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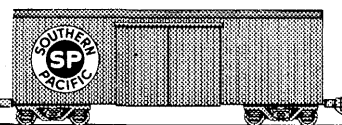
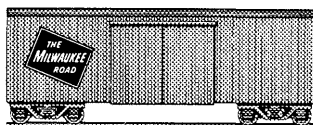
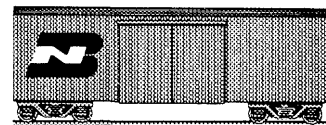
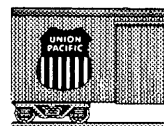
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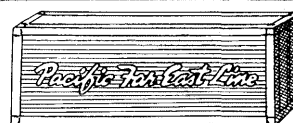
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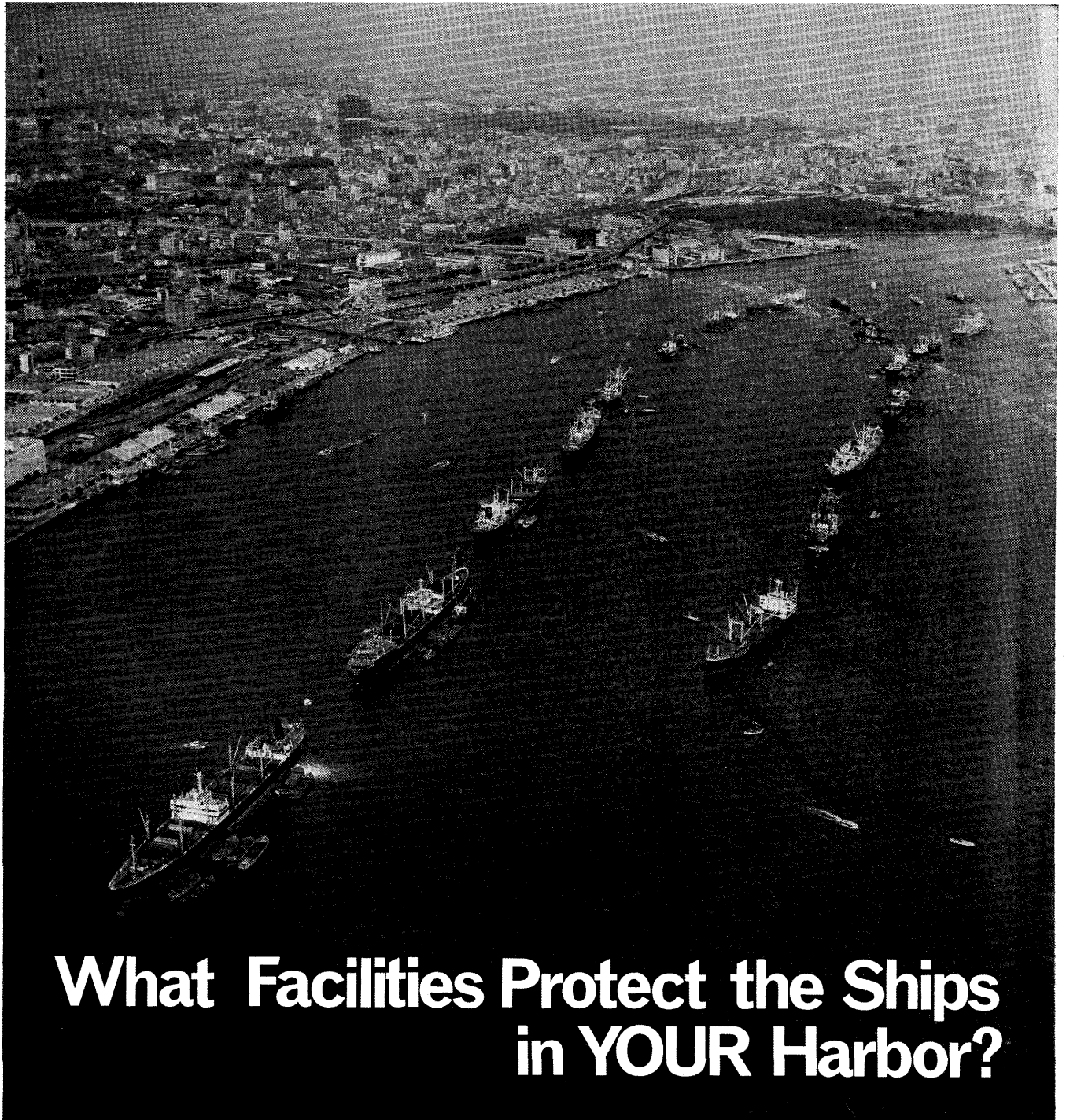
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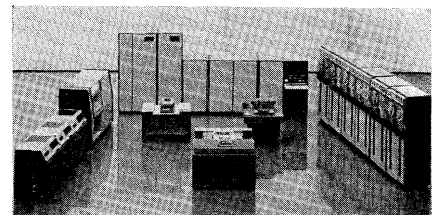
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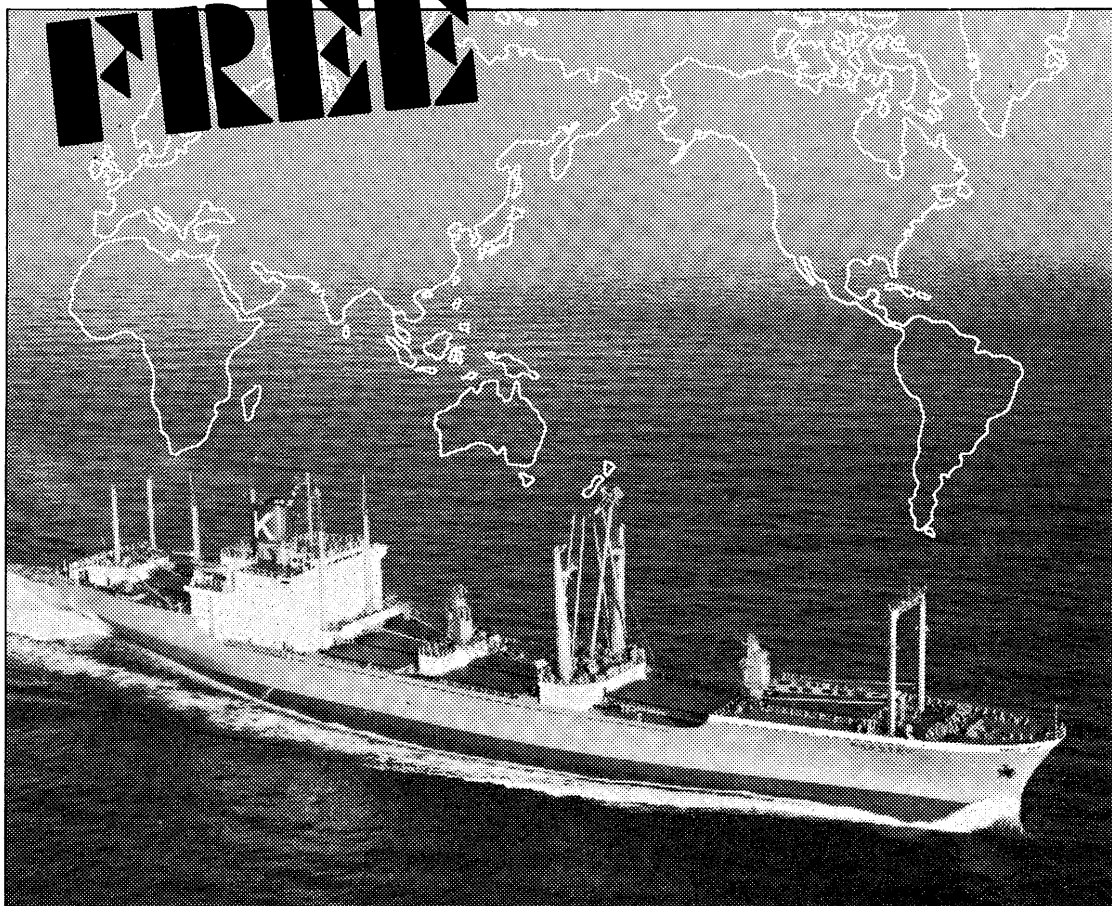
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The Cover :

The area shown in the center of the photograph is the new central harbor area for the Port of Tampa. The waterway in the center is known as East Bay Channel and Turning Basin. The Port and City of Tampa are seen in the background.

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PORTS *and* HARBORS

Forum on Port Problems:

Los Angeles Harbor: Its Fight Against Water Pollution

On August 12, 1970, United States Senator George Murphy of California presented the following report to the 91st Congress. It was published in the Congressional Record of that date.

In presenting the report, Senator Murphy said: "Mr. President, it is with a great deal of justifiable pride in the determination and initiative which have given California its position of leadership in our nation that I submit today a report from the Board of Harbor Commissioners, City of Los Angeles, showing that the Los Angeles Harbor is winning its fight against water pollution.

"The report speaks for itself, and I offer it not only to show what has and is being done in the Los Angeles Harbor but what also can be done elsewhere."

*Anti-Pollution Policy Statement
adopted by the
Los Angeles
Board of Harbor Commissioners
on
August 27, 1969*

The Los Angeles Harbor Department adopts as its objective the improvement of the quality of Harbor waters so that an environment favorable to sea life could exist.

The Los Angeles Harbor Department will initiate and will participate (as it has in the past) in research studies by responsible organizations to obtain the necessary information to achieve the objective stated above.

The Los Angeles Harbor Department will continue the program it founded in 1946 to develop and implement an effective water quality improvement program, based on reliable

research and utilizing proven anti-pollution systems as they are developed.

The Los Angeles Harbor Department is ready and willing to participate in developing complete programs of waste management and disposal for all discharges now entering Harbor waters, regardless of source.

The Los Angeles Harbor Department began its fight against water pollution about 25 years ago. Today, the battle is partly won—and the quality of Los Angeles Harbor waters is the highest in many decades.

Fish have returned to areas of the Port long void of any such life. There are new signs of flora and fauna throughout the Harbor, even in areas once described as "biological deserts."

This remarkable change and improvement was made possible through the combined efforts of the Los Angeles Harbor Department, local, state and federal governments, industry and the conservation-minded people of Los Angeles. It is truly an example of concerned people, representing many different interests, working diligently and effectively together for the benefit of all.

The results of that cooperation are plainly visible at Los Angeles Harbor. You can see fish and plant life coexisting with commercial and industrial Port activities. You can see proof that man can improve his environment if he is willing to devote his time, his energy and the necessary funds. These are the basic weapons that were used and are continuing to be used to fight

pollution at the Port of Los Angeles.

The quality of the water in Los Angeles Harbor has always been very high, when compared to other commercial and industrial ports throughout the world. Today, it is far superior to most.

The worst conditions in the country, by far, are found on the East Coast and in the Great Lakes. According to a recent newspaper report, industries discharge into Lake Erie every day ten billion gallons of process and cooling waters containing pollutants. Water pollution problems in the West are different from those in the East. In the West the objective is mainly one of pollution prevention. In the East, correction and elimination are the concerns.

Los Angeles Harbor is doing both: preventing further pollution and eliminating what exists.

People Cause Pollution

Water pollution, like air pollution, is created by people. People in the United States generate 3.5 billion tons of solid wastes each year. Los Angeles Harbor Department personnel remove approximately 20 tons of floating debris per day from port waters at a cost of \$60,000 per year. The cost of collecting and disposing of such wastes in the United States runs to \$4.5 billion annually—a figure that is expected to at least triple by 1980. Only a part of this is related to water pollution, of course, but these facts and figures serve to point up the source and scope of the problem.

Looking back a few years at what is now one of the world's great commercial and industrial harbors, many in the area remember when this \$500 million complex—today's Port of Los Angeles—was nothing more than a dismal salt water tidal marsh in the lee of a small barrier reef known as Rattlesnake Island.

There was never any serious thought given to locating a deep-water harbor for commerce and of refuge at Los Angeles until 1897,

about 73 years ago. The United States Senate ultimately made the decision to create such a harbor and a government breakwater in San Pedro Bay was completed 1910. It was the first step taken to carve a deepwater port out of the shallow tidal flats.

Richard Henry Dana's "most desolate place on the California coast" has now become one of the largest man-made harbors in the world, with about 4,000 acres of navigable water averaging 35 feet deep. Tide water extends from the Harbor northerly up Dominguez Channel to Vermont Avenue.

The Channel used to carry surface run-off and waste from an area south and west of Los Angeles to a large slough lying between what is now the City of Torrance on the west and Dominguez Hills on the east.

Los Angeles' Inner Harbor is contiguous to the mainland and was developed from salt flats and marshland. Meandering channels with less than two feet of water at low tide covered the entrance to this area. Dredging was begun in 1874 and completed three years later, and the Inner Harbor was developed in 1893 at a cost of a million dollars.

Throughout the years, the Dominguez and Consolidated channels were becoming progressively fouled because of industrial discharges. In 1947, when the Port of Los Angeles was planning the construction of a passenger and freight terminal near the Dominguez Channel entrance to the Harbor, the discharges from the Channel near the construction site were undesirable from an aesthetic standpoint.

Group Effort Started

Complaints by the Harbor Department to Channel users were not completely resultful. At the urging of the Los Angeles County District Attorney's office, requested to investigate the situation, two committees were formed to study the problem to eliminate undesirable waste water discharges. The Port of Los Angeles Testing Engineer was named chairman of the technical committee, whose membership included representatives from both government and industry. These groups were considered essential to

clarify, co-ordinate and unify various individual actions, which had previously resulted in duplication of effort. They were volunteer groups unsupported by public or private funds and without the authority to take any official action.

Later—stimulated by reports of these committees and with the technical assistance of the Harbor Department staff—the State Legislature passed the Dickey Bill regulating water pollution in state waters. Regional Water Pollution Control Boards were established to define the beneficial uses of water in their districts and to establish formal water quality standards. The Board for the Los Angeles region adopted their "Long Range Waste Disposal and Water Quality Objectives for Los Angeles and Long Beach Harbors" in 1954.

Eight years earlier, in 1946, the Los Angeles Harbor Department had initiated voluntarily a program which greatly improved the quality of its waters compared to what it had been. Regulations were adopted by the Department which led to the present practice by the Harbor's Port Warden to investigate any and all evidence of water pollution with special emphasis on all types of oil spills. On discovery of evidence of water pollution, he immediately notifies the State Department of Fish and Game, the United States Coast Guard, and in the case of industrial waste, the Los Angeles Bureau of Sanitation. It is customary for the Department of Fish and Game to issue citations for oil spills or in cases of oil pollution; however, when such a citation is not issued, the Port Warden files an application for criminal complaint with the Deputy City Attorney's office. These activities have furthered the reputation of Los Angeles Harbor throughout the shipping industry as one of the cleanest ports in the world.

Department Initiates Program

A water monitoring program, implemented by the Harbor Department nearly 25 years ago, and still in effect today, alerts personnel to any new sources of water pollution and their correction. As an example, if any toxic substance is found in an oil refinery's waste discharge, the oil company is promptly

notified. In the past, the oil company has taken immediate steps to halt the unlawful discharge. Another example might occur in the Port's Fish Harbor where an occasional waste discharge must be eliminated, even though it may not be subject to legal action. On discovery and notification by the Harbor Department, both the pollution and the cause are corrected.

Since World War II, the Harbor has become increasingly attractive to sportsmen. Because of an abundance of bait fish, dealers in live bait come to Los Angeles, from as far away as San Diego to the south and Morro Bay to the north, to catch live anchovies for sportfishing boats. Fish propagation requires water of almost bathing beach standards in which the dissolved oxygen content is five parts per million or greater, together with liberal quantities of nutrients.

There have been several major sources of water degradation at the Port of Los Angeles, some of which in recent years have made it impossible for the water in certain Port areas to sustain these ingredients. The fish and the plant life had either diminished or disappeared completely from these locations.

One major source is the huge influx of certain chemicals, such as fertilizer, detergents, oil and gasoline from storm and even dry weather run-off from the entire Gardena Valley and the Palos Verdes Hills. The storm sewer leading into the Port's West Basin alone drains 11,000 "asphalt acres." This does not include the run-off from roofs and planted areas, which would more than double the asphalt acre figure. This drainage carries countless tons of oxygen-consuming organic and inorganic material — dead animals and insects, fecal matter, rotting vegetation, etc.

A natural contributor is the seasonal presence of dinoflagellates or red tide, which flourishes during the summer and fall months. Still another natural cause of pollution could be the configuration of the Harbor itself. Some of its basins are relatively large and bottlenecked—a condition that induces stagnation and prohibits full chemical and biological recovery of the water during tidal changes.

Remedies Often Difficult

Collectively, these sources of water contamination have a tremendous effect on water quality. At the same time, it is difficult if not impossible to instigate any realistic remedial measures to improve Harbor water polluted by them. At present, there are no solutions, or the solutions are impractical from either a physical or an economic standpoint.

Man himself (and his works) is still another cause of water degradation. For example, a number of industrial plants use Harbor waters for cooling and manufacturing purposes. Others add water containing organic and inorganic matter. The return of these waters, now polluted compound the problem.

The greatest chemical loading of the Harbor waters has always originated outside the actual confines of the Port itself, primarily in the Dominguez Channel, where water drainage from the Gardena Valley is co-mingled with industrial wastes from a synthetic rubber plant, a petrochemical company, a concrete products manufacturing operation, a sulphur recovery plant, several oil refineries and countless other sources upstream.

In the Outer Harbor, man-made water downgrading is caused by the effluents of several fish canneries, a domestic sewage treatment plant, and the season recreational use of Cabrillo Beach.

These are the areas where the Los Angeles Harbor Department is making real progress with its strong program against water pollution. Tangible results are being obtained in upgrading water quality which has been in the past lowered by the operations of man. Although the industrial wastes entering the Harbor are already much cleaner, they can be improved still further. In fact, they can be improved to almost any extent—provided man is willing to pay the price. Although the Port does not allow ships to discharge liquid and solid wastes inside its confines, many vessels cannot meet this stringent requirement. It is necessary that Federal standards be established for both ships and boats, requiring installation of holding tanks for their refuse or standard fittings for connecting directly to shore facilities.

Concern is Continual

Federal and state laws now regulate pollution-causing discharges into the Harbor, and the State Water Quality Control Board has jurisdiction over many of the pollution activities within the State of California. The Harbor Department has assisted this program with its continual testing of Harbor waters and its program of water surveillance and pollution elimination. The Department is also deeply concerned, not only with water pollution and its correction, but also with the development of complete programs of waste management and disposal for all discharges now entering the Harbor.

