

PORTS *and* HARBORS

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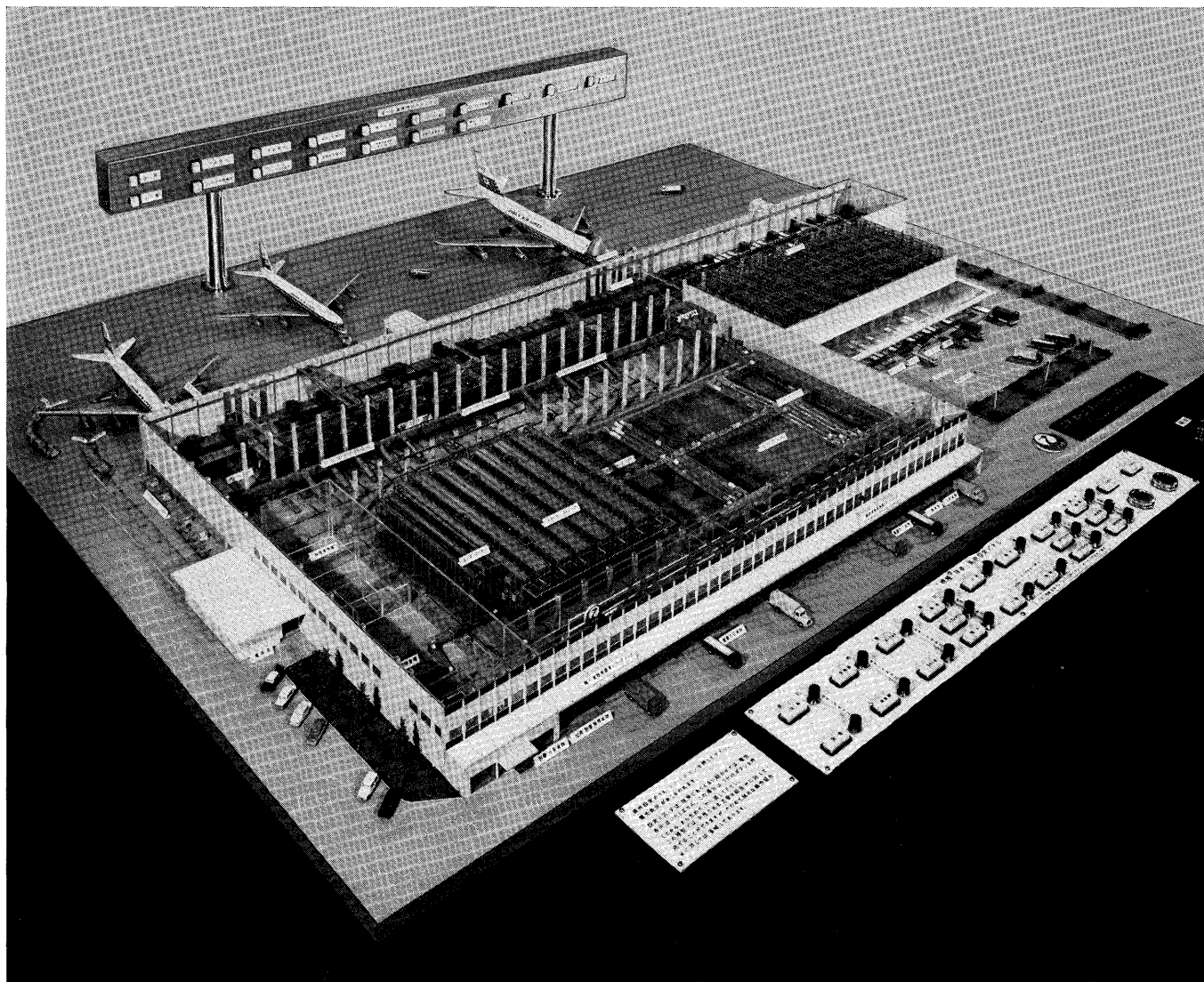
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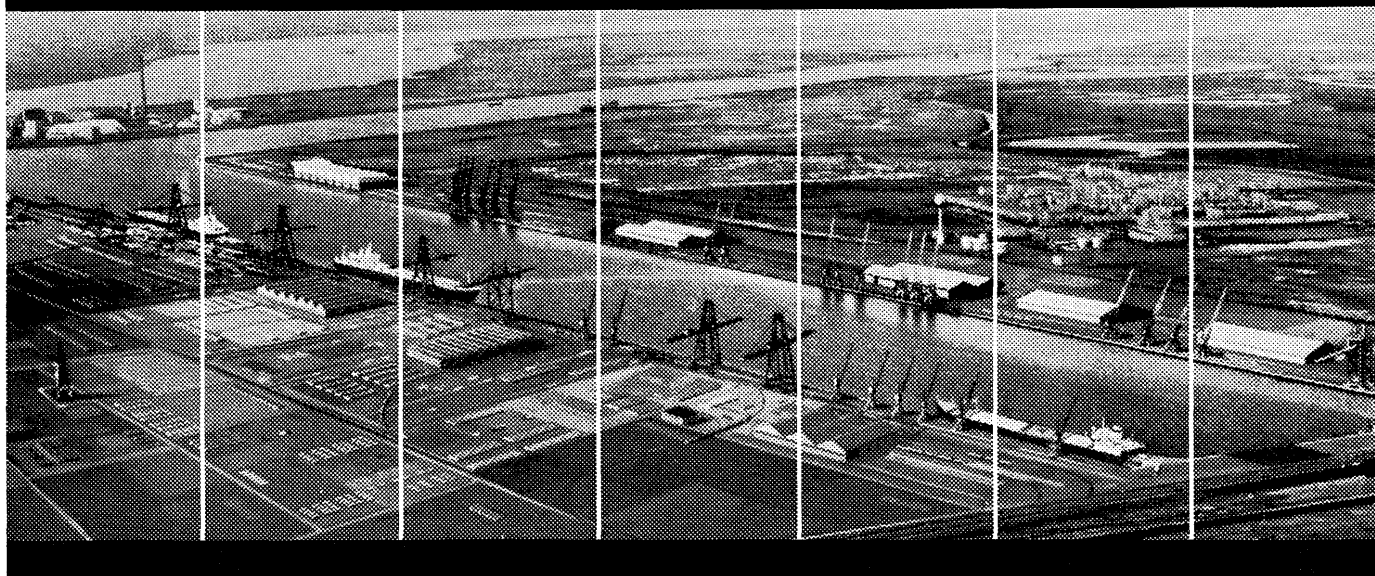
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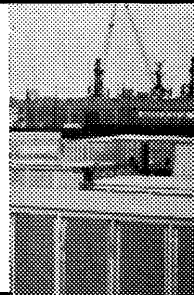
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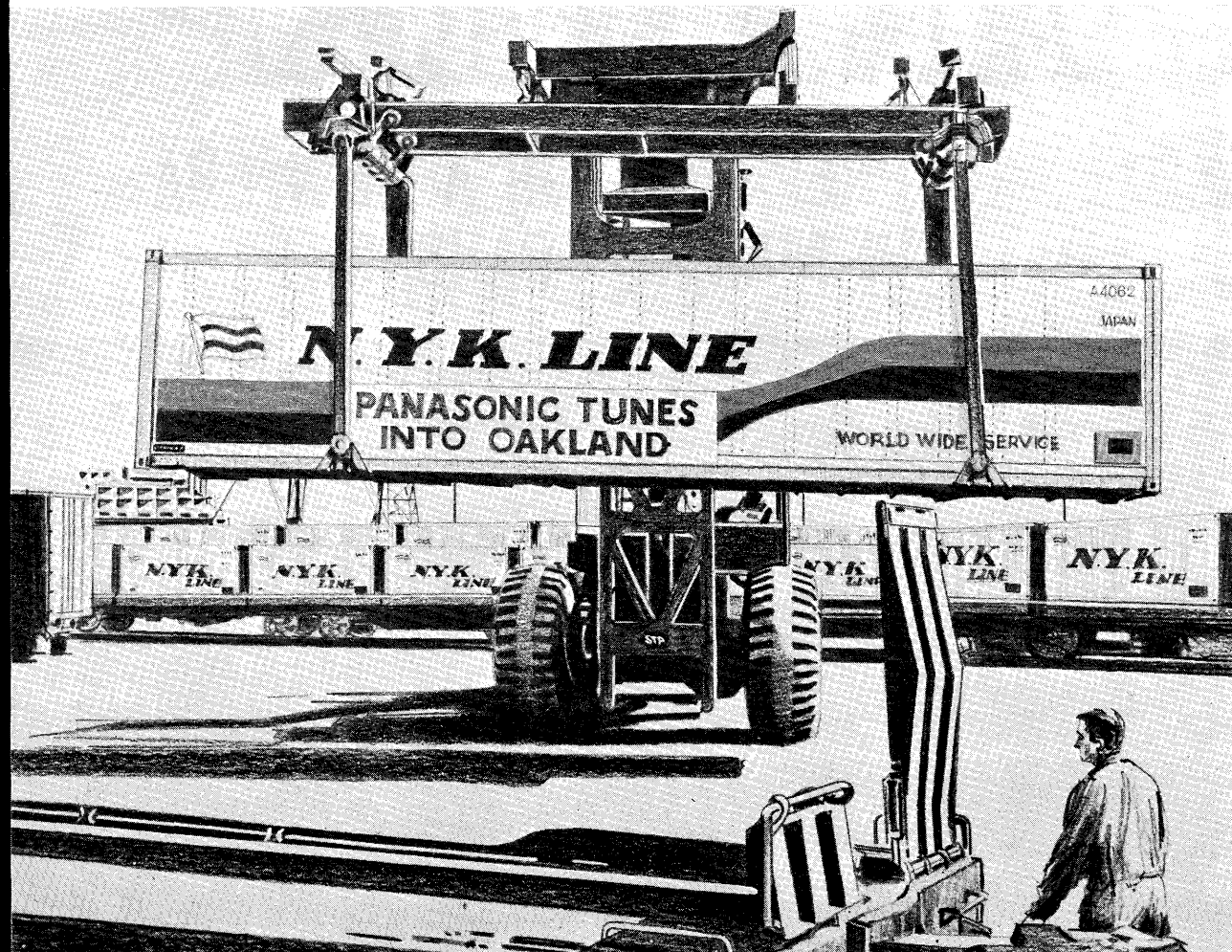
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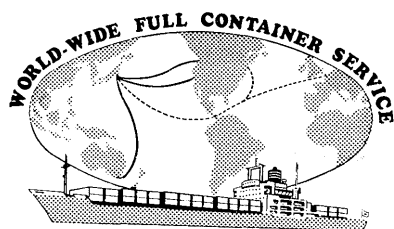
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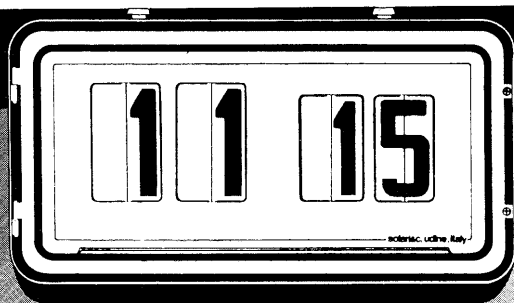
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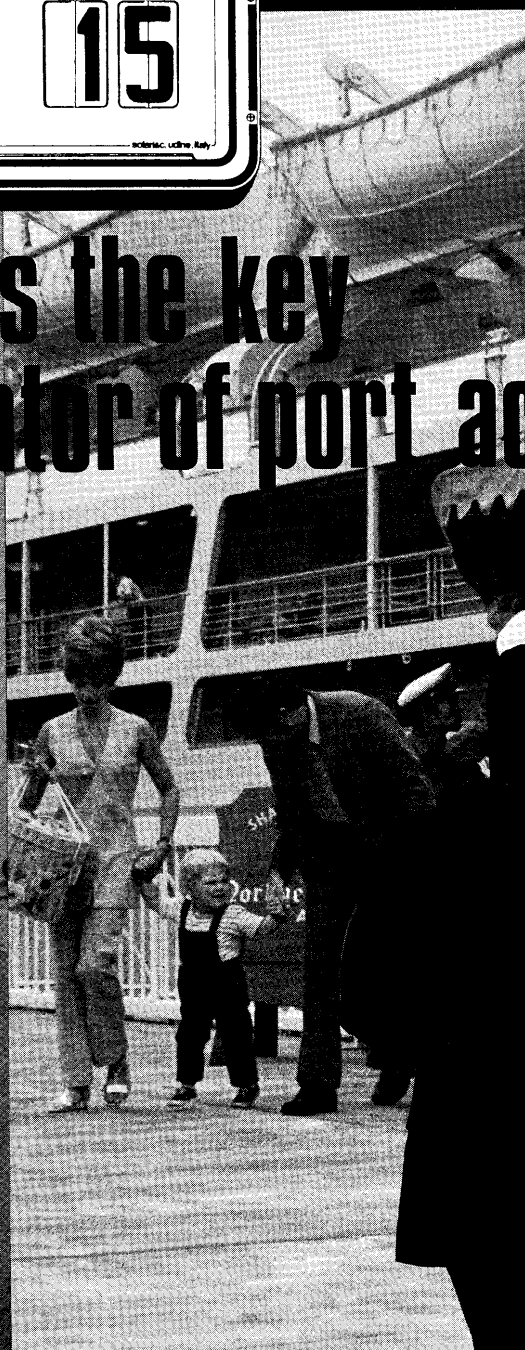
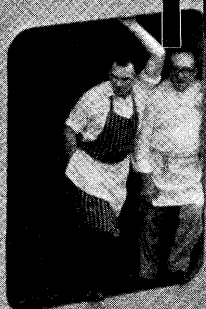
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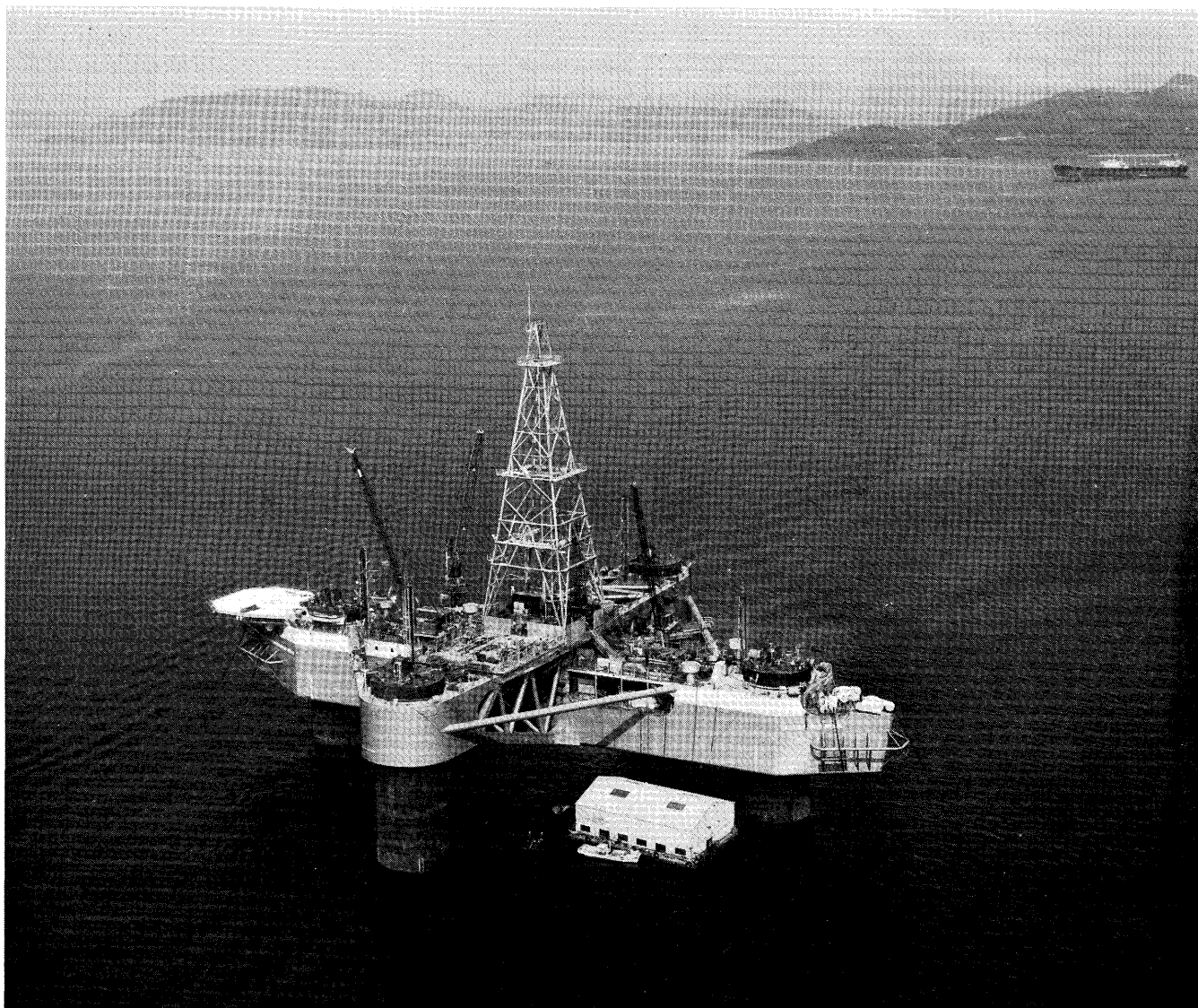


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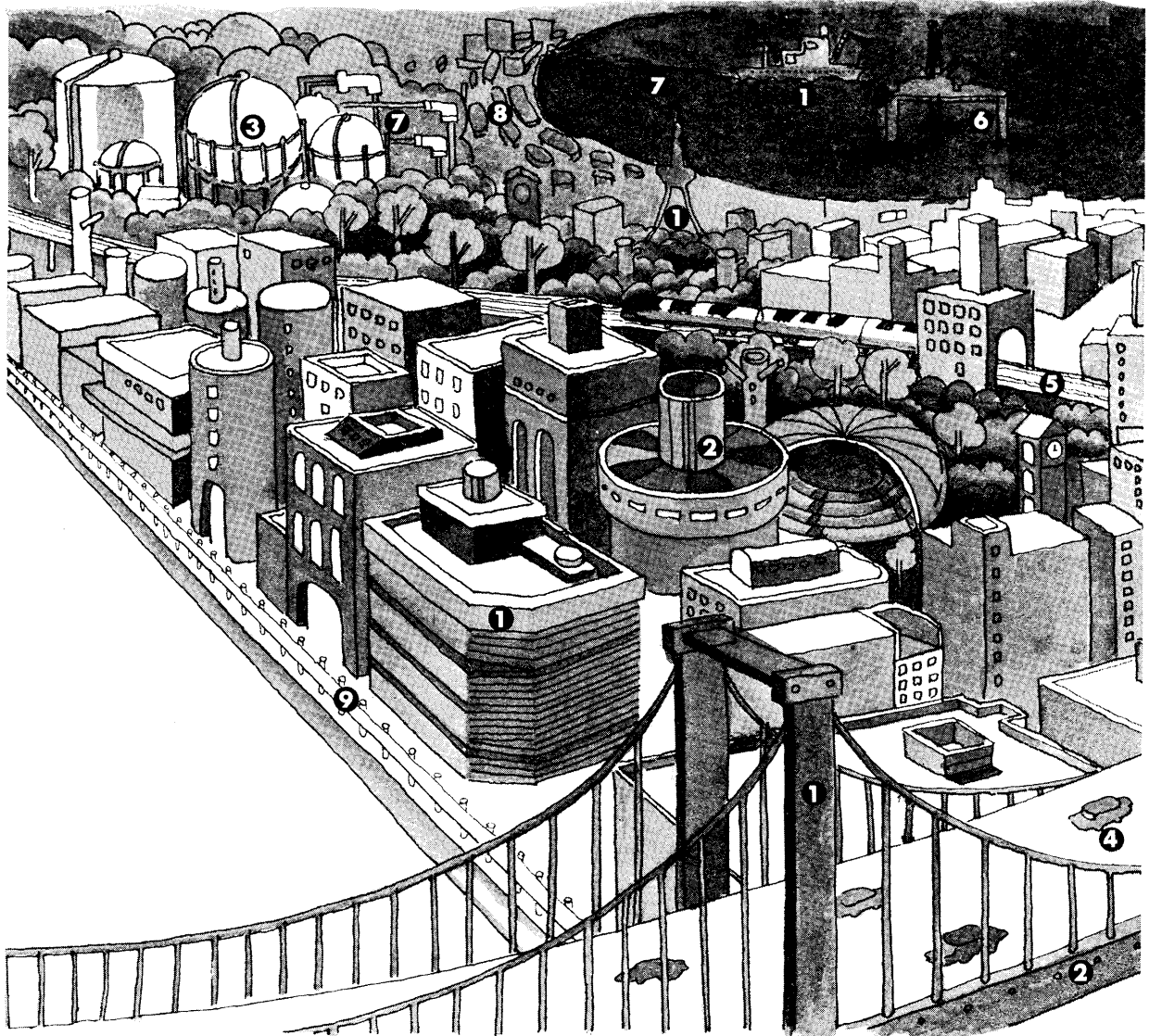
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The Cover :	
The Churchill dock in Antwerp has been completely adapted to the modern transport techniques (container traffic, roll-on/roll-off, unit loads). At present the maritime terminals of the Antwerp container centre operate 6 container gantry cranes having a lifting capacity varying between 32 and 53 tons, whereas the specialized railway terminal has been equipped with a 30 ton crane.	

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PORTS *and* HARBORS

Forum on Port Problems:

United Nations Inter-Regional Seminar On Coastal Shipping, Feeder and Ferry Services Solstrand, Norway, 1-21 September, 1969

Selected Summaries of Papers on Theme VI: Ports and Terminals

1. Port Design and Investments

By M. Markussen*

(Session XIV—Paper 1)

1. The purpose of a ship is to bring cargo from one point to another. It earns money for the owner only when it is doing this. Time spent in port, however, is an inevitable part of the transport operation, but should be kept as short as possible. Experience has proved that steps to make shipping industry more efficient by reducing ship's time in port can be more easily obtained if the cargo in one way or another is made homogenous. There has been a rapid change, on the one hand, towards shipments in bulk of commodities which formerly were shipped break-bulk (e.g. sugar) and on the other hand, toward shipment in "unit loads" (i.e. pallets, containers).

2. The functions which may be located in a port are: pier functions, i.e. loading and discharging of ships; terminal functions, i.e. short-term storage involving sorting, unitizing, receiving and delivery from or to inland carriers; warehousing, i.e. long-term storage; production; and service functions, such as garages, workshops, and labour welfare facilities.

