling facilities for the largest possible container ships. Behind the 320-metre long quay the traffic and parking areas, which were already completed for the car handling installation constructed in 1964, are being extended from 35,000 to cover 77,000 square metres.

The stationary Roll-on-roll-off ramp is to be re-converted into a movable bridge by the Spring of 1968. The new container handling plant will be completed by March 1968. This, in the first construction phase, will include 50,000-sq. m. of traffic and parking area with rail connections and a 40-ton capacity container bridge which, with a total mobile run of some 70 metres between water and land, will be one of the largest in Europe.

By the Autumn of 1968 the 325-metre long West quay will also have been lengthened to 400 metres, so that two giant container ships will be also to be handled simultaneously. In 1968/69 the traffic and park-

ing areas will have been increased to 80,000 square metres. In addition a three-lane "container street" is to be built. The plans further envisage the construction of a 700-metre river-side quay and an express-container handling plant. The parking areas behind this quay could extend up to 300,000 square metres.

The remaining construction measures extend from the Kaiserhafen, over the fishing port (the most important in Europe), to the construction of a port peripheral street. (Bremen Air Mail)

### Cooperative Dispatch

Hamburg:—The Hamburger Hafen- und Lagerhaus-AG. will offer its customers further up-to-date facilities in the dispatch of vessels by integrating work ashore and on board. Through cooperation with the stevedores an additional service will be offered to those who wish to obtain an all-in price for work on the quayside and on the ship.



These measures are in keeping with the trend towards integrated transport chains and Hamburg's adaptation to the changes in the transport economy. In the opinion of the HHLA work should as far as possible be vested in one and the same hand in view of the new means and methods of transportation and the highly developed cargo handling gear.

The modern form of "cooperative dispatch" in the port will not exclude cooperation between shipping companies, shipping agents, stevedores and the HHLA as carried out up to now at the latter's facilities. The quay tariff as a fixed price will not be affected, but in certain points may be adapted to the changed conditions. (Ship Via Hamburg)

### Israel as a Land Bridge

Mr. Haim Laskov, Rav-Aluf, Director General of Israel Ports Authority Head Office, Tel-Aviv, wrote to IAPH on March 11 as follows:

The possibility of using Israel as a "land-bridge" or "dry canal" for the transshipment of cargoes between Europe and the Far East/Australasia/East Africa has evoked a great deal of interest on the part of freight forwarders, steamship companies, and other shipping interests, throughout the world. This interest has generally been expressed in terms of a possible "container system," since that process seems to be most conducive to the type of rapid and relatively cheap intermodal transfer necessary for a successful land-bridge/distribution center operation.

As a response to these enquiries, research on the subject has been done at the Israel Ports Authority. Among other things, the research attempted to make some preliminary calculations of potential costs involved in transshipping various sized shipments of containerized cargoes between Eilat and Ashdod. The figures are, of course, only rough theoretical approximations. Nevertheless, in the public interest, we are passing on the results of this research to you.

At one extreme, a calculation was made of the cost of handling a single container, discharged by

ship's gear at Eilat, transported overland directly to Ashdod, and loaded onto a ship there (or the similar transit of a container from Ashdod to Eilat). Assuming no extra efficiency in handling, due to the small and special nature of the operation, and charging the published overland haulage rate between Eilat and Ashdod, the total cost appears to be about \$220 for a 20-foot container, or about 20 cents per cubic foot with 1,100 cubic feet of space. This figure is made up of almost \$100 for stevedoring, wharfage and portorage at Eilat and Ashdod, and about \$125 for overland transportation at the published rate. (If the cargo is under "liner terms," the stevedoring charge—about \$30—is transferred to the freight charge). It should be noted that the figure excludes ship's dues (e.g., pilotage, berthage, anchorage) or allowance for use of crane at Ashdod, since these figures depend on the other cargo as well, and also on the ship itself. Storage is free for the first five days.

At the other extreme, an economic model was built assuming well-integrated regularly scheduled, relatively high-volume balanced flows of trade between Far East/Australasia (and perhaps also South and East Africa) and Eilat, and between Ashdod and other Mediterranean ports. This would be a system in the true sense of the word, involving special container-handling berths and equipment, a truck fleet dedicated exclusively to this operation, etc.

To be economically viable, it is estimated that such a system would involve annual cargo of about 250,000 tons or more in each direction. Market studies, by commodity, of the availability of relatively high grade container potential between Europe and the East, indicate that the prospects of building up the required volume appear to be reasonably good.

The preliminary calculations in the model point to a cost of approximately \$90-95 per container, of which about one third would represent the work at the two ports, and two thirds would be for the overland transportation itself. If

each container would have 1,100 cubic feet, the cost per cubic foot would be somewhere around 8½ cents. Of course, if the trade is not balanced in both directions, and some of the containers have to go empty one way, unit costs would rise. On the other hand, if it is found technically possible to place three containers on some trucks (or if a railroad is built to Eilat), the costs could be reduced to less than \$80 per container.

Finally, two simple "intermediate volume" models were developed for less-than-ship loads of containers. Using special ships designed to permit rapid container handling, and assuming that container shipments in the two directions could be arranged to assure "back-haul" traffic for the trucks, overall costs per container—excluding ship's dues—could apparently work out at somewhere between \$130 and \$160 per container (12~14½ cents per cubic foot), depending on actual volumes and frequencies, and on whether ship's cranes or shore cranes are used.

If, however, the shipment is on a conventional ship, savings would be very small and largely dependent on the possibility of a lower truck rate, provided that back-haul traffic could be assured. Assuming that the ships use their own gear, the overall costs for this case appear to be about \$190~200 per container, or about 17½~18½ cents per cubic foot.

It is clear that the advantage of a "high-volume" system, in terms of costs, is significant. In general, it seems that an efficient system, offering not only a land-bridge, but also an international distribution and storage center facility, could be attractive to world shipping interests. We estimate that the ports could have a container-handling capability within a year or two, and a complete system, including gantry cranes, within three years. Ships with their own gear could, of course, be accommodated immediately. Although our work on the subject is still in its early stages, we believe that these prospects may be of interest to you, and we would be happy to receive your questions or comments.

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