The Los Angeles Board of Harbor Commissioners reaffirmed the Harbor Department's long-standing concern with water pollution when it adopted its anti-pollution policy statement in the summer of 1969. The progress and the improvement that has taken place in just a year's time is substantial. The Harbor Department itself is directly responsible for some of the accomplishments, but it cannot take credit for all that has happened. Only through the cooperation of business and industry, citizen groups and government agencies, Port users and Port workers could so much be accomplished in so short a time. Again, as in 1946, the Port of Los Angeles provided the impetus. Concerned people brought about the results. Here are some of the accomplishments, along with a few remarks from those interested in or affected by them.

An oil products company, a Harbor tenant for more than 45 years, had been polluting the Inner Harbor of the Port with 72,000 gallons of separator wastes and nearly three million gallons of cooling waters a day. Harbor Department watchfulness led to the eventual cease-and-desist order issued by the Regional Water Quality Control Board. The firm was finally forced to shut down because it found it was too expensive to comply with the established water quality standards in Los Angeles Harbor. Today, there are schools of anchovies in the Inner Harbor area where this plant had been discharging. It had been many years since they were spotted there.

Port regulations in effect for years were supported by the new Federal law of January 1, 1970, which requires clean-up of oil spills within a harbor. All waste discharges from ships at Los Angeles Harbor, including oil spills, have always been immediately confined, cleaned up and removed. Many industrial and commercial harbors, rather than actively cleaning up oil spills, have simply relied on the tide to take the oil or waste out to sea.

Industry Aids Program

There are 32 companies or agencies which in the past have discharged about 400 million gallons of polluted water per day into the Harbor at 57 locations. In addition, 27 companies or agencies were discharging about 1.5 million gallons per day into 16 separate storm drains, all of which eventually empty into the Harbor. In the last few years, many of these companies and agencies have invested millions of dollars in waste water control to upgrade these discharges. One oil company alone has spent more than \$8 million in the past five years and will spend at least another \$7 million in the next two or three. The results of these expenditures and these efforts by users of Harbor waters to improve their effluence are considerable. All of the major contributors now have pollution control measures in effect and chemical pollution has been reduced drastically. The quality of water input from the Dominguez Channel into the Harbor has been greatly improved.

Our surveillance of Harbor waters disclosed that trash fish from fishing boats calling at the canneries on Terminal Island were dumped overboard, and decks were washed down into Fish Harbor. This practice has ceased, the bottom of the Harbor has been cleaned up by the canneries, and the fauna and flora have returned. Schools of fish and flourishing plant life are now being seen in this area.

James A. Eddy, Commodore of the Los Angeles Yacht Club in Fish Harbor, has complimented the Harbor Department on 'the progress made in reducing the pollution of water' in that area.

Commodore Eddy pointed out that the Department's "approach to

the problem has resulted in very evident, real improvement in the condition there" and "for the first time in 25 years, the bottom may be seen from the surface of the water.

Activities Are Compatible

"The significant improvement accomplished in a relatively short period of time amply illustrates that, with continued effort, Fish Harbor can remain an industrial area with recreational facilities of which we may all be justly proud, thereby proving that the two functions can live in compatibility, side by side," he said.

While world commerce is the Harbor's major business, the waterways are used for recreation as well as commercial and sportfishing.

For the twenty-first consecutive year, the Port of Los Angeles and its fishing facilities in San Pedro and Terminal Island have led all United States ports in the value of the commercial fishing catch—more than the giant Eastern seaboard fishing center. Last year, 407 million pounds of fish were landed at the Port. The value: \$40.5 million dollars.

The Harbor Department has proposed a new ordinance aimed at prohibiting the discharge of raw waste from all vessels, including small boats, into Harbor waters.

Raymond M. Hertel, Executive Officer of the State Water Quality Control Board, commended the Los Angeles Board of Harbor Commissioners and the Harbor Department for its "progressive actions" with reference to the proposed ordinance. He singled it out as "another significant step taken for the upgrading of the waters of your Harbor" and said that in his opinion, "given the adequate manpower to implement fully . . . , it will be one of the strongest controls of this type of a waste disposal in the nation.

"The actions of the City and its cooperation with this Regional Board in the enhancement of the quality of the water of Los Angeles Harbor is most sincerely appreciated," he added.

Charles F. Crawford, President of the San Pedro Chapter of the Izaak Walton League of America, has expressed "sincere appreciation

to the Commissioners and the Staff of the Port of Los Angeles for outstanding efforts to improve the quality of the waters of Los Angeles Harbor.

"To the best of our knowledge," he said, "Los Angeles Harbor is the first major port in the United States to upgrade the quality of Harbor waters to any substantial degree."

In extending appreciation to the Port for "your efforts to preserve our environment," Crawford said that surveys and observations by his conservation group have indicated that "former polluted areas of the Port have made such rapid changes that the Port's waters are once again suitable for fish habitat . . . a truly remarkable change has taken place."

Sewage System to Expand

The Harbor Department also is involved in an inter-agency program for the development and extension of the entire sewage system throughout the Harbor to upgrade the disposal of industrial waste.

The new system, when completed, will prevent contamination of Port waters from sewage and will also provide for future Port expansion and environmental improvement.

The total project involves \$30.5 million for enlarging and improving the capacity of the Port's Terminal Island treatment plant and installing an acceptable waste disposal facility plus more interceptor sewers and pumping stations.

In a cooperative effort, the Harbor and Public Works departments are co-sponsoring a \$200,000 study by a consulting firm to redesign the sewage system and treatment plant and complete the first harbor-wide ecobiological investigation and report ever made at the Port.

Preliminary information indicates that one possible activity for improving the Port environment would be to dredge the entire Harbor to remove the bottom sludge that has been accumulating for years.

While the ecobiological study is now underway, the complete sewage system project is presently awaiting proper funding by the City of Los Angeles.

The Harbor Department is also providing technical support to other

city, country, state and federal agencies in their programs to combat pollution. The Department's Chief Engineer is a member of three committees of the Regional Water Quality Control Board, serving as chairman of two. The committees are investigating the causes of water pollution at the Harbor in order to establish further controls and, wherever possible, to completely eliminate the problem.

The Harbor Department has secured appropriations from the Federal government for hydraulic model studies of the entire San Pedro Bay by the U.S. Corps of Engineers, which are expected to aid in defining pollution problems and possible methods which can lead to additional improvements in water quality.

Several months ago the Department increased its personnel in the Port Warden's Division from 35 to 47 for still more thorough surveillance of the entire Harbor and still more stringent enforcement of regulations and laws concerning water pollution.

Portable underwater television equipment is now being used by divers under contract to the Harbor Department to locate jetsam beneath the water surface. This adaptation of closed-circuit television aids in the removal of all types of pollutants and also pinpoints areas where problems may exist.

Guidelines Being Established

The Los Angeles Harbor Department also is urging the United States Coast Guard and Department of Interior to establish an earlier timetable for pollution control by setting guidelines now so that national pollution standards can be implemented as soon as possible.

The Harbor Department is interested in a project proposed by a local firm that has specialized in pollution control for years. The project calls for using 5,000-gallon collapsible rubber tanks to collect sewage from ships docked in the Port, which would provide a more immediate solution to the problem of water pollution by raw sewage and other discharges from ships. Plans being considered by port authorities and the federal government propose holding tanks for sewage on all new vessels and for

modification of older ships by adding such holding tanks. A grace period of two years would be allowed for ships newly-built, while older ones would have five years to meet these proposed requirements. By using the rubber tanks, however, the costs of adding holding tanks to ships would be eliminated, unless required by law, and pollution of Harbor waters from this source could be entirely terminated immediately.

The California State anti-water pollution law, which has been in effect since January 1, 1970, has been described as having more "teeth and muscle" than any other similar law in any state in the nation or any country in the world. The law imposes a stiff penalty on polluters who continue to discharge waste material into a water resource while under a cease-and-desist order. It also makes it mandatory for an offender to clean up any pollution he may have caused. If a polluter destroys the aesthetic enjoyment of a water resource by creating a nuisance, he can be ordered to cease and desist, and fined up to \$6,000 per day if the order is not obeyed. Legislation such as this is aiding the fight against water pollution in Los Angeles Harbor.

The Harbor Department and its Commissioners, however, are pressing for even stiffer controls, in the belief that what is done today will determine what California and Los Angeles will be like tomorrow. Many believe that the anti-pollution program now in effect at the Port of Los Angeles should be duplicated throughout the state and the nation if man's environment is indeed ever to be corrected.

Work to Continue

Water pollution is a complex problem. The complications and the lack of complete information about causes and methods of correction make it impossible to develop more specific and complete programs for water quality improvement at this time. In areas of Los Angeles Harbor where progress has been made, however, progress will continue. Until the studies and investigations now underway are completed, permanent and complete solutions are not possible. A great deal more must be known.

For instance, how to do you stop pollution of the Harbor which originates when gasoline and oil drops onto the asphalt in a service station, is hosed down or washed away by rain into storm drains which empty into channels leading to and finally reaching Port waters? Or how do you prevent rubber tire dust from freeways, insecticides and chemical fertilizers, air pollutants and carwash detergents from being washed away by rain or by man into a chain of channels which end in the Harbor? How do you prevent natural pollution from such things as the red tide or insufficient circulation of water by tidal changes? Questions such as these pose serious problems.

Historic progress could be made immediately if everyone would simply stop polluting. But that would be possible only if everyone stopped everything they are doing and did nothing. The fight against water pollution can be won, but it will take a complete waste management program to do it. It will mean a change in our life styles and investments of billions of dollars. It is estimated that it will cost up to \$200 million just to prevent pollution at Los Angeles Harbor alone. And, although the cost is being borne by government entities, such as the City and Port of Los Angeles, and private companies, such as oil and manufacturing firms which use Harbor waters and the ocean for waste discharge, the cost will finally filter down to the people, who will pay the bill through taxes and higher prices for the products and services from those private companies and government entities. No complete study of the economics of correcting water pollution has been made, but it is certain that it will be astronomically expensive. In providing a better place in which to live, the people at Los Angeles Harbor believe, as do most people, that the results will be well worth the cost of obtaining them.

Problem Pointed Up

Such results are already evident at the Port of Los Angeles, because of the anti-pollution program now in effect. The continued progress will be in direct proportion to the money available. Consider for a moment that it cost the United

States \$20 billion in ten years to put man on the moon. If the same planning and technology were applied to the problem of water pollution in the same proportion to the size of the job as compared to landing man on the moon, the fight against water pollution could be won in less than ten years.

Today, the war against all pollution has been waged by the people, and it is a war we cannot afford to lose. Los Angeles Harbor belongs to the people, and in their interest the Board of Harbor Commissioners and the Harbor Department is winning one of the battles of that war.

*Honorable Sam Yorty, Mayor
City of Los Angeles*

*Honorable John S. Gibson, Jr.
Councilman, Fifteenth District*

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Port of Boston Being Reborn for Tomorrow

News from MASSPORT

Boston, Mass., August 19:—The bustling activity which surrounds construction of the first entirely new public marine container terminal in New England is the best tangible indication that the new Port of Boston is moving forward at a rapid pace, shedding its old reputation as an outmoded high cost/low productivity port, and is well on its way to meeting the international maritime demands of the 1970's.

Completion of the \$14 million initial phase of the Boston-Mystic Public Container Terminal, being

built by the Massachusetts Port Authority—Massport—on 41 acres of land on the Mystic River, is scheduled for full operation in mid 1971. By late summer 1970, the first section of the 900-foot concrete slab which will support the new pier apron had been poured, and workmen were waiting for the concrete to cure before it was topped with asphalt.

Thomas T. Soules, director of the Port of Boston, reported that assembly will start in October on the 70-ton capacity high-speed

gantry crane being constructed by Hitachi, Ltd., of Tokyo. The \$1.2 million self-powered automatic crane will be capable of handling up to 30 large containers an hour, as well as heavy bulk shipments.

Anticipation of the maritime requirements of the 1970's and 1980's prompted Massport to acquire the site from the Schiavone and Sons, Inc., salvage company in 1968. The site had been used for many years as a railroad yard and coal storage area.

For the past decade, the site was used primarily for loading scrap metal aboard ships, most of which were destined for Japan. A portion of the area is being retained for handling scrap until the remainder of the site can be developed as an expanded container terminal.

In addition to the installation of the crane, the berthing area will be dredged to a depth of 40 feet at mean low water. The old wooden





pier and pilings have been removed, new steel pilings have been driven, and work is well underway on building the concrete bed for the new pier apron. Administration, stripping, in-transit storage and maintenance buildings will be constructed, tracks laid, and the area paved.

Although the Boston-Mystic Public Container Terminal is still as much as a full year away from being fully operational, enthusiasm among the shipping lines for using the site has been running high as partial operation should commence before

the end of 1970. Even as work continues at the terminal site, these lines frequently bring their container vessels into Massport's Mystic Pier No. 1, less than a quarter mile away, to be handled by interim loading equipment.

At least five lines have expressed strong interest in the Boston-Mystic Public Container Terminal, and are expected to be using it just as soon as it is completed. They are:

- Hansa Line, with service to and from Genoa, Naples, Leghorn and Marseilles;
- Associated Container Transporta-

tion (USA), with service to and from Australia and New Zealand;

- Furness Warren Line, with service to and from Halifax and Liverpool;

- Boston Line, providing east and westbound service to Bremen, Grangemouth, Hamburg, London and Rotterdam;

- Barber Line, serving Boston from Malaysia, Singapore, Bangkok, Hong Kong and Japan, and sailing from Boston to Manila, Hong Kong, Bangkok, Singapore and Malaysia.

Europe-Far East Container Services

Reprinted from "Ship via Hamburg"
February 1970

In Hamburg, it is expected that some of the future container lines between Europe and the Far East will decide this summer or autumn on the Continental ports to be served. In this, it appears as good as certain both in Japan as well as in Hamburg that the Elbe port will be put on the short list or, in sporting terms, "seeded". This impression was recently reconfirmed when a group of Hamburg experts, headed by Staatsrat Professor P. Deneffe, discussed in Japan problems of the day in container traffic with leading representatives of the transport economy and authorities there.

In the container traffic with Australia, as well, the volume of cargo offered in Hamburg far exceeds that of its German competitor ports, though nothing like so much as in the East Asian trade. Everything, therefore, seems to indicate that Hamburg will become the easternmost bridgehead on the European continent.

Whilst all-container ships in the trade with the east and west coasts of North America are well-established customers by now at the Container Terminal, Burchardkai, the first vessels of the Australia-Europe Container Service (AECS) will be calling at Hamburg from the middle of this year. This shipping group, as is well known, was the first to decide which Continental ports to serve: Hamburg, Bremerhaven, Rotterdam and Zeebrugge. In Hamburg, the AECS container ships belonging to the so-called "second generation" will for the time being offload and load every ten days.

The Hapag-Lloyd Container Lines, with head office in Hamburg, are also members of this group and together will bring two ships into the consortium. The other AECS partners are Overseas Con-

tainer Ltd. (OCL) with six vessels, the Associated Container Transportation Ltd. (ACT) with two, as well as the Australian National Line (ANL), the Compagnie des Messageries Maritimes (CMM), the Vereenigde Nederlandsche Scheepvaartmij. (VNS) and the Lloyd Triestino, each with one ship.

A similar decision in favour of Hamburg is expected from the Scandinavian shipping companies which have amalgamated in the Scandinavian Australia Service (Scanaustral). These particular companies operate the "Scanservice Terminal" in Hamburg which has been erected in cooperation with the Hamburger Hafen- und Lagerhaus-Aktiengesellschaft. Already today, they are, therefore, very good customers of the Port of Hamburg. The Scanaustral group will be employing five combination roll-on/roll-off container ships in the Australia service.

The Baltic Steamship Company, Leningrad, which will enter the container trade with Australia in 1972, also, on the occasion of visit of its vice-president, J. Faktowich, appeared to be very interested in Hamburg. Monthly sailings are at present envisaged in this service.

Naturally, Japan as an important cargo producing country, plays at least as big a role as the Federal Republic in container traffic with East Asia. In West Germany, Hamburg enjoys the reputation of being the German depot for the relivity of Japanese goods, both on the import and export side. The large Hamburg department stores as well as the East Asian trading firms predominantly domiciled here are, above all, the guarantee that the all-container ships calling at Hamburg will get what they most want — sufficient profitable cargo.

Thus, for example, of the some 200,000 tons of containerizable cargo carried up to now from Japan to West Germany each year, 120,000 tons alone arrived via Hamburg. As a whole, about 60% of the total trade between the Federal Republic and the East Asian economic area is handled in the Elbe port, the rest being divided amongst other European ports and transport by air. The rate of growth of trade with East Asia in 1969 was just short of 20%. Of the average 28 arrivals and sailings registered monthly in Hamburg from and to the Far East, the Elbe port is the only German port of call for about half of these cargo liners.

With all reserve about the shipping companies' final decisions, similar group formations as those in the Australian trade are becoming apparent. The following companies will definitely participate in the Europe-Far East container trade: Nippon Yusen Kaisha (NYK) with three vessels and Mitsui OSK with two, the German Hapag-Lloyd Container Lines with four altogether, the English companies (OCL and ACT) with nine ships in all, the French companies (MM and CMCR) with two vessels together, as well as the Dutch VNS with one or two ships. All these units belong to the so-called "third generation" of all-container ships, each taking around 1,700 large containers of the 20'-type and with a speed of up to 26 knots.

In any case, the three Scandinavian shipping companies which already operate joint sailings in the Scanservice—Wilhelm Wilhelmsen, Oslo, AB Svenska Ostasiatiska Komp., Gothenburg, and Det Ostasiatiska Komp., Copenhagen—will merge into a single group for the container service in this sailing area as well. They expect to start in spring 1972, this time—in contrast to the Australian trade—with four cellular container ships.

In whatever way the group formation and frequency of sailings develops in the Australia and Far East container services, the necessary special handling facilities at the Container Terminal, Burchardkai, will be ready to operate punctually before the first container ships is handed over. At the mo-

Wellington Harbour Board

Chairman's Annual Address

November 1969

Wellington, New Zealand

The Members of the Wellington Harbour Board.

I have pleasure in presenting a review of the operations of the Board for the 90th year ended 30th September, 1969.