3. To what extent other functions than the pier functions and terminal functions are to be located in the port depends on the area

available. However, in planning new ports, the port areas must be made large enough.

Criteria for dimensions and layout of terminals

Dimensions and layout of a marine terminal must be based upon thorough analysis of factors, including:

- (a) Characteristics of ships calling at the terminal;
- (b) Sailing frequency;
- (c) Type of cargo to be handled and its fluctuation in volume;
- (d) Mode of unitization of the cargo;
- (e) The expected productivity of the terminal/ship combination;
- (f) Methods of moving and characteristics of inward and outward cargo at the terminal (including extent of lighterage, road and rail transport and its seasonal variations);
- (g) Practices of the trade with respect to free time on import and export cargo; and
- (h) Availability of labour and restrictions on its use (including working hours per day and technical competency).

Capacity-per-meter-berthing space

4. Coastal ports in Norway are on an average expected to have a capacity of about 600 tons loaded or discharged per-meter-berthing space, with the prevailing circumstances with regard to handling methods, characteristics of ships and working hours in the ports.

The capacity is expected to be increased to about 1500 tons per-

meter by 1980, due to more efficient ships and handling methods and higher number of working hours per day (including more shift work in the ports).

The area inside the berths

5. Inside the berths there must be ample space for: loading and discharging operations (i.e., the apron); storage of cargo (sheds); receiving from and delivery to inland carriers; traffic; and service functions (parking, workshops, welfare facilities).

Width of apron

6. Depending on type of cargo, handling method and whether the apron is to have railway tracks, the following apron widths can be applied:

cargo for open air storage landed directly with crane	
	5 to 10 metres
palletized cargo	10 to 25 "
long and/or pre-slung cargo	15 to 40 "
containers	30 to 50 "

Width of storage area

7. For capacities-per-meter berthing space up to 1500 tons per year, the following relationship between storage area and capacity per-meter berth is assumed to be applicable:

Capacity-per-metre berth per year	Width of storage area per-metre berthing space
500 tons	25
750	40
1000	60
1500	80

8. Cargo sheds with two floors will to some degree reduce the width of the area for storing of cargo.

* Industrikonulent A/S, Oslo.

Area for receiving and delivery of cargo and for pier traffic

9. The area necessary for delivery of cargo to and receiving from inland carriers will depend on mode of inland transportation, i.e. the extent of trucking, lightering and railway transport.

10. Based on handling and transport methods known today, the need of such areas will normally be in the range of 30 to 50 m² per metre berthing space.

Area for service functions

11. Area for service functions will depend on such factors as the extent of private cars parked on the terminal, demand of welfare facilities for labour etc. The need of service areas is estimated to be 5 to 10 per cent of other terminal areas.

Total demand of terminal area behind one-meter berthing space

Area for loading and discharging ships	10 – 50 m ²
Storage area and sheds	25 – 80 "
Area for receiving and delivery and traffic	30 – 50 "
Service area	5 – 20 "
Total area	70 – 200 m ²

Conclusion as to demand for areas

12. The long narrow finger piers with plenty of berthing space, but with a small area per running metre berth, are not suitable for today's and tomorrow's cargo-handling methods. If the finger pier principle is to be applied the pier should be at least 150 metres wide.

Terminal equipment and arrangements

Cranes

Those who construct ports and those who construct ships never seem to agree on whether the cargo-handling gear should be based on shore or on the vessel.

In the coastal trade there is hardly any alternative to the modern ship-borne revolving cranes. However, there should be mobile or floating cranes available ashore to handle heavy lifts and containers.

Rolling equipment

Fork lift trucks are a necessity in modern cargo-handling. They are available with lifting capacities from one-half ton to 50 tons. Normal lifting height is from 2 to 5 metres, but equipment with considerably higher lifts is obtainable.

The sources of power for the fork lift trucks are battery electric, gasoline, diesel or liquid petrol gas. Selection depends on the conditions under which the machine is to be used.

Powered low lifting pallet trucks and hand-pallet trucks

There are low-cost effective equipment for horizontal movements; for example, in loading and unloading trucks at a platform.

Pier surface

To facilitate the effective use of modern rolling cargo-handling equipment, the pier surface must be as smooth as possible. Good surface materials are concrete and asphalt. Any railway or crane tracks must be level with (i.e. recessed to) the pier surface.

Loading platforms

Loading platforms are necessary to load/unload van-type (closed) vehicles carrying unitized cargo. However, there must be sufficient space available to load/unload open trucks and rail cars with fork lifts working on the ground level.

2. Intermodal Transit: Transfer Facilities

By Robert E. Traut*

(Session XIV—Paper 2)

1. This paper describes various intermodal methods and systems for transit and transfer of unitized cargo with particular attention devoted to intra-modal and inter-modal facilities at the land/sea interface.

2. It submits that developing countries having large trade relations with developed countries cannot afford to rely on manual unloading and loading of ships. While long delays at the berth and an undue amount of time in unloading and loading may result in a savings on manual handling, this means a wasteful use of an expensive piece of capital equipment, the ship. Further, manual handling imposes very inefficient means of unloading at the port of discharge of the developed country where labour costs may be up to ten times higher than

* United Nations, Headquarters, New York

in the developing country ports.

3. Port and ship productivity are discussed and some attention is devoted to the reasons for the extension of the containership operators direct influence inland to the door of the shipper and to the door of the consignee.

4. The application of modern methods for cargo handling is discussed as they may apply to conditions in developing countries. The paper recognizes that various new ship types impose requirements for highly efficient port facilities if a smooth, fast and uninterrupted flow of unitized cargoes is to be expected. Sizes and types of standard containers and pallets in use today as well as other means to unitize general cargoes are described.

5. The economic necessity to achieve the highest possible berth productivity is emphasized and an example is given as an illustration. This suggests that improvements in existing facilities might be more advantageous than construction of additional new, but technologically obsolescent, facilities. Focus is placed on the importance of inland consolidation and distribution depots linking busy ports.

6. The paper does not intend to prejudge the merits of any of the systems mentioned nor, for that matter, detract from their economic viability until careful study of each is made within the scope of the fullest level of service expected.

3. Port Analysis

By Mils Heggemsnes*

(Session XIV—Paper 3)

(a) Why is it important to analyze ports?

The port authority has the responsibility to take care of large investments which the port area represents, to the city, the country and the transport users involved. Because of the complexity of these interests and the variation of the investments, it is difficult to obtain clear economic evaluations of the whole system. Therefore, good accounting practices and knowledge of the national economy are neces-

* Research Economist, The Ship Research Institute of Norway, Oslo.

sary.

(b) The problems of coastal shipping coastal ports. What is coastal shipping? Coastal shipping involves small or medium-sized vessels sailing along or not far from the land areas. In most cases, ships below 2,500 gross tons are regarded as small, and ships between 2,500 and 5/10,000 gross tons are medium-sized, depending on the trade and function.

What is coastal port and what is the difference between a coastal and an ordinary sea port? There are few differences between the coastal and an ordinary sea port. A coastal port is in most cases smaller due to the servicing of smaller ships, but could on the other hand be more complex due to greater variety of ship types arriving.

Analyzing big/small ports; problems and methods. The analysis of small ports involves the same problems as those applicable to big ports.

2. The relationship of port to trade

(a) Ship types will be defined. Port requirements for small coasters, ferry ships, feeder ships for pallets and containers, and small berth vessels will be considered.

(b) Suitable port sizes adapted to these ships will be defined and discussed. The technical requirements and the handling (turn-round) capacity of the port related to ship arrivals will be discussed. Some examples will show how this is working in practice.

(c) Small trades will be defined and discussed. A trade is characterized by distance, size of shipment, number of shippers, harbour time etc. A small trade may be defined as one in which any of these items or a combination of these is small.

3. Technical layout of small harbours

(a) Necessary equipment today. Port equipment today, in its broadest sense, will be analyzed. The number of technical performances of quays, sheds, cranes, and mobile equipment in a typical small harbour will be described.

(b) Remarks about the main costs of port equipment. The costs of the abovementioned assets will be put forward.

(c) Remarks about probable future development. The probable technical developments in the future will be discussed. An important aspect is the impact on the future life-time of the assets.

4. Examples from different ports in Norway (Oslo and Bergen)

(a) Technical layout today and in the near future; description and cost of main assets.

(b) Accounting and systems of analysis.

Examples of two modern ports will be presented, from both technical and economic points of view. Special weight will be given to the accounting system.

5. Description of current systems of analysis of main ports

(a) Financial systems. Pay-in and pay-out analysis which considers only cash flows is considered.

(b) Business management methods. This will discuss methods which also take into account capital costs of owned and borrowed assets.

(c) National economy and transport economy analysis. These methods also take into account the direct and indirect benefit to the country and/or other countries of effective ports, i.e. a prediction of the minimum costs of harbour, ship and cargo costs per ton of cargo in the future.

6. Main topics of port analysis

(a) Problems regarding optimal economy of a port. The several requirements to realize optimal economy are described. Special problems connected with port analysis are included.

(b) Data required for the analysis. The data problem is probably the most difficult in port analysis. What kind of data is necessary and how are these to be obtained? The following list gives some idea of the data needed:

1. Original and present value of assets in port
2. Depreciation period of all assets in port
3. Running expenses of fixed assets
4. Administration and maintenance per year
5. Rate of interest
6. Daily cost of ships lying in port both when loading/discharging and waiting/manoeuvring

euvering

7. Daily costs of handled cargo, hire, interest and capital expenses when inside harbour area

8. Total value of goods transport/handled

9. Total transport costs within the country before and after an increase in port capacity

(c) Examples from a harbour, analyzing items 1—8 above. The port of Oslo furnishes or stimulates discussion of an example which will clarify the magnitude of the problem.

(d) How should the needed data be analyzed? The material presented is the minimum of what must be known or assumed, including:

The future trade flow;
the future ship arrival pattern; and
the future port equipment to handle the goods/ships.

The cost of the items today and in the future is important.

On this basis one should try to evaluate:

1. The direct harbour costs based on the above-mentioned development, discounted to present value.
2. The future ship costs per time unit when in harbour, based on the same principles.
3. The future cargo costs per time unit when in harbour, based on the same principles.
4. The future costs per ton handled, based on the same principles.
5. Simulation of some alternatives regarding variation in trade flow, ship arrivals and necessary port equipment to meet the expected variation in demand. For each simulation, a margin of error of at least three points must be made.

(e) Critical remarks on analysis. Technological development and projected development of demand for harbour services are uncertain. Therefore, probability elements ought to be considered. If possible, one should utilize queue theories, both for yearly season variation and for long-term development. The most uncertain factor is the life-time development of assets; hence, depreciation development

should be treated separately.

7. Future developments

The future development of the factors affecting port analysis is discussed. Forecasting methods, accounting and data collection systems, analysis methodology, and the "technical development" are taken into account.

4. Port Operations— Practical Experiences

By Helge Jensen*

(Session XV—Paper 1)

1. "Time is money!" is a well-known phrase. No wonder that it is also applied within the shipping industry. Long stays in ports caused by congestion, weather delays, lack of labour, disputes, strikes, etc. are all factors which encourage shipowners to seek ways and means to accelerate the turn-round in ports, with the same way that capacity and speed of the ships are still being increased. Different methods as to quick dispatch in ports are availed of such as LASH (lighter-aboard-ship), containerization, roll-on/roll-off, lift-on/lift-off, and any other kind of unitization. At the same time shipowners look for centralization of port calls in order to avoid serving many ports of call. Direct and straight sailing between a few ports is a foremost means to reduce operational costs.

2. There is nothing sensational in this concept. On the contrary, in earlier days ferry services with roll-on/roll-off, bringing railway wagons across lakes and seas, offered quick dispatch and frequent sailings. This ferry principle has been developed and now comprises all kinds of road vehicles with a fine combination of passengers and cargo. Pure cargo services also operate on the roll-on/roll-off basis with short stays in ports. And the unitized way of handling cargo has led to the evolution with containers on a lift-on/lift-off basis as well. Increase in tonnage goes on and it is possible to handle up to 50,000 tons of general cargo within 48

hours, regardless of weather conditions during loading/discharging. This is a fantastic development and, because at the same time the speed of such specialized vessels comes close to 30 knots, a rationalization in the strictest sense of the word has really been achieved.

3. Whichever form of rationalization is chosen, it requires facilities in the ports completely different from conventional sea transport. Many of the biggest ports in the world have already changed to the modern concept of forwarding goods by sea. The ferry services in operation today are numerous and the number of container terminals in operation or under construction is increasing rapidly.

4. Geography and basic cargoes are factors behind the decision to establish straight links between major ports. The land-bridge concept is also included in the considerations as to the choice of terminals. Landlocked countries are not alone in using such big central terminals; even countries with a good seaport may find advantages in using foreign neighbouring ports if frequent and fast sailings to or from a major destination can be offered.

This revolution has changed completely the old way of transporting cargo by sea, when cargo was carried as close to the final destination as possible. Today feeder services or land-bridge connections are cutting the transport time to a minimum by using fast services between major terminal ports. Deviation and the large number of calling ports will no more be possible for the big liner ships. This way of transport, with co-ordination of rail/road transport is only possible by means of unitization and mechanization. This is where the container enters the picture, being so suitable for coordinated transport by land and by sea.

5. The world is today deeply involved in unitization. It will take years to establish the many container links, but if progress in the next few years continues at the same speed as has taken place in unitization within the last 2 or 3 years, a big fleet of conventional liner ships will be superfluous, of course for years ahead conventional sea transport will be required.

6. The ports are fighting bitterly to gain the most dominant position. It can already be forecast that not all ports will survive. However, there will be feeder services in operation to many of these ports, at the same time the question of carrying containers to and from the big terminal ports involves some doubts because of the competition from rail and road.

7. Generally speaking, ports have followed the unitization development by supplying installations for both ferries and container ships. There should be no doubt whatsoever that sufficient facilities will be available whenever unitization requires them.

5. Land or Marine Operations

By T. Gaard*

(Session XV—Paper 2)

1. In order to avoid being too theoretical and abstract, the paper refers to actual situations and specifically to one typical district, namely the district of Helgeland on the coast of Norway, close to the Polar Circle, where a transition of transport facilities is under study at the present time. The talk will refer to maps of the area. Routes and route maps showing the transport system and the local feeder service will be distributed at the seminar.

2. The title of the paper presupposes an area with a possibility for choice of transport. Such an area or district must inevitably be situated at a coastline along one or several fjords with populated islands outside, forming an outer line. This makes the subject more typical for some countries than others, depending on their geographical position. The coast of Western and Northern Norway in this respect should be fully representative. A presentation of the district of Helgeland and its attempt to effect a rapid transition from marine to land operations is a practical topic for analysis.

3. The geography of Helgeland, its

* Managing Director, The United Steamship Company, Limited, Copenhagen

* Manager Helgeland Trafikkselskap A/S, Sandnessjen

population, trades, economic structure, and history of development of communications will be described. In this connection, the establishment of steamship companies at the district-level is mentioned. Discussion shows how these fit in as a general feeder service to the coastal services.

4. The building of roads before the Second World War will be examined. The importance of geography and nature itself, making sea transport almost the only mode of transport, is stressed. The coastal steamers and the "Coastal Express" have been the only alternative, the only "highway" until quite recent years.

5. After describing the background, the paper presents the relatively new situation that developed in the district as a consequence of the technical evolution since the beginning of the 1950's.

6. Statistics and remarks on general structural changes are presented. Population statistics are evaluated. Using comparable figures in selected periods of time, some trends are shown that must be taken into serious consideration. Forecasts are shown for some years ahead. This evaluation shows a movement away from the outer district, from fishing villages as well as farming areas.

7. To prevent a total depopulation of the outer district of Helgeland, the paper illustrates how authorities make plans for location of industry within the district.

8. The centralization of industry in the cities of Mo and Mosjen is explained. The main purpose for this location of industry within the boundaries of Helgeland has been to try to stop the population movement away from the district and farther away to central areas around the cities of Oslo, Bergen, and Trondheim, by developing jobs for the unemployed.

9. By such planning, authorities try to keep the district population in balance. While many people move to these industrial areas to find jobs, earn easier money and have better living, there will, as a consequence, be better living conditions for those who wish to stay in the outskirts. Fishing is rationalized. Better types of ships, bigger

boats and more modern equipment is put into use, which means less people in the trade. Nevertheless, the consequence is to give ample livelihood to those who stay back.

10. The paper then describes how an outer service centre and communication centre builds up at the coast, and how the coastal village of Sandnessjen tries to follow up the task as a buffer and a base for the outer district, thus preserving the local level of population and their trades.

11. This discussion reviews the indisputable importance of improving communications between outer and inner districts. The plans for building new roads and improving others as a means to stabilize continuous livelihood on the coast are described. The attempt to shorten the lines of communication and to offer higher frequency of service is important and is among the more vital conditions that lead to transition from sea to land operations.

12. Farming organizations establish dairies, slaughter houses, and sales and marketing service, thus stimulating farming in the coastal district. Production increases and may continue to do so to supply the steadily growing nearby markets which are further inland. Such development calls for better communications between producing elements and market.

13. The discussion then presents the plan for the transition from marine to land operations. The development period of communications is limited to five years, i.e. the period from 1966 to 1970 inclusive.

14. The paper describes the operating costs of the conventional local ship service with extracts from the accounting of the Helgeland Steamship Company, and gives some operating costs concerning the first bus service of the same company.

15. The discussion follows up the trends of transition from sea to land, how this development takes shape, and how the operations of the company change (and even change of name to Helgeland Transport Service Company).

16. The paper discusses different types of ships and ferries that are necessary in such areas—both long and short distance ferries. The ferries will have a combined purpose,

in some places calling at ferry-piers, and in others calling at conventional piers for passenger/cargo service. The necessity for cooperation between ships/ferries and truck lines in such districts is also dealt with.

17. The investment involved in the transition programme from sea to land is reviewed, including examples from road building as well as bridges, ferry-piers, ferries and buses.

18. The total expenses of the company's service in the district before and after implementation and transition are mentioned, as well as passenger and cargo statistics.

19. The more roads that are built along the coast and fjords, and on the islands, and the more the islands and the mainland are connected by ferries and bridges, the more the number of automobiles will increase in the outer municipalities. This in itself is both an influence that demands transition as well as results from the transition. The increase in numbers of cars in the outer district is given.

N-Subs for Oil

New York, N.Y.:—Six 170,000-ton nuclear submarines that would move Alaskan oil under the ice to the north Atlantic Coast have been proposed by the General Dynamics Corp.

The company said December 16 that it had submitted the proposal to five oil companies about 10 days ago and that their response should be forthcoming shortly.

The tanker submarines would move oil either beneath Arctic Ocean ice or via the Northwest Passage to an ice-free north Atlantic port, possibly in Greenland, Iceland or Canada.

There the oil would be transferred to surface tankers for shipment to U.S. East Coast ports, which are not deep enough to accommodate the proposed ships.

The proposed vessel, General Dynamics said, would "achieve substantially lower costs for moving oil to the U.S. East Coast than those attributed to projected pipeline systems." (Shipping and Trade News)

Effects of Containerization on Port Planning and Construction

By Dr. Günter Boldt

Bremer Lagerhaus-Gesellschaft

In his talk on the above subject at a meeting of the Society of Shipbuilding Engineers in Bremerhaven, Dr. Günter Boldt, chief clerk of the Bremer Lagerhaus-Gesellschaft, pointed out that those general cargo ports, where container traffic had been concentrated, were undergoing a process, which comprised not only the optimum utilization of technology in the field of transport, where there was still a lot to be done, but also in which automation will soon be playing a very important part. The process that lasted decades in industry is taking place in the seaports within a period of three to five years. It is now necessary to analyse the present situation in container traffic precisely and to evaluate the developments over the past few years exactly; this must be done to find out just how great the influences, whether direct or indirect, were on port planning and port construction.

The development of container traffic in Europe can easily be divided into three stages. The first stage was characterized by the appearance on the shipping scene of a small number of container shipowners with relatively small container ships. These vessels, equipped with their own container handling facilities on board, were then loaded and discharged by using container bridges ashore, after the ports had adapted themselves to this development. The ports reacted with facilities ashore, by reconstructing existing dock areas or those still under construction according to the requirements of container handling. The result of all this was a port structure, where the vacant areas for container handling were surrounded by the conventional docks.

As Dr. Boldt explained further, the shipowners, whose areas of

operation were crossed by the appearance of the full-container ships, reacted both economically and technically by using specially reconstructed ships, the so-called semicontainer ships, or by special ships built for the transportation of unitized cargoes. Therefore universal, all-round docks were necessary, which were suitable for both general cargo handling and also for container handling.

Thus this first stage could have had the motto: "This port has containers, too!" A relatively simple sub-structure was sufficient; problems of accommodating container traffic hardly existed.

During the second stage of the development of container traffic, the shipowners, who had earlier reacted with semi-container ships, now put full-container ships into operation and extended their scheduled services considerably. Because of this, the number of containers to be dealt with in the seaports rose rapidly, which led for the first time to definite problems of accommodation. This second phase was above all characterized by the fact that practically all containers, which were to be loaded and discharged, were "indirectly" transhipped, i.e. by using a marshalling area as a sort of "buffer". So we were now able to see three phases of operation in the handling of full-container ships: firstly loading or unloading, secondly the short intermediate storage and sorting period, and thirdly the onforwarding when importing and vice versa when exporting.

The numbers of containers to be handled, the fact that the arrival of the container ships coincided and the fact that the timetables were becoming fuller and fuller led for the very first time to distinct difficulties with regard to ship-

ping intelligence, information and accommodation in the ports. On principle, however, the shift to this indirect turnover in container traffic did not mean anything particularly new—at least not for the Ports of Bremen. Similarities were to be found in the conventional transportation of general cargo. Nowadays the container terminals, where container shipping transport is concentrated, are characterized by the fact that behind the particular quay there are large wide-open spaces, where the machines which move the containers about are in operation. The railway loading area is to be found directly beyond this container marshalling area.

Dr. Boldt continued by stating that the third phase in container traffic really started in the present time. Among the characteristics of this third stage we can find container ships of the so-called "third generation", i.e. container ships with a capacity of well over 1,000 containers. These vessels which arrive regularly at the same time as the present-day container ships and feeder services, are dealt with as a rule by three container gantry-cranes. The main criteria, which must be considered when planning and building container facilities, are in particular the following: firstly, the problem of quantities, i.e. that several ships arrive at the same time; secondly, the arrangement of the berths with regard to main vessel and feeder vessel, so that it is possible to carry out work on both ships at the same time; thirdly, the size and position of the railway marshalling area; fourthly, excellent connections to and from the other means of transport for large quantities of containers on rail as well as on the roads; fifthly, the grouping and size of the transit sheds for quay to quay movements; and finally, one should be able to depend completely on clear, exact and perfect information within the chain of transport, and, furthermore, any form of improvisation should be replaced by well-planned running programmes; plans for the movement and storing of cargoes should also be made.

Dr. Boldt emphasized that these crucial factors made it all the more clear that the container ter-

minals must be technically equipped in the best possible way for the supercontainerships and that they must naturally cover an extremely large area. In addition, information and communications as factors determining the systems used should play no small part.

After outlining the essential requirements, with regard to both quality and quantity, of a container terminal for vessels of the third generation, the question may be raised whether all these problems can be solved from a material point of view. Although all the practicable possibilities cannot be listed in detail, three basic solutions to the problems seem to present themselves. One form of a future container terminal is the "Open-space Terminal", which is served by van carriers, shore cranes or partially automated container moving equipment. This solution could be introduced, only where the ports have more than enough vacant space to expand. The second possibility is the "Container-Silo", more or less compartments of the container ship, which are erected ashore and in which containers can be stacked one on top of the other in shafts. The containers can be moved in or out of these compartments of the silo by means of "overhead cranes". This form, however, seems to be practicable, only where the necessary conditions of the port as a "terminus" already exist. Dr. Boldt mentioned the "Container-Shelves" as being an imaginable third possibility. This is based on the idea of the system of pallet shelves and seems at first sight to be the ideal solution. But anyone who has had anything at all to do with the techniques of storing shelves with general and palletized cargoes knows enough about the difficulties with regard to the necessary conditions, which must exist, so that this system can function well. The problem here is indeed that such a system will succeed or fail by the quality and quantity of the information supplied by the shipping companies. The overland transport companies and the commercial structure and organisation of the port play also a vital role. However, one cannot expect for the time being that the neces-

The Next Five Years in the Port of London

By Dudley Perkins

Director-General, PLA

Reprinted from The PLA Monthly
March 1970

Within the last decade the pattern of Britain's maritime commerce has undergone marked change. Not only is there a technological revolution in transport in progress, but also a social revolution along the water-front. A hundred years ago redundant workers everywhere were just flung back into the vast army of London's destitute. Today the application of a decent social conscience to that problem has cost the PLA, to date, around £2 million!

In the midst of such vast technical and social upheaval, yessaying not only a forecast of likely developments but also a plan to cope with those developments is a formidable task. It is no less than this—a plan for the next five years—which PLA management, as the stewards of Britain's biggest port, have had to tackle.

The PLA's Director-General, aware of the current unease bred by the transport revolution, recently took an unusual step in

sary perfection of the flow of information between all persons concerned in the chain of transport, which is so very essential for the smooth running of such a container-shelves port, will be achieved. Therefore we shall have to wait a long time before such a system can be realized.

Dr. Boldt ended his talk by saying that, generally speaking, the principal words, which would be heard in connection with container traffic of the present decade would be: "Containers-Systems-Computers".

Bremen, March 26, 1970.

port management. He called a large meeting of several hundred people, representative of all sections and grades of port workers, put the whole of his management team on the platform, outlined the management plans for the next five years and invited questions and criticism!

Questions submitted beforehand and during the meeting were numerous, criticisms few. What follows is a slightly shortened version of Mr. Perkins' speech. It is printed here, complete but for sections referring to domestic issues, for the information of the Port of London's customers at home and overseas.

Mr. Perkins began by referring to the forthcoming nationalisation of British ports. Whatever may emerge from that, he indicated, will not invalidate the conclusions drawn by PLA management from current trends nor, therefore, the shape of the plans made by the PLA for the future of the Port of London.

"We have a very clear idea of where we are going," said Mr. Perkins, "and the outline of future policy . . . is a basis of information and a basis for subsequent discussion." Such action, presentation of policy and the inviting of discussion, he went on, "is probably without precedent here and in many other concerns."

British ports about 20 years ago, he said, competed with each other very little and there was no competition at all from North European ports which were then small and undeveloped as a result of war-time damage. The contrast with today is marked. Describing briefly the nature of the transport revolution

ashore, he went on to point out that "the main cause of the explosive changes in the port industry is the invention of the container and the creation of the purpose-built container ship. . . . This has been linked with, and has done a lot to create, the birth of intense competition between ports in the United Kingdom. . . . The timing of the immense capital development of the North European ports has coincided with their ability to compete with United Kingdom ports. The first trans-ocean container ship sailed in the spring of 1966, less than four years ago. It sailed under criticism and considerable scepticism. Those doubts must now have been killed stone dead."

"I think that it is to the credit of the management of the PLA that we were the first of the UK ports to believe that the container revolution, which has now come, would come. . . . That is why the Tilbury new dock got off to a flying start. When we had container berths ready, there was no comparable container berth anywhere in the UK, and hardly one on the Continent."

"Our flying start at Tilbury has been terribly damaged by our inability, through a protracted labour dispute, to operate 39 Berth for the UK/Australia run—but that is another story. . . .

"Another major development which, I think, is also to our credit, has been the Tilbury Grain Terminal which has enabled us, for the first time, to attract to England the 30,000, 40,000 and 50,000 dwt bulk carrier which is quoting freight rates for UK traffic to London at the same level as the freight rate for Rotterdam, Amsterdam and Antwerp. Previously there had been a differentiation against London of anything between 15 and 40 shillings a ton."

"The manager and cornporters of this terminal, despite its teething troubles due to structural defects now being remedied by the contractor, have achieved a throughput of over 800,000 tons in seven months, which is more than was forecast for the whole of the first full year of operation. We had not dared to think that we would get off to such a good start."

Of the PLA's criticised decision to close the Western Entrance of the Royal Victoria Dock, used for barge traffic, Mr. Perkins had this to say, "Its re-opening was right in view of the high level of barge traffic at the time this decision was made. At that time there were 61,000 barge movements annually in and out of the Royal Docks. In 1968 there were only 30,000, with a further drop in 1969. The cash expense to the PLA of keeping this entrance open is in the region of £50,000 a year and much more with overheads. . . . Putting the issue to the financial test during a trial period of asking the lighterage industry to pay showed that the Western Entrance did not make a great deal of difference to the industry. In any case it was not worth the amount that the PLA charged and when the lighterage employers were given the financial assessment, they agreed that the amount asked was a perfectly proper one."

The meat discharge berth, "B" at the Royal Docks, Mr. Perkins said had been the subject of a working party report which had identified two causes of the failure of the berth to reach its designed speed of discharge. Consultants had proposed a solution to one of these defects and the second problem was still under study. "I am hopeful that this ambitious project will be rescued."

Dealing with the PLA's deficit, Mr. Perkins pointed out that "the diversion of shipping as a result of a series of guerilla strikes at the Royal Docks has made an impact on us of a loss of very nearly £1 million. . . . we recognise that we have to be in a position to meet these shocks and disasters, but where the port of the fifties and sixties was calm and productive in many ways, surpluses were small. . . . our planning is now directed towards, first, breaking even, then to a small surplus and then to a fairly large one."

Forecasts of future traffic indicate two significant trends. "On the one hand we can anticipate growth in bulk traffics, particularly oil, also in bulk grain and forest products, and in unit load traffic such as containers and palletised loads. On

the other hand we must accept that there will be a severe reduction in the level of conventional general cargo under the impact of containerisation. This reduction will occur whether or not the containerised traffic passes through the Port of London. Conventional general cargo traffic accounts at present for some 80% of PLA gross revenue, hence the anticipated decline in the volume of this traffic will have far-reaching consequences."

"The total trade of the Port of London has fluctuated around 60 million tons a year for some years past, but if efficiency is increased—our common objective—that total trade should grow over the next five years."

The port's oil trade, expanding steadily, is expected to reach 30 million tons for the first time in 1970. Plans have been made to improve the deep water channels for the 200,000-ton tankers using the port at present. The Director-General also referred to the Maplin Sands proposals which include the provision of major deep water berths. This project was described in our January issue. "These berths," Mr. Perkins said, "could be linked with new industrial development of significant importance, receiving raw materials in large bulk carriers. . . . If all goes well, these developments might be operational at the end of the next five years."

Growth is expected in grain traffic too. Imports of grain in 1968 were about 1.2 million tons and in 1970 are expected to be 1.4 million tons, with a further increase to over 2 million tons in 1974. Substantial growth is also evident in traffic in packaged timber, paper pulp, liner board and other forest products. The increase is expected to be from 1.1 million tons in 1969 to about 2 million tons by 1974. "It must be mentioned here, however, that the continuing ban by Number One Docks Group on the implementation of the agreement for working 46 Berth, Tilbury, for these products gives cause for anxiety about the future."

Referring to the effect of container traffic growth, Mr. Perkins

remarked that "already the Upper Docks have felt the loss of traffic at conventional berths through the development of containers in the short sea trades to the Continent and also in the North Atlantic and Australia trades. Moreover, . . . container ships for the Far East Service are to come into service at the end of 1971 and similar ships for the New Zealand trade at the end of 1973."

"These announcements provide firm information on the background to future planning. There are at present 108 general cargo berths in the enclosed docks, exclusive of berths which are leased to tenants, and all the specialised container and timber berths at Tilbury. It is estimated that the general cargo remaining after this degree of containerisation could be dealt with at about one half of this number. A reduction in berths will have to be phased gradually over the next five years. The plan assumes that we are successful in efforts to increase efficiency and so are able to obtain, and retain, general cargo traffic which is profitable."

"Fifteen of these general cargo berths are in Surrey Docks, and it is therefore apparent that the closure of Surrey Docks, which is under discussion, is only the next and immediate step in a planned contraction of general cargo berths. It will not be necessary to man and maintain all the existing general cargo berths in the India and Millwall Docks, the Royal Docks and the older part of Tilbury. There will be a gradual and phased contraction of the older and smaller of these berths. But it must be strongly emphasised that the closing down of some of the older berths in India and Millwall, Royal Docks and at Tilbury will not involve the closure of any one of these dock groups."

Efficiency in the handling of cargo not in containers must be increased, particularly for palletised and similar unit load services. These are developing fast to serve countries for which container services are not at present provided. Millwall Docks are very well suited to such traffic. "In the West India part of this group, there are a few excellent berths which we hope to develop, but also a number which

would not justify expenditure of new money . . . The bulk wine facility in the West India Dock is a very good example of growth traffic and new facilities are being built to expand this.

"Though container berths with extensive back-up land could be provided at the Royal Docks, no container ship operator as yet has been willing to come up-river to this group, and the prospect for container berths here is not good though the position is being kept open. It is possible, however, that some packaged timber berths can be situated within the Royal group, adjacent to extensive areas of land for stacking.

"Otherwise, the Royal Docks will continue to depend to a large extent on non-containerised general cargo and it is anticipated therefore that the facilities provided within this group will be slightly reduced.

"At Tilbury, the branch dock berths, some of which are over 80 years old, will probably need to be demolished and reconstructed as larger, modern, mechanised berths.

"As a general comment applicable to all berths remaining to handle non-containerised general cargo, the number will have to be reduced to an extent dictated, not simply by the declining level of general cargo non-containerised traffic, but also by the urgent need to increase the throughput of each berth, so as to reduce the cost per ton of cargo handled."

The overall objective, Mr. Perkins indicated, is a "smaller general cargo docks system but one which is competitive and self-supporting and a partner in an expanding container, oil and bulk cargo port."

Expansion to meet the growth in bulk traffics includes more container and packaged timber berths at Tilbury, berths in the river adjacent to Tilbury Docks capable of handling container ships which may be too big to use Tilbury Entrance Lock. The present rate of container handling at Tilbury—100,000 a year, is but a fraction of its potential. "When the Number One Docks Group ban is lifted, these plans can be implemented . . . where satisfactory commercial arrangements can be made with

customers, container groupage facilities will be provided in, or fairly near to, the docks."

Turning to implementation of the port plan, Mr. Perkins pointed out that at present it is impossible to be specific about the precise way in which certain berths in the lower dock groups will be closed, or about the timing of what will be a very intricate operation, though the broad pattern is clear. "Trade moves steadily downstream as it is increasingly taken over by deeper draughted, faster ships needing to operate at high throughput berths . . . the reduction of berths must be accompanied by a reduction in those employed by the PLA, although this is not expected to be proportionate to the number of berths likely to be affected . . . The extent of the reduction is very difficult to foresee at present in view of the possible effects of nationalisation, which could involve the acquisition by the Port Board of all port businesses, and the effect of Devlin Stage II, which would have effect on the numbers of employees required as the result of shift-working and the introduction of greater mobility and flexibility in the employment of men. However, whatever reduction is necessary is expected to be achieved by retirement, natural wastage and voluntary severance. The Authority's voluntary severance scheme, introduced originally because of the London Dock closure and now widely extended, has been very successful."

Dealing with the financial aspects of port planning, Mr. Perkins commented on the PLA losses of the past few years, which entail borrowing money at high rates of interest, thus increasing costs and creating an increasingly adverse balance. This situation is aggravated by the current need to finance severance payments. "The broad strategy to meet this situation is that our capital indebtedness will be reduced in due course out of sales of land no longer necessary in the circumstances described above.

"If the Port Bill now before Parliament becomes law, it will, of course, alter the framework within which the Port of London is administered. Nevertheless, it is
(Continued on Next Page Bottom)

Appropriations Urged For Wider Channels in New York

News from the Port of New York Authority

Washington, D.C., May 7:—The Port of New York Authority, in association with twenty-two other port, civic and maritime organizations in the metropolitan area, today urged the House Committee on Appropriations to provide \$3,480,000 for the United States Army Corps of Engineers to carry out three vital harbor improvements in the New Jersey-New York Port. The sum coincides with the recommendations for these same projects in President Nixon's Budget for Fiscal Year 1971 which begins July 1.

The appropriation urged by Port of New York interests, would provide \$2,400,000 for the improvement of the New York Harbor Anchorages, and \$1,050,000 for widening the Newark Bay Channel. The remaining \$30,000 provides for an Army Engineer study of the possibility of deepening and widening portions of the East River and Steinway Creek particularly needed by larger petroleum tankers.

Roger H. Gilman, the Port Authority's Director of Planning and Development who presented the joint testimony to the Subcommittee on Public Works of the House group, will make a similar presentation tomorrow to the Senate Committee on Appropriations. In commenting on the amounts requested by Port of New York interests for the next fiscal year, Mr. Gilman declared: "... we view these sums as being extremely modest and have refrained from seeking additional funds only because we believe this conforms with the efforts of our Government and nation to

firmly believed that the policy proposed must continue to apply however the provisions of the Bill may be implemented, because nationalisation will certainly not remove the basic need for the port to be operationally efficient and financially sound."

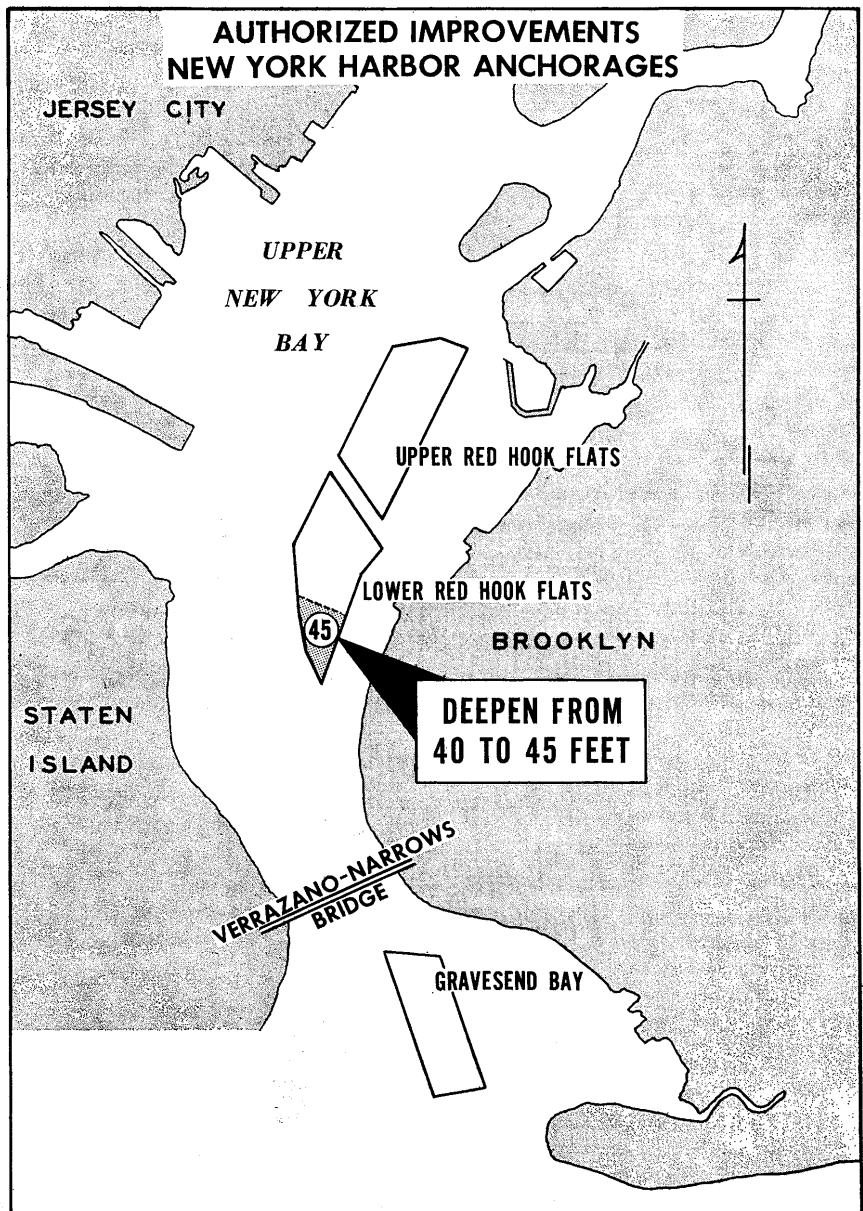
combat the serious situation that confronts us all."

At the same time, Mr. Gilman emphasized the reliance of the bi-state Port interests on commitments expressed publicly by the Administration to release and spend additional monies previously allocated by Congress for work on the Newark Bay and Anchorage projects, but subsequently held in "budgetary

reserve."

For the Newark Bay project, the next fiscal year's \$1,050,000 requested appropriation would be augmented by an additional \$1,500,000 to be withdrawn from budgetary reserves, plus another \$640,000, also in reserve, for completion of an initial work contract scheduled to begin in the current fiscal year. This brings the total amount available for Fiscal Year 1971 for Newark Bay work to \$3,190,000.

Similarly, the Administration has promised that \$1,200,000 from its budgetary reserve would be added onto the \$2,400,000 appropriation budget for the Anchorages project in Fiscal Year 1971, bringing the total monies available for this



work in the next fiscal year to \$3,600,000.

Newark Bay Channel

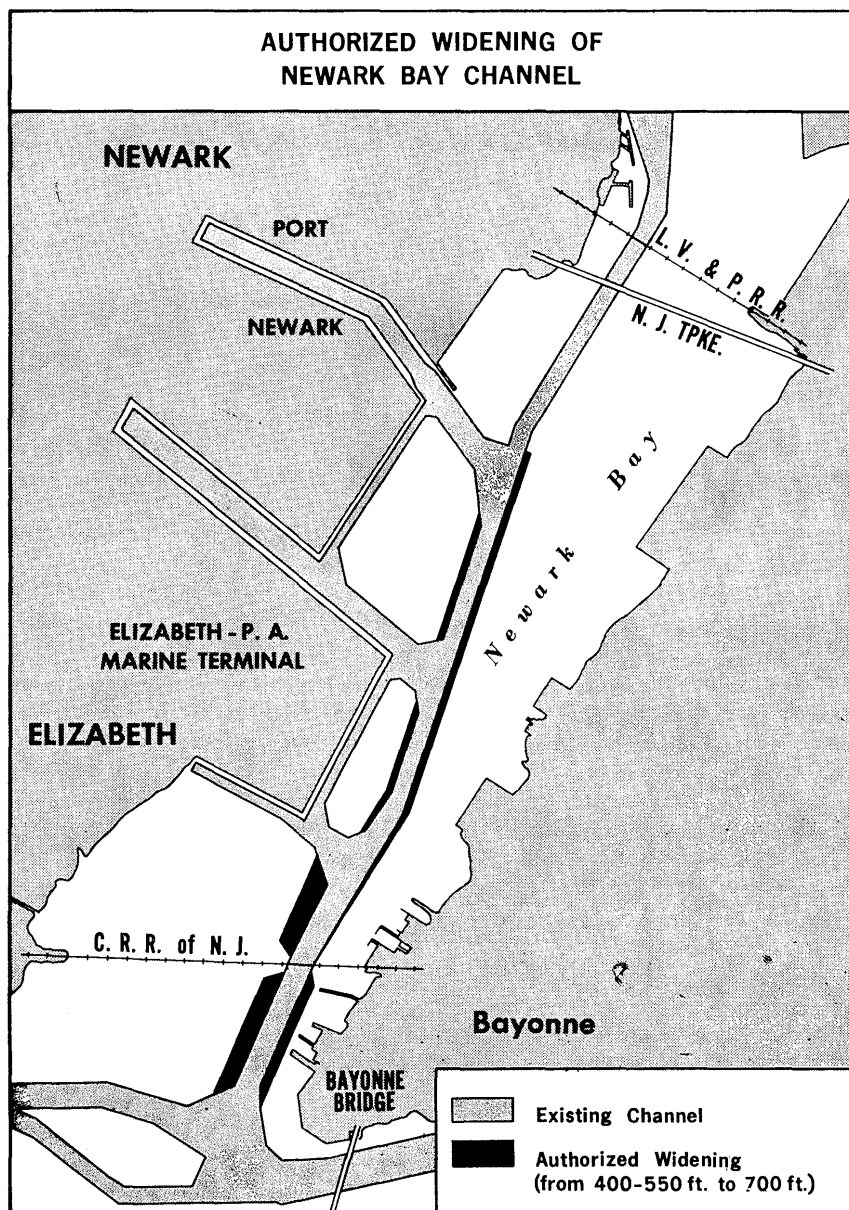
The major concern at this time, according to Mr. Gilman, is that the Government start and make rapid progress on the widening of Newark Bay Channel between the Kill van Kill and the entrance to Port Newark. Although Congress has appropriated a total of \$4,940,000 for this project since its authorization in 1966, only about \$47,000 for pre-construction and design work has been spent to date. The Port Authority has been informed by the Corps of Engineers that work is at last scheduled to get under way this month.