The year has been a challenging

ment, in the third building stage of the terminal, a fifth berth is under construction which, in addition, will be equipped with a roll-on/roll-off facility for the Scandinavian special purpose ships. Today four container cranes are already in operation. In addition to the "Freight Station"—in service now for a considerable time—in which mainly containers are being collected together or stowed, a special 30,000 sq.m. Container Packing Hall will be erected for the Far East container ships. The Hamburg Container Terminal is particularly appreciated in Japan because the all-container ships can be unloaded and loaded by means of up to four container cranes working one vessel. About 80 large containers can thus be handled per hour. The important prerequisite for this high efficiency was, of course, the conception of a Central Terminal which was pursued by Hamburg from the beginning. It is well known that there is no self-enclosed container handling installation of such a size and under a central management throughout in any other Continental container port. The possibilities of rationalization — exchange of personnel, purposive use of the gear at the focal points of activity, etc.—naturally show their effect in the flexibility of the installation and, with it, the service as a whole. The benefit goes to the container lines just as to the shippers and receivers of the large sheet metal cases.

one and the work of the Board has been principally centred around preparations for containerisation. Matters of policy have been discussed with all the various parties concerned and the pattern is now emerging. A great deal of physical progress has been made. Many problems still lie ahead but I am confident that these will be solved in good time.

Shipping arrivals for the year amounted to 5,232,599 net register tons which was a reduction of 122,589 tons, or 2.3 per cent, on last year's figure of 5,355,188.

The manifest tonnage of cargo for the year (transhipments included twice as usual) amounted to 3,229,326 tons which was a record for the port, eclipsing the previous highest figure of 3,147,086 tons in 1967. The increase over last year's figure of 3,092,953 tons was 136,373 tons or 4.4 per cent. The principal increases in tonnages were in general cargo (128,751 tons), oil (23,578 tons), wool (3,834 tons) and cement (3,559 tons). The general cargo increase was largely accounted for by substantial increases in imports from overseas and in Rail-Road Ferry cargoes in the Picton service, offset by a reduction in cargoes in the Lyttelton service consequent upon the loss of the "Wahine" last year.

The Annual Accounts, which will come formally before the Board in March next after completion of the Government Audit, show a surplus of \$136,728 in the Working Account compared with a surplus of \$204,662 last year. In the Appropriation Account, however, there was a deficit of \$66,559 compared with a deficit of \$95,337 last year.

As a result of the buoyant level of trade, income rose to \$4,009,355 (last year \$3,768,000). Working expenditure increased to \$2,497,428 (\$2,390,353) mainly as a result of

substantial increases in wages and salaries. Repairs and maintenance rose to \$537,727 (\$471,434). There were also substantial increases in interest, \$431,348 (\$363,127), and depreciation, \$406,124 (\$338,424), reflecting the rapid rate of capital development. In the Appropriation Account, payments to sinking funds, \$93,747 (\$78,578) and loan repayments, \$89,139 (\$85,366) increased appreciably. Appropriations to Special Funds totalled \$20,400 (\$136,055), no contribution being made to the Port and Property Development Fund this year (last year \$115,655).

Although the Board has not reviewed its charges for approximately four years it has nevertheless absorbed wage increases and other escalating costs so far without review but with a progressive increase in loan indebtedness to meet major capital port development it would appear necessary to review the Board's revenue with a view to increasing its working margin over costs.

Capital expenditure for the year totalled \$1,528,703 of which \$1,120,049 was provided from loan money and the balance, \$408,654, from revenue sources.

Loan liability increased from \$7,824,761 to \$9,268,731, of which \$2,502,561 is repayable on a table basis and \$6,766,170 by the Sinking Fund method. At the end of the year Sinking Funds held amounted to \$512,453.

Loan money raised during the year totalled \$1,633,350 and strenuous efforts will require to be made to obtain even greater sums in the coming year to enable development works to be proceeded with on a time schedule to enable development works to be proceeded with on a time schedule to enable the Port to be ready to handle cellular container ships when these new services commence.

The New Zealand Ports Authority was established by Act of Parliament for the purposes of fostering an efficient and integrated port system for New Zealand, improving the turn-round of ships and promoting efficiency in the operation of ports. With the passing of the New Zealand Ports Authority Act it is no longer necessary to obtain a Special Act to borrow money for harbour

works but the consent of the Authority is required before a Harbour Board can expend loan money on major harbour works. The Board's relations with the Authority have been cordial and consent to the ordering of the two tugs and the container crane was obtained far more expeditiously than would have been possible under the previous procedure.

The next few years will see major changes in the Port with the advent of containerisation. The Board is carrying out a large reclamation to provide two container terminals with adequate back-up areas. A container handling crane has been ordered for the expeditious loading and unloading of containers and two powerful tugs are on order to facilitate the handling of large specialised vessels which will be introduced for this trade.

The selection of Wellington as a container terminal to be operational early 1971 and followed early 1972 by the inauguration of a cellular container service to the United Kingdom is one of the most important steps forward in the history of the Board. The selection of this port was recommended independently by the Molyneux Committee, the Feasibility Committee set up by the British Lines, the Metra Organisation engaged by Government and the Transport Commission and the principal factors in this choice were:

- (a) The central geographical position.
- (b) Adequate depth of water.
- (c) The regular 21 trip weekly rail/road ferry service connecting with the South Island.

To meet the requirements the Board undertook a 34-acre reclamation southward from Aotea Quay to provide two specialised berths complete with adequate back-up areas. An order for one Container Crane has been placed and also for the acquisition of two powerful Voith-Schneider tugs.

Experience overseas has proven that where cellular container ports are established, because of the frequency and reliability of service and turnaround, industries develop within the regional area and there is there-

fore every reason to believe that with the establishment and utilisation of these container services this development will prove a most encouraging economic benefit and stimulus to the whole region which the port serves.

Work has begun on additional reclamation for the New Zealand Railways to provide a marshalling area for the second berth which the Board is to construct to meet the growing needs of the Rail-Road Roll-on services to Picton.

Also under construction is a destructor plant to deal with overseas garbage to meet the requirements of the Department of Agriculture.

Due to the vast expenditure and effort involved in these urgent works, certain other planned developments at Point Howard, Kaiwharawhara and Lambton Harbour have meantime received less priority.

The Taranaki Street Terminal, comprising 5½ acres of reclamation, a timber breastwork, a modern store of 36,000 sq. ft., a bridge-ramp and a Service and Amenity Building, was completed in May 1969 at a cost of over two million dollars and is now operating very efficiently.

Further leases of land at the Hutt Reclamation were granted during the year and the whole of the leaseable land has now been taken up.

The Court of Inquiry into the casualty to T.E.V. "Wahine" made certain recommendations affecting the Board, relating to procedures at the Beacon Hill Signal Station, harbour tugs and shore radar. Steps have been taken to implement the necessary procedures at the Signal Station and an order was placed recently for two modern tugs. Consideration has been given to the question of shore radar.

A notable event of the year was the arrival on 18th November, 1968 of the aircraft-carrier, U.S.S. "America" of 77,600 tons displacement, length 1,069 ft. and draft 36' 8". She was the largest vessel ever to enter the Port.

The Board was represented at the Sixth Conference of the International Association of Ports and Harbours, held in Melbourne in March 1969. Many matters of im-

portance and interest were discussed at the Conference, and the information reported back to the Board proved that attendance at the Conference was well worthwhile.

During the year frequent opportunities were taken to invite visits by groups from various parts of the Wellington Harbour Board district. These groups represented Chambers of Commerce, Federated Farmers, Commercial and Financial interests. In each case full explanations of our development programme have been given, questions invited and rewarding discussions have followed. It is felt that this activity has been of great interest to a varied and wide field and serves a most useful purpose in acquainting people of the Board's activities. In total, together with those from overseas, 2,558 visitors were received.

Very sincere efforts have been made during the year to maintain and improve relations with the Harbour Board Employees' Union and I feel sure that, with understanding and mutual confidence, much can be done to eliminate the possibility of industrial unrest that might otherwise occur in the course of the major changes about to take place in waterfront operations.

The programme of development work now in hand has called for extraordinary effort on the part of Members and the Officers and Staff. I desire to express my thanks to Members for the time and thought they have given to the affairs of the Board throughout the year and for the support they have accorded to me. I also extend to the General Manager, the Chief Engineer and the other Officers and Staff of the Board my appreciation of their conscientious and loyal work during a particularly arduous year.

E. M. HODDER, J.P.
Chairman

Tilbury Limbers Up

The PLA Monthly, June

In our May issue we reported the comment of the PLA's Director-General, Mr. Dudley Perkins, on the lifting of the ban on new working agreements by the Transport Union's Number One Docks Group. "This means", said Mr. Perkins, "that the slow and arduous business of restoring confidence in the port's ability to handle any cargo can now begin . . . I look forward to recapturing business which has been lost and to winning new business, particularly in the container and bulk trades".

Already the signs that there will be a big and rapid build-up of traffic at Tilbury Dock are plain. On May 7 The Port newspaper was able to report the energetic beginnings of this build-up. No. 39 Berth, says The Port, "could be working three shifts a day seven days a week by September this year".

"Lifting of the ban clears the way for the Australian European Container service—a huge consortium made up of eight British and European shipping lines—to begin full operations. Formation of this consortium has taken place since OCL and ACT originally agreed to operate from No. 39 Berth.

"It means . . .

* Work for more men than was originally planned. There is talk of more than 90 dock workers being employed at the berth instead of the original 54 agreed between the PLA and Transport Union. Nearly double the number of tally clerks will also be needed.

* Twelve of the world's biggest container ships will operate from the berth from September instead of the original eight that were planned. This will be increased to 13 next year and eventually to 14.

* There will be greater frequency of sailings. When all ships are in service the sailing will be every four to five days.

* The present number of containers going through Tilbury will be

doubled as a result of these developments. "The berth", says The Port, "with its round-the-clock working will become the busiest container terminal in Europe. "The big build-up is due to start at the end of this month". (May—latest news at the time of writing is that OCL's new ship Jervis Bay is scheduled to load a full cargo of British exports in containers at No. 39 Berth in time to sail on May 29.)

"From then until September the berth will work up to full capacity.

"The two British concerns involved in this new consortium are OCL and ACT who were originally going to be the only users of the berth. They will be joined by Australian National Line, Hamburg America Line, North German Lloyd, Compagnie des Messageries Maritimes, Holland Australia Line and Lloyd Triestino in making up the Australian European Container Service. They will co-ordinate the operation of the new service between Europe and Australia. OCL and ACT will retain their own identities. What it means is that each of the companies in the consortium will have a share of container slots in each vessel calling at the berth.

"The Continental lines will not operate within the UK although their ships will call at Tilbury to pick up and drop OCL/ACT containers . . .

"The enormous expansion of trade planned for No. 39 Berth has been welcomed by all sides. A Transport Union spokesman said, 'We are looking at the agreements originally made with the PLA for this berth and a new agreement will obviously have to be drawn up for when the berth operates round-the-clock seven days a week. But we welcome this—particularly as it will give work for more men. This, from our point of view, is the most important aspect of it'.

"The original agreement allows for three shifts a day on two days of the week and two shifts a day for the remainder".

Another Tilbury berth, Number 46 leased by Seaboard Pioneer Terminal and described by The Port as a "sleeping giant which woke up with a bang on the Monday the ban was lifted . . . Seaboard hope to create a throughput of 500,000 tons a year, making it the largest operation of its kind in Europe.

"The terminal is shared equally between the Seaboard consortium of Canadian timber mills and the Reed group who will use the facilities for delivering pulp and paper". The terminal manager, Mr. Colin Bush, said 'We should be handling 50 ships a year at this berth initially. Some will be manned conventionally for discharge and the Star bulk carriers with their own Munck transporter gear will be operated by the terminal berth alone'.

"Seaboard have handled their first ship, the 14,000 ton Thorbjorg, which arrived on May 1 with 15,500 tons of softwood".

Bulk timber handling was pioneered at Tilbury by the PLA at 34 Berth. Operations began here in July, 1966, with a completely new manning arrangement in which all men were interchangeable and could operate any item of the sophisticated mechanical equipment at the berth. Record throughputs were achieved almost immediately and steadily maintained over about 36 ships per year. Total annual throughputs were around 200,000 tons annually of timber and timber products.

Anglo-Soviet Shipping Company have expressed themselves very gratified by the handling rates for Russian packaged timber in London, both at No. 34 Berth and at the India and Millwall Docks. At the latter control the average rate of discharge of the mv Kolymales at Timber Wharves, Ltd., Millwall Dock, was 70.5 cu. metres, or 15 standards per gang hour. The mv Kungurles arrived from the White Sea area in mid-May at No. 34 Berth, Tilbury. When the first purpose-built timber carrier to use
(Continued on Next Page Bottom)

Helsingborg—Largest Roll-on/ Roll-off Port in Scandinavia

Port of Helsingborg

In 1969 the Port of Helsingborg consolidated her position as the leading roll-on/roll-off port in Sweden and in all Scandinavia as well. The number of motor vehicles passing through the port was no less than 980,417 during the year. When making a comparison between the largest Swedish ports in this respect you will find the following ranking order.

Motor vehicle traffic in 1969

1. Helsingborg	980.417
2. Kalmar	301.642
3. Färjestaden	298.571
4. Limhamn	260.571
5. Gothenburg	252.115

In respect of cargo loaded on railway wagons and lorries, Helsingborg is again outstripping her competitors with a broad margin. The volume of truck cargo comes up to 1 million tons a year at Helsingborg alone, which means another lead with double as much as the next

biggest port. As to goods on rail the Port of Helsingborg is also topping the list exceeding no. 2 of Trelleborg by more than 30,000 tons. The following tables show the Ro-Ro goods traffic.

Ro-Ro truck cargo in 1969

1. Helsingborg	1,020,028 tons
2. Gothenburg	543,062 "
3. Landskrona	361,307 "

4. Trelleborg	314,153 "
5. Malmö	224,096 "

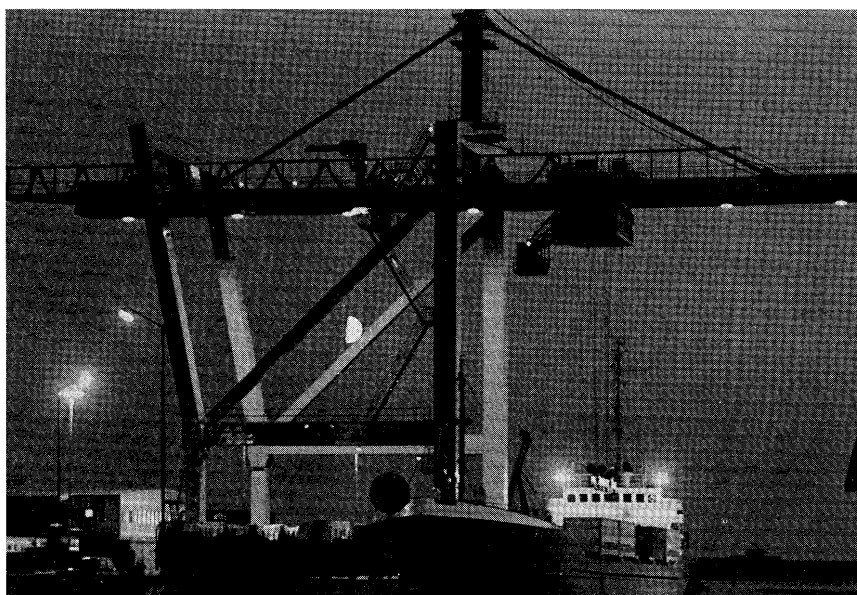
Ro-Ro cargo on rail in 1969

1. Helsingborg	1,891,868 tons
2. Trelleborg	1,860,330 "
3. Malmö	297,630 "
4. Stockholm	113,499 "

The Port of Gothenburg holds a very strong position in respect of oil cargo amounting to half of all Swedish ports in total. Concerning the volume of dry cargo Helsingborg holds a position very close to that of Gothenburg. The ranking list is as below if Luleå and Oxelösund—typical ore harbours—are included.

General & Bulk cargo in 1969

1. Luleå	7,805,000 tons
2. Gothenburg	4,702,000 "



this berth, the Columbiand, arrived in March, 1968, discharge rate with seven 12-man stevedoring gangs reached a peak rate of 1,301 standards (nearly 4,000 tons) in one day. Average discharge rate, usually with six gangs was well over 1,000 standards a day.

When No. 46 Berth, Tilbury, went into action with the arrival of the Thorbjorg, some 6,200 tons of timber and timber products were discharged in three days. Average hourly discharge rate by the 70 dockers employed was about 21¼ standards per hour. At the moment No. 46 Berth is only receiving timber consigned to U.K. markets. "But", said the Seaboard chairman, "if everything works out, we might use Tilbury for a terminal for shipping timber to Europe".

All in all, Tilbury could have a bright and thriving future since all systems are "go" as The Port puts it.



3. Helsingborg	4.547.000	"
4. Oxelösund	4.381.000	"
5. Stockholm	4.174.000	"
6. Malmö	1.758.000	"
7. Gävle	1.719.000	"
8. Trelleborg	1.354.000	"
9. Norrköping	1.330.000	"

Furthermore, the Port of Helsingborg is the unquestionable leader as regards passenger ferry traffic. More than 13 million passengers passed through the port during 1969.

THE SKANE TERMINAL

The new, well-equipped container harbour has today a capacity of 30.000 boxes a year, but already in 1971 the capacity will be multiplied. The first stage of the Skane Terminal was completed in August 1969 and now the wharves are being extended to three times their present length, and likewise the areas.

Direct lines to a row of near continental ports are operating from Helsingborg, and by transship-

ments all parts of the world are reached with containers from the Skane Terminal. Already within a few months time containers bound for ports in USA will reach its destinations quicker from Helsingborg than from any other Swedish

port. The investments made at the Port of Helsingborg are now beginning to pay back, to a large extent also to all those who are wise enough to use the services Helsingborg offers her clients. (6th August, 1970)



New, Modern Port Complex Construction to Start Soon

From "Port of Houston Magazine"
August, 1970

An entirely new, multi-million dollar port complex just off Galveston Bay was announced by the Harris County Houston Ship Channel Navigation District as the Port of Houston unveiled its answer to the dramatic new challenge of containerization and barge-carrying ships.

The huge project, to be built 25 miles downstream from the Navigation District's present major facilities, will be located around Barbour's Cut in the City of Morgan's Point on the Houston Ship Channel.

Covering more than 600 acres, with a 40-foot-deep sea channel, a 1600 foot turning basin and berths for 20 ships, the new port is designed specifically to take care of the new and vastly different modes of emerging marine transportation.