Mr. Gilman pointed out that "today's tankers and container-ships, which can be 700 feet long and 100 feet wide, face serious navigational hazards" in the present 400-foot limiting width of the channel in Newark Bay. He added that by the end of 1971, the first of eight new containerships, each 944 feet long and 105 feet wide, are expected to begin operations on the Bay. At the same time, the total of 27,714 vessel movements in this channel in 1967 is double the 13,807 movements recorded in 1957, with most of the growth during the past 10 years in increasingly larger vessels.

"There can be no more justification for further delay in widening this channel to a uniform width of 700 feet and in providing the other authorized improvements which will make this channel safer for use by increasing numbers and larger ocean vessels of all types," he concluded.

New York Harbor Anchorages

In calling for appropriations for the New York Harbor Anchorages project, Mr. Gilman noted that this project, authorized by Congress in 1965, was started in May 1969, and that work has already begun toward providing 40 and 45-foot deep anchorage space in the Lower Red Hook Flats section. He said that this should be completed, with work started on the 35-foot deep section in the Upper Red Hook Flats, on the basis of both the funds recommended in the Fiscal Year 1971 Budget and the funds to be withdrawn from budgetary reserve.



The deeper tanker anchorages are needed, according to Mr. Gilman, because United States flag tankers up to 80,000 deadweight tons and drawing 43 feet of water are presently under construction to serve East Coast ports. Moreover, he added, many of the petroleum tankers, which comprise one-fourth of the ocean shipping entering New York Harbor, are unable to reach their terminals without first anchoring to unload part of their cargoes to lessen vessel drafts, or await high tide.

In 1967, the Port of New York received 18.4 million short tons of crude oil and 38.4 million short tons of gasoline, fuel oil, jet fuel and kerosene from foreign and domestic

origins by tanker, and continued growth is anticipated. Faced with inadequate channel depths for modern tankers, Mr. Gilman emphasized that the Port must at least have adequate anchorage and holding areas for such vessels.

The organizations which joined the Port Authority in urging the adoption of these appropriations are:

Maritime and Port Organizations
 Board of Commissioners of Pilots of the State of New Jersey
 Harbor Carriers of the Port of New York
 Maritime Association of the Port of New York
 Moore-McCormack Lines, Inc.
 New York Port Promotion As-

Port of Liverpool

Dock Board Chairman Forecasts Brighter Future

Mersey Docks and Harbour Board

Liverpool, 7th May 1970: — Steady expansion of seaborne trade, an increase in the tonnage of coastwise ships, and exports showing a marginal rise—these are some of the progress points revealed by the Chairman of the Mersey Docks and Harbour Board Mr. Joseph C. Taylor in his annual report to-day.

Despite a further decline in the overall number of ships and tonnage using the Mersey last year, resulting in a deficit of £1,780,000, Mr. Taylor told Board members: "I believe we are now beginning to see our way through the many complex

sociation

New York Towboat Exchange
Sea-Land Service, Inc.

United New Jersey Sandy Hook
Pilots' Benevolent Association
United New York Sandy Hook
Pilots' Benevolent Association
United States Lines, Inc.

Government Agencies

New Jersey Department of Conservation and Economic Development
Union County Planning Board (N.J.)

Chambers of Commerce

Bergen County Chamber of Commerce

Brooklyn Chamber of Commerce
Chamber of Commerce of the Borough of Queens

Commerce & Industry Association of New York

Jersey City Chamber of Commerce

New Jersey State Chamber of Commerce

New York Board of Trade

New York Chamber of Commerce
Staten Island Chamber of Commerce

West Side Association of Commerce in the City of New York
(please see attached maps)

problems we face."

He said he had repeatedly warned that Liverpool was suffering from a serious shortage of dockers,

A daily average of 80 ships was needed to make the Port viable, but when this figure was reached full manning had proved impossible and ships had to wait, either undermanned or idle.

Although agreement had at last been reached for at least a limited recruitment difficulties had then arisen over the basis on which newcomers should be nominated.

Mr. Taylor stressed: "The Port of Liverpool is particularly well placed to be confident of providing continuing full employment for its labour force. There are plenty of new trades which will use the Port if we are efficient and competitive."

While increased facilities for containerisation and mechanised handling were essential if they were not to lose trade to other ports there was strong evidence that the demand for conventional facilities for break bulk cargo was continuing.

"Seaborne trade is steadily expanding", said Mr. Taylor, "and we must have the necessary labour force available to ensure that conventional as well as containerised and unit load cargoes are handled efficiently and speedily."

The Port's reputation had been damaged by a succession of strikes last year. In the main these involved small numbers of dock workers, but they created uncertainties for ship and cargo owners who should be entitled to a guaranteed service.

"There is every reason to believe, however, that a greater sense of responsibility is gradually emerging," continued Mr. Taylor, "The large majority of dock workers now appear to appreciate that substan-

tial financial rewards are available to them for continuous full employment."

Some of the tonnage lost by Liverpool was being handled at Continental ports.

If Liverpool could have enjoyed similar help through subsidies as Rotterdam, Antwerp, Dunkirk and Hamburg its Port charges could have been cut three years ago by between 15 and 49 per cent, depending on the Continental port used for comparison.

"We accept that the old loyalties of shipowners who favoured particular ports have been tempered by the hard economics of ship operation and that a port can only attract customers by the services it provides and the speed of ship turnaround," said Mr. Taylor.

Nevertheless it was gratifying to know that Liverpool had attracted a number of new cargo services last year, and the aim was to win more new business in 1970.

Referring to the use of Tranmere Oil Terminal by 200,000 ton tankers, and the plans of oil refiners to expand their Merseyside installations, Mr. Taylor said schemes were under discussion for off-shore terminal facilities to handle much larger vessels either in service, building or on the drawing board.

He reported that the Port was now handling a substantial share of the North Atlantic container trade to the United States and Canada, and praised all concerned with the container terminals for the speed with which they had mastered the new techniques.

When the Seaforth project, to provide ten new berths, was completed Liverpool would be in the forefront of the world's container ports.

In conjunction with the British Steel Corporation the Board was now studying a scheme for a river berth for bulk ore ships, and hydrological investigation was in progress to determine certain problems.

The needs of ocean, cross-channel and cross-river passengers were also under close scrutiny in view of the little use now being made of Liverpool Landing Stage by ocean passenger liners. The possibility of incorporating in this area facilities

CENTROPORT USA Program of New Orleans

Board of Commissioners of the Port of New Orleans

New Orleans, La., May 22: — The Port of New Orleans, now working on a \$395 million construction program to create CENTROPORT, USA, is rushing work to complete the first phase of a major new cargo terminal—a one-berth, 830-foot long segment to feature a major container facility capable of handling other types of cargo—to be ready by late 1971.

The segment, to cost about \$8 million exclusive of the cost of cranes and other equipment, and to feature specialized container-handling devices, will be part of a 280-acre, nine-berth terminal to cost about \$64 million.

This, the France Road Terminal, is to be the central port of the CENTROPORT, USA program, which has just been pronounced the most advanced and comprehensive program in the world, according to officials of the American Association of Port Authorities.

Designers of the first berth being built at France Road are the firm of Ewin, Campbell and Gottlieb in cooperation with Bergeron and Lang. The builder is Con-Plex, a division of U.S. Industries. Kaiser Engineers, Inc. prepared the master plan for France Road and are de-

for handling new types of vessels such as L.A.S.H. ships was being considered.

On the Ports Bill, Mr. Taylor had this to say: "As a Board we are not in favour of nationalisation and are not persuaded that this policy is the right one. We believe it is essential to retain local autonomy for ports in order to deal effectively with local problems.

"We are confident that given the necessary financial assistance to develop our facilities we could provide more satisfactorily the full range and high level of services required by our customers."

signing berths three, four and five with James Ewin as New Orleans representative.

The CENTROPORT, USA program, authored by the Bechtel engineering firm of California, would accommodate a 135 percent increase in general cargo at New Orleans by the year 2000, a figure termed conservative by Robert R. Barkerding, Sr., executive port director and general manager.

The program is patterned after EUROPORT, and is designed to make CENTROPORT the Rotterdam of the U.S. Gulf. The New Orleans plan is scheduled for completion by or before the year 2000. It will consist of a wide variety of public port facilities to be built in the now developing eastern section of the New Orleans harbor as well as on the Mississippi River and will feature modern terminals capable of handling rapidly and efficiently a wide variety of cargoes, including containers of all sizes, barge-carrying vessels, steel, automobiles and breakbulk cargo.

Most of the new facilities will be located away from the old Mississippi riverfront, where only the more modern wharves will be retained and modified. The new port and industrial area provides spacious acreage for cargo marshalling and for consolidation sheds.

The port's Public Bulk Terminal, located on the Gulf Seaway and already handling annually over a million tons of ores, sugar and other dry bulk materials, is to be expanded extensively under the same program. The facility handles the rapid transfer of a wide range of materials from and to all types of land and water-based carriers, to and from open and closed storage, and to adjacent industrial facilities.

Included in the master plan are four barge carrier modules capable of servicing, on a 24-hour basis, the

loading and unloading of barges used in the new LASH and SEABEE-type ships. One of these vessels has already begun using New Orleans as a U.S.A. base port.

Bechtel's CENTROPORT master plan charts future progress of the port, determines facility needs and industrial potential, and establishes a phased schedule of construction and estimate of capital investment. Funding of the public facilities, the land needed for both public and private industrial sites and site development will come from state allocations and port revenues.

The concept basic to the plan is the use of high throughput, high-efficiency, concentrated port installations that integrate land and water transportation modes into an organized and controlled system.

An important result of this approach will be an increase in demand for port labor, since the growth in total volume of cargo handled in the port will more than offset the reduction in labor brought about by the efficiency of modern cargo-handling techniques, Bechtel claims.

The France Road Terminal, starting in the fall of 1971, will be expanded to meet the demand of growing cargo volume—reaching full growth in the 1980's. It is located at the intersection of the Gulf Seaway and the port's Industrial Canal, and is easily reached by ocean and inland carriers, as well as by rail and truck lines. Vessels may approach and depart France Road and the entire CENTROPORT region via either the Industrial Canal—Gulf Seaway or the Mississippi River. The seaway is a man-made, 76-mile-long ship channel which gives the new port area a shorter, more direct connection with the Gulf of Mexico.

Plans call for deepening the seaway to 50 feet and widening the channel to a full 2,000 feet withing the harbor area. A new deep-water connecting link between the seaway and Mississippi River, including a modern lock, is to be constructed after the necessary Congressional appropriations and approvals by local governing bodies are made. The link's construction already has Congressional and State approval.

Major capital construction funds will go into riverfront wharves to make them more capable of handling container ships, and in combination with France Road Terminal, these facilities are expected to make New Orleans the foremost container port on the U.S. Gulf.

The port already enjoys barge access to most of mid-continent, and with the most extensive network of inland rail and highway transport of any Gulf port, it is ideally situated to capitalize on both the container and barge-ship revolution. Containers in growing numbers are already being handled at New Orleans by almost every steamship line operating in the port.

The modernized, 3,500-foot Henry Clay-Nashville Avenue Wharf complex—to be retained in the CENTROPORT plan—is presently the port's largest and most modern facility for handling containers, breakbulk and steel cargoes. Large marshalling areas, crane-rail foundations, wide shipside aprons, large open berths and nearby automobile and refrigerated cargo facilities are presently in use at the complex.

Henry Clay-Nashville is presently being used for both containerized and other types of cargoes by Farrell Lines, Hapag-Lloyd, Lykes, Holland America and Gulf & South American Steamship Company.

The 3,100-foot Napoleon Avenue Wharf on the port's riverfront — also to be retained in the CENTROPORT plan — features the port's widest apron, (108 feet at one berth) adjoining concrete marshalling fields, crane-rail foundations and an open berth. This wharf is used for a new service offered by Cartainer Line, which brings containers, general cargo, autos and steel from Northern Europe. Both roll-off and lift-off methods are used for discharging the autos.

A number of other riverfront wharves also are being used for both containers and LASH barge-carrier ships, in addition to breakbulk operations. Ship and land-based lifting gear is supplemented by barge-mounted cranes offering up to 600 tons heavy-lift capacity at any point in the harbor. Included are three now floating derricks capable of over-reaching most ves-

IMCO As Seen by IAPH

Reports by observers from IAPH at IMCO sessions

Note also an interim report on the IMCO Sub-Committee on the Carriage of Dangerous Goods—17th Session, captioned "IAPH Observer at IMCO", page 27, Ports and Harbors, June, 1970.

Report No. 9

Date: 23rd/27th February, 1970.

Place: I.M.C.O. Headquarters in London.

Session: 21st Session of the Maritime Safety Committee, I.M.C.O.

Observer from IAPH:

Captain W. R. Colbeck, R.N.R., F.R.I.C.S., Marine Surveyor & Water Bailiff, Mersey Docks and Harbour Board.

Agenda: MSC XXI/23 Annex. I.

1. Adoption of the agenda (MSC XXI/1/Rev. 1)
2. Report of the Secretary-General on Credentials (MSC XXI/2)
3. Status of the IMCO Convention and of other Conventions deposited with IMCO (MSC XXI/3; MSC XXI/3/Add. 1)
4. Report of the Sub-Committee on Marine Pollution, including the work of the GESAMP Group (MSC XXI/4; MSC XXI/4/Add. 1; MSC XXI/4/Add. 2; MSC XXI/4/Add. 3)
5. Report of the Sub-Committee on Containers and Cargoes including preparation for an in-

ternational conference on container traffic (MSC XXI/5; MSC XXI/5/Corr. 1)

sels presently built to lift containers or other heavy loads between ship and wharf. They can work several shiphatches without shifting the position, and the largest can revolve 360 degrees with a load of 160 tons, and has a maximum reach of 120 feet.

The port is building modern facilities to handle a predicted increase in containerized cargo to half of its entire general cargo within the next ten years, and the France Road—CENTROPORT facilities will handle much of that cargo.

6. Report of the Sub-Committee on Safety of Navigation including preparation for an international conference on revision of Regulations for Preventing Collisions at Sea, 1960 (MSC XXI/6; MSC XXI/6/1; MSC XXI/6/2; MSC XXI/6/3; MSC XXI/6/4)
7. Report of the Ad Hoc Group on Search and Rescue (MSC XXI/7; MSC XXI/7/Add. 1; MSC XXI/7/Add. 2; MSC XXI/7/Add. 3. MSC XXI/7/Add. 4; MSC XXI/7/Add. 5)
8. Report of the Sub-Committee on Subdivision and Stability (MSC XXI/8)
9. Report of the Sub-Committee on Ship Design and Equipment (MSC XXI/9; MSC XXI/9/Add. 1)
10. Report of the Ad Hoc Sub-Committee on Revision of SIMLA Rules (MSC XXI/10)
11. Implementation of recommendations and codes adopted by IMCO (MSC XXI/11)
12. Symposium on nuclear ship propulsion (MSC XXI/12)
13. Examination of reports submitted under Regulation 19 of Chapter I of the 1960 Safety Convention (MSC XXI/13; MSC XXI/13/Add. 1)
14. Examination of reports on marine casualties submitted under Regulation 21 of the 1960 Safety Convention (MSC XXI/14; MSC XXI/14/Add. 1; MSC XXI/14/Add. 2; MSC XXI/14/1)
15. Other matters arising from relevant decisions of the Sixth Assembly (MSC XXI/15; MSC XXI/15/Add. 1; MSC XXI/15/Add. 2; MSC XXI/15/Add. 3)
16. Review of work programme for 1970/71 (MSC XXI/16;

MSC XXI/16/Add. 1. MSC XXI/16/Add. 2)

17. Cleaning of structural members in the tanks of very large tankers (MSC XXI/17; MSC XXI/17/1)
18. Definition of passengers in the context of the 1960 Safety Convention. (MSC XXI/18; MSC XXI/18/1)
19. Acceptance of special types of life-jackets for use on board ships (Note by Norway) (MSC XXI/19)
20. Vessels with fender lists (Note by Norway) (MSC XXI/20)
21. Date of next session (MSC XXI/21; MSC XXI/21/Corr. 1)
22. Any other business (MSC XXI/22; MSC XXI/22/Add. 1; MSC XXI/22/1; MSC XXI/22/2; MSC XXI/22/3; MSC XXI/22/4 MSC XXI/22/5)
23. Consideration of the Report of the Committee on the work of its twenty-first session.

Text of Report.

Item. 4. Marine Pollution.

The Committee considered and approved the report of the Sub-Committee on Marine Pollution and noted that substantial agreement had been reached on draft specifications for oil separating equipment and oil content meters. The Committee also agreed, in principle, to a recommendation to Governments concerning the provision of standardised fittings for the disposal of oily bilge water from ships in port.

Marine pollution from vessels is only one aspect of pollution which is being studied by the Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP), who are also concerned with the marine pollution arising from the exploitation of sea bed resources and pollution by industrial waste. It is intended that a Conference on Marine Pollution will be held in 1973 and work is being progressed on developing proposals for improving, on an international basis, the enforcement of the International Convention for the Prevention of Pollution of the Sea by Oil.

Item. 6. Report of the Sub-Committee on the Safety of Navigation.

Routeing and traffic separation schemes for the following areas were

Transshipment in the Seventies

7th May, 1970:—Fears that inter-continental container services might by-pass Britain, with British ports filling a subordinate role to the ports of North West Europe—the so-called 'off-shore island' theory—are set at rest in a report published to-day by the National Ports Council*

The Council's consultants, A.D. Little Limited, discount the possibility that Britain will find herself in such a situation in the foreseeable future—with one proviso: that there should be no operational delays at British ports, which must match their Continental rivals in the speed at which container ships are turned round at the berth.

approved by the Committee:—

- (a) In the approaches to Chesapeake Bay.
- (b) Off the coast of Tunisia.
- (c) At Sandettie, including the required aids to navigation and consequential amendments to the boundary of the inshore traffic zone of the Dover Strait on the Continental side.
- (d) Off the Dutch coast, west of North Hinder.

Considerable discussion took place on the revision of the Regulations for Preventing Collision at Sea in preparation for the International Conference to be held in 1972. This may, of course, affect traffic in ports and, in particular, a suggestion was made that Rule 30 of the Regulations adopted in 1960, which permits Harbour and River Authorities to make special rules, should be deleted as any such requirements could be covered in the general rules.

Your observer strongly disagreed with this proposal on the grounds that whilst it is agreed that such things as signals for dredgers, ships with dangerous cargoes, very deep draft ships, divers and under water work could be covered internation-

NEW BOOKS

The Council commissioned the consultants to study the extent to which general cargo transshipment was likely. After discussions at an early stage had made it clear that general cargo carried in containers was the most susceptible to transshipment, the consultants concentrated their attention on this traffic.

An introduction to the report

* Transshipment in the Seventies—a Study of Container Transport, by Arthur D. Little Ltd., price 105s. Summarised in Research and Technical Bulletin No. 6, price 15s. Both published by the National Ports Council, 17, North Audley Street, London, W1Y 1WE.

(Continued on Page 23)

ally, there are still a number of special rules that are required in individual ports due to local circumstances, such as priority at a junction of channels, and other matters which have legal implications and would require to have the same force as the general Regulations.

Item 8.

The Sub-Committee on ship design and equipment are preparing a code for the construction and equipment of ships carrying dangerous chemicals in bulk and in view of the urgent need to have unified requirements for such ships, the Sub-Committee has been instructed to make every effort to finalise the draft code as soon as possible.

Item 22.

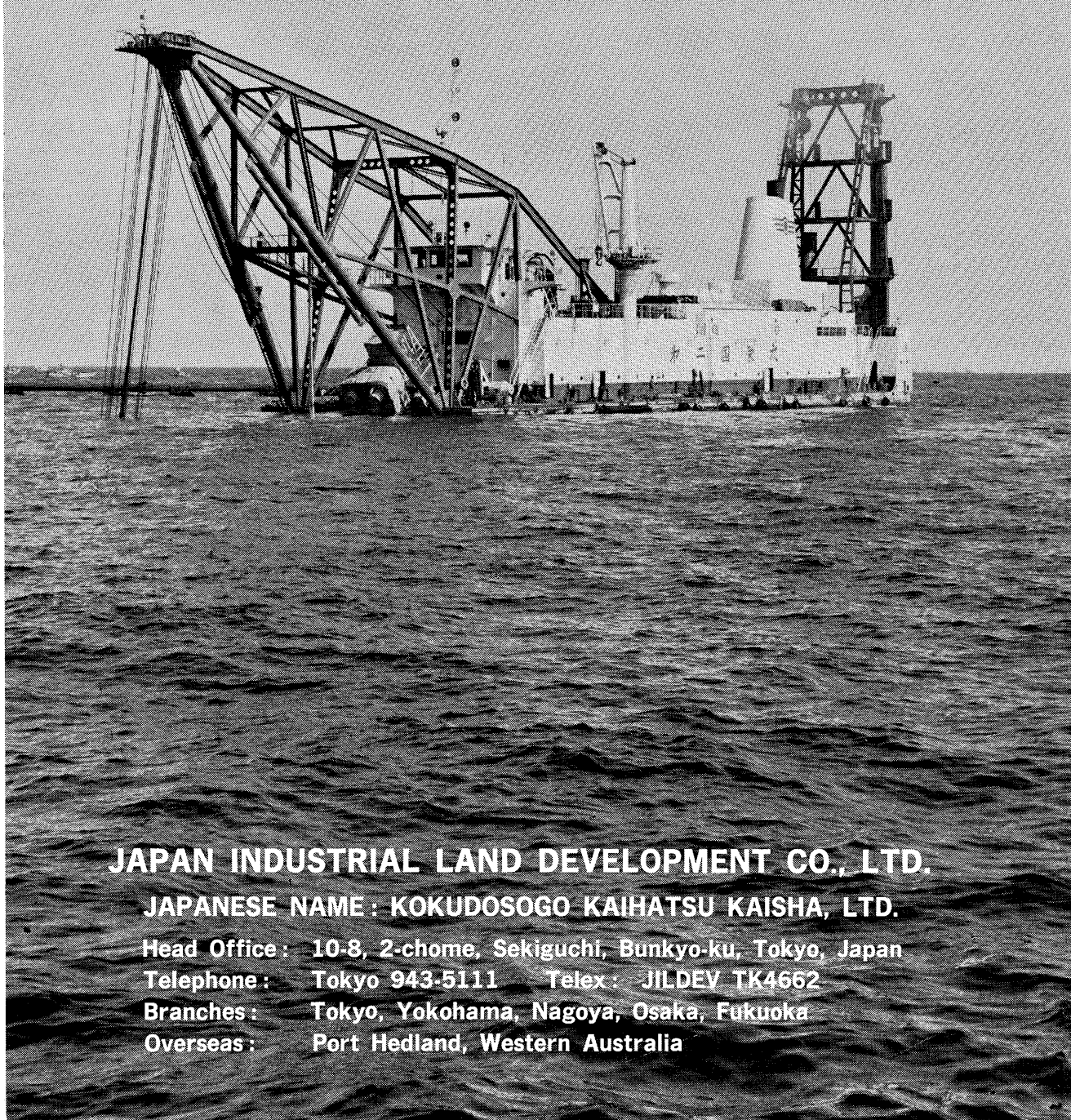
Amendments have been approved to the International Maritime Dangerous Goods Code, particularly in relation to the packing of certain substances having a flash point of over 50°F (10°C) which have no hazard other than inflammability.

Considerable discussion also took place on the question of portable tanks for dangerous goods which might, of course, be carried in container vessels, but work on this is not yet complete.



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(Continued from Page 21)

points out that the greater capital intensity of the container system makes fewer port calls, and a faster turn round of ships, more necessary.

The process of concentration on a smaller number of ports has already been seen in the U.K.—Australia trade and in plans announced for the Far Eastern Service. U.K. Port authorities involved in planning future deep and short sea facilities need to know how far this process of concentration of Western European trade is likely to go.

In carrying out the study, the consultants interviewed container operators, port authorities, and carriers, and examined a large number of alternative combinations of ports of call, involving ports in the United Kingdom and on the Continent, including Scandinavia, and ship sizes and speeds. They analysed four trades in detail, the United States, Canada, Australia and West Africa routes. Their conclusion is:—

“Deep-sea container services on most trade routes will visit one British and one Continental port. There will, therefore, be little transshipment between Britain and the Continent”.

The report adds that calculations brought out the significance of port time, which affects not only the speed that a ship has to maintain—and speed is costly in itself—but also the actual number of ships required. For fast ships with a fourteen-day round voyage, an effective rate of working at British ports of 90 per cent or less of the Continental rate would be sufficient to tip the balance and make the direct call to Britain uneconomic. For slower ships on a twenty-one-day round voyage the rate would have to drop to 70 per cent to produce this effect. The consultants' second conclusion is that:

“Delays at British ports resulting in a slower ship turn round compared with Continental ports could have a significant effect and result in deep-sea vessels on certain trades by-passing Britain”.

It does look as if British ports will be in direct competition with the near-Continental ports for Scandi-

IAPH News :

Orbiter Probe

Mr. Swanson Decorated

Melbourne:—On her visit to Melbourne last month, as part of her tour of Australia, the Queen held an investiture at Government House at which she personally bestowed knighthoods and a variety of awards on 91 Victorians, including the Chairman of the Port of Melbourne, Mr. V. G. Swanson.

Mr. Swanson was made a Commander of the Most Excellent Order of the British Empire in the

New Year's Honours announced on the first of January, and at Government House the Queen invested Mr. Swanson with the insignia of his rank.

The insignia of a Commander consists of a ribbon and badge which comprises a blue cross patee with a medallion and circlet in the centre, surmounted by an imperial crown. (Melbourne Harbor Trust Port Gazette, May)

navian traffic. The report states that the case for transshipment of Scandinavian cargo is quite strong, and that the costs of moving such cargo either to London or the nearest suitable British port, or to Rotterdam, are about the same.

A summary of the report is contained in the Council's latest Research and Technical Bulletin, which also contains articles on the Touche Rose report on the comparison of Continental and British port costs; the report by Bertlin and Partners on port structures; planning for increased through-put at a common-user container berth, and a study of maintenance dredging operations on the Tees.

N.P.C. Bulletin

Research and Technical Bulletin, No. 6 1970 published in May 1970 by National Ports Council, 17 North Audley Street, London, W1Y 1WE. Price: 15/— incl. postage. The contents are as follows (The book begins with page 259.):

Transshipment in the Seventies—a study of Container Transport—Arthur D. Little Ltd.

1. General Cargo in the 1970s—A summary of the study undertaken for the Council (Page 259)

2. The Container Ship Cost Model (Page 267)

Comparison of the Costs of Continental and United Kingdom Ports—A note on Touche Ross & Co.'s Report to the Council (Page 272)

Port Structures—An analysis of costs and design for quay walls, locks and transit sheds—A note on Bertlin and Partners' Report to the Council (Page 276)

Planning for the increased through-put of a common user container berth (Page 285)

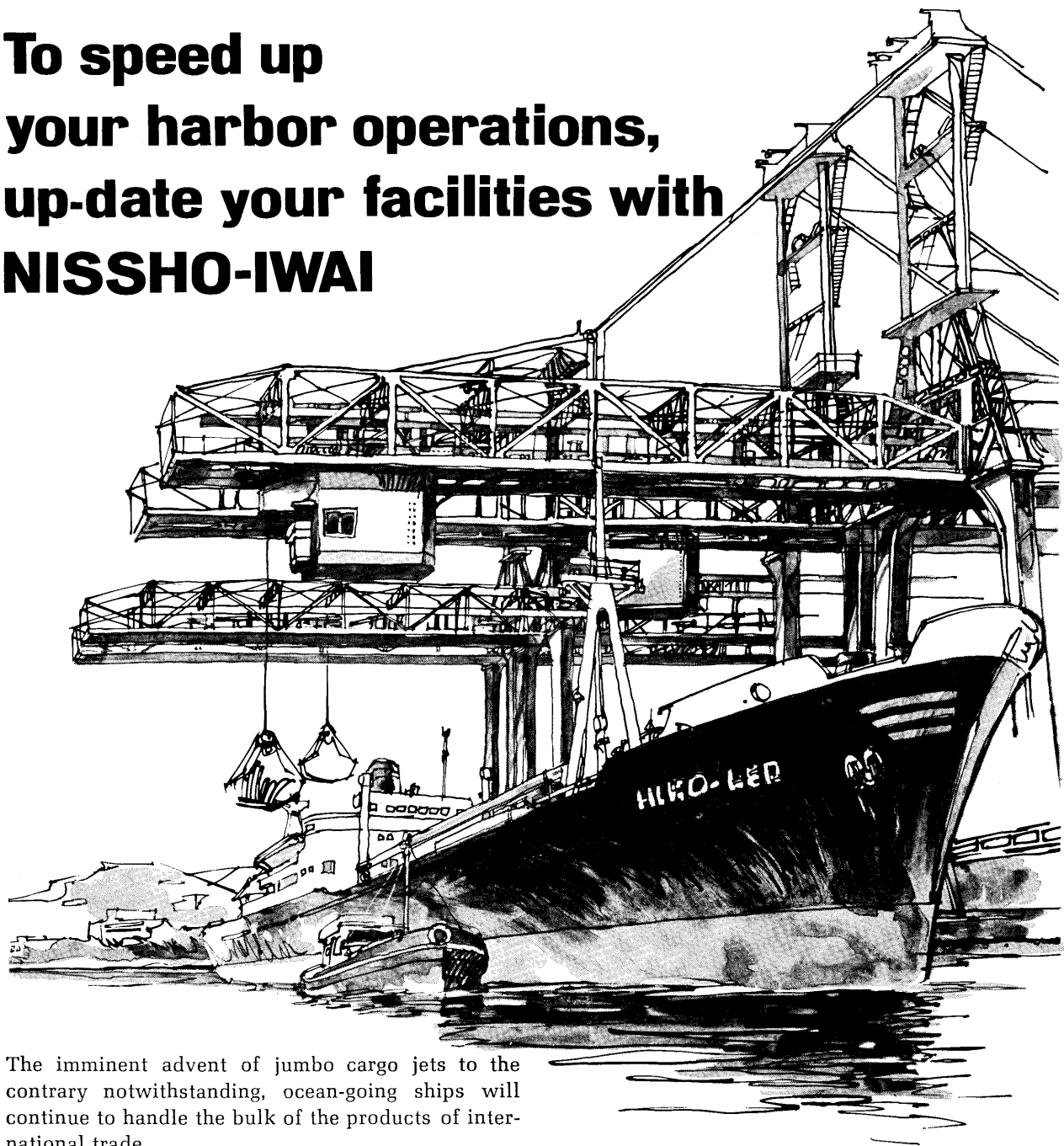
Final Report on Maintenance Dredging Operations on the Tees (Page 296)

Working Party on Heavy Indivisible Loads—Final Report (Page 301)

Work Study in Ports (Page 302)

Waste Gypsum disposal in Estuaries—A note by the Chief Engineer Dublin Port and Docks Board (Page 303)

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Travelers

• Mr. Dato Laksmana Mohamed Razalli, S.P.M.P., J.M.N., P.J.K., J.P., Chairman, Penang Port Commission, having arrived in Japan June 3, called on IAPH Secretary General Mr. Toru Akiyama at the Head Office Friday June 5 morning. Dato was invited by the S. G. to a lunch that noon at the Palace Hotel, Crown Room, Tokyo along with Mrs. Razalli, a friend of Dato's, a Malaysian business magnate, and his wife.

• Mr. Ben E. Nutter, Executive Director, Port of Oakland, called on IAPH Secretary General Mr. Toru Akiyama at the Head Office on Saturday, June 13 morning accompanied by Mr. S. Kuwata, Director Far East, Tokyo Office. Mr. Nutter was on his way home after attending the sisterport affiliation ceremony in the Port of Keelung, Taiwan.

Cocktails

On Wednesday, June 3 evening, Mr. Allen V. Junkin, Managing Director, Far East Trade Development, Board of Commissioners of the Port of New Orleans, held a cocktails to introduce Mr. Hiroyuki Matsumoto, Newly appointed Director, Japan Trade Development, at the World Trade Center Club, Tokyo.

Commodities

Ottawa, Ont.:—During the first month of the 1970 navigation season, the most encouraging growth has been in bulk commodities where wheat, soybeans, grain (except corn) and coal traffic on the Welland Canal were up significantly over the same period last year. The decline in corn and manufactured iron and steel was, however, almost equivalent to the increase registered by other commodities.

After a disappointing 1969 season for wheat traffic, it would appear that the situation will improve considerably during the coming navigation season. In April alone, the wheat traffic on the Montreal-Lake Ontario Section surpassed the April 1969 traffic by almost 100,000

tons and this trend has continued well into May. Soybeans and grain other than corn have shown similar trends. The 1970 season for these commodities could well prove to be the best ever since the opening of the Seaway in 1959.

A strong domestic demand for steel in Europe, Japan and several developing countries had an adverse effect on manufactured iron and steel traffic on the Seaway in April. This trend began last year when Common Market steel shipments to the U.S. in 1969 fell short of their 5.75 million ton target by an estimated 500,000 tons. Should this market situation persist in 1970, Seaway iron and steel traffic may not attain the 1969 level.

General cargo, other than iron and steel, has shown about the same level as last year during this early part of the season. The continuing growth of containerized cargo is particularly noteworthy. This type of traffic in April was up 22.9% in the Montreal-Lake Ontario Section and 74.0% on the Welland Section of the St. Lawrence Seaway. (Monthly Traffic Review, April, The St. Lawrence Seaway Authority)

50-Foot Depth

Baltimore, Md.:—\$99,300,000 is to be spent on deepening Baltimore's harbor to 50 feet. The project was recently officially approved by the U.S. Government's engineers.

Present harbor depth is 42 feet, which is not enough for the new "super" series of ships. The various harbor channels will also be widened to 1,000 feet.

The contract is expected to be completed in 3 to 4 years. Upon completion, the Port of Baltimore will then be able to offer its lower ship rates to the "super-ship" owners.

The fact that the Port of Baltimore is the closest all-year port to the U.S.'s largest markets such as Chicago, will then give more cargo owners the greater advantage of lower inland freight costs, plus much lower port charges for ship-owners. (Port of Baltimore)

Military Cargo

Buffalo, N.Y.:—An encouraging message was given executives of the Niagara Frontier Transportation Authority when they made their annual visit to Washington for the purpose of exploring the possibility of increasing Buffalo's ocean tonnage.

The "off-the-cuff" round of talks with officials of the Defense, Agriculture and State Departments resulted in the news that if more U.S. flag carriers come into the Great Lakes, there is plenty of military cargo that can be picked up at lake ports, including Buffalo, for transportation overseas. Arthur J. Fallon, the NFTA's executive director, was informed by Vincent Caputo, director of transportation and warehousing policy for the Department of Defense, that the potential is as much as 80,000 tons of military cargo out of the lakes this year if the U.S. flag carriers schedule sailings into the lakes.

While in Washington, Mr. Fallon and Francis D. Flori, the NFTA's manager of trade development, also had conferences concerning the possibility of increasing relief flour shipments through Buffalo, as well as increasing shipments of the Commodity Credit Corporation grain storage program. (Port of Buffalo Progress Bulletin)

Port Movie

Port Everglades, Florida:—ABC-TV which telecast a documentary film of Port Everglades on its Discovery series on March 22 will repeat the program on Sunday, Sept. 13. The Port movie was produced by Jules Power Productions. (Port Everglades News)

Colorado Coal

Los Angeles, Calif., June 16:—Thirty-two rail carloads of coal from Western Colorado, the first such shipment destined to Japan from the Port of Los Angeles, have arrived at the harbor's bulk loading facility.

The coal was mined in the North Fork Mining District, about 90 miles east of Grand Junction, Colorado,

and is the initial load in two 10,000-ton shipments expected in the next two months at the bulk cargo terminal, which is operated by American Bulk Loading Enterprises.

Claude P. Heiner, representing Western Slope Carbon, Inc. and C. P. Heiner & Company, said his firm plans to ship substantial quantities over the next 10 years.

"We expect to be moving in excess of a half-million tons a year through the Port of Los Angeles," Heiner said.

The coal will be delivered to Sumitomo Shoji Kaisha, Ltd. in Japan.

Pete Moore, superintendent of the bulk loading facility, said the initial 32-car payload totaled 2,000 tons.

Last year the facility began handling shipments of Utah coal to Japan. Iron ore is the major cargo handled by the terminal, but it has also shipped copper concentrates and talc cargo, white clay and imported high grade iron ore for mixing with local iron ore to upgrade the quality of steel produced by Kaiser Steel mills in Fontana, California. (Port of Los Angeles)

Sky Tower

Los Angeles, Calif.:—A 328-foot-high sky tower and an aerial tramway will be added to Los Angeles Harbor's Ports of Call Village complex as part of its \$2 million recreational development and expansion program approved today (Wednesday, May 6) by the Los Angeles Board of Harbor Commissioners.

The Commission also approved a readjustment of the rental payable by Ports O'Call Restaurant Corporation, a subsidiary of Specialty Restaurant Corporation and operator of Ports of Call Village and Whalers Wharf, for the 10-year period beginning March 1, 1970 (retroactive). The new rental arrangement is expected to provide the Harbor Department with an estimated \$4 million gross income from the lessee over the next ten years.

Frank C. Sullivan, acting president of the Harbor Board, said the corporation has guaranteed to invest

\$400,000 each year for the next five years in permanent capital improvements on and adjacent to the leased premises.

"We believe this is a mutually advantageous, transaction for both the lessee and the City and Port of Los Angeles," Sullivan said. "It will insure the continued development of the Ports of Call area by the lessee and will provide the Harbor Department with a higher rental return," he said.

Sullivan estimated that the yearly revenue to the department from the gross sales the Ports of Call complex is expected to generate should increase each year from \$213,500 in 1969~70 to \$488,500 in 1978~79.

David C. Tallichet, Jr., president of Specialty Recreation Corporation, another subsidiary of Specialty Restaurants, said construction for the foundation of the sky tower will begin this month and should be completed in about six weeks. Tower installation and erection will start in June and completion of the attraction is scheduled for February, 1971, he said. "It will afford Port of Los Angeles visitors with a magnificent view of the harbor and the surrounding area," Tallichet said.

Project director William A. Nott said the \$425,000 tower will accommodate 60 people in its double-tiered capsule, which will travel 244 feet up the 328-foot structure. The capsule will rotate one-and-a-half times during its climb, two times at the top and another one-and-a-half times during its descent, two times at the top and another one-and-a-half times during its descent.

"Our sky tower will be able to accommodate 700 passengers every 60 minutes during 11 five-minute round-trips per hour," he said. Nott said the base of the tower will be landscaped with waterfalls or reflecting pools and intermittent winding paths leading to the passenger ramps.

The quarter-acre attraction will be located in the parking area near the center of the Ports of Call Village. Guy F. Atkinson Company is scheduled to construct the foundation and the tower will be built by

The Constam Corporation of Salt Lake City. The elevator fabricator is Montgomery Elevator Company of Moline, Illinois.

Installation of an aerial tramway, which will travel from the sky tower over the Ports of Call Village to the Rum Runner Restaurant, is scheduled to start the first of next year. Discussions are currently under way for a proposed new master lease for all of the attractions in the Ports of Call area, Berths 75~83, which includes the Village, Whalers Wharf, Norm's Landing, the proposed sky tower and aerial tramway, and the Yankee Whaler Inn, Rum Runner and Ports O' Call restaurants.

Specialty Recreation Corporation would be the new corporate entity operating the recreational facilities along the half-mile stretch of waterfront on the west side of the Los Angeles Harbor's main channel. (Port of Los Angeles)

Agent in London

Los Angeles, Calif., February 19:—The Los Angeles Board of Harbor Commissioners has approved a contract to retain Robert T. W. Halliday of London, England, as European Trade Promotion Representative for the Port of Los Angeles.

Halliday, 40, a graduate of Tonbridge College in London, was selected for the post to replace William Chernus who is now Assistant Traffic Manager for the Port of Los Angeles.

A former officer in the British army, serving as a captain with the Royal Sussex Regiment, Halliday has a business background which includes positions in steamship management, voyage accounting, chartering and freight forwarding.

In 1952 he joined Furness, Withy & Company and became the import freight department manager in 1963. In 1967 he was re-assigned as import and export manager, specializing in Pacific Coast Service.

The new port appointee will undertake his new duties next month. (Port of Los Angeles)

Brussels Trade Director

New Orleans, La., June 4:—The Port of New Orleans has opened a new trade development office at Rue

Growing Containerization Seen In the Port of Houston

Port of Houston News Release

Houston, Texas:—With the completion of its new million dollar container marshalling yard and with bond sale funds available for purchasing a giant container crane to serve it, the Port of Houston has moved still more strongly into the forefront as the leading container port on the Gulf.

Already the nation's pioneer container port, dating from the first container shipment from Elizabeth, N. J. in 1956, Houston has kept steady pace with the container revolution and will continue moving with the rapidly changing patterns of cargo handling as they develop.

At present the Sea-Land service between Elizabeth and Houston is the only full container service in the Gulf, but this service is expanding to Puerto Rico and already provides direct bill-of-lading shipments from Houston to five major world trade routes, via Elizabeth, N. J.,—to Europe, Scandinavia, the U.K., the Mediterranean and Ja-

pan.

Thrutainer Line, a division of Universal Carloading & Distributing, is equipped for a full container service into Houston and other lines, also, will soon have full container services into the Port.

It is to meet the needs of these services that the Port of Houston has gone forward to develop its own facilities and provide every necessity for the accelerated container services in the months and years ahead.

The recently completed 16-acre container marshalling yard, located behind and immediately adjacent to open Docks 23, 26 and 29, is so placed as to be out of the way of on-dock and behind-dock traffic. This lighted, paved and fenced facility is capable of handling more than 800 containers.

Another 150 acres of land in the Navigation District's Industrial District is available behind open Wharves 9, 17, 20 and 23 for ad-

de Hornes 4, 1050 Brussels, Belgium. Paul L. Vogel, managing director of European trade development for the port, will head the new operation.

Vogel has operated since 1962 from headquarters in Milan, Italy. His transfer to Brussels places him closer to the heart of the complex transportation and communications network linking the major European industrial and trading centers.

Vogel will promote trade for New Orleans in Belgium, the Netherlands, Luxembourg, Denmark, West Germany, France, Switzerland, Italy, Austria, Greece, Turkey and the Middle East.

Coverage of the United Kingdom, Eire, Norway, Sweden, Finland, Portugal and Spain, for which Vogel has also been responsible, will be handled from the port's London office, which is to be opened later this month.

ditional containerization marshalling space when further storing and servicing is needed.

Presently, dock-side container-handling equipment includes a Paceco Portainer crane of 27-ton capacity, one 50-ton electric gantry crane, a 35-ton electric gantry crane and four mobile 82-ton cranes.

Approximately \$1 million out of \$7 million recently sold in tax bonds by the Navigation District will be spent to acquire another container crane in the near future. This new crane will service Docks 26 and 29. Also planned, but not yet funded, is the acquisition of still another container crane to serve the same area as increased containerization makes the expenditure feasible.

Port officials expect to be handling a minimum of 500 containers weekly in foreign commerce in the very near future, in addition to the 15,000 containers handled annually by Sea-Land's coastwise service.

An estimate on the growth of container traffic in the 1970's is difficult to make at this point, Port personnel say. However, surveys have indicated that half of the foreign trade general cargo should be moving in containers over Port of Houston wharves by 1975. This would amount to more than 2½ million tons, based on today's volume.

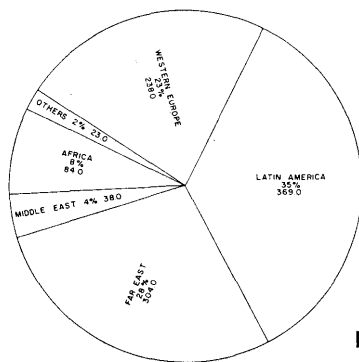
A modernization and development program for the Port was begun in 1957 and since then more than \$65 million in new Port facilities has been invested. In wharf construction Navigation District procedure has been to develop the wharves in units of three at a time—one open wharf and two shedded wharves. Five of these units are now completed for a total of 15 new wharves.

With existing facilities, this has made available six up-to-date open wharves on the north side of the Houston Ship Channel, each ideal for the handling of containers. These open wharves, in addition to their container usage and further potential, are being used for large and heavy pieces of equipment, many of them parts of complete petro-chemical and oilfield plants

European markets account for 42 percent of New Orleans exports in tonnage and 34 percent of all exports in value. Imports from Europe account for 13 percent of the total tonnage and 23 percent of the total import value. West Germany and the Netherlands are the principal customers of New Orleans in Europe. Iron, steel and machinery are the main imports, and grain is the main export.

The opening of the Brussels office is part of the port's expansion program in conjunction with its long-range CENTROPOR USA development plan. An Australian office was recently opened in Melbourne, and a second agent has been added to the Far East Office in Tokyo. An office covering Latin America will soon open in Panama. New Orleans already operates two-man offices in New York, Chicago, and St. Louis.