The value of the completed complex has been placed tentatively at \$100 million. Although the new port is scheduled to be in operation by 1972, plans call for completion of the entire project by 1990.

Port Commission Chairman Fentress Bracewell, in making the announcement at the August meeting of the Navigation and Canal Commissioners, said, "The new Port facility announced or planned by any other Gulf port."

Bracewell pointed out that early French settlers had chosen this area as the ideal place for a port and had, in fact, named it "The Port," or "La Porte" in French. The city of La Porte, Texas lies just to the west of Barbour's Cut, an existing channel which enters the Houston Ship Channel where it meets Galveston Bay. This site, at the head of Galveston Bay, the settlers felt, offered quick access to, but protection from, the open sea.

"This gives us an unsurpassed geographical position," Bracewell said, "lying as it does just two hours from the open Gulf at the end of the straight, wide and deep Hous-

ton Ship Channel across Galveston Bay from Bolivar Roads."

He also stressed the new port's position on the mainland made for "ideal surface transportation" through extensive rail and interstate highway systems and that "proximity of our own large market and the vast mid-U.S. markets" will be afforded container and ship/barge cargo coming off vessels at the Barbour's Cut Terminal.

"According to the Houston Chamber of Commerce," Bracewell emphasized, "There are more than 10 million people living within 300 miles of our Port . . . which is ideally located to serve this growing market." Census findings and other governmental and private reports have shown the area to be one of the fastest growing population centers in the nation.

The terminal, with its 17,141 feet of berthing space for the new, larger ships, Bracewell explained, "will be served by the new La Porte Freeway on the west connecting into the Gulf Freeway just

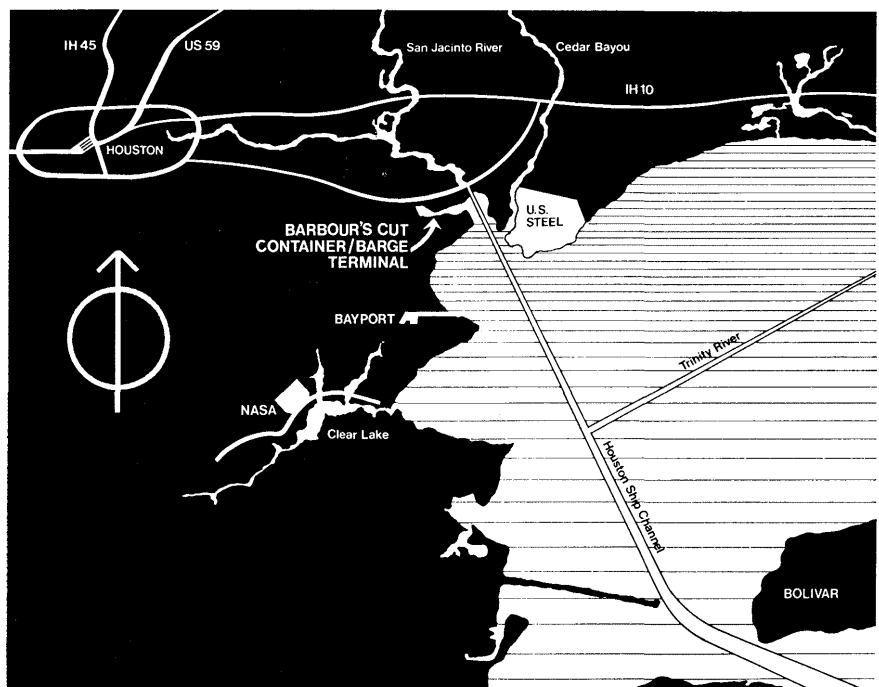
above Pasadena, and, on the east and north, it will have direct access through Baytown to U.S. Interstate 10. The Trinity River barge canal enters into Galveston Bay just halfway up the Houston Ship Channel from Bolivar Roads, and the Intracoastal Canal comes into the Ship Channel just below it."

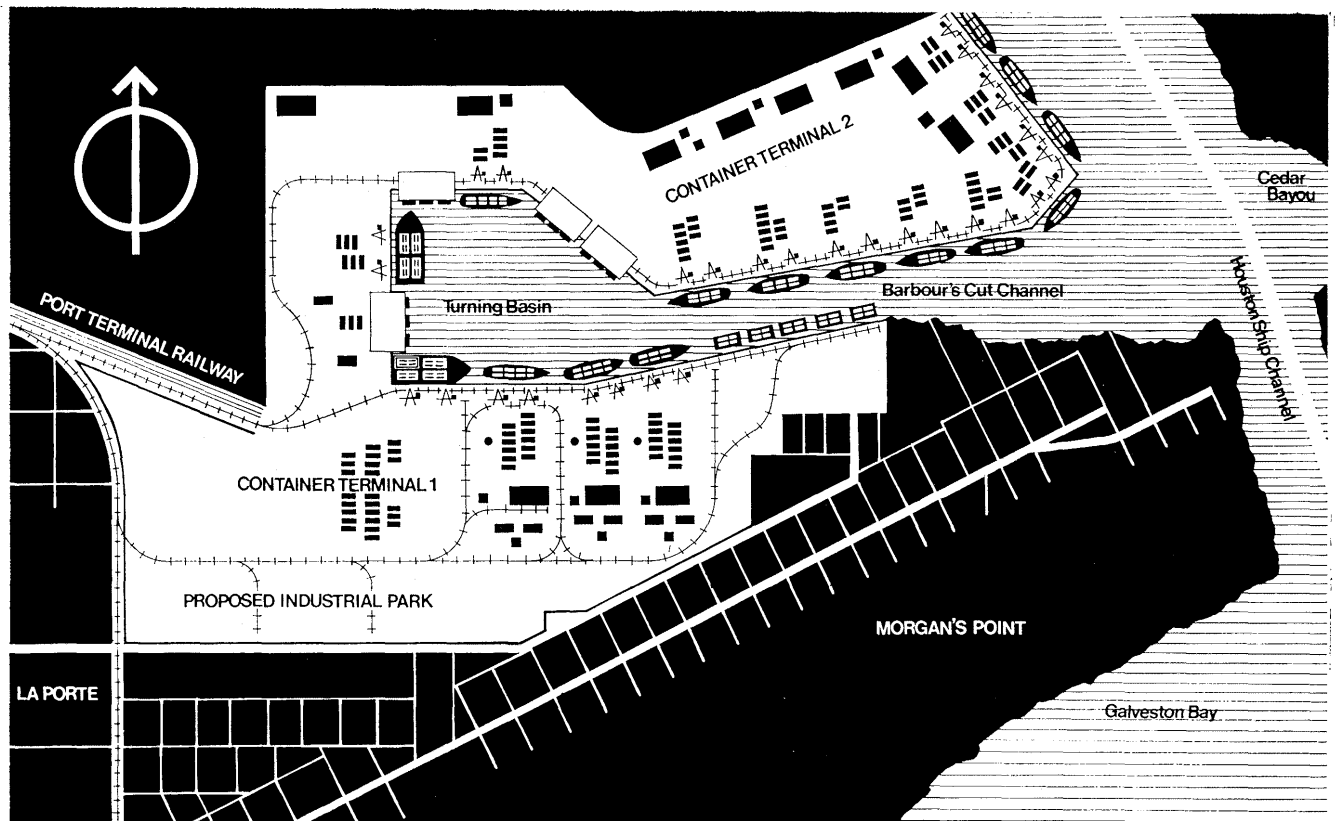
Rail service to the Barbour's Cut Terminal will be by the Port Terminal Railroad Association, a joint operation of the six major trunkline railroads already serving the present Port of Houston facilities.

J. P. Turner, Executive Director of the Port of Houston, also pointed to the new port's location at the "base of the \$3 billion Houston Ship Channel industrial complex and just above the huge Bayport industrial park development." The Bayport facility is linked to the Houston Ship Channel just a short distance below Barbour's Cut at Red Bluff Reef and the new U.S. Steel Plant just across the Houston Ship Channel to the east can tie into it by direct barge canals.

"New designs in container ships, as well as the huge vessels which carry lighters, or barges," Turner said, "is causing the complete revamping of ports from what we have known in the past."

"Many of these new ships are in excess of 800 feet in length, and all our new wharves will be sized so that we can berth vessels of any





length coming into the Port," Turner continued.

The executive director explained that "The present Navigation District wharves and turning basin, 25 miles further up the Houston Ship Channel, with its curves and bends, cannot easily handle vessels of these dimensions, but the Barbour's Cut Terminal will be a straight shot to and from the open sea."

"The ship/barge movement involves vessels which transport barges loaded with cargo to ports of destination. Here the barges are discharged into the water and can be distributed to their ultimate destinations by towboats or unloaded in port at the ship/barge terminal."

Turner indicated that the Barbour's Cut Terminal has available nearby plenty of bay area for the marshalling and fleeting of these barges.

Billions of dollars worth of the new container and ship/barge vessels are just beginning to come out of the shipyards and many more are on the drawing boards or under construction. Many of these giants will travel as fast as 35 knots and will make an Atlantic crossing in as short a time as four days.

"Speed," said Turner, "is the essential thing with these great new ships, and the port that can offer them fast turn-around is the port that will get the business. The Barbour's Cut Terminal is but two hours from the open sea, rather than the six to seven hours to the present Turning Basin."

"That saves a minimum of eight hours in turn-around time right there," he pointed out.

Turner emphasized at this point that improvements and modernization of the present facilities of the Navigation District, on which some \$70 million has been spent in the past 14 years, will continue, and that it will still serve those break/bulk and general cargo vessels whose size, draft, and type of cargo will make the upstream journey feasible.

"By no means," said Turner, "are we abandoning, or relegating to second place, that which we have worked so hard for. We are simply becoming more flexible and are adapting our Port to meet the changing forms of transportation."

The first phase of work on the new terminal is to get underway immediately with the deepening of the

present 28 foot Barbour's Cut channel to 40 feet, and the enlargement of the turning basin to provide for vessel turnaround.

The Houston Ship Channel from Morgan's Point to the open Gulf is already 40 feet deep and 400 feet wide as the result of dredging by the U.S. Corps of Engineers over the last 15 years.

Phase I of the work will also embrace construction of wharves, container yards and barge terminals on the south side of Barbour's Cut.

A 200-acre industrial park just south of the Barbour's Cut container yard will be available for marshalling or assembling cargo, or for any other similar use by port-oriented light industry.

Phase II and III include a ship/barge terminal at the head, or west end, of the turning basin, and the construction of wharves and a combination container and ship/barge operation on the north side of Barbour's Cut. Plans for accommodating roll on/roll off vessels are also included.

It is planned that the first phase development of Barbour's Cut Terminal will be in operation by 1972.

Orbiter Probe

IAPH News :

Maryland Trade Mission

The Chairman and members of the 1970 Maryland Trade Mission sponsored by the Chamber of Commerce of Metropolitan Baltimore and the Maryland Port Authority visited the Port of Tokyo Tuesday, September 8. The 15-man mission visited the export goods showrooms of the Economic Bureau of Tokyo on the 3rd floor of the WTC Building Annex, listened to the greetings of Mr. Takemasa Okumura, Director of Tokyo's Port Bureau, and then was shown an English-version color film on the construction of Tokyo port facilities. The party, after having panoramic views of the port and the downtown areas of Tokyo from the top (40th) floor of the WTC Building, was taken on a launch provided by the Tokyo City for an on-the-surface tour of the port.

In the evening, from 6 p.m., a reception and buffet was given by the Trade Mission on the 38th floor of the World Trade Center for Tokyo Port, Chamber of Commerce, shipping, trade, and Japanese and the U.S. Government Officials. The Mission visited Yokohama Monday, and went to Osaka Thursday.

The members of the Maryland Trade Mission were: Mr. Gerald S. Wise (Mission Chairman), Chairman, Maryland Regional Export Expansion Council, President, World Trade Association of Baltimore; Mr. Emanuel Caminis, Director, Forwarding Operations, R. G. Hobelman Co.; Mr. Maurice Curlee, Vice President, Lavino Shipping Co.; Mr. Cordon R. Ewing, Assistant Vice President, International, Maryland National Bank; Dr. James M. Frenkil, President, Central Medical Center, Chairman, Baltimore Security Ware-

house Co.; Mr. George S. Goodhues, President, George S. Goodhues & Sons; Mr. Charles I. Huches, Director, Trade Development, Maryland Port Authority; Mr. Laurent L. Martin, Vice President, Atlantic & Gulf Stevedore Co.; Mr. Martin G. Pilachowski, Assistant Manager, International, Maryland National Bank; Mr. Charles P. Rayman, Regional Manager, Chicago, Port of Baltimore, Maryland Port Authority; Mr. Hershey Richardson, President, International Longshoreman's Assoc., Baltimore Chapter No. 858; Mr. W. N. Schonowski, President, International Longshoreman's Assoc., Baltimore Chapter No. 829; Mr. Joseph L. Stanton, Executive Director, Maryland Port Authority; Mr. Francis X. Wells, Commissioner, Maryland Port Authority; and Mr. W. F. McClelland, Director, Far East, Maryland Port Authority.

Los Angeles Reception

Los Angeles Board of Harbor Commissioners gave a reception in the Hotel Okura, Gyokutei Room, Tokyo, September 9, 6—8 p.m. The hosts were Commission President Frank C. Sullivan, General Manager Bernard J. Caughlin, Director of Trade Development Kermit R. Sadler, and Far East Director for Port of Los Angeles Zenzaburo Seto. Mr. Sullivan headed up a trade mission to Japan to promote trade between the Port of Los Angeles and Japanese Ports.

DRPA Party

A reception was held in the Hotel Okura, Heian Room, Tokyo on Friday, September 25, 1970 from 6.00—8.00 p.m. by the Delaware River Port Authority (Ports of Philadelphia) in the persons of Mr. James R. Kelly, Director of World

Trade Division, DRPA, Mr. Irvin Good, Deputy Director, Department of Commerce, City of Philadelphia, and Mr. Charles H. Dickey, Far East Managing Director, World Trade Division, DRPA.

On Monday, September at 9.30 a.m., the party called on Mr. Takemasa Okumura, Director of the Port Bureau, Tokyo Metropolitan Government, at his office, and got briefed on the Port of Tokyo for 30 minutes. Later, the party was taken to a cruise of the port on a launch for an hour until 11.30 a.m.

NEW BOOK

N.P.C. Research and Technical Bulletin No. 7

London, 28th August, 1970:—Several major port authorities are collaborating with the National Ports Council on the development of a computer-based information system for lorry reception from which substantial financial benefits are expected.

The Council are now hoping to interest other port authorities in the system, details of which are contained in the latest issue of the Council's Research and Technical Bulletin.

According to estimates published in the bulletin, adoption of the system in the largest ports would produce benefits to the port and its users of the order of £3 million for an initial development outlay of £85,000 and annual operating costs of £415,000.

Mr. Morris Gifford, the Council's Director-General emphasised today that these estimates were based on a cost/benefit analysis of the system's potential. The benefits would be shared between the port and its users, a substantial portion going to the latter, particularly road hauliers.

'A feature of the system is that it would make possible introductions between importers and hauliers with lorries delivering export cargoes at the docks', he said. 'Under existing arrangements these lorries often have no return load. We estimate that at a large port

like London such a service could benefit hauliers by over £1 million a year'.

Mr. Gifford also pointed out that the Council's estimates applied to a major port using its own existing computer, and to present traffics. For a smaller port the costs—and benefits—would be proportionately less.

The system is based on the 'Compound' Port Information System, devised by the Council's consultants, Elliott Automation Space and Advanced Military Systems, as a fully integrated port information system. The Council's view is that the Compound system could best be introduced in stages, and the less complex system now put forward represents a first stage which could later be assimilated into a full port service.

'We have selected this area of port activities as one likely to give a good, quick return on expenditure', said Mr. Gifford.

Several ports already operate successful booking schemes. These are operated manually, and the proposed system would extend these schemes, using a port's existing computer to vet and record bookings and to relate expected lorry arrivals to other operations. The information stored in the computer would be used to estimate the demand on resources created by each lorry; to assist in organising the deployment of the available manpower and plant; and to effect introductions between suitable hauliers and importers.

The computer would contain information on the availability and return destination of unloaded export lorries. Hence an importer with a load for collection at the docks could be told of hauliers with lorries likely to be available at the appropriate time. It would be too costly in manpower to provide such a service without a computer.

'In addition to the ports already collaborating with us, we feel that other port managements would wish to participate', said Mr. Gifford. 'If they will get in touch with our Research staff their special requirements could be examined by the design team which is currently

working on the project'.

Contents of the new edition of the Council's Bulletin* also include an article on the methodology employed by consultants studying transshipment of bulk materials between North West Europe and Britain; a survey of future trends in the shipment of phosphorous materials; and a paper by Professor Trevor Heaver, of the University of British Columbia, on the cost of large vessels, which examines the sensitivity of total vessel costs to various operating conditions.

*Research and Technical Bulletin No. 7, published by the National Ports Council, 17, North Audley Street, London W1Y 1WE, price 15s.

Licensee Bought Up

Alameda, Calif., August 28:—PACECO, A Division of Fruehauf Corporation, owning 50% of the shares of its licensee, Paceco-Vickers Limited, has purchased the shares held by Vickers Limited. The container handling equipment licensee is now a wholly owned PACECO subsidiary which will maintain its present address at Millbank Tower, Millbank, London S.W. 1.

The purchase was made by PACECO in order to expand its operations beyond continental Europe. Vickers Limited will continue to have an exclusive manufacturing license for PACECO container handling equipment in the United Kingdom.

Other PACECO licensees are located in Spain, Italy, India, Australia and Japan. The principal PACECO container handling products are Portainers (ship loading and unloading cranes), Transtainers (container terminal cranes), and Shipstainers (shipboard mounted cranes).

PACECO has also recently announced a major U.S. expansion of its production facilities in Gulfport, Mississippi, where a new \$9 million plant is now under construction. A pioneer in the container handling equipment field, PACECO has sold or has on order more than 150 specialized container handling cranes

for 45 major ports throughout the world. (Paceco News)

Paceco Int'l Ltd.

Alameda, Calif., September 17:—PACECO, a division of Fruehauf Corporation, announces that Paceco-Vickers Limited, London, which recently became a wholly owned subsidiary of PACECO, will henceforth be designated as Paceco International Limited. This container handling equipment subsidiary will now expand its operations in and beyond Continental Europe.

Paceco International Limited will maintain its present address at Vickers House in London, and Vickers Limited will continue to be the sole manufacturer in the United Kingdom of PACECO products. Other PACECO licenses are located in Spain, Italy, India, Australia and Japan. The principal PACECO container handling products are Portainers (ship loading and unloading cranes), Transtainers (container terminal cranes), and Shipstainers (shipboard cranes).

PACECO has also recently announced a major U.S. expansion of its production facilities in Gulfport, Mississippi, where a \$9 million plant is now under construction. A pioneer in the container handling equipment field, PACECO has installed or has on order more than 150 specialized container handling cranes in 45 major ports throughout the world.

Fruehauf Corporation of Detroit, Michigan, designs, builds and markets diversified transportation equipment and systems throughout the world for all modes of transportation—road, rail, sea and air. (Paceco News)

Side Loader

Alameda, Calif., August 31:—PACECO has become the first container handling firm to market a revolutionary side-loading straddle carrier in the U.S. and many foreign countries. The new system promises to increase handling efficiency, save storage space, and places PACECO as the only firm in the container world that offers container yard equipment for all modes



Paceco/Belotti Side Loader

of handling.

Designed by Belotti of Genoa, Italy, and licensed to PACECO for sale and manufacture in the U.S. and many foreign countries exclusively, the new system can side load 20' containers as well as transport and stack 20' and 40' containers in a conventional straddle carrier manner. Two units are available: one which stacks container three high, and a smaller one for two-high stacking. Both units incorporate the advantages of conventional straddle carriers and side-loaders, and include 90-degree power steering, 15 mph traveling speeds, and easy one-man operating controls in a conveniently placed cab.

The new PACECO/BELOTTI side loading straddle carrier, when being used as a side loader, features a uniquely-designed outrigger system with moveable shoes, to allow the carrier to align its position without losing outrigger support.

The new system is now available

to container yard operators on a fast delivery basis in most areas of the world. (Paceco News)

Locust Point

Baltimore, Md., July 31:—The Maryland Port Authority today acquired 50 acres of land at Locust Point, ending nearly four years of negotiations for the railroad-operated waterfront property.

The acquisition more than triples the size of the existing Locust Point Marine Terminal, and represents a capital investment of \$3 million.

Involved in the land transfer are 39 acres on the south side of Locust Point between Port Covington and Fort McHenry, and 11 acres on the north side adjacent to the new Pier 4-5 complex at the present MPA terminal.

An additional 92 acres of riparian rights were also made available as a result of the transaction.

Consulting engineers are expect-

ed to begin design work for major development at the new terminal immediately, and construction is slated to get underway within 12 months. The triangular parcel behind Pier 4-5, which is to be used for backup storage on the north side, is already being cleared of rail track, with final clearance and paving scheduled to start imminently. Construction of a 174,000-foot transit shed on the Pier 4-5 complex is also ready to take place.

More than \$13 million has been earmarked for the redevelopment project on the south side, long considered a prime area for port expansion. The enlarged terminal will emphasize containerization, providing three marginal quay-type berths in addition to the two existing finger piers.

Parties involved in the property transfer with the Port Authority included: the Chesapeake & Ohio-Baltimore & Ohio Railroads, Western Maryland Railway and the United Fruit Company, whose banana pier becomes part of the expanded marine terminal.

Massive Projects

Baltimore, Md.: — Construction projects totaling nearly \$8 million in container and general cargo facilities are expected to be under way on Maryland Port Authority piers by the end of the month, the state agency announced today.

The projects involve bulkhead and crane construction for two new container berths at Dundalk Marine Terminal and a huge general cargo transit shed at Locust Point. Contracts for the work are scheduled to be approved at the next public meeting of the Authority's commissioners August 21.

On the basis of bids opened last week, B.F. Diamond Construction Co., Inc., of Savannah, Georgia, is the apparent low bidder for the bulkheading and related work on Berths 11 and 12 at the Dundalk terminal extension site, where an enlarged container center is under construction. Diamond outbid McLean Contracting Company, of Baltimore, with a figure of \$5,052,820.

The two new berths are expected to be completed and ready for use in about a year.

Construction of a third bridge-type gantry-mounted container crane at Dundalk will apparently be performed by the same firm that built the first mammoth container crane at the terminal and is currently constructing the second: Paceco, of Alameda, California. Paceco appears to have outbid the Alliance Machine Company, of Alliance, Ohio, with bids of \$1,149,800 for one crane, and \$2,286,800 for two.

The crane presently under construction at the Dundalk facility is costing the Port Authority \$1,167,000, and is set for completion next July. Construction of the third crane—and a fourth, should the agency's commissioners opt for simultaneous construction of two bridge-type gantries—should also be completed in about a year.

It should be noted that the cost of the third crane will be \$17,200 lower than that of the second.

There are three bids to be considered for the proposed general cargo transit shed on the new Pier 4-5 complex at Locust Point Marine Terminal. Industrial Engineering Co., Inc. is the apparent low bidder with \$1,579,000, followed by Carl Gonnson & Son, Inc. with \$1,607,655, and Mark Engineering Company with \$1,713,500, all of Baltimore.

The 174,000-square-foot facility is expected to require about 15 months' work before completion. (Port of Baltimore)

Chesapeake Park

Baltimore, Md.:—1,500,000 square feet of space is instantly available at Chesapeake Park, a new, 1,000-acre intermodal industrial and distribution center, just outside Baltimore, Maryland. It offers over 400 acres of graded well-drained land, zoned for light industry, for your expansion or relocation. All utilities are already in place. If needs are immediate, over 1,500,000 square feet of office, laboratory, manufacturing and warehousing is instantly available for lease.

Located in Baltimore County, Maryland, the heart of the east coast market, Chesapeake Park is the only privately-owned facility in the east which combines:

- Quick, convenient access to the interstate highway network (I-95 and I-83).
- A direct connection to the main line of 4 major U.S. railroads.
- Two channels providing direct, water-borne connections to the Port of Baltimore, the inter-coastal waterway, the Far East, Europe and Latin-America.
- A commercially-licensed, privately-owned, 750 acre-airport with a jet-sized 8,100-foot concrete runway.

Chesapeake Park is located 10 miles from down-town Baltimore and has shopping centers, restaurants, schools, banks and comfortable housing in the immediate neighborhood. More than one million skilled, semi-skilled, secretarial and professional personnel live within 30 minutes commuting distance.

For more information or a tour contact can be made with the Chesapeake Park, Inc., Dept. A, Box 5061, Baltimore, Maryland 21220; Telephone (301) 686-4532, or the Port of Baltimore office in Tokyo at Yurakucho Bldg., Rm 322, 5, Yurakucho 1-chome, Chiyoda-ku, Tokyo 100. (Port of Baltimore)

Relief Flour

Buffalo, N.Y.:—An August relief flour allotment of 4 million pounds has been granted to the Port of Buffalo. This is equivalent to 2,000 tons for shipments to the Far East and is the first time this year that the U.S. Department of Agriculture's Commodity Credit Office in Minneapolis has awarded a Buffalo milling firm an allotment.

The Buffalo allotment will be turned out by the Pillsbury Company as its Ganson Street plant. The allotment is just one-quarter of the amount of 12 million pounds bid on by Minneapolis flour mills that have plants in Buffalo.

Francis D. Flori, manager of trade development for the Niagara Frontier Transportation Authority, expressed thanks for the visits of port and union interests to Minneapolis and Washington in recent weeks in efforts to secure August allotments. He said the allotment is a step in the right direction in support of the Proxmire amendment to the Cargo

Preference Act which would put the Great Lakes in the category of a "Fourth Seacoast". (Port of Buffalo Progress Bulletin)

AST&T Membership

Duluth, Minn., September 15:—C. Thomas Burke, executive director of the Seaway Port Authority of Duluth, has been elected to membership in the American Society of Traffic and Transportation, Inc. (AST&T), Chicago.

The AST&T, with chapters throughout the United States, is comprised of leaders in the field of traffic, transportation and distribution management.

Burke has served as Duluth port director since December 1969 and previously was assistant to the director of port commerce for the Port of New York Authority. (Seaway Port Authority of Duluth)

Duluth-Built Crane Loaded

Duluth, Minn., September 23:—A king-sized, Duluth-built crane—the largest of its type in the world—was loaded piecemeal aboard a Norwegian freighter here today for shipment to Japan.

Constructed by Clyde Iron Works, Inc., Duluth, the 217-piece crane was loaded aboard the M/V Borgland for delivery to Inoshima, Japan, where it will be erected on a specially-designed 300-foot combination derrick and pipe lay barge.

SEDCO Inc., Dallas, Texas, will take delivery of the barge-crane unit in Japan for use in offshore operations. The crane's primary purpose involves construction of the huge platforms used in offshore drilling.

Spokesmen for Clyde Iron, Microdot Inc., Greenwich, Conn., said the full-revolving Whirley crane, when assembled, will have a lifting capacity of 600 tons. This equals the lifting capacity of the largest revolving cranes in the world—most of which also have been built by Clyde.

Altogether, the shipment consisted of the crane parts built by Clyde, plus a 44-ton boiler built by Johnston Brothers Co., Ferrysburg, Mich., four 25-ton anchor hoists built by Manitowoc Engineering

Co., Manitowoc, Wis., and other equipment constructed for the barge.

Largest components of the crane included two main beams weighing nearly 45 tons apiece and measuring 74½ feet in length, 9½ feet in width and 11½ feet in height. Because of their size, the beams and other large dimensional units were loaded aboard the Borgland's deck rather than in the cargo holds.

Indicative of the crane's size, the main block and hook alone weighed 45,500 pounds, or nearly 23 tons.

All of the crane and barge components were loaded under the supervision of Ceres, Inc., Duluth, by the Clure Public Marine Terminal's 90-ton Clyde Whirley cranes.

The Borgland, owned by Fred Olsen & Co., Oslo, Norway, is chartered by States Marine Lines, New York, and represented in Duluth by General Steamship Agencies, Inc. (Seaway Port Authority of Duluth)

Port Everglades News

- Port Everglades' trade development director, Henry N. Holdren, Jr., will participate in an Air-Sea trade mission to the Caribbean in September. The trade mission is sponsored by the World Trade Committee of the Greater Fort Lauderdale Chamber of Commerce in cooperation with state and other agencies. Fifteen exhibitors are expected to take part.
- The half-hour documentary film, "Visit to Port Everglades" produced by ABC-Discovery series and shown on nation-wide television last spring has been scheduled for rerun on Sept. 13, according to information received by the Port Authority.
- An in-depth study of southern U.S. harbors which appeared in the Florida Journal of Commerce recently rated Port Everglades among the top three seaports with the potential of developing into deep-water sites having a water depth of 60 feet.
- Of the 1,505 vessels which came into Port Everglades in 1969, 492 were oil tankers. They discharged 7.7 million tons of petroleum. (Port Everglades News)

Cotton Export Port

Galveston, Texas, September 10:—The Port of Galveston's total cotton exports for 1969-1970 (ending July 31, 1970) were 1,132,360 bales out of total U.S. exports of 2,700,000 bales, or 42 per cent of the national total, according to figures released today by the Galveston Cotton Exchange and Board of Trade.

Japan was again the largest receiver of American cotton shipped out of Galveston during the year with a total of 363,255 bales. Japan received 328,029 bales of cotton from Galveston in the 1968-69 season. In all, Japan got 640,000 bales of cotton from the U.S. for 1969-1970.

This past season may have been the smallest exporting year for cotton from the U.S. since the mid-1950s. The Cotton Exchange reported other cotton exports from U.S. ports as follows: Houston, 282,826 bales; Corpus Christi, 193,895; Brownsville, 42,091; New Orleans, 227,841; and through all West Coast ports, 617,201 bales of cotton. These figures include linter shipments as well.

The 1969-70 export figure of 1,132,360 bales from Galveston compares to total exports of 1,271,278 bales from Galveston during the previous year. Korea received the second highest volume of cotton from Galveston for the year, with 255,332 bales, compared to 225,095 for 1968-69, and Taiwan received 94,240 bales as against 144,767 during 1968-69.

U.S. Cotton experts have been quoted recently as feeling the coming year's exports of American cotton will stand a good chance of being 500,000 to 1,000,000 bales more than the 2,700,000 bales shipped during 1969-70. They reason that the world crop will be about the same but that the American crop may reach 11,500,000 bales, allowing sufficient cotton to meet an expanded demand. Galveston has historically been America's leading port in the exportation of cotton. (News from The Port of Galveston)

Oil Spill Containment

Los Angeles, Calif., August 12:—All of the 13 petroleum terminals at the Port of Los Angeles will be required in the future to have not less than 1,000 feet of oil spill booms available at all times, according to an order of the Los Angeles Board of Harbor Commissioners adopted at the regular Board meeting today (August 12, 1970).

The order, to be published as an amendment to the Port of Los Angeles Tariff No. 3, Section 1355, is designed to provide immediate spill control at all oil terminals, thus decreasing the chances of fire while sources of ignition are being temporarily shut down.

Harbor Commission President Frank C. Sullivan explained that in addition to the increased safety factor the order serves as another of the port's current moves toward water quality control.

A further advantage is the lessening of damages for those responsible for a spill.

The Tariff has included no requirements that oil terminals have spill booms immediately available up to now, according to Sullivan, but such booms have been in voluntary use and have proved to be an effective means of spill containment at the port since the mid-1920s.

Seven of the 13 oil terminals already have spill booms which meet the requirement.

Provisions for an alternate method of prompt containment of spilled oil will be permitted in some cases, Sullivan said. (Port of Los Angeles)

New President

Los Angeles, Calif., July 29:—Los Angeles public relations consultant, Frank C. Sullivan, who is also one of the City's most active campaigners against water pollution, today (Wednesday, July 29) was named president of the Los Angeles Board of Harbor Commissioners by his fellow members at their annual election meeting.

Elected vice president was John J. Royal, executive secretary-treasurer of the Fishermen & Allied Workers' Union, Local 22, I.L.W.U.

Commissioner Fred I. Wada, who has served on the Board seven

months longer than Royal, was nominated voice president, but declined and nominated Royal for the office.

Sullivan was appointed to the Harbor Board in October 1968, and last year served as the Commission's vice president. During his tenure he has been an active and outspoken advocate for improved water quality in the harbor, pressing for stiffer controls and seeking new ways to speed up the fight against pollution of man's environment.

Recently, Sullivan received the coveted Prisms Award from the Public Relations Society of America. It is the Society's highest professional honor bestowed annually on the public relations practitioner who has contributed the most to his profession.

In taking over the presidential reins from outgoing president Robert A. Day, Sullivan said he was looking forward to another year of progress at the Port of Los Angeles.

"The revolution now going on in sea and land transportation has placed a burden on our port facilities and we will be spending \$23.5 million in the next two years to expand and improve them to meet the demands of the shipping industry," he said. (Port of Los Angeles)

4 Major Projects

Los Angeles, Calif., August 5:—Negotiation for the engineering design of the first of four major projects at the Port of Los Angeles was authorized by the Los Angeles Board of Harbor Commissioners today (August 5, 1970), setting the stage for greatly increased cargo handling facilities at the port by 1973.

According to Commission President Frank C. Sullivan, the four major projects will cost a total of approximately \$15 million and are expected to be constructed with funds from early sales of \$25 million in revenue bonds which the Harbor Commission plans to issue starting this year.

The projects, comprising a two-year capital development program set in motion by the Commission action, include wharf and backland development at Berths 232 & 235

for the LASH (Lighter Aboard Ship) service to be started in September 1971 by Pacific Far East Line; wharf, shed, and other terminal improvements at Overseas Shipping Company's Berths 228-D&E, 229, and 230-A&B to accommodate the company's additional container crane and container service expansion scheduled for May-June of 1971; acquisition and development of property now occupied by Westoil Terminals Company to provide additional backland for the present container terminal at Berth 120-131, plus construction of 1,700 feet of new wharf at the terminal; and expansion of the storage space and facilities at the port's bulk loader, Berths 49-50, in anticipation of tripling the volume of ore handling by 1974.

LASH Terminal

Pacific Far East Line will begin the Lighter Aboard Ship service next year with ships carrying both 300-ton lighters and conventional containers visiting the Port of Los Angeles. Phase I of the facility planned is a new concrete wharf about 1,000 feet long at Berths 233 to 235 to accommodate the ships. The barges will be handled at Berths 232-D&E and will require the addition of covered stacker-crane facilities along the wharf in front of the shed for the loading and unloading of barges.

Phase II of this development will include construction of a container freight station, office and additional backland development and the assimilation of Dock Street and Seaside Avenue into the terminal complex. Total cost of Phase I and Phase II of this project is estimated at \$3,700,000.

Overseas Shipping Company terminal expansion

Phase I of this project includes reinforcement of the wharf at Berth 231 to accommodate a new container crane. Phase II will be the construction of a wharf at Berth 230, filling and improving the slip area, and the removal of the transit shed at Berths 230-A&B. These improvements will allow the addition of a third container crane in the future when needed. Preliminary cost for the total project is estimated at \$4,-

700,000.

Berth 230-D&E and Berth 232-A&B, together with adjacent backland will continue to operate as an import auto and distribution area by the Fred F. Noonan Company.

Sullivan explained that on a minimum six percent basis, the least return the Harbor Department will realize is \$1,679,571 annually. Part of this money would be used to pay an annual bond service expense of \$722,520, and part for port costs of \$263,001, resulting in \$694,050 of net revenue to the Harbor Department annually. This is a good return on an \$8,420,000 investment for the expansion and development of the LASH, Overseas Shipping Company, and Fred F. Noonan terminals.

East-West Container Terminal—Berths 120-131

Negotiations for the Westoil Terminals Company property is now in process so that the Harbor Commission may proceed with the further expansion of the container terminal, thus providing adequate facilities for the four Japanese lines now assigned there.

Expansion of the backland area for the handling of containers will involve the relocation of Wilmington-San Pedro Road, presently being designed by the Department of Public Works. Preliminary costs are estimated at about \$8,000,000.

Berths 49-50 Bulk Handling Facility

Operations at this facility in Outer Harbor are scheduled to expand from the present 1,250,000 tons of cargo out-loaded each year to a volume of 3,650,000 tons by 1974. The operators of the facility recently acquired equipment to handle unloading of 650,000 tons of iron ore annually.