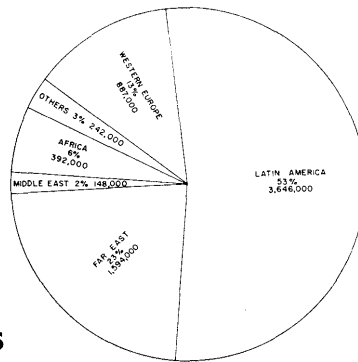
Port of New Orleans Foreign Waterborne Commerce — Calendar Year 1969



IMPORTS

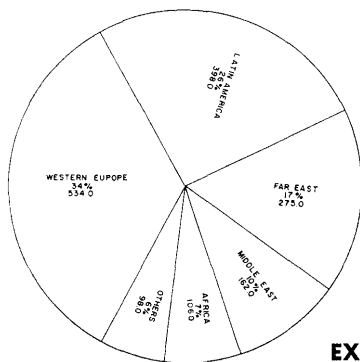
Millions of Dollars

PRINCIPAL COUNTRIES			
Japan	187	United Kingdom	37
West Germany	88	Belgium	30
Brazil	82	Philippines	27
Mexico	81	Indonesia	26
Peru	40	Argentina	25



Short Tons

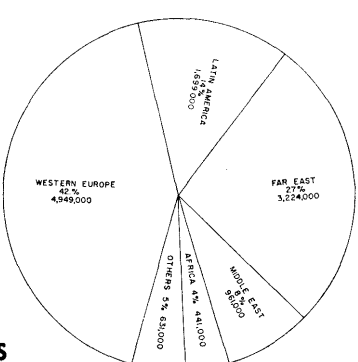
PRINCIPAL COUNTRIES			
Japan	1,120,000	Guyana	247,000
Venezuela	567,000	West Germany	203,000
Mexico	558,000	Jamaica	197,000
Neth. Antilles	468,000	Peru	187,000
Brazil	429,000	Philippines	183,000



EXPORTS

Millions of Dollars

PRINCIPAL COUNTRIES			
Japan	191	United Kingdom	53
Italy	106	Brazil	43
West Germany	105	France	43
Netherlands	88	India	43
Venezuela	77	Australia	42



Short Tons

PRINCIPAL COUNTRIES			
Japan	2,591,000	Venezuela	390,000
Italy	1,445,000	Belgium	318,000
West Germany	855,000	United Kingdom	303,000
Netherlands	797,000	India	293,000
Spain	482,000	France	256,000

Source: U. S. Department of Commerce

being shipped overseas.

What with the longtime partnership of the Port of Houston, Sea-Land Services and others, it is obvious that there is no lack of experience in container-handling.

Not only are Port personnel experienced in the increasingly popular method of handling cargo in containers but, Port officials emphasize, all the facilities for doing so are ready NOW—something which no other Gulf port can claim.

Japan Trade Promoter

New Orleans, La., May 25:—The Port of New Orleans has added another representative to its Far East

trade development office in Tokyo.

He is Hiroyuki Matsumoto, 41, a veteran shipping man, who brings to the port 18 years of experience in the maritime field. He assumed his duties as director of Japan trade development on June 1. The port's Far East office in Tokyo handles port affairs from Japan to Indonesia to India. Allen V. Junkin is managing director of Far East trade development.

Adding Matsumoto to its sales staff is one of several major steps the port of New Orleans has taken this year to increase its world-wide promotional representation. The port opened an office in Australia

in March (the only U.S. port to have a representative in that country), and is simultaneously opening offices in London, Brussels and Panama. For many years past, the port has maintained field offices in St. Louis, Chicago, New York and Milan.

Matsumoto spent many years in the United States as representative for Shinnihon Steamship Co. (now Yamashita-Shinnihon Steamship Co.), having served in New York, Los Angeles, and in Houston as U.S. Gulf representative. He is a specialist in container-intermodal transportation, having served as manager of container operations for Yamashita-Shinnihon. He is fully acquainted with the facilities and services of the port of New Orleans. A native of Kobe, he is the son of a former president of Shinnihon Steamship Co., Ltd., and graduated from the Kwansei Gakuin University, where he studied marine transportation. He is married and the father of two sons. (Port of New Orleans)

Port Agent Appointed

New Orleans, La., February 16:—The port of New Orleans has named H.K.H. Cook as trade development representative for Australia and New Zealand effective with his resignation in March from Australian government service.

Cook was senior trade commissioner for the Australian government in New York from 1967 until November 1969. His headquarters as New Orleans agent will be in Melbourne.

A native Australian, Cook has served with Australian trade commissions and embassies in London, Sydney, Rome, Cairo and Melbourne for more than 20 years.

"Cook's thorough knowledge of Australian shipping and governmental circles makes him an ideal choice to promote the port of New Orleans," said Robert R. Barkerding, Sr., executive director and general manager of the port, who is in Australia this month to confer with Cook and to officially announce the opening of the port's new office.

U.S. Custom House Moving Into WTC Building, N.Y.

New York, N.Y., June 2:—It is with considerable pleasure that we meet here this morning with representatives of the Federal Government to formalize our agreements with respect to the relocation of the Port of New York's Customs activities to The World Trade Center. I would be remiss if I did not, at the outset, express the thanks of the Port Authority to the extensive number of people in the General Services Administration both here and in Washington, as well as to the Customs Service itself for the excellent cooperation we have received from the time that the subject of World Trade Center participation was first broached.

This relocation will be of significant benefit to the Customs Service itself, to The World Trade Center and more important, to the citizens of this great bi-state port. The inclusion of Customs as an integral part of The World Trade Center complex has long been a principal feature of our planning. No other organization in the Port of New York has been more directly associated with the movement of world trade through this Port than the United States Customs Service. This association dates back to the earliest days of the Port's history, when Customs duties were collected by the Dutch in a building which was located hard by New Amsterdam's first East River Pier. These Customs activities grew in scope and responsibility as the Port came under the later control of the English and then of the United States Government itself.

Today, of course, Customs oversees the importation of an array of products which could hardly have been dreamed of by our colonial forefathers—machinery, crude rubber, newsprint, vehicles, foodstuffs

and other products which feed the nation's factories and enrich the lives of all of us. Last year this flow of goods amounted to well over nine million tons, valued at more than \$8.5 billion. The Custom House in New York played a vital role in handling entry requirements for these imports.

These volumes will continue to grow, and the services provided to the world trade community by Customs will have to keep pace. The efficiency built into the new Custom House will enable Customs to markedly improve its services to the public. Equally important, Customs and the principal users of its services—the steamship lines, importers and customs brokers—will be brought together through The World Trade Center to the mutual advantage of both.

Our ability to compete as a port depends on the type of streamlined operations typified by this new Custom House. The old ways of doing business will have to change; the reliance on the use of platoons of messengers will have to go; and more efficient means of conducting the marketing and administrative processing of world trade are a must. It is for these reasons that The World Trade Center is rising skyward. And it is for these reasons that World Trade Centers are springing up in major cities throughout the world.

And so, it is with considerable confidence in the future of the bi-state Port of New York that we sign this agreement this morning. I have no doubt that it represents a new chapter in the Port's long history of international business leadership, as well as a new opportunity for expanding its paramount position as a focal point for world trade.

Sisterport Alliance

Oakland, Calif., June 10:—Ceremonies marking the signing of a sisterport affiliation between the Port of Oakland and the Port of Keelung (Taiwan) were held today in Keelung, it was announced.

In Taiwan for the ceremonies were Oakland Mayor John Reading, President of the Oakland Board of Port Commissioners William Walters, Commissioner Robert Mortensen, and Port Executive Director Ben E. Nutter. Heading the Taiwan delegation was Admiral K. C. Tsao, Director of the Keelung Harbor Bureau.

The official ceremonies included signing of sisterport affiliation documents by Walters and Tsao, the raising of both port flags and pouring a decanter of sea water from the Port of Oakland into the Keelung harbor.

Gifts and mementos were exchanged by both Port Boards.

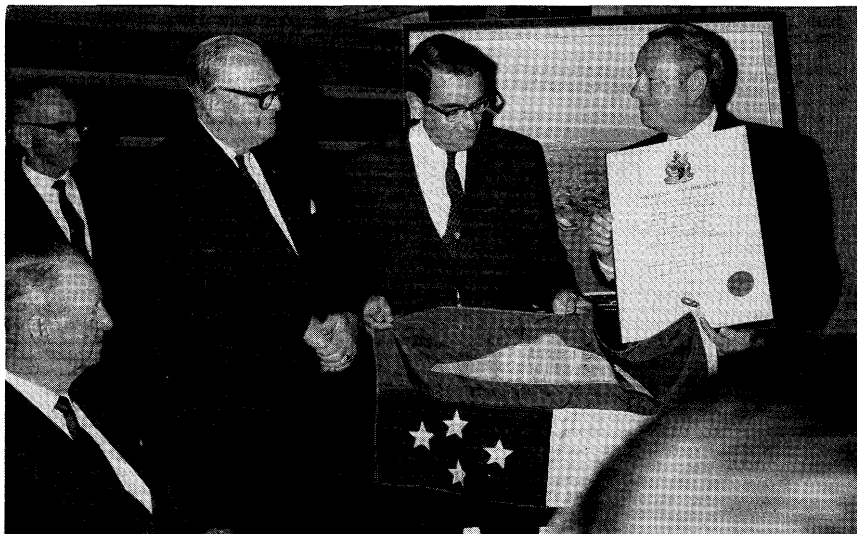
The sisterport relationship between Oakland and Keelung developed from a visit to Oakland by Taiwan port and steamship executives for a container seminar, and a return visit to Taiwan by a trade mission group from the Port of Oakland.

Oakland is the largest container port on the Pacific Coast of the United States, while Keelung port for Taipei (Taiwan's capital city) is rapidly expanding its facilities for containerization with two new terminals opening this year.

FMC Relents

Portland, Oregon, Friday, June 12:—U.S. Court of Appeals for the District of Columbia in Washington, D. C., has approved a Portland Dock Commission request that the Federal Maritime Commission be required to hold hearings into an agreement between six Japanese steamship lines for container service between the Pacific Northwest and Japan.

A three-judge panel in Washington announced late Friday afternoon it was remanding the FMC to hold a hearing on Dock Commission allegations that failure to



At ceremonies establishing the sisterport affiliation between Auckland, New Zealand, and Oakland, California (USA), held in Auckland, an exchange of charters and mementos took place. Shown in the picture are (left to right) R. C. F. Savory, Chairman, Auckland Harbour Board; Ben E. Nutter, Executive Director of the Port of Oakland, and Chairman of IAPH's Committee on Containerization, and Robert E. Mortensen, Commissioner, Oakland Board of Port Commissioners. (Port of Oakland)

provide container service to Portland was discriminatory. The court also issued a stay on permission given by the FMC to the six Japanese lines to go ahead with the service.

The stay, however, was delayed for 60 days (Aug. 12). The stay was made to keep the recently instituted service between Japan and Seattle and Vancouver, B. C. from being immediately cancelled.

In March, the Dock Commission filed a request with the FMC for investigation into the consortium's agreement to enter service. The agreement, filed with the FMC for approval, said service would be provided ports of Oregon and Washington.

When it became apparent that no container ships would be scheduled into the Columbia river, the Dock Commission asked the FMC to hold public hearings to require the Japanese lines to reveal their plans and charge that failure to provide service to Portland was discriminatory.

In April, the FMC approved the containership service agreement after denying the Commis-

sion's request for a hearing. Promptly, the CPD requested the Federal Court of Appeals to order the FMC to conduct the hearing.

At the same time, it asked the FMC to set aside its approval of the agreement and call for a public hearing. However, the FMC affirmed its earlier action.

Calling the court action a "major victory", CPD General Manager Thomas P. Guerin pointed out the court order will bring "this clearly discriminatory action on the part of the six Japanese lines to public attention and we hope we can eventually obtain equal and fair treatment."

The court also said that if more time than 60 days is required the FMC may request a further delay on the stay but should be able to say why the court shouldn't impose a conditional stay requiring rotation of service among the port involved . . . including Portland.

It based this order on the rotation of ports of call being one of the matters which presumably would be aired at the hearing.

(Portland Public Docks)

More Trade in Vans

Norfolk, Va.: — Total foreign trade tonnage handled by the Ports of Virginia during 1969 scored impressive gains over 1968. A total of 48,624,523 tons of export-import freight moved through Virginia in 1969, an increase of 13.8 per cent over the 42,717, 055 tons registered in 1968. Bulk cargo increased by 14.1 per cent and general cargo moved ahead by a substantial 9.3 per cent.

General cargo, which includes goods of high value and produces the most economic benefit to the region, increased from 2,314,154 tons in 1968 to 2,531,178 tons in 1969. We estimate that these movements contributed some \$46.7 million to the economy. This general cargo increase is truly spectacular because it was registered despite a strike by the International Longshoremen's Association which idled most general merchandise piers for the first two months of the year.

Total exports through Virginia ports during 1969 amounted to 40,249,253 tons, a 12.1 per cent increase, while the total import trade of 6,820,250 tons during 1969 was up by 22.8 per cent over the 1968 calendar year. Coal was again the principal bulk commodity and accounts for the increase in exports. This commodity continues to be in strong demand by industrial nations, particularly Japan.

General cargo exports during 1969 increased by a healthy 16.6 per cent. The leading commodity was unmanufactured tobacco, very nearly equal to the level of 1968. Iron and steel scrap, accounting for the largest increase, grew from 76,449 tons during 1968 to 202,075 tons during 1969. This commodity is also attractive to industrial nations and, again, Japan is the largest consumer of Virginia iron and steel scrap.

Bulk cargo imports during 1969 soared to an impressive gain of 27.4 per cent, with increased demand for residual fuel oils contributing the most to the increase.

General cargo imports increased moderately with a gain of 4 per cent. Manufactured cement was

the leading import commodity.

The Port of Hampton Roads handled 98.4 per cent of the total tonnage by all Virginia ports during 1969, with the three river ports of Richmond and Hopewell on the James River, and Alexandria on the Potomac River, handling the balance. River port traffic during 1969 increased by a very substantial 19.5 per cent over 1968, increasing from 656,712 tons to 784,476 tons.

Container traffic at the Port of Hampton Roads continues to accelerate rapidly. A total of 41,790 containers were handled during 1969, compared to 23,485 for the previous year, a 77.9 per cent increase. We estimate that container traffic accounts for more than 15 per cent of the 1969 general cargo tonnage total, up from approximately 10 per cent of the total during 1968.

Another indication of improved port performance during 1969 was the value of customs receipts. According to the local office of the United States Customs Bureau, the amount collected during 1969 was \$49,685,587, up by 18 per cent over the 1968 amount of \$42,124,285 (Virginia State Ports Authority World Trade News)

Cargo Comeback

Philadelphia, Pa.:—Ameriport is again the top handler of foreign import tonnage as cargo records were set during 1969.

A record 57.5 million tons of international cargo flowed through Ameriport during 1969, according to U.S. Bureau of Census figures. This tops the previous high, set in 1966, of 55.7 million tons.

The record activity also saw Ameriport regain its position as the number one port in handling imports. Shipments from overseas totaled 54.5 million tons, an increase of 7.4 per cent over 1968.

Largest gains in imports included: crude oil, 14.7 million tons, up 13.7 per cent; mineral fuels and lubricants, 33.9 million tons, up 8.3 per cent; and chemicals, 130,158 tons, up 20 per cent.

Exports dipped slightly, from 3.08 million tons to 3.06 million—a loss of .7 per cent. Those exports show-

ing a gain include: mineral fuels and lubricants, 1.2 million tons, up 12 per cent; crude oil, 705,691 tons, up 57.2 per cent; and manufactured goods, 486,045 tons, up 51.8 per cent.

The sharp rise in manufactured goods exports was due to increased exports in steel, according to DRPA World Trade Division officials. This commodity helped boost general cargo exports 20 per cent, from 1.6 million to 1.9 million tons. Conversely, a drop in steel imports caused a slowing of general cargo imports by 17 per cent, from 3.7 million tons to 3.1 million. Total general cargo shipments through the port fell 6.1 per cent, from 5.3 million to 5 million tons.

James R. Kelly, DRPA World Trade Division director, attributed part of this decline in general cargo to the seven-week longshore strike at the beginning of 1969.

"Cargo lost during a strike is generally non-recoverable," Kelly stated. "In our case, it was probably diverted through Canadian or West Coast ports that were operating when we were shut down."

Figures supplied by the Philadelphia Maritime Exchange bear out this theory. Tonnage handled by the Ports of Philadelphia during February was nearly double that handled during the same month a year ago, when the strike was on. Net tonnage of 4.7 million tons on 4855 vessels arrived this February, compared to 2.4 million tons on 212 vessels in February 1969.

Despite the slow start in 1969, the Ports of Philadelphia recovered well enough to record a total increase in tonnage of 6.9 per cent. And that's good—anyway you figure it. (Delaware River Port Authority Log, April)

Fact-Finding Confabs

San Diego, Calif., June 11:—The Board of Port Commissioners of the San Diego Unified Port District are planning a schedule of fact-finding and community information meetings in the five communities which comprise the District according to Lorenz H. Ruehle, Chairman of the Board of Port Commissioners. These will be the first meetings of

this type in the eight-year history of the Port.

Ruehle announced that the Board would meet in public session in the Council Chambers, Coronado City Hall with local civic and business leaders including members of that communities' planning commissions at 7:30 p.m., Wednesday June 24. Walter A. Vestal, former mayor of Coronado, now represents that city on the Port Commission.

In response to inquiry, the Chairman stated that the Port of San Diego is now engaged in revising and updating the Port's Master Plan for San Diego Bay which was developed in 1963. With some modifications the Plan has been substantially completed in several areas. He stated that in order to revise, update and project the Plan, it was deemed advisable by the Commission to meet with the leaders of the cities of San Diego, National City, Chula Vista, Imperial Beach and Coronado in order that there might be a "meaningful exchange of ideas and information". Civic leaders contacted thus far have been most interested in the program, Ruehle said.

"We are particularly interested in the General Plan of each of the member cities and in reaching an accommodation between the Port's Master Plan for the Bay and the several cities' plans for the development of tidelands within their boundaries," Ruehle stated at the Commission meeting of June 9.

The Board of Port Commissioners normally meet at 2 p.m. Tuesday afternoons in the Port Administration Building located at 3165 Pacific Highway. Except for specially called meetings, usually to discuss a specific project or problem, the Board has never conducted a formal, pre-scheduled meeting within the limits of any South Bay community.

Plans are being made for subsequent meetings in Chula Vista and National City at an early date. C.R. Campbell is the Board member representing Chula Vista, Ruehle is commissioner for National City. Meeting dates will be set later for San Diego and Imperial Beach. (Port of San Diego News Release)

1973 Convention Site

San Diego, Calif., May 12:—Despite last-minute bids by San Juan Puerto Rico, Buenos Aires and Trinidad, San Diego has been named as the site for the 1973 convention of the American Association of Port Authorities.

Confirmation of the selection was made in Washington, D.C. by Richard W. Emrich, Assistant Port Director for the Unified Port District. Emrich made a presentation on behalf of San Diego and the Port District to the AAPA's Executive Committee as a follow-up to formal invitations to the organization made earlier this year by the District and other San Diego organizations.

"Selection of San Diego as the convention site for this strong, influential and active port organization is good news," said Harvey Furgatch, Acting Chairman of the Port District Board. "It not only shows the increasing stature of the Port of San Diego as an international port, it verifies the growing popularity of the San Diego area as a convention locale."

The convention, to be held in September or October of 1973, will attract between 600 and 700 delegates who will be in San Diego about one week.

Selection of San Diego was made against last-minute competition from Trinidad, Puerto Rico and Buenos Aires, but the AAPA's executive committee gave the city 15 votes as compared with the nearest competitor, Puerto Rico, which received six votes.

The AAPA convention schedule includes Houston, October 18 to 23, 1970; Portland, Maine, in 1971 and Miami, Florida in 1972. (Port of San Diego News Release)

P. R. Director

San Francisco, Calif., June 19:—San Francisco Port Director Miriam E. Wolff has announced the appointment of Donald Taggart as port public relations director, a position he held once before in the early

1960's. He replaces Robert D. Kraehe, resigned.

In addition to a 25-year public relations and editorial background, Taggart is a novelist, with two novels published by Doubleday & Co. in 1967 and 1969 and a third scheduled for release by Fawcett Publications this fall. (Port of San Francisco)

New Crane Activated

San Francisco, Calif., June 17:—The first in a series of massive container-cargo cranes scheduled for installation on the San Francisco waterfront went into use June 15 at the port's Army Street Terminal, home berth for the containership fleets of American President Lines and States Steamship Company.

Port and city officials and steamship industry leaders were at the pier as the new crane, towering 150 feet above the wharf, swung into action to load Far East-bound cargo containers aboard APL's Sea Racer containership SS PRESIDENT LINCOLN.

The million-dollar crane was built for the port by the Paceco Division of Fruehauf Corp. It lifts containers weighing up to 30 long tons and handles both 20-foot and 40-foot vans. The crane travels along more than a half-mile of wharf to serve vessels berthing there. It is rigged to stow containers both fore-and-aft and athwart-ship and can handle heavy lifts of 35 tons.

Port Director Miriam E. Wolff said the Army Street crane is the fore-runner of several planned as part of the automated cargo facilities the San Francisco Port Commission is building in the India Basin area on the southern waterfront.

One large crane will be installed next year at the port's unique LASH (lighter-aboard-ship) terminal being constructed for Pacific Far East Line's new fleet of barge- and - container - carrying freighters. Six other cranes are planned for containership berths to be built adjacent to the port's LASH facility. (San Francisco Port Commission)

Far East Director

San Francisco, Calif., June 5:—The former deputy director of the State of California's trade development office in Japan has been named director of the Port of San Francisco's cargo sales program in the Far East, Port Director Miriam E. Wolff announced.

Paul M. Takahashi, who served in California's overseas trade office from 1965 to 1969, will coordinate the port's cargo development activities in Japan, Taiwan and Hongkong with headquarters in Tokyo.

Takahashi, 30, succeeds Taizo Mizoguchi, who is retiring after heading the port's trade development offices in Japan for the past 15 years.

The port's new trade director served as a representative of Pacific Far East Line in the line's Tokyo headquarters in 1964 and 1965 before joining the California world trade authority.

Since the closing of the state's overseas program last year, Takahashi has been on the international staff of Wells Fargo Bank in San Francisco. (San Francisco Port Commission)

John M. Haydon

Seattle, Wash., May 19:—John M. Haydon, Governor of American Samoa, was today named Maritime Man-of-the-Year by the Puget Sound Maritime Press Association. Haydon is the 20th recipient of the award which is given to the person who has contributed the most in the maritime field and who is from the Puget Sound area. The award was announced by Martin L. Erickson, president of the Maritime Press Association, at the annual Maritime Day luncheon sponsored jointly by the Seattle Chamber of Commerce and the Propeller Club. Receiving the plaque was Marti Gray, (Mrs. Conner Gray), eldest daughter of the Haydons, who lives in Seattle. The luncheon was held in the Grand Ballroom of the Olympic Hotel.

Haydon was appointed Governor of American Samoa in 1969 at which time he resigned as Commissioner of the Port of Seattle, a post he had held since 1960 having

been elected twice. He was the Port's first Director of Public Relations and was managing director of the first Japanese Trade Fair in 1951. Out of that small beginning came today's tremendously successful Washington State International Trade Fair. (Puget Sound Maritime Press Association)

Dept. of Commerce

Seattle, Wash., May 1:—The Port of Seattle is the first port in the United States to be designated as an Associate Office of the U.S. Department of Commerce.

Making the formal presentation of the framed certificate April 29 was Jack O. Padrick, director of all field offices for the department in the U.S. Receiving the award at a Rotary luncheon was J. Eldon Opheim, Port general manager who was also given copy of the telegram from Congressman Thomas M. Pelly to Mr. Padrick extending congratulations to the Port for its achievement. Secretary of Commerce Maurice H. Stans signed the certificate.

The Port of Seattle maintains a World Trade Center headed by Robert N. Turner, and has a staffed World Trade Center library. In addition, the Port assists the Seattle field office of the U.S. Department of Commerce in the promotion of exports and in international trade in general. The local field office is headed by William H. Flood. (Port of Seattle)

Container Institute

Seattle, Wash., May 1:—Containerization will be more than a word on a transport concept when registrants from 9 states get through the two day Spring Meeting of the Containerization Institute, Inc., in Seattle May 6 and 7. In addition to the panel discussions with top industry leaders for moderators, and the two luncheon speakers, there will be field trips to the Port of Seattle to inspect a larger array of containers and handling equipment and a trip to Boeing's 747 facility at Everett.

The 747 field trip will demonstrate airfreight container handling facilities as well as assembly opera-

tions of the 747. The trip to Port's Terminal 18 on Harbor Island will include active demonstrations of ship container handling. Thirteen steamship companies and their agents have provided more than 35 containers varying from 20 to 40 footers of half a dozen different types. The Port of Seattle will show off its two 33-ton high speed container cranes and three of its newest 33-ton straddle trucks with 3-high stacking capability, plus other equipment.

The Port of Tacoma will bring up a new 20-ton side-loading fork lift with an operator to demonstrate during the 2-day meeting. About 75 visitors in two buses are expected to inspect the equipment at the terminal.

Headquarters for the meeting is Washington Plaza Hotel, Seattle. Harry Carter, Boeing Industry Affairs Representative, Commercial Airplane Group, is general chairman. Albert Bienn, project manager for Boeing's air freight development, is program chairman. Coordinator is Glenn Mather, managing director of the Containerization Institute, Inc., New York. Hollis Farwell, Port of Seattle traffic manager, is coordinating the marine aspects of the meeting.

Luncheon speaker May 6 is Ray Minter, special assistant to president, White Pass & Yukon Route, Vancouver, B. C., Canada. Moderating the first day's panel of experts from the 4 transportation fields is Fletcher Lutz, deputy director, Bureau of Economics, Civil Aeronautics Board, Washington, D. C. On the second day, John Fulton, director, Department of Transportation, State of Oregon, will moderate a panel involving container control.

Capping off the meeting is a reception for all registrants jointly hosted by the Ports of Seattle and Tacoma. (Port of Seattle)

New Phosphate Market

Tampa, Fla.:—The largest ship ever to enter the Port of Tampa departed April 28 with 52,000 long tons of phosphate rock bound for Long Harbor, Newfoundland.

The 52,000 tons of phosphate was

the largest load ever lifted by a single ship in the Port of Tampa.

The vessel, the Motor Ship PHOSPHORE CONVEYOR of Liberian registry, is 850 feet long with a beam of 105 feet. The ship is capable of carrying in excess of 70,000 tons of phosphate and therefore left the Port of Tampa light by some 20,000 tons of capacity. Draft on departure was 34.5 feet and for approximately 16 hours the mammoth ship was aground at one of the Tampa Harbor Channel turnings. She was refloated on the next high tide.

Port Director, Guy N. Verger, and Harbor Master, Captain Richard A. McClean, said they would recommend the ship not be loaded so deeply when it returns next month for another load.

The PHOSPHORE CONVEYOR is owned by Naviteck Company, Toronto, Canada, and is under long-term charter to Electric Reduction Company of Canada (ERCO), Toronto.

Officials of ERCO were in Tampa for the arrival of the vessel and gave a reception on the wharf of Eastern Associated Terminal where the ship was loaded.

Lloyd G. Lillico, president of ERCO, presided and presented Delmar B. Drawdy, Tampa Port Authority Chairman, a house flag for Naviteck Lines and Mr. Drawdy presented the master of the vessel, Captain H. Thorson, a plaque to commemorate the arrival of the vessel in Tampa.

Company officials reported that the PHOSPHORE CONVEYOR would return to Tampa once a month for phosphate rock. The phosphate will be processed into phosphorus at ERCO's plant in Newfoundland. ERCO sells phosphorus in the world market, mainly to the United Kingdom.

The grounding of the ship was cited by port officials in Tampa as additional reason for the widening and deepening of the Tampa Harbor ship channels. The Board of Engineers for Rivers and Harbors has recommended the channels be deepened from their present 34 feet with a two-foot undercut, to 44

feet with a two-foot undercut, and widening from 400 to 500 feet.

It is expected the harbor deepening project will be placed before Congress this session for authorization in the omnibus River and Harbor Bill. Tampa Port Authority has been working for several years for the authorization of the project. (News from The Tampa Port Authority)

Container Chassis

Toledo, Ohio, June 4, 1970: — Container chassis and converter dollies are now available to all Port of Toledo shippers. The units, purchased by the Toledo-Lucas County Port Authority, will provide a low cost means of carrying containers between the Port of Toledo and its hinterland industries.

The Port Authority has leased the chassis and converter dollies (bogies) to Dundee Truck Line, Inc., who will handle the storage, dispatching and maintenance of the equipment. The lease provides for the use of the equipment by Dundee and anyone in the general shipping public may sublet the units on a first come, first serve basis.

The 20-foot chassis are designed specifically for hauling containers. Two of the units can be coupled together for tandem hauls by using the converter dollies—a set of double-axle dual wheels easily secured to the frame of the second chassis.

Initially the Port Authority has purchased ten chassis and five converter dollies. However, the agency will consider the purchase of additional units if the demand continues to exceed truck and steamship line owned equipment availability.

Foreign freight forwarders and shipping agents have already indicated a substantial hinterland requirement for the new rigs. Steamship line representatives say there will be plenty of 20-foot containers available for port users.

Persons or firms desiring to use the equipment should contact either the Port Authority or Dundee Truck Line, 6006 Stickney

Avenue, Toledo, Ohio, 43612, (Phone 419-729-5491). (Port of Toledo)

Office in New York

Toledo, Ohio, June 4, 1970:— The Toledo-Lucas County Port Authority has opened a New York City office for the Port of Toledo. Located at 21 West Street in Manhattan, the new office has been established to intensify the agency's cargo solicitation efforts.

Roger C. Taylor has been appointed manager of the trade development office. Prior to joining the Toledo-Lucas County Port Authority, Mr. Taylor served with the Seaway Port Authority of Duluth, calling on importers, exporters, freight forwarders, custom house brokers and steamship lines in New York. He has a broad transportation background with training in import/export documentation, vessel operations, stevedoring and cargo solicitation.

Working within the Port Authority's Commerce and Traffic Department, Mr. Taylor will contact New York concerns controlling the routing of cargo in the Port of Toledo's hinterland.

According to Port Authority Executive Director Louis C. Purdey, "The establishment of this office and the appointment of Mr. Taylor should effectively place the Port of Toledo's economic benefits at the doorstep of New York transportation decision makers." (Port of Toledo)

New General Manager

Toledo, Ohio:—John A. McWilliam has been appointed general manager of the Toledo-Lucas County Port Authority by the agency's board of directors. Serving with the Authority since 1958, McWilliam became its chief administrative and fiscal officer on January 1, 1970.

Louis C. Purdey will remain in his position as executive director while devoting a greater portion of his time to long-range issues and problem areas vital to the future of the port.

The new general manager is a

graduate of Dartmouth College and the University of Toledo's College of Law. He was the agency's staff attorney for nine years prior to being named manager of development in 1967. One year later he was elevated to director of development.

Aware of the future challenges facing the port, McWilliam is convinced they can be met successfully. "I don't share the view advanced by coastal 'prophets of doom' who would like people to think the lake ports are ready to fold. There's a great deal of viability to our port, the Seaway and the trade area we serve," he says.

According to McWilliam, regional and national transportation issues will continue to take high priority in the Port Authority's planning, but its prime concern will be the continued direction of agency efforts toward a maximum contribution to the economy and welfare of the community.

"As a public agency we must bring to bear all our talents on the major problems of the community that fall into our sphere of interest, and for the port itself, that means getting more cargo," McWilliam says.

To continue its growth the port must get a bigger chunk of the cargo manufactured and shipped by industry within its own hinterland. The area generates a large percentage of the nation's exports, but the vast portion of its shipments still make the costlier overland trip to coastal ports. Mr. McWilliam believes that "parochial thinking" in the Great Lakes area toward transportation problems has hindered efforts toward maximum utilization of the St. Lawrence Seaway.

Citing groups such as the Great Lakes Task Force, the International Association of Great Lakes Ports, and the demonstrated support of the region's senators and congressmen, McWilliam believes a cohesive Great Lakes effort is finally in gear.

"We know our challenges," he says, "the end of the decade will give us a good idea how well we met them." (Port of Toledo News)

River Widening

Melbourne:—Port of Melbourne engineers have advanced their river widening programme which is part of a major port development project to meet the requirements of the larger and deeper drafted container ships.

Currently work has started on the further widening of the main River navigation channel by 100 feet to 500 feet from the river entrance to the existing vehicular chain-ferry crossing 4,000 feet up stream. The work entailing the dredging of half a million cubic yards of spoil will be completed by mid June.

The widening of the entire channel to the container berths about three miles up stream is scheduled for completion early in 1972, and will comprise the dredging of two million cubic yards at a total cost of about \$2½ million. This work depends on the replacement of the ferry by the opening of the high level bridge across the River by the end of next year. (Melbourne Harbor Trust Port Gazette, May)

New Charts

Melbourne:—A page in Australian maritime history opened with the new year following the release of navigation charts showing depth of water in metres instead of fathoms. The charts were released by the Hydrographic Office of the Royal Australian Navy for issue to naval ships and for sale to merchant ships and the public.

The term "fathom" has been used by British seamen for depth measurement for possibly a thousand years and, with its subdivision of feet, has been referred to both in sailing directions and charts, since such aids to mariners were first introduced. However, with faster travel giving the effect of a shrinking world, it is becoming increasingly more important that there should be standardisation in various fields of transport, in the interests of world-wide efficiency.

Linear measurements were ideal for standardisation and it has been decided almost universally that these measurements should be stand-

ardized on decimal units.

The first Australian chart to be issued in this form is chart No. Aus. 58, for the newly-developed iron ore port of Dampier in North Western Australia. In the next three months this will be followed by the chart for Port Hedland and the coastal charts between Port Hedland and the Monte Bello Islands, also on the north-western coast of Australia. (Melbourne Harbor Trust Port Gazette, Feb. 1970)

More Cargo in 1969

Melbourne:—The Port of Melbourne saw another buoyant year in 1969 when more than 1.1 million tons of cargo passed across its wharves during the calendar year—which is also the Port's financial year.

The total trade for 1969 amounted to 13,183,115 tons of import-export cargo, an increase of 1,259,328 tons compared with the previous year.

The number of calls paid by Australian and overseas shipping to the Port, however, showed a decline which must be considered as the first significant sign of the impact of unit-load and container cargo handling methods, particularly in the Port's overseas trade.

During the year overseas ships paid a total of 1,748 calls at Melbourne, 90 less than in the previous year, while ships in the Australian coastal trade paid a total number of 1,200 calls, which was 41 less than in the previous year.

The drop in the calls paid by overseas ships is even more significant when it is considered that cellular container ships were introduced in the U.K.-Australia service last March, and that this service has to some extent been hampered by industrial difficulties in the Port of London—the planned terminal port in the United Kingdom.

Similarly in the coastal trade the drop in the number of calls must be attributed to the expansion in unit-load and container cargo shipping in various services out of Melbourne to other ports on the Australian coast.

Looking at the throughout of

cargo for 1969, there were increases in all but one classifications. Increases were seen in overseas imports, overseas exports and coastal exports, while coastal imports showed a small decline.

Transshipment cargo—NOT included in the total tonnage of 13.1 million tons—also showed a substantial increase of about 74 per cent. This again must be taken as an indication of the impact of unitisation and containerisation in both the overseas and coastal services out of Melbourne, which is the major mainland port serving the island State of Tasmania, 220 miles to the south across Bass Strait.

In the overseas trade imports amounting to 6,150,647 tons showed an increase of 516,942 tons compared with the previous year; while exports amounting to 2,856,990 tons showed an increase of 540,957 tons.

Among the principal items of import cargo to show increases which contributed to the total increase were crude oil, motor cars, phosphate, chemicals, machinery, textiles, and motor car parts, while the only items among the principal cargoes to show a fall in volume were paper and timber.

Among the principal items of exports cargo showing increases were wool—which remains the port of Melbourne's main overseas export—meat, milk and cream, malt, hides and skins and scrap metals, while among the principal cargoes which showed a drop for the year were flour and preserved fruit.

In the coastal trade, the total imports amounted to 2,563,604 tons, a drop of 114,292 tons, about 4%. The principal cargoes which showed falls in volume were iron and steel, coal, crude oil, timber and fuel oil, while cargoes showing increases included raw sugar, gypsum and paper.

Exports out of Melbourne to other destinations on the coast amounted to 1,611,874 tons, an increase of 315,721 tons, compared with the previous year. Principal cargoes which showed increases included motor spirit, fuel oil, touring passenger cars, fresh fruit and groceries. (Melbourne Harbor Trust Port Gazette, Feb. 1970)

U.S. Memorial Day

Sydney, 27th May: — American Servicemen who visited Sydney during the Second World War will be remembered in a ceremony at a memorial situated in Sommersville Road, Glebe Island, at 12 noon on Friday, 29th May, 1970.

This was announced today by the President of the Maritime Services Board, Mr. W.H. Brotherson, who said that the ceremony is held each year on 30th May, American Memorial Day, or the nearest week day thereto, which is regarded as being a day of remembrance in America for ex-service personnel.

The memorial commemorates the first landing of American Armed Forces at the Port of Sydney on 28th March, 1942, and the fact that 1,000,000 U.S. personnel and 5,000,000 tons of U.S. war materials were transported through the Port of Sydney and were handled by the N.S.W. Government Railways during the Second World War.

Glebe Island was the principal site of U.S. Army Operations in the Port of Sydney which was a major base for Allied operations in the South West Pacific Area.

At the ceremony wreaths will be laid on the Memorial by the Hon. T.L. Lewis, M.L.A., Minister for Lands representing the Premier, Mr. J.L. O'Sullivan, the American Consul General in Sydney, Mr. W.H. Brotherson, the President of the Maritime Services Board, Mr. N. McCusker, C.B.E., Commissioner for Railways, representatives of the Navy, Army and Air Force and representatives of American organisations in Sydney.

The ceremony is usually attended by a number of prominent American Citizens resident in Sydney and it is also open to members of the public.

Safe Holiday Boating

Sydney, 19th December: — The President of the Maritime Services Board, Mr. W.H. Brotherson, today appealed to the boating public to observe the rules for safe boating over the coming holiday season.

Mr. Brotherson said that over

the next few weeks the waterways of New South Wales will be used more by pleasure boat operators than ever before. He said that more than 56,000 people now had licences to drive pleasure boats at speeds in excess of 10 knots but there would be many thousands of others taking part in sailing or other types of pleasure boating and not requiring a licence.

In making the appeal, Mr. Brotherson said that apart from observing the Rules of the Road, courtesy to other users of the waterway was an important factor in avoiding accidents.

This would be particularly important on Boxing Day at the start of the Sydney/Hobart Yacht Race when it is expected that Sydney Harbour will have its busiest day on record so far as pleasure boats are concerned.

The arrangements for the start of the Sydney/Hobart Yacht Race next Friday will be similar to those applying in previous years and Mr. Brotherson requested the co-operation of spectators to ensure that the start is conducted smoothly and with maximum safety for all concerned.

He said that the Board's inspectors and patrol staff would be on the harbour in force on Boxing Day but would also be active at all the recognised waterways used by pleasure boat owners throughout the holiday season. (The Maritime Services Board of N.S.W.)

World's Biggest Tanker

Tokyo:—The Transport Ministry approved June 29 the construction of a 477,000-DWT tanker, the largest vessel ever to be built in the world, by Ishikawajima-Harima Heavy Industries Co.

The ship was ordered by Globtik Tankers of Britain and will be constructed at the Kure Shipyard from February 1972 to February 1973 at a cost of about ¥15,000 million.

The ministry has been studying technological problems on the safety of the ship for a month because of strong objections expressed by the All-Japan Seamen's

Union.

The union has argued that the ministry should not approve it in view of the recent series of sea disasters involving Japan-built mammoth vessels, including the Bolivar Maru and California Maru. (Japan Times)

Sister-Port Pledge

Auckland, N.Z., 6 June: — The Ports of Oakland, California, U.S.A., and Auckland, New Zealand, have established a "Sister Port" relationship.

Both Ports have an affiliation and common interest related to the comparative volume of trade, the similar geographical position in terms of latitude north and south and the enterprise of both ports in promoting development and facilities for container cargo.

The bond between the two Ports was sealed by the exchange of charters at a celebration dinner held in Auckland on 19 November 1969. The Port and City of Oakland were represented by a seven man delegation led by Mr. Robert E. Mortensen, President Port Commissioners, and Hon. John H. Reading, Mayor City of Oakland.

Auckland's representatives were Mr. Reg. C.F. Savory, Chairman of the Auckland Harbour Board, Members of his Board, Civic dignitaries of Auckland City, and a large gathering representing shipping interests and the business community of Auckland. (Auckland Harbour Board)

Royal Visit

Whangarei, N.Z.: — Waitangi, cradle of New Zealand history, was the scene of a memorable open-air church service during the visit of the Queen, the Duke of Edinburgh, the Prince of Wales and Princess Anne.

Almost 10,000 had gathered at Waitangi and Paihia as the Royal barge brought the Royal party ashore at Waitangi, and an estimated 5000 attended the service at the Treaty Grounds.

As they stepped ashore they were greeted, on behalf of the Northland Harbour Board, by the

Chairman, Mr. R. K. Trimmer.

The Royal yacht, Britannia, framed in the stays of the Treaty Grounds flagpole as it lay at anchor in the Bay, was an impressive part of the backdrop to the outdoor service.

Introducing his Easter Day sermon, the Bishop of Auckland, the Rt. Rev. E. A. Gowing, said that, due to the presence of the Royal Family, Easter Day, 1970, would always be remembered by the congregation. (Points North, July)

Tug-and-Barge

Whangarei, N.Z.:—New Zealand, because of its geographical outline and numerous harbours, many of which are shallow, is ideally suited for tug-and-barge transportation, says Sir William Stevenson, Managing-Director of Dillingham Corporation of New Zealand Limited, in a statement.

"At the request of the Northland Harbour Board, we made available to it data prepared on barging I.S.O. containers from New Zealand provincial ports to the major container ports," says the statement.

"Whilst this data was evaluated by Dillingham New Zealand, assistance was obtained from Dillingham Corporation of Honolulu and its major tug-and-barge subsidiaries who have had well over half a century of experience on the West Coast of the United States, Canada, Alaska, and islands in the Pacific Basin, including the Hawaiian and Aleutian Islands.

"Their experience includes very successful barging operations between the United States mainland and the Hawaiian Islands.

"The Dillingham organisation is also experienced in the operation of conventional ships, and our study has considered their feasibility. However, the inherent flexibility of double-tow tug and barge (that is, one tug towing two barges), together with the improved speed of modern tugs, conclusively showed that a barging operation is the most suitable for New Zealand conditions.

"Dillingham New Zealand looks forward to being involved in what



Photograph shows Robert Mortensen holding sealed charter while being also presented by Reg. Savory with an Auckland Port Authority house flag. Behind Mr. Savory is a coloured photograph of the Port which also formed part of the Auckland presentation. (Auckland Harbour Board)

is a vital link in New Zealand's modern cargo-handling operations.

"We support the Northland Harbour Board's statement that coastal sea transport is a vital link, with road and rail, in the container transport system.

"Dillingham New Zealand can provide the experience and back-up this service requires." (Points North, July)

Karachi Chairman

Karachi: — Chairman, K. P. T. Commodore Mahmud-ul-Hasan, S.K., T.Pk., P.N., (Rtd.), has been appointed a member on the Advisory Panel on Port and Shipping formulated by the Planning Commission. The Advisory Panel on Port and Shipping is one of the 21 various advisory panels formulated by the Planning Commission for examining the Fourth Plan Draft. (K.P.T. News Bulletin, March 15)

Record Cargo

Karachi:—The Port of Karachi established a new record in the handling of cargo during the first six months of the year ending December, 1969. A total of 4,703,756 tons passed through the Port, this is the highest figure achieved in any year during the first six months, and is 6% higher than that recorded for the corresponding

period of the previous year. Imports totalled 2,951,635 tons and Exports 1,752,121 including exports to the Coastal Ports of Pakistan. Incidentally, it may be mentioned that the total traffic as well as the figure for Exports are the highest recorded during any 6 months at the Port.

The principal items of Imports were:—

Coal and Coke	49,862 tons
Fertilizer	365,159 tons
Wheat	50,697 tons
Petroleum, Oil & Lubricants	1712,795 tons

Other Cargo 773,122 tons

The principal items of Exports were:—

Foreign Ports:

Cement	197,282 tons
Rice	43,057 tons
Salt	50,494 tons
Petroleum, Oil & Lubricants	425,103 tons
Other Cargo	315,857 tons

Coastal Ports:

Cement	140,247 tons
Rice	231,099 tons
Salt	6,012 tons
Sugar	9,983 tons
Other Cargo	332,987 tons

Considering that the Port has had no increase in its berthing capacity, the traffic handled is a note-worthy achievement. During the six months when this record

traffic has been handled, there has not been any serious congestion and there has been no detention to general cargo vessels off port awaiting berth. This achievement has been possible through constant vigilance on the working of the vessels and the clearance of cargo through the Port. The Port Administration took various measures such as encouraging overtime work, doublebanking of vessels and providing facilities for quick release of barges at the New Lighterage Jetty, supply of cargo alongside by road, thereby expediting despatch of vessels, etc. If the traffic continues at the pace which it has done during the first six months of the year, the Port hopes to complete the year with yet another record performance in cargo handling. (K.P.T. News Bulletin)

Rising Van Traffic

Antwerp:—From statistics recently published by the General Management of the Port it results that the favourable trend of the container traffic in Antwerp continues.