More space is needed to accommodate large quantities of coal, and storage space and additional equipment will be needed to allow the planned expansion of bulk cargo handling. Cost of this project is estimated at approximately \$4,000,000. (Port of Los Angeles)

Virginia Port Authority

Tokyo, August 20: — Virginia's tidewater and river ports have come of age during the past two years. Hampton Roads, with its new mod-

ern containership, unit-load and general cargo terminals at Norfolk, Portsmouth and Newport News, well deserves its place as a great world port and one of the two major containership ports on the U.S. Atlantic Coast. More important, these improvements provide the latest in cargo handling and substantial savings in time and money for shippers.

All of the regular liners operating in the Far East/Atlantic Coast trade call at Hampton Roads. In September, and with the maiden sailing from Norfolk, United States Lines will inaugurate its weekly Japan/Atlantic Coast route with a fleet of new high-speed full containerships. This will shorten the time between Japan and Hampton Roads to 19 or 20 days. The first sailing from Japan will be around the middle of October, and the **FIRST PORT OF CALL ON THE EAST COAST WILL BE NORFOLK!** Cargo moving inland will arrive in Chicago the morning of the third day after discharge.

A pioneer in container shipping, the Norfolk & Western Railway inaugurated the first Container-on-flatcar (COFC) service between the East Coast and inland points. Accepting containers without bogies or chassis, this is now operating between Norfolk; Chicago and Peoria, Illinois; Detroit, Michigan; and St. Louis, Missouri. It will eventually be extended to other points on the huge N&W Railway network. Another first for the N&W Railway is known as "MORACO" (motor/rail coordinated, the intermodal transportation system). This provides for the movement of Less-than-truckload (LTL) and Less-than-carload (LCL) freight between Norfolk and almost all cities in Virginia, Ohio, and some in Kentucky.

To move goods quickly to their markets and destinations through the Hampton Roads gateway are 7 major railroads, over 50 truck lines and several air cargo services. As a distribution center for the eastern half of the United States, Hampton Roads—located at the center of the U.S. Atlantic Coast—has the most modern of warehouses and distribution facilities available. Our labor force is made up of hardworking, efficient family men, so port and

labor costs are less than in other areas, and Hampton Roads enjoys the finest reputation for minimum pilferage and damage to cargo.

We are foreign trade and transportation specialists and our mission is to help you increase your trade with the United States. Our services are free and you are invited to make the most use of them. We will welcome your inquiries. (W. J. Young, Director for Far East, Virginia Port Authority)

First and Last Calls

New Orleans, La., September 15: —The Port of New Orleans was the favored first port-of-call as well as the leading last calling port for vessels engaged in world trade that visited at U.S. Gulf ports during calendar 1969, according to data compiled by the U.S. Department of Commerce.

Of the 6,544 ships which called at Gulf ports during the year, 1,500—or 23 percent—made their first call at New Orleans. Houston (with 879), Baton Rouge, Tampa, Mobile and other ports received lesser number of first calls.

Of the 7,410 last calls made by ships during the year, New Orleans—the traditional leader in this category—received 1,598 or 22 percent. Second was Tampa with 1,014 calls, while other Gulf ports received lesser numbers.

Ships operating on a coastal basis, that is, calling only at U.S. ports, are not listed in the totals.

First and last-ports-of-call are important in the shipping industry because they directly affect the transit time for cargo moving in foreign trade. (Port of New Orleans)

Annual Report 1969-70

New Orleans, La., September 15: —The Board of Commissioners of the Port of New Orleans has submitted its annual report for fiscal 1969-70 to Louisiana Governor John J. McKeithen.

Fiscal year 1969-70 was a year of important steps forward for the Port of New Orleans, according to the report. It was the year of formulating the CENTROPOR USA development, of successful

Legislative measures, and continued progress in capital improvements financed by the \$30.8 million bond authorization of the previous fiscal year.

The Board of Commissioners received the \$400-million, 30-year port development program prepared for it by the Bechtel Corp. this year. The plan is so vast and so advanced in its scope and concept that it has given rise to a new idea and a new name for the State's port in New Orleans—CENTROPOR USA. Under this plan, many of the port's obsolete wharves will be retired during the next 30 years, and the riverfront will be made available for other uses. Many of the port's new facilities will be located on the Mississippi River—Gulf Outlet where an eventual deeper and wider channel, along with a second channel and lock to the Mississippi River, will stimulate port-related industry and commerce in the state.

There were substantial increases in cargo passing over both public and private facilities during fiscal 1969-70. Foreign trade imports and exports totaled 19,927,000 tons, a six percent increase over last year. Value of this trade was \$2.8 billion, a nine percent increase. Grain was up eight percent, coffee down four percent, and sugar up three percent. Export car unloadings were up 54 percent, putting New Orleans in the lead in the U.S. in this category. The port continues as second in the nation in tonnage of waterborne commerce and value of foreign commerce.

Two important acts to amend the State constitution have been passed by the Louisiana Legislature and will be submitted to the Public in the general election on November 5.

One act would authorize the port to sell unused facilities and to lease waterfront rights within a portion of its jurisdiction, making available valuable riverfront land for alternate uses advantageous to the State and providing new revenues for port development.

Another act would authorize the port to create, within a portion of its jurisdiction, port or industrial districts. These districts would

have the power to build and lease facilities and could greatly stimulate industry and economic growth in this area, at the same time adding a major stabilizing factor to the economy of the State.

The port is responding to rapid worldwide technological changes in methods of shipping and cargo handling. The first berth of the France Road container terminal will be ready for use in 1971, and plans for three additional berths have been prepared. France Road terminal projects costing approximately \$16.5 million were started during the year.

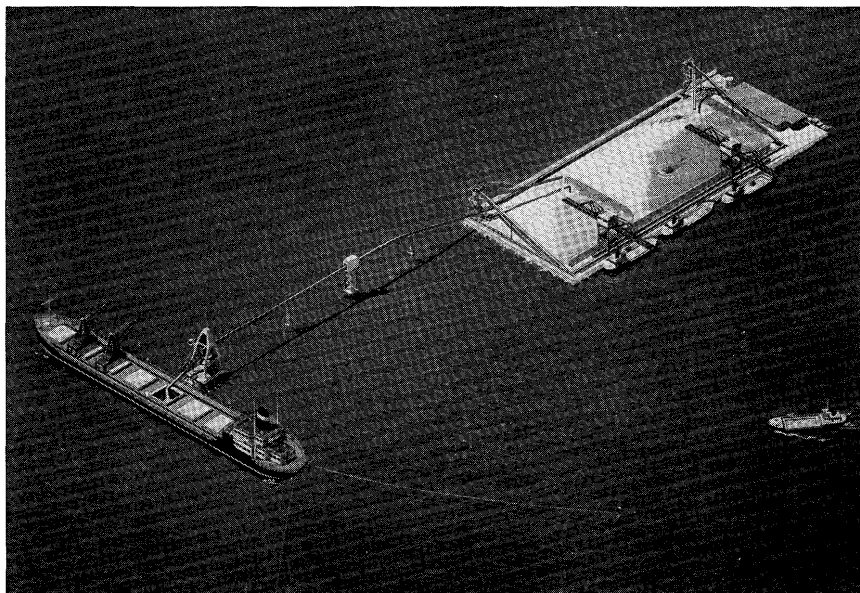
Meanwhile, a program is well underway to give certain of the older wharves additional years of useful life. Almost \$2.3 million in contracts have been let for substructure work at 12 wharves. Nearly half a million dollars has been spent this year for improvements at the Public Bulk Terminal, and still more improvements are planned.

Act 308, passed by the 1970 Louisiana Legislature, authorized the sale by the State of \$20 million worth of bonds, proceeds of which will be used by the port to build the lighter/barge terminals for use of the LASH/SEABEE lighter barges. Completion for the terminal is scheduled for early 1972. The bond servicing costs will be repaid to the State from earnings of the terminal.

The port is still pressing its petition to the U.S. Army Corps of Engineers for approval by the Congress to enlarge the Mississippi River—Gulf Outlet from 36 feet deep by 500 feet wide to 50 feet deep by 750 feet wide. There is also a need for the construction by the Corps of a new channel connecting the river to the Gulf Outlet, a channel equipped with a much larger lock than the one in operation on the Industrial Canal. This project has been authorized by the Congress. The Corps has the lock under preliminary design, and the port and the Corps are working together with local authorities to determine the best location for the channel and lock.

5 More Container Berths

New York, N.Y., Sept. 10:—To meet the increasing demands for



modern marine facilities in the New Jersey-New York Port, the Commissioners of The Port of New York Authority today awarded a \$6,867,410 contract for wharf construction for five vessel berths at the south end of the Elizabeth-Port Authority Marine Terminal. Announcement of the Commissioners' action was made by Chairman James C. Kellogg, 3rd, following the monthly Board meeting of the bi-state agency at 111 Eighth Avenue.

The 3,870-foot wharf will be constructed under a contract awarded to the low bidder, Peter Kiewit Sons' Co., of Omaha, Nebraska. Work will begin immediately and is scheduled for completion by October 1971.

Construction of the wharf is part of a project previously authorized by the Port Authority, which includes the five vessel berths, as well as 185 acres of upland areas for container-ship operations. This project will be completed in 1973, giving the 917-acre Elizabeth-Port Authority Marine Terminal, the world's largest containership facility, a total of 24 berths for shipping activity. (News from The Port of New York Authority)

Artificial Island Terminal

New York, N.Y.:—The Export-Import Bank has authorized \$6 million to help finance construction of a \$20 million salt shipping system

based on an artificial island 10 miles off the coast of northeastern Brazil.

This unique facility, to be built for Terminals Salineiro do Rio Grande do Norte, S.A., was conceived by Soros Associates, consulting engineers of New York, who also carried out the engineering design.

At present salt is carried by lighters, some powered by sail, to small vessels anchored 7 or 8 miles from shore, where salt is transferred in hand filled buckets by ship's gear. The new system will utilize a fleet of shuttle barges to deliver salt continuously to storage piles on the artificial island. From there, salt will be loaded into large bulk carriers at 1500 tons per hour through a novel open-sea shiploader located alongside a crack in the continental shelf.

The terminal is scheduled to go into operation in 1972. The contractors are a joint Brazilian-American venture of Ingram Marine, Inc., and Ribeiro Franco S. A., with construction supervision provided by Soros Associates. (Soros Associates)

New Method

New York, N.Y., Aug. 25:—A new method of turning a tidal marsh into a suitable construction site will be undertaken by The Port of New York Authority at its Elizabeth marine terminal in New Jersey. The method uses sea water to

compress and stabilize the tidal marsh instead of using a 12-foot-high surcharge of sand which later has to be removed.

The use of sea water, which can easily be drained off, will lower costs and eliminate the need for disposing of the three-quarters of a million cubic yards of sand that would otherwise be required for this phase of construction. The conventional sand surcharge method used until now in the construction of the seaport proved economical because the sand fill could readily be moved as required to subsequent phases of development. This would not be practical in the present project which is part of the final phase of Elizabeth construction.

The new method involves pumping some 320 million gallons of sea water from Newark Bay into two plastic-lined reservoirs on 63 acres in the southerly portion of the Elizabeth facility. This work will be done under a \$558,380 contract awarded to the E.J. Crosby Co., of Port Monmouth, New Jersey, the low bidder.

Sand dikes will be constructed to create the two reservoirs, one of 44 acres and the other of 19 acres. The 320 million gallons of sea water in the reservoirs will be maintained at a constant level by land-based pumps. The reservoirs will be protected by fencing.

In about a year, when the tidal marshland has been adequately consolidated, the water will be returned to Newark Bay. The site eventually will be used as paved supporting area for the last five container berths to be constructed at the Elizabeth marine terminal.

Grading of the land at the site of the reservoirs will begin immediately and the installation of the plastic material lining will start in mid-September. The first reservoir is scheduled to be filled with sea water in October and the second shortly thereafter.

The Elizabeth-Port Authority Marine Terminal is being developed on 919 acres of reclaimed meadowland. When completed in 1973, the Elizabeth terminal complex will have 25 deep-sea vessel berths supported by 793 acres of transit and open stor-

age area and distribution building space. At that time the total Port Authority investment at the facility will amount to \$175 million. (News from The Port of New York Authority)

Record Container Cargo

Oakland, Calif., September 3:—A record amount of containerized cargo was shipped through the Port of Oakland during the first six months of the year as Port total tonnage figures for the period continued on the upswing.

Container tonnage, a category in which the Port of Oakland already ranks first on the Pacific Coast and second in the world, was up by nearly 300,000 tons over the 1969 first-half pace.

Port Executive Director Ben E. Nutter announced that through June some 1,723,627 tons of container cargo passed over Port of Oakland wharves compared to 1,466,330 tons during the first six months last year.

Total cargo handled rose from 2,652,842 tons in first-half 1969, to 2,758,709 tons this year. The figure was broken down into 1,055,870 tons of imports and 1,702,839 export tons.

Nutter attributes the growth indicated in this year's first-half figures partially to the establishment of Johnson Line and Seatrain operations at Oakland. Because both began container service at the Port last year, their tonnage had not been reflected in first-half statistics.

"We expect that our second half figures will be even more impressive," Nutter said. "With United States Lines beginning container operations at Oakland later this month and with Seatrain Lines having recently added a new service to Guam, Port of Oakland tonnage should continue its rapid growth."

Calendar year figures for 1970 should show at least 5.5 million tons of cargo being shipped through Oakland, he predicted. Last year the Port handled a record 5,268,797 tons.

Nutter pointed out that cargo loaded at Oakland Army Base and the Naval Supply Center is not

included in Port of Oakland figures. (Port of Oakland)

Paceco Portainer

Oakland, Calif., August 4:—A Paceco low-profile Portainer crane put into operation at the Port of Oakland during dedication ceremonies held today at the Port's Seventh Street Terminal.

Port Commission President William Walters, Port Executive Director Ben E. Nutter and Paceco President C. D. Ramsden jointly pulled a lever that set the crane into motion lifting its first container.

The new structure, which has a capacity of 40 long tons, will serve terminal Berths G and H, where one low-profile crane is now in service, and Berth I, which is under construction.

Berth G, operated by Oakland Container Terminal Corp., is the Northern California base of operations for a consortium of four Japanese container lines.

Berth H and the new Berths I and J are operated by Marine Terminal Corp. as an intermodal terminal for both containers and conventional break-bulk cargoes. It is presently utilized by Johnson Line with United States Lines set to begin new container operations there Sept. 1. Blue Star Line and East Asiatic Co. will begin combined container service from the terminal next year. Roll-on, roll-off ships of Pacific Australia Direct are also slated for future utilization of the busy facility.

"The increased tempo of container service by the Japanese lines to and from the Orient and Johnson Line to and from Europe made installation of the new crane a must," Nutter said. "We anticipate that with the addition of the four new lines at Seventh Street that additional cranes will have to be added. One, in fact, is already under construction."

The 96-foot-high crane has a number of operational advantages, including its ability to work a ship and stretch back into the wharf and terminal area 182 feet to accomplish fast and easy movement of containers.

Other important features are its boom operation speed that is five

times faster than conventional container cranes and its wide leg span that allows the crane to work eight rows of containers plus a truck roadway.

It is the fourth container crane to be erected at the Seventh Street facility, including two Matson cranes. In addition, two low-profile Alliance cranes are in use at the Seatrain container terminal and three Paceco A-frame container cranes serve Sea-Land's installation.

In one of Paceco's fastest crane assembly jobs, the structure was prefabricated at company manufacturing facilities in Alameda and barged in three sections along the Oakland Estuary to the terminal site in June.

Its frame was erected on rails and the boom, which measures 226½ feet, was lifted into place with the aid of Murphy-Pacific's giant 500-ton capacity "Marine Boss" crane.

The Port of Oakland is the world's second largest containerized cargo port and the largest on the Pacific Coast. (Port of Oakland)

Traffic Solicitors

Portland, Oregon, August 21:—The Portland Public Docks, Portland, Ore., has new traffic solicitors in its Chicago and New York offices, according to George Grove, sales and traffic manager.

Anthony F. Schouwenaars, born in The Netherlands, becomes C.P.D.'s Director, Eastern Operations and 30-year-old Larry Admire takes a vacant spot as one of Directors, Midwest Operations in Chicago. Schouwenaars is 49.

Schouwenaars was most recently Corporate Traffic Manager with the General Instrument Corp. in New Jersey, an electronics manufacturing corporation. Formerly he was Managing Director and Treasurer of Ahrend Trading Inc. in New York, Assistant General Manager in charge of International Trade for Harrisons & Crossfield Ltd., Amsterdam and Import-Export Manager for Wilding & Co. Ltd., Djarkarta, Indonesia.

He was graduated from Amsterdam's Commercial College with an International Trade and Traffic degree and received his Master's

degree in 1943.

Admire, a former pitcher with the Chicago White Sox farm organization, most recently was Assistant Midwest Manager for the Virginia State Ports Authority. Before that he was a sales representative and held other positions with the Chicago-Burlington & Quincy Railroad in Kansas City, Mo.; Washington, D.C. and Chicago.

While in Washington, Admire worked closely with the Interstate Commerce Commission, Military Traffic Management and Terminal Service (MTMTS) and the Assn. of American Railroads.

He attended Draughon's College, Kansas City and LaSalle University, Chicago and has taken a grain marketing course. He is a native of Brookfield, Mo. (Portland Public Docks News Release)

Asst. Planning Director

San Diego, Calif., September 3:—Frederick H. Trull, San Mateo, has been named Assistant Planning Director for the Unified Port District by Don Nay, Port Director.

Trull, 34, will assist in meeting the District's responsibility for tidelands master planning and conduct research required for development of recreational facilities, transportation facilities, roadways, parkways, and commercial or industrial sites.

He is expected to assume his duties the latter part of September.

Trull is a 1964 graduate of Utah State University. He later earned a master's degree in 1968 from the University of Oklahoma in regional and city planning. His thesis was on "The Influence of the Automobile on Urban Land Use".

Since 1967 he has been working in the San Mateo County Planning Commission offices where he participated in staff studies leading to revision of the country's comprehensive plan, including parks and open space elements; evaluated natural resources, and was the liaison staffer to citizens interested in a wildlife refuge in South San Francisco Bay.

He is married and has three children. (Port of San Diego News Release)

OMD

San Diego, Calif., August 3:—Officials of the Port of San Diego conferred with Thomas J. Patterson, Western Region chief for the National Maritime Administration at the Port general officers on Friday July 31. Patterson traveled from his San Francisco headquarters to discuss MARAD's new office of Market Development. Formation of the sub-division was announced recently by Andrew E. Gibson, National Maritime Administrator in Washington, D.C. Appointment of veteran marketing consultant, James T. Crowley as Director, OMD also was made public at that time.