In 1966, 1967 and 1968 container traffic amounted to 300,000 tons, 500,000 tons and 600,000 tons respectively and last year it even rose to 1.2 million tons of containerized cargo. During the first three months of 1970 new record figures were recorded in Antwerp: in January, February and March 1970 on an average 17,865 loaded containers per month were handled (9,194 incoming and 8,671 outgoing). The total volume of cargo transported during these three months amounted to 687,865 tons (349,293 incoming and 338,572 tons outgoing). These figures offer an interesting basis for comparison.

The monthly average for the year 1969 (8,370 containers and 100,000 tons of goods) has amply been doubled, since in 1970 17,865 containers per month were shipped or received via Antwerp, whereas the monthly tonnage amounted to almost 230,000 tons. The balance between loadings and unloadings has been closely maintained.

It should be noticed that since 1st January 1970 also for the empty containers statistics have been

drawn up. During the first three months of 1970 their number amounted to 9,484 units. From this it results that in 1970 during the period in view the total number of containers which reached or left Antwerp by sea-going vessels amounted to 63,080 units.

Although container traffic is growing very quickly it nevertheless remains a fact that today only a small proportion of containerizable cargo is actually being transported in containers.

Taking into account the outstanding position of Antwerp as a specialized general cargo port it consequently may be anticipated that this favourable evolution will go on constantly. (Association des Interests Portuaires)

Port Dues Lowered

Antwerp:—The Court of the Mayor and Alderman of Antwerp has decided to grant, as from 1st April 1970, and for a trial period of one year, a reduction in port dues on the conditions laid down in:

Special provisions regarding the concession of a reduction in port dues for vessels handling small quantities of merchandise (resolution of the Court of the Mayor and Aldermen dated 6th February 1970)

1) Conditions on which a reduction is granted.

A reduction in the port dues of Frs 2,—per B.N.T. is granted on the port dues normally payable and as far as the latter are not lower than Frs. 7,50 per B.N.T., to seagoing vessels of a tonnage exceeding 5,000 B.N.T., engaged in trans-oceanic voyage, loading and/or discharging in the port a maximum of 800 tons of merchandise and which sail within 48 hours of their arrival.

— In order to be entitled to this reduction, one of the voyages, either the inward voyage, or the outward voyage, must have a trans-oceanic origin or destination.

— The European ports, all the Mediterranean ports, both European and North African and those of Asia Minor cannot be considered in any case whatever as being ports of trans-oceanic

origin or destination.

— Only the ports situated in North and South America, Asia, Australia and Africa, with the exception of those barred above, are considered as being trans-oceanic ports.

— The maximum quantity of merchandise to be handled at Antwerp may not exceed 800 tons. The transoceanic origin or destination of the merchandise is of no consequence in the circumstances.

— The vessels wishing to take advantage of this reduction must sail from the port within 48 hours of their arrival. This period does not comprise Sunday nor legal holidays, unless work is performed on these days.

2) Check.

With a view to checking the quantities of merchandise discharged and/or loaded, the following procedure must be compiled with:

a) The shipping agent must inform beforehand in writing to the Harbour Master's Office and to the financial department of the port that a reduction is requested for a given vessel.

b) As is already the case at present, the exact quantity of merchandise to be discharged and/or loaded must be mentioned on the application to berth of the seagoing vessel made to the Harbour Master's Office and the shipping agent must transmit to the financial department of the port a copy of this application to berth.

In the event of two agents attending to the vessel, one inward, the other outward, the shipping agent who submits the application to berth must in every case mention the total quantity of the merchandise incoming and outgoing.

c) In support of the declaration regarding the quantities to be discharged and/or loaded, the shipping agent who submits the application to berth must deposit at the financial department of the port as soon as the vessel arrives, the freight lists and the manifests both of the incoming

cargo and of the outgoing cargo, it matters little whether the vessel is represented by only one or by two shipping agents.

- d) The financial department of the port may furthermore demand the shipping agent who submits the application to berth to produce all complementary documents which are of a nature to support the declaration concerning the quantity to be discharged and/or loaded.
- e) The shipping agents must give to the handlers of the vessel and the merchandise (stevedoring firms and „natives” concerned) the necessary instruction to enable the officials of the City to examine on the discharging and loading quays the freight lists and the documents in possession of the stevedores and „natives”, so that a check on the merchandise discharged and/or loaded can be exercised.
- f) The shipping agent must complete the documents to be presented to the Customs, especially the „vrachtlĳst 125 b” (freight list 125 b) and the outward manifest with the endorsement „Inspection by the financial department of the port permitted”, in order to enable the officials of the City to examine these documents at the Customs.
- g) The shipping agent must notify the financial department of the port as soon as possible, when one same cargo has to be discharged and subsequently reloaded, for example on account of stowage requirements.
- h) The shipping agent must inform in writing the financial department of the port of any possible alterations or corrections to the freight lists, both for the incoming cargoes and the outgoing cargoes.
- i) The shipping agent who submits the application to berth is personally responsible for the correctness of the particulars he has supplied, as well as for the strict application of the procedure described above.

3) Sanctions.

In the event of fraud of port dues

or attempt to defraud, through an incomplete declaration or non-observance of the procedure, the following sanctions shall be imposed:

- The shipping agent shall have to pay immediately the amount defrauded.
- He shall have to pay moreover to the City a fine amounting to double of the amount defrauded or which one has attempted to defraud through incorrect particulars, unless the shipping agent is able to prove his good faith to the entire satisfaction of the City.

4) Payment of the reduction.

The port dues shall be provisionally paid at the normal tariff laid down for seagoing vessels (Frs. 12,- 50 for outsiders, Frs. 7,50 for regular lines) and the reduction will be granted in the form of a refund, after examination of the different documents.

The repayment will be made against the handing over of the original provisional receipt and a new final receipt will be given. This receipt will be based on the reduced tariff.

5) In cases of force majeure as well as in unforeseen events the Court of the Mayor and Aldermen will decide.

(Antwerp Port News, March)

LASH Traffic

Antwerp: — Social conflicts brought about some delay to the sailing of the first LASH-ship, viz. the ACADIA FOREST, from the USA, and in fact the first lighters intended for Antwerp did not arrive until 4th December last. There were five of them in all and they were brought on the way from Rotterdam. In front of the five lighters came a boat of Communauté Française de Navigation Rhénane, equipped with the required signalling media, while the entire convoy was being pushed by a pushing boat of the same entity. This made a total convoy of 3,500 tons, with a length of 607 feet and being 31 feet wide. The pusher's power was 2×195 HP. The lighters made their entry into the port along Van Cauwelaert-lock, to be

subsequently moored at Nos. 192-198 of Albert-dock.

Their cargo (paper pulp and paper in coils) was discharged by the firm Intrawa (International Transport and Warehousing Co), an associate of De Keyser Expéditions S.A., who were the consignees.

The firm Intrawa is equipped with appropriate material whereby the cargo was transhipped into railway waggons and motor-lorries in a record time.

This adds a fresh asset to the reputation of Antwerp as a main distributing centre, namely the distribution of LASH-borne goods. From Antwerp, the various parcels found their way to their final destinations in Belgium and France (Paris, the Vosges Department, Colmar, Strasbourg, etc.).

The reforwarding was actually in the hands of the Antwerp Agent acting for International Paper Company. Upon completion of discharging, the lighters were shifted to quay Nr. 500 near the entrance to Churchill-dock and close to the Hessenatie-Neptunus Terminal. Many more LASH-lighters are being awaiting there (after discharging their cargoes elsewhere in Europe) to take a fresh outward cargo on their return voyage to the USA. (Antwerp Port News, January)

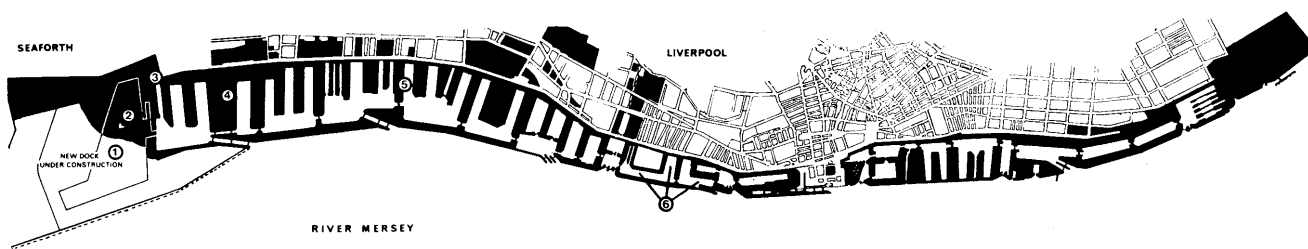
Liverpool Cargo Plan

Liverpool, 19th May:—Shippers of exports through Liverpool and Birkenhead, Britain's number one export port, now have a more comprehensive system for booking appointments by 'phone for delivery of cargoes to the quays.

The dial-a-date system, designed to cut waiting time for lorry drivers and to smooth out deliveries, has been introduced by the Liverpool Steam Ship Owners' Association and the Mersey Docks and Harbour Board.

Priority will be given to lorries which have an appointment. They will be brought forward to the sheds instead of taking their turn in any queue that might have formed.

To make an appointment under



PORT OF LIVERPOOL

1.

The £35 million Seaforth Dock will provide at least ten berths, including three container berths and specialised facilities for grain, packaged timber and refrigerated produce in addition to general cargo. A connecting passage to Gladstone Dock, 130 ft. in width is also under construction.

2.

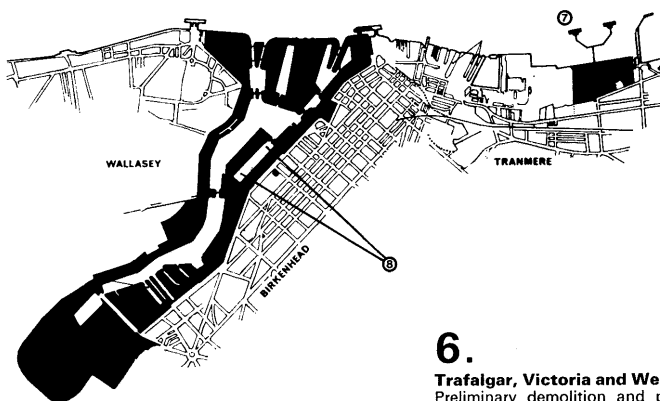
Seaforth Grain Terminal now under construction will be able to accommodate vessels up to 850 ft. in length and 75,000 tons deadweight. There will be an alongside water depth of 50 ft. A feature of the terminal will be extensive transshipment facilities afforded by an inlet dock 600 ft. in length and 145 ft. wide, with a minimum depth of 30 ft.

3.

The Gladstone Container Terminal now provides fully equipped container handling services including roll-on/roll-off operations.

4.

The Hornby Container Terminal is now in commission and is used by vessels engaged in the Mediterranean trade and feeder services.



5.

Canada No. 3 Branch Dock. The north side of the dock has been specially designed for the discharge of packaged timber and four 10-ton quay-side cranes have been installed. The East end has been adapted for use as a "heavy lift" quay and equipped with a ramp for specialised roll-on/roll-off operations.

6.

Trafalgar, Victoria and West Waterloo Docks. Preliminary demolition and preparation work has been carried out in this area in connection with a new passenger and freight terminal complex for the B. & I. Line.

7.

Tranmere Oil Terminal. The North Stage has been reconstructed and has already accommodated tankers of more than 200,000 tons deadweight.

8.

Vittoria Peninsula, Birkenhead. Work is now completed on the provision of four berths for the export services to South Africa, India and Pakistan, operated by Clan Line Steamers Ltd.

Reprinted from "Port of Liverpool Annual Report 1969"

the new system shippers should contact the wharfinger concerned after first booking cargo space in the appropriate ship through the shipping company.

The scheme is additional to the Freefone service already provided by the Dock Board's Information Centre, through which drivers and haulage firms can check ships' loading times and berth situations. This service will, of course, continue.

Lists of contact 'phone numbers are being circulated with the new edition of the Port of Liverpool Shipping Guide, issued by the Docks and Commercial Department (Trade Promotion Section) of the Dock Board. Contact numbers are also available from participating shipping companies' sailing cards.

Said a Dock Board spokesman: "The appointments system can be of considerable help towards speeding the turn-round of road haulage. Should any company want further details our area representative would

be glad to call on them and explain more fully. We have representatives in London, Birmingham and Bradford, and of course in Liverpool."

Record Van Traffic

Liverpool, 30th April:—The annual report of the Mersey Docks and Harbour Board reveals a substantial increase in container traffic through the Port of Liverpool in 1969.

Containers handled in the deep-sea and coastwise trades totalled 129,484, and the build up of container traffic was intensified towards the end of the year. In December alone, 30 ships used the Gladstone Container Terminal, including eight North Atlantic vessels. A total of 1,808 units of all kinds were discharged at this one terminal and 1,498 loaded, in addition to 177 roll-on/roll-off units outward and 181 re-stows. Weight of cargo handled in these movements exceeded 40,000 tons.

The total tonnage of cargo handled during the year was 26,835,943 tons, a drop of 2% compared with 1968. Foreign exports, however, at 4,262,382 tons, showed an increase of 2.3%. Imports of bulk petroleum at 11,156,135 tons decreased by only 220,419 tons despite the fact that the Tranmere Oil Terminal's North Stage was under reconstruction. Repairs and strengthening have now been effected and the Terminal is accepting tankers of 200,000 tons deadweight and over.

Exports to Africa totalled 931,000 tons (21.8% of the total), to the Far East 860,000 tons (20.2%), to Europe and the Mediterranean 683,000 tons (16%), to South America 633,000 tons (14.8%), to Australia and New Zealand 422,000 tons (9.9%), to the United States 409,000 tons (9.6%), to the Middle East 203,000 tons (4.8%) and to Canada 123,000 tons (2.9%). Principal import commodities, apart from petroleum, were iron ore, grain and sugar,

each in excess of or nearly approaching 1,000,000 tons.

Progress on the £35,000,000 Seaforth dock extension which is due to become operational in mid-1971 continues satisfactorily. The new development will have ten deep water berths, including three container terminals, a bulk grain terminal, packaged timber, general cargo and specialised meat handling berths.

New Import Schedule

London, June 15th:—A new simplified import schedule is to be introduced by the Port of London Authority on August 3, 1970. Aimed at reducing clerical work for all concerned with PLA charges for import goods, the new schedule is a further step in the Authority's campaign of documentary simplification.

The publication, entitled 'Import Services, Charges for General Goods and General Terms and Conditions', is of only 44 pages and replaces the present Schedules of quay delivery rates, rates and charges on import goods and 14 special commodity and other schedules. It means that about 2,500 rates, complicated in some cases by special conditions for certain countries of origin and various other individual terms, have been replaced by one booklet with about 300 commodity rates—each governed by the same terms and conditions.

There are many advantages with the new schedule, including the following:—

- Commodities are mainly classified in terms of the Brussels nomenclature, familiar to all importers as the basis of H.M. Customs tariff.
- A new 'transit charge' has been devised to give standardised conditions broadly on the lines of existing quay delivery rates, but with important modifications to encourage speedy movement of goods in transit.
- Rates have been 'netted' by incorporating existing percentage increases, and tonnage rates have replaced rates per package

on an 'ad valorem' or measurement basis.

- Rates are expressed in decimal terms, but with an easy conversion table for use until 'D' day.
- New liability conditions are in line with those which have applied to exports for some years and similar to those used by other major transport undertakings.

Copies of the new schedule are available on request from the PLA Charges Officer, telephone 01~481 2000, extension 92/287. (News from PLA)

Tilbury Lorry Scheme

London, 1st May:—A new scheme was introduced at Tilbury Docks today by the PLA and UKWAL (United Kingdom West African Lines) in a determined attack on delays to lorries with exports to West Africa.

The scheme is for shippers to book cargo with the Loading Brokers for the lines who will allocate a reference number and delivery date to be shown on the shipping note accompanying the goods. Bookings may be made by telephone to Killick Martin & Co. Ltd., or Brown Jenkinson & Co. Ltd., for the Hoegh Line, who will need to know the name of the vessel, the port of destination, the name of the carrier, the number of packages, a description of the cargo and its gross weight and cube. The first ship in the scheme will be the 'FIAN' sailing from Tilbury Docks on 26th May.

Under the scheme the Port of London Authority will give preference to lorries delivering booked cargo on the appointed date provided they arrive before noon that day. Hauliers unable to keep their appointment should seek revised arrangements to avoid being dealt with as unbooked consignments for which preference will not be given.

Vehicles with loads of up to 1-ton in which no individual package exceeds 5-cwts may deliver without prior notification but it will be advisable for bookings to be made to ensure preference.

The only exceptions to the scheme will be cargo of specially

awkward nature, hazardous cargo or unpacked vehicles for which special arrangements will be made as previously. (News from PLA)

Management Changes

London, 18th May:—Mr. Peter Hutchon, who in 33 years PLA service has held several management positions and was previously Coordinator of Staff Development and Training within the personnel directorate, has been appointed Director of Personnel. He succeeds Mr. P.A.R. Lindsay who has resigned to take up another appointment.

Outer Harbour

Amsterdam:—Amsterdam's Big Mouth, a massive construction of breakwaters at the outlet of the North Sea Canal near IJmuiden, made it possible for fully-loaded bulk carriers of up to 100,000 tons dwt to enter the harbour mouth. And with subsequent enlargements of the North Sea Canal, these vessels with draughts of up to 45 feet can be accommodated in the very heart of the port itself.

Seeing the trend towards ever bigger vessels, the port officials were faced with a problem—the necessity of being able to receive these future mammoths of the sea as well. As an alternative to building a new and larger lock at IJmuiden, reconstructing two tunnels at Velsen which presently limit the draught of vessels to 45 feet, and providing even deeper-water quay facilities in the harbour, the officials have chosen for the construction of a new outer harbour at IJmuiden.

The construction of a new port adjoining the south breakwater in the North Sea is simpler, cheaper and more effective than the reconstruction of the North Sea Canal which—nevertheless—is already the largest and deepest canal in the world. The savings in money and time alone make the decision a wise one and the new outer harbour is expected to give new impulses to traffic and industry in the entire port area.

The new harbour will accommodate tankers, the largest bulk car-

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riers and other vessels such as roll-on/roll-off, container vessels and passengers ferries. There are already adequate railroad facilities connecting IJmuiden to Amsterdam and the rest of Europe and it may even happen that the giant pipeline which presently brings oil from Europoort, near Rotterdam, to the petro-chemical complex in Amsterdam's Westhaven, may be used in a reversed role.

The new harbour will supplement and complement the existing port facilities with their great tide-free advantages. The spread of sea-borne traffic to all parts of the highly industrialized North Sea Canal area will also provide new impulses to future industrial areas, planned for the soon-to-be-completed polders in the former Zuiderzee. The fairway will be lengthened, allowing direct access for sea-going vessels from the North Sea to these new areas, east of Amsterdam. In addition, improvements to the Amsterdam-

Rhine Canal are another encouragement to these concepts. (Haven Amsterdam, 17th February)

Beaconing the Tagus

Lisbon:—The beaconing of a river is undoubtedly an indispensable task and on its improvement depends basically the development of the use of the river for transport purposes.

In the Tagus estuary the beaconing of the named "Carreira das Barcas" (Barques Sailing Channel) was deficient and in some places practically nonexistent as the structures built some decades ago were in poor condition.

It was thus necessary and, indeed, urgent to improve such beaconing so as to assist and promote navigation there and, consequently, the development of inland ports, especially Vila Franca de Xira (where the Port of Lisbon Authority's area of jurisdiction ends), since beaconing along this stretch

is a great improvement in the access by river to the above-mentioned town.

The difficulties to be overcome were well known; the subsoil is formed by mud layers which in some places go down to a depth of many metres—and herein lay the greatest obstacle to an economic solution; in addition, drifting craft, ropes thrown around the beacons and other similar practices required solid solutions having therefore, equally solid foundations.

After the required studies had been carried out so as to ensure maximum economy, though bearing the above-described difficult conditions in mind, it was decided to take all possible avail of the existing structures by reinforcing and strengthening them so as to allow of mounting in them a lighting installation. It may thus be said that, practically, only the infrastructures of the present beacons were made use of owing to the stability which many of them still offered even

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But the need of improving navigation conditions also required the construction of new beacons; in these, solutions were adopted which, while adequate to the characteristics of the existing foundation soil and meeting the work condition, make it possible to resist the foreseen stresses and would be comparatively easy to execute.

The problem of execution was of capital importance: the unfavourable work conditions on the Tagus, subject to tides, wind and undulation, and the need of transforming old beacons or building new ones in several places always far from the yard—all these factors contributed to make this task a tough one. Indeed, of the seven beacons existing at the "Carreira das Barcas", six were made use of: three new ones were built, two mid-river and the third on shore. The "Carreira das Barcas" now has, therefore, a total of nine beacons—three astarbord and six apart.

A general problem which was

carefully pondered on studying the beacons was that of the working conditions and stresses to be expected. Indeed, besides the kinematic pull of the current (to which may be ascribed the erosion effects found in the infrastructures of some beacons), another much more important stress had to be reckoned with: the habit of throwing ropes around beacons for mooring river-craft, which may cause an excessive pull.

Also taken into account were the blows to which beacons are liable. They are generally due to craft moving along with the current alone — a habit which is to be strongly deprecated, and it would indeed be difficult, given the bad conditions of the foundations, to devise reasonably economic structures able to withstand such stresses. For this reason, it was decided to adopt a barrier protecting the beacons and constituted by rubble mounds which, by weakening the impact of drifting craft, do not transmit to the structure more than a small percentage of the stress.

In view of the damage which such impact may cause in river-craft, it is thought that skippers will take care to avoid it, as is, of course, rational.

Summing up: some beacons were transformed (nos. 2, 6, 8 and 12), others were repaired (nos. 4 and 10), two new beacons were built mid-river (nos. 1 and 5), and another one was built on dry land, on the embankment of Mouchao da Lomba do Tejo, replacing the one formerly existing in the middle of the river.

The total cost of the work came up to about Esc. 500,000,000, and it may be said that the beacon system is now well-equipped, allowing of efficient navigation of the Tagus as far as the harbour of Vila Franca de Xira, totalling 22 km.

It should be stressed that this expenditure has made it possible to ensure permanent use of this extremely important 22 km. long river stretch, on whose banks may be found many commercial and, most particularly, industrial installations. (Boletim do Porto de Lisboa)



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