According to Patterson, a southern area director of OMD, to be located in Los Angeles or San Diego, will be named following selection of a Western Region OMD chief, to be based in San Francisco.

The high-ranking MARAD official commented, during conferences with Port Director Don L. Nay, Assistant Director R. W. Emrich and Trade and Community Relations Director William L. Dick, that "the steady decline in patronage of the 'American flag fleet' by exporters and importers of the United States has become a matter of grave concern to the Administration." He noted that in 1969 the percentage of U.S. commerce carried by American liner vessels dropped 1.7 per cent. Patterson noted that "although this is a small percentage, it nevertheless equates to a revenue loss to the line operators of 46.4 million dollars, not to mention losses to ancillary businesses."

Patterson stated that Crowley, the new OMD chief will formulate and implement a policy designed to insure that the major portion of ocean borne commerce of this country will be carried in the privately owned vessels of the U.S. merchant fleet. The deterioration of the fleet has been a matter of prolonged debate and discussion in the Congress and at the White House during recent months.

In commenting on the OMD plans, Patterson noted that all effected groups would be asked to contribute to the success of the market-

ing program, "including shipowners, maritime labor unions, shippers and business heads of associated industries."

The MARAD executive stated that his plans include a fall visit to San Diego accompanied by the OMD aide, to be appointed later in August, for purposes of orientation and familiarization with the San Diego area and this international commerce and trading groups in the community. (Port of San Diego News Release)

Retouching Pier 19-23

San Francisco, Calif., August 10:—The Port of San Francisco has begun a six-month modernization of Pier 19-23 to handle semi-container-ships being placed in service by Nedlloyd and Hoegh Lines.

The joint agreement was announced by Port Director Miriam E. Wolff and Werner Lewald, president of Transpacific Transportation Company, West Coast general agent for Nedlloyd and Hoegh. Pacific Oriental Terminal Company will be the operator. Pier superintendent is A. A. Rucker.

The \$457,296 project, awarded to low-bidder Ben C. Gerwick Co. of San Francisco (a division of Santa Fe-Pomeroy, Inc.), is expected to be completed by March 1971.

The work embraces widening and strengthening the load-carrying capacity of the Pier 23 apron to handle the largest container boxes in service, enlarging shed doors, and adding container floor space.

The following work is being performed:

Apron—Widening by 10 feet (to a width of 30 feet), covering the existing depressed railroad track and installing a single track on the new widened apron, and increasing the apron's load carrying capacity.

The apron will be capable of supporting either an 82-ton truck crane operating with outriggers, a Clark 512 van carrier with a maximum wheel load of 26,000 pounds, a 70-ton freight car with a 10 per cent overload factor, and/or 500 p.s.f. uniform live load.

Doors—10 pier shed doors will be enlarged from 16-foot width and 15-foot height to 28-foot width and

One of the fastest growing seaports in the nation, the Port of Tampa is number one in the State of Florida in tonnage, the largest port on the East Gulf of Mexico, and ninth in the United States in terms of tonnage.

Highlighting the growth is a \$38 million expansion program in the port which includes a new channel and turning basin constructed by the Tampa Port Authority at a cost of more than \$6 million and a new phosphate loading complex built with private capital at a cost of more than \$32 million.

Phosphate rock from the Central Florida mines is the principal export of the port, amounting to more than 12 million tons in 1969. More than 28.5 million tons of cargo were handled at the port in 1969.

During the first five months of 1970, the port handled 13,124,350 tons of cargo, a 15 per cent increase over the first five months of 1969.

The Port Authority was inform-

18-foot height.

Shed—Space will be added by the construction of a triangular-shaped addition of about 3,000 square feet at the outer end of Pier 23.

The existing deck, which already is capable of supporting the container weights, will be striped for traffic control purposes.

The Pier 19-23 project is part of the Port of San Francisco's continuing improvement program, which includes a \$21 million LASH (Lighter Aboard Ship) facility now under construction at India Basin and scheduled for completion in September 1971, plus other new container terminals planned for construction on the southern waterfront. (Port of San Francisco)

Tampa—

Florida's Number One Port

(See Front Cover.)

Tampa Port Authority

Tampa, Florida

ed by the U.S. Corps of Engineers early in 1970 that a study has shown feasible the deepening of the main harbor channels from 34 to 44 feet. The estimated cost of the project is in excess of \$102 million. The Port Authority is moving toward Congressional authorization of the project, which is expected some time in late summer of 1970. The Tampa Port Authority is official sponsor for the project.

The Port Authority is also completing plans which will result in new general cargo terminal facilities for the port with a special eye toward container equipment. At present, general cargo terminals are located in the heart of the City of Tampa, where they have been since the beginning of the port. The Authority has proposed to relocate the terminals in the new East Bay Channel in the vicinity of the new phosphate-loading complex.

A study by engineering consultants has proposed methods of financing and operating the new general cargo facilities.

The Port of Tampa is fast becoming a leader in the handling of petro-chemical products. Dow Chemical and Union Carbide have terminals and other companies have indicated an interest in locating on the waterfront.

Foreign cattle shipments through the port exceeded 10,000 head over a three-year period. During the Fall of 1969, 3,600 head were shipped.

The rise in banana imports from Central and northern South America was significant during 1969. During the year, 140,000 tons of bananas were imported and the tonnage continues to rise.

For the most part general cargo is handled by pallets although there is limited container capability in

the port. Construction of a new bulkhead and wharf with gantry tracks is near completion at the George B. Howell Maritime Center. This will increase container capability.

The Port of Tampa is well-known as one of the most experienced cargo-handling ports on the Gulf and Southeastern United States. Several stevedoring firms have headquarters in the port and capable longshoremen are available at all times. Turn-around time of general cargo ships loading and unloading at the port is minimal.

Small-ship service to Central and South America is increasing with scheduled sailings several times weekly. All principal European and Asiatic lines call at the port.

The Port of Tampa is a significant factor in the economy of the West Coast of Florida. Studies show that one out of every seven persons within the tributary area of the port work in businesses either directly or indirectly related to the port.

At the present time 83 per cent of all U.S. phosphate rock moves out of the Port of Tampa to foreign markets. Already many ships which call at Tampa for phosphate cannot be loaded to capacity and it is for this reason the Tampa Port Authority is moving as rapidly as possible to obtain deeper harbor channels.

Nearly eight million tons of petroleum products to fuel the constantly growing economy of Central Florida move through the Port of Tampa. Tankers of the future will also need deeper water.

It has been estimated that by the year 2000 a total of 100 million tons of cargo will be moving through the port. This estimate is based on population projections for Central Florida. One of the contributing factors will be Disney World, now under construction in the Orlando area, less than 100 miles from the port and well within the port's sphere of business.

At the present time a vast number of products are handled at the port, including all types of food products, imported meat and seafoods and exported citrus products.

Steel, sulphur, lumber, chemicals, machinery, newsprint, and liquors are among the products imported.

Fertilizer, sand, scrap metal, tallow, livestock and wood pulp are among the items exported.

Delmar B. Drawdy is Chairman of the Port Authority, governing body for the port. Other members are Peter Azzarelli, Frank B. Preston, Lester Hirsch and Charles Birdsong. Guy N. Verger is Port Director.

ICHCA National Committee

Melbourne:—The Third Symposium of the Australian National Committee of the International Cargo Handling Co-ordination Association is to be held at The Maritime Services Board of N.S.W., Circular Quay, Sydney, 14th and 15th October, 1970. It is going to offer an open forum on "Freight Transportation—The Problems Facing the Client", and "Faster Line Haul Transport—Slower and More Costly Services?". The address of the abovementioned National Committee is 94 Errol Street, North Melbourne, Vic. 3051, Australia.

More Trade in 6 Months

Melbourne:—Very buoyant trade conditions prevailed in the Port of Melbourne during the first six months of this year, with the result that there was an increase of more than three-quarters of a million tons in the cargo flow across the wharves.

The total cargo flow amounted to 6,975,833 tons compared with 6,184,716 for the first six months in 1969, and according to the previous trade patterns an even greater volume of cargo should pass through the port in the second half of this year.

The high volume cargo flow continues the upward trend in import and export cargo evident over the past twenty years, and on present indications the Port's annual trade for 1970 should exceed 14 million tons. This estimate compares with a volume flow of 7.5 million tons of cargo in 1950, and 9.4 million tons in 1960, clearly indicating the development in Victoria's population, industry and commerce in the post-war years.

The total cargo of almost 7 million tons for the six months period is broken up into 4,356,760 tons of imports from overseas and other Australian ports, and 2,533,118 tons of exports to overseas and other Australian destinations, as well as 65,955 tons of transshipment cargo.

From a national trade point of view, the Port of Melbourne figures show that the volume of imports from overseas, amounting to 2,849,029 tons, was 191,523 tons less than in the same period last year, while exports to overseas destinations showed an increase of 402,002 tons.

The drop in overseas imports was principally due to the less crude oil imported into Melbourne. While normally fluctuations in the import and export of crude oil and petroleum products appear to have little significance, the figures for the first six months under review could be of major significance for the port itself, as there was a substantial increase in the movement of crude oil into Melbourne from other intrastate origins. This intrastate cargo flow, amounting to 256,030 tons—an increase of 183,582—comprised crude oil from the developing oil resources in Bass Strait off the Victorian coast to the east of the port.

Move are being made to send the Bass Strait oil by pipeline into Melbourne which would reduce the volume arriving by ship and would also have an effect on the import volume of this type of cargo in the future.

On the export side, cargo commodities shipped in increased quantities to overseas destinations included:—wool 455,992 tons, an increase of 81,399 tons; meats 144,205 tons, up 69,369 tons; hides and skins 87,501 tons, up 15,718 tons; malt 79,363 tons, up 17,416 tons; fresh fruit 65,496 tons, up 20,284 tons; motor cars and motor car parts 57,584 tons, up 31,154 tons and tallow 45,579 tons, up 15,987 tons.

However, the export of meat out of Melbourne and other Australian ports is likely to drop in the next six months period following the announcement last month by the Acting Federal Minister for Trade,

Mr. Sinclair, that the exports of Australian meat to Canada would be restricted temporarily. This follows a request of the Canadian Government, which is making a review of the meat supply position in the Canadian market.

Under the restrictions, shipments of beef and mutton would be suspended, while the export of veal and lamb would be subject to special authorisation.

Mr. Sinclair said that the United States had taken action recently to prohibit the importation of New Zealand and Australian meat through Canada. As this trade had risen to significant proportions, the Canadian Government was most concerned that Canada could not absorb the additional quantities of meat involved without serious dislocation to its market.

However, Mr. Sinclair said that despite these difficulties meat exports to Canada would probably exceed the previous record total of 45,000 tons in 1969, while the exports to the United States would total at least 245,000 tons, the highest since 1963. (Melbourne Harbor Trust Port Gazette, August)

Commissioners

Melbourne:—Two of the most senior and experienced Commissioners of the Melbourne Harbor Trust have had their term of office extended for a further twelve months by the Victorian Governor in Council.

The Commissioners are Mr. J. P. Webb, O.B.E., who was first appointed to the Board of six Commissioners in 1941, and Sir Charles McKay, C.B.E., who was first appointed in 1956. The extended appointments are until the 30th of June, 1971.

With the extension, Mr. Webb is now in his 30th year, and becomes the Commissioner with the longest continuous service since the Port Authority was first established in 1877.

The Melbourne Harbor Trust Commissioners, established in 1877 with a Board of 15 elected and appointed Commissioners, was reconstructed in 1913 into the present much smaller and more specialised

Board. Under the Melbourne Harbor Trust Act of 1912, the Board was reduced to a permanent Chairman and four part-time members. The position of a fifth Commissioner was created in 1952, to include a union executive.

Mr. Webb as Chairman and Managing Director of the Victorian Producers' Co-operative Company Limited, qualifies under the exporter clause of the Act, while Sir Charles McKay, who has had a lifetime association with primary production, qualifies under the primary producer clause. (Melbourne Harbor Trust Port Gazette, August)

Passenger Terminal

Sydney, 21st September:—The re-modelling of the passenger terminal at No. 13 Pyrmont, which commenced last year, has now been completed.

This was announced in Sydney today by Mr. W.H. Brotherson, President of the Maritime Services Board of N.S.W.

Mr. Brotherson said that the work, undertaken at a cost of \$355,000, brought the facility to a high standard and provides a modern second berth to the Overseas Passenger Terminal at Sydney Cove.

He said that there are four passenger terminals in the Port. The one at No. 20 Pyrmont is being remodelled at present and plans are being prepared for the redevelopment of the terminal at No. 7 Woolloomooloo Bay.

Mr. Brotherson said that the work undertaken at No. 13 Pyrmont provided a number of features which were not incorporated in the original design of the berth which was built some 20 years ago

A viewing gallery has been added for visitors who wish to watch the arrival or departure of a ship and a covered area has been provided where motor vehicles may discharge or pick-up passengers.

The amenities in the terminal have been improved and modern materials have been used for the furnishings and fittings incorporated in the building. (The Maritime Services Board of N.S.W.)

Oil Pollution Unit

Hong Kong, 8 September:—A special unit to help safeguard Hong Kong waters against the effects of oil pollution is to be set up by the Marine Department.

It will carry out hydrographic surveys in danger areas in local waters, inspect tankers and other ships as a preventive measure, and conduct experiments with new equipment and materials.

Various aspects of pollution will be researched and oil spillages investigated with a view to court proceedings. (The Week in Hong Kong, Government Information Services)

3 Container Berths

Hong Kong, 17 August:—Tenders have been awarded for three container berths at Kwai Chung, the new container terminal northwest of Kowloon.

Announcing the awards today, a government spokesman said it could now be expected that facilities capable of coping "with any container ships at present projected will be available in Hong Kong when these berths are ready."

"With the other container facilities already in operation or under construction in Hong Kong, these three berths at Kwai Chung will go a long way towards ensuring that Hong Kong will be able to maintain its position as a leading port in the era of containers which is now developing," he said.

The three berths together cover an area of roughly 85 acres. (The Week in Hong Kong, Hong Kong Government Information Services)

Long Term Aim

Taranaki, N.Z.:—The long term aim of the Taranaki Harbours Board is to provide bulk dry cargo handling at Moturoa Wharf, bulk pipeline cargo facilities (petroleum products and cement) at Newton King Wharf, and facilities for produce and other cargoes at Blyde Wharf.

When the first berth at the new Blyde Wharf is completed in about twelve months' time, and the second

by approximately June, 1972, the board will be able to put its plans into effect.

Construction of the new wharf is now under way and the 23-acre reclamation along which it is being built was completed just over a year ago.

Since then a contract for the driving of H piles and box piles, which will form the basis of the wharf, has been let to J. H. Williamson Ltd., Auckland, and driving, which began about five months ago, is now well advanced.

The contractors are using three pile-drivers for the work—units with four, eight and 20-ton capacities. The latter is a Japanese-made hammer, specially brought to New Zealand by Williamsons for the contract.

The next step will be the casting of concrete caps, beams, and deck units for the wharf and this will be done by the board's own staff, using forms being fabricated by local engineering workshops.

Casting large masses of concrete will be no new venture, for thousands of akmons, parapet sections and armour blocks have been made in the board's yards for construction of seawalls and breakwaters in recent years.

Already, long before the wharf area is to receive shipping, areas on the reclamation are being fully utilised. Largest use of the land is as temporary storage for equipment in association with the New Plymouth Power Station project, and two large warehouses and a number of smaller buildings have been erected.

Stockpiling of logs awaiting shipment to Japan occupies another area.

Reclamation of nine-acre area, originally intended as a coal-handling berth for the power station, has been another major project for the engineer's and works' departments.

A rock wall was placed across a bay from Mikotahi Rock (near the end of the power station reclamation) to a point some distance down the main breakwater. The plan had been to fill areas behind this wall, remove a section of the breakwater and construct a wharf within the area. As mentioned elsewhere, this

work is not now required because gas and/or oil will fire the station.

Work has therefore continued to complete reclamation of the area, but the breakwater will not be removed. The land will prove a valuable asset to the board.

As a result of the new reclamation the inner section of the main breakwater is now accorded much more protection from the open sea and a plan to drive piles, or erect a fender system along a section of the breakwater has been approved by the board.

This will provide berthage for vessels with a draught of up to 12ft., and should be of considerable benefit for oil rig tenders, as the board's Lima construction crane will be able to move right alongside craft for heavy lifts. Coastal vessels may also find the facility useful.

The new jetty will also help overseas vessels which may have heavy lifts to discharge at New Plymouth.

Cargo could be lowered on to the board's barge Kiwi, and subsequently lifted ashore from the jetty, by the Lima crane. (The size and weight of the crane prevents its use on the wharves.) (Taranaki Harbours Board Port News. July)

Fishing Resort

Whangarei, N.Z.:—Work is now well advanced on a \$135,000 Northland Harbour Board project which will make Tutukaka a scenic attraction and deep-sea fishing resort of world class.

The area, in a beautiful, sheltered harbour and not more than a mile from the open sea, is already known internationally as a big-game fishing base.

The fishing grounds commence virtually at the harbour entrance, and Tutukaka lists among its facilities a licensed hotel gamefish clubhouse and a jetty.

The present scheme, started last October, includes the reclamation of about four-and-a-half acres of tidal land in front of the hotel. It will be developed as a public reserve with lawns, shrubs and public parking.

A further reclamation of two acres of tidal land will be develop-

ed for boating facilities, including two floating pontoons, boat ramp and dinghy lockers.

The reclamation is being carried out by building retaining walls with filling from a nearby hill, stone-facing them and filling behind them with dredgings from the upper reaches of the harbour.

The dredging work will deepen the harbour to provide a more extensive mooring area for yachts, big-game fishing boats and other craft.

It is also intended to reform beaches outside the reclamation walls. (Points North, July)

19th Anniversary

Bangkok:—On May 16, 1970 at 07.00 a.m. Admiral Luang Charnadhadayudha, Port Chairman, presided at religious ceremonies on the occasion of the 19th anniversary of the establishment of the Port Authority. The ceremonies began when port officials assembled on the ground at the rear of the Administration Building and offered food to 60 monks. Lt. Gen. Prachuab Suntrangkoon, Port Director then made the traditional offering of food and drinks to the guardian spirits of the premise. After the ceremonies, the Chairman addressed the gathering port officials and workers, reporting the work, growth, success and problems of the Port during the past year and calling for continued cooperation in the year to come. (PAT News, July)

World Bank Loan

Bangkok:—On June 18, 1970 at 09.20 hours, PAT representatives consisting of Captain Lapo Israngkura, R.T.N. Deputy Director for Operations, Nai Tira Wongsepradip, Port Comptroller, Nai Thara Rojthana, Senior Civil Engineer, left for Washington to negotiate a World Bank loan in conjunction with Government's representatives, headed by His Excellency Mr. Sunthorn Hongseldarom, Ambassador-Designate to Washington and consisting of Dr. Sirilak Chandharangsu, Under Secretary of the Min- (Continued on Next Page Bottom)

LASH Service Has Come To the Ports of Bremen

"Via Bremen Bremerhaven"

Bremen, August 31, 1970:— That the Ports of Bremen are predestined for new systems of sea-transport will again be demonstrated very soon. For on the 1st September, 1970 Bremerhaven will be the first German seaport, at which a LASH vessel, M.S. 'Atlantic Forest' (43,000 dwt, 36,861 GRT) of the Central Gulf Contramar Line, will call. After the 6th May, 1966, when M.S. "Fairland" of the Sea-Land Service arrived at Bremen to be the first containership here, thereby causing a rapid and turbulent development in the field of containerisation here in the Ports of Bremen, the 1st September, 1970 can be considered a milestone in the history of the Ports of Bremen.

After M.S. "Atlantic Forest", sailing direct from the U.S. Gulf Coast on her maiden voyage, M.S. "Acadia Forest" will follow. This vessel is due to arrive on the 21st/22nd September, 1970 and will start the regular outgoing service. Both vessels, which are under a long-term

istry of Communications, Dr. Phanas Simasathien, Financial Councillor, attached to Thai Embassy in Washington and Mr. Pravut Klongvathanakij, Chief of Statistical Division, Office of Fiscal Policy, Ministry of Finance.

This delegation will negotiate for a World Bank Loan equivalent to US\$16.36 million or about Baht 340.20 million to finance the extension of the Port of Bangkok and the acquisition of a cutter suction dredger. The term of the loan will be 20 years including 4 years of grace and will bear an interest at the rate of not more than 7% per annum. The loan will be guaranteed by the Government. (PAT News, July)

charter from the Central Gulf Steamship Corporation, will offer a liner service between Bremerhaven, the U.S. Gulf Coast and the Mississippi estuary area, running every 16 days.

The LASH (Lighter-aboard-ship) system of transport can be considered a further step towards the increasing specialisation in sea transport. By separating that part of the system with the largest capital intensity, namely the main vessel or barge-carrier, from the real loading space, the lighters (Barges), two main effects towards reducing costs will be achieved: the turn-round of the main vessels will be accelerated, as the clearance times in the ports will be reduced to a minimum, whereas the clearance of the lighters (barges) between the departures of the main vessels can be arranged at such a time that they are cleared on those days when there is not so much work to do. This would again contribute to a continuous utilization of turnover capacities in the ports.

The LASH system is therefore undoubtedly most efficient in transport services with developing countries, as long and costly periods of waiting are nothing out of the ordinary in their ports. But also in the sea transport between highly industrialised countries increased productivity can be attained, as can be seen from the example of the Central Gulf Contramar Line. For the mere fact that the main vessel (barge-carrier) saves the time needed for loading and unloading which is relatively short in the Ports of Bremen, alone results in an increase of the annual transportation capacity. The result is that the high fixed costs are spread over many cargo units, which is, of course,

what is intended.

In principle the concept of LASH transport was already fixed in 1962. It took two or three years to work out the details. During this period of development the promoters of the first LASH vessels incurred debts to an amount of 300 million U.S. dollars, before the keel of the first ship, the "Acadia Forest", could be laid in the Uraga Shipyard of the Sumitomo Shipbuilding and Machinery Co. Ltd. in Yokosuka/Japan. Now these two vessels—the only ones of this new type—namely the "Acadia Forest" and the "Atlantic Forest", are in service. Sixteen more have been ordered from various shipyards for the Prudential Lines, Inc., the Lykes Bros. Steamship Co., the Pacific Far East Inc., and the Holland-Amerika Lijn (Europa Lijn N.V.). They should be in operation by spring 1973. Even in the development departments of German shipping companies plans are being considered and calculations made.

But not all these shipping companies will follow the technical concept of LASH-carriers of the Central Gulf Contramar Line. These carriers each have a portal crane on board carrying over 510 tons, with which the lighters (barges) with a maximum loading capacity of 376 tons can be lifted on or off the vessel. Each main vessel can take 73 lighters (barges) on board, each of which has the following inside measurements: Length 18.266 metres, breadth 9.187 metres, height up to the bottom ledge of the deck: 3.372 metres and up to the bottom ledge of the hatch cover 3.564 metres, draft fully loaded 2.73 metres and empty 0.62 metres. But not only can lighters be transported; there are also facilities for the transportation of containers, liquids, bulk goods and refrigerated cargoes.

Bremerhaven was not a random choice of the Central Gulf Contramar Line for their LASH service. The geographical position of a port is indeed an extremely important factor in the LASH system. And it is here that Bremerhaven,



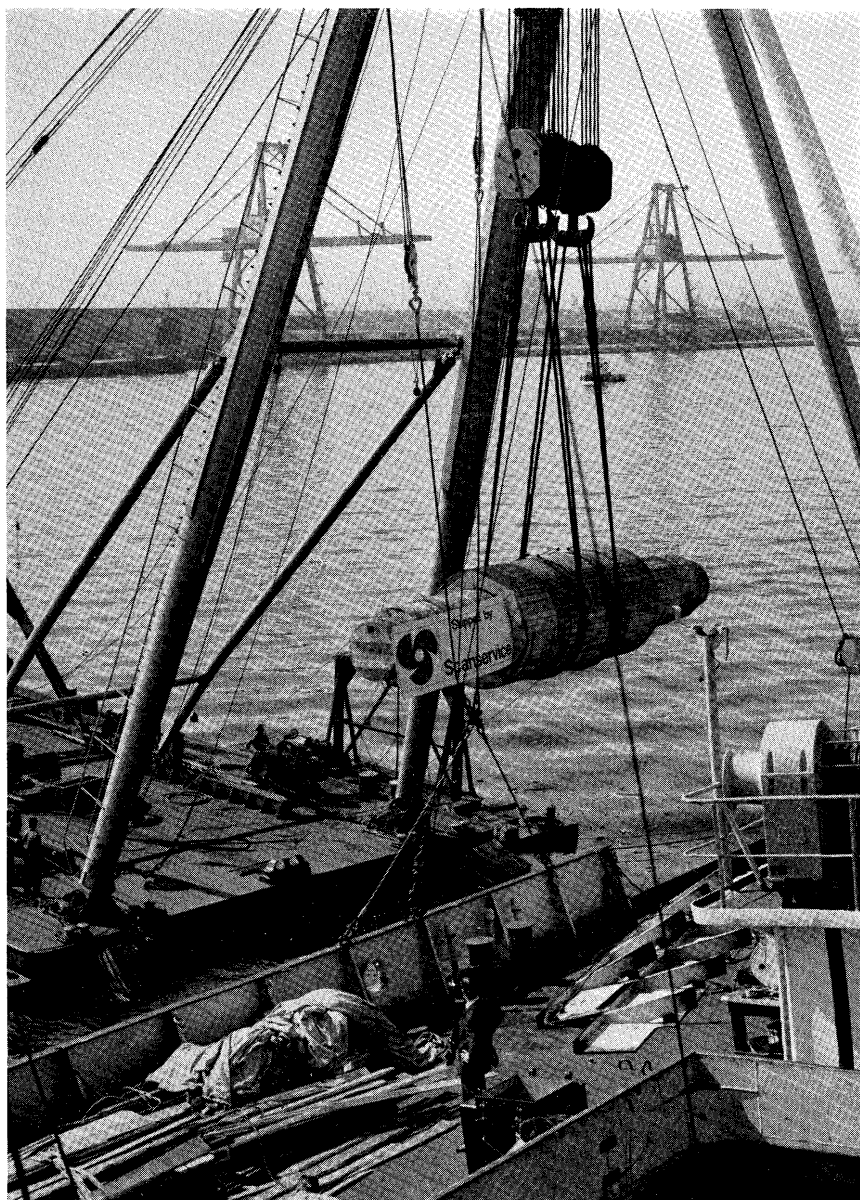
above all, offers ideal conditions both with regard to the approach from the sea and the connections with the hinterland. The excellent geographical position of Bremerhaven, which enables the LASH carriers to make good use of being able to sail with full speed almost to the berth, guarantees a quick turn-round of the vessels. Moreover, the good connections of the Ports of Bremen to the German and European waterways make a door to door service possible, although it must be mentioned that it would be even more advantageous for European transport conditions, if there were a concentration on the Bremen terminals with their excellent

function as centres of distribution.

The inclusion of Bremerhaven in the LASH transport system shows that this port is on the whole attractive for modern methods of sea transport. But it also shows the importance of the Ports of Bremen as one of the largest European import markets for paper, cardboard and cellulose. Only last year a total of 1.114 million tons were discharged in Bremen/Bremerhaven coming from Scandinavia as well as from Canada and the USA. This figure will again be exceeded in 1970, as already 684,213 tons could be registered in the first six months, and the arriving LASH service of the Central Gulf Contramar Line will

also provide further valuable impulses.

The wide choice of modern systems of sea transport offered by the Ports of Bremen, comprising seven full-container lines, various roll-on/roll-off services and one LASH service, will most probably be complemented at the end of 1972 by a further LASH service of the LYKES Bros. Steamship Co.



Heavy Lift Cargo

Antwerp, 17th September:—The Danish m/s “Boribana” (10,550 t.dwt.) called at the port of Antwerp having on board one of the largest heavy lifts which has ever been exported from Japan (via the port of Muroran) to Europe.

It concerns a steel rolling mill roll with a weight of 173 tons and a length of about 33 feet, manufactured by the Japan Steel Works (Hokkaido—Japan) and destined for the “Fabrique de Fer de Charleroi.” This roll delivered by Sumitomo via their branch establishment Equitra is the first cylinder of this dimensions which has ever been manufactured in one single piece.

The “Boribana” in commission on the regular line “Scanservice” between the Far-East and the European west coast was moored at N° 474/476 of the docks (Churchill dock) where on 18th September the discharging operations were carried out by means of the 200-ton floating derrick “Antigone” of the firm Herbosch.

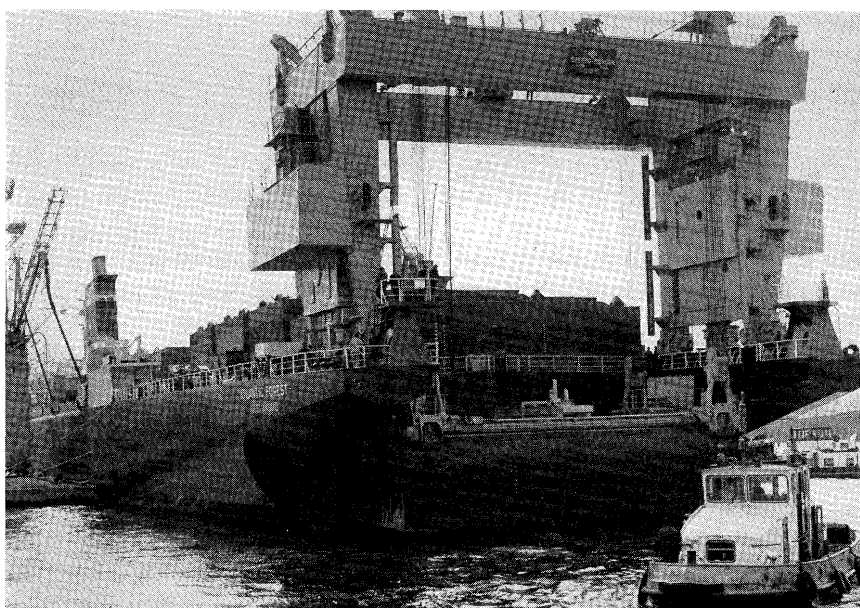
Transport between the port of Antwerp and Charleroi was made by road, on a special truck placed at the disposal by the firm in Charleroi. Agent for Scanservice in Antwerp: the firm Best & Osterrieth S.A. (Assiport Press Release)

LASH Arrived

Antwerp, September 7:—With the arrival of the “Atlantic Forest” (4/9) the port of Antwerp had its premiere in the domain of the new transportation technique known under the abbreviation of LASH (Lighter Aboard Ship).

Indeed, although for some time past Antwerp has been incorporated in this traffic as an assembly port for lighters — this mainly on account of the iron and steel export which offers a valuable return freight—it was the first time that a Lash mother ship called at Antwerp.

The “Atlantic Forest” which together with her sister ship the “Acadia Forest” runs between the United States and Europe is operated by the Central Gulf Contramar Line, represented in Europe by Continental Lines S.A. (General Agents).



These vessels with a deadweight of 43,000 tons, a length of 860 feet and a draft of 37 feet, can take 76 (loaded) barges (with a capacity of 375 metric tons each) on board. The loading or discharging of the barges is made by means of a 510-ton gantry travelling the length of the mother ship.

On arrival in Antwerp the "Atlantic Forest" had a draft of 33 feet. She was moored at the SOBELGRA-installations where simultaneously a load of soja, transported in the side tanks of the vessel, as well as the loading and discharging operations of the barges (66 incoming, with among other things basic products for the paper industry, foods and chemical products and 61 outgoing barges loaded with iron and steel products, general cargo and vehicles) were carried out.

A second Lash-vessel, the "Acadia Forest" is expected in Antwerp on 20th September next. (Assiport Press Release)

Port Managers' Course

Antwerp:—In the frame of the Management in Port Industry Course" at the „University of Wales Institute of Science and Technology" of Cardiff a group of English managers paid a three days' visit (25/27th June last) to Antwerp.

The programme for the first day, offered by the Port of Antwerp Promotion Association (ASSIPORT) included a meeting at the seat of F.A.S.N.A.G. (Federation of Master Stevedores', Wharfingers' and Similar Associations) where the participants were welcomed by Mr. Van Gestel, Vice-President, Next Mr. Noeninckx, Director, dealt with some of the social aspects of the status of the Antwerp docker, followed by a debate.

In the afternoon at the seat of ASSIPORT, Messrs. R. Jacobs, General Delegate, and J.F. Willemssens, General Manager, explained the aim and the activities of the Port of Antwerp Promotion Association. At the end of the first day the participants visited the Small Ring and the E3-tunnel under the Scheldt.



The second day of this study-tour was organized by the General Management of the Port Administration and included a technical exposition on the port whereas the modern port installations were visited in the afternoon.

The last day was devoted to the study of the organization and structure of a typical enterprise in the field of cargo handling, Mr. Dierckx, Director of "Hessenatie-Neptunus S.A.." gave the necessary explanations. (Antwerp Port News, July)

Pipeline from Rotterdam

Antwerp:—The major part of the work for the construction of the pipeline between Antwerp and Rotterdam has now been awarded.

The total costs of the work—on which a start has meanwhile been made in several places—is estimated at 90,000,000 Dutch florins.

Prospects are that the pipeline will be available for operation in August 1971. (Antwerp Port News, July)

New Dock Road

Edinburgh, 2nd September: — The Forth Ports Authority have just brought into use within Grangemouth Docks an impressive new 30 feet wide main dock road.

Constructed at a cost of £188,000,

the road is situated along the northern boundary of the dock estate, running from the vicinity of the Old Dock along the north sides of Caron Dock, the Western Channel, and Grange Dock where it joins an existing internal road. The new facility includes a first class lighting system and from this main artery access sliproads have been provided to transit sheds, reception and storage areas, and shipping berths, all directions being suitably signposted.

The Port of Grangemouth is particularly well served by dock roads catering for the ever-increasing volume of road transport carrying import and export traffics. In this respect its internal road system is now of the highest standard. (Forth Ports Authority)

Mr. Kinnear Retired

Edinburgh, 28th August: — On Friday, 28th August, 1970, at a gathering at Docks Headquarters of officials and members of the Staff of the Forth Ports Authority a presentation was made to the Chief Executive, Mr. A. Balfour Kinnear, to mark his retirement after 38 years service with the former Leith Dock Commission and the new Authority which was set up in January, 1968, to control six ports on the Forth.

During his business career Mr. Kinnear was a well known and highly respected figure in the community at Leith and Edinburgh, also in dock and shipping circles throughout the United Kingdom.

The presentation, in the form of Edinburgh crystal decanters and glasses was made by Mr. W.J. Leaman, Chief Engineer, Forth Ports Authority. Tributes to Mr. Kinnear's distinguished career and personal qualities were paid by his colleagues. (Forth Ports Authority)

Community Development

London, 18th September:—Mr. N.N.B. Ordman, B.Sc., F.I.C.E., PLA Director of Planning will address the Plymouth conference of the British Junior Chambers of Commerce on September 18th. His subject 'Living next door to a seaport' he deals with in the conference theme 'Community Development 1970'.

Seen in the context of European Conservation Year and the growing awareness of the need to harmonise industrial, commercial and community development the paper makes a valuable contribution to topical thinking.

Mr. Ordman describes the vast changes taking place in the whole transport industry, in which the ports play a vital part, and explains how palletisation and containerisation and the bulk transportation of goods have outdated some ports and led to development of others giving more space and deeper water for larger ships. He describes ports as 'land hungry' and needing to expand and redevelop in down-river areas free of the congested roads of conurbations. He cites London and the closures of the London and St. Katharine Docks, East India Dock and the Surrey Commercial Docks as instances of port facilities which do not admit of redevelopment in the modern idiom and the vacation of which offer the planners prospects of greatly improved urban amenity.

He mentions, too, the PLA's £30 million new dock developments which have taken place at Tilbury and foresees further expansion yet nearer to the sea for port and associated industrial facilities.

Recognising the political and sociological implications of this Mr. Ordman says: 'We cannot avoid problems of amenity, pollution, conservation, regional development policies, and the needs of people to have decent places in which to live. But these can be solved with imagination, courage and determination.' He believes that it need be no more costly to build attractive industrial buildings than ugly depressing ones and says: "Industrial architecture is a challenge which our more imaginative and progressive architects would dearly like to get their teeth into".

Mr. Ordman cites the Ruhr as a spoiled area no longer attractive to workers. He believes that some of Britain's new towns point the way, and that modern technology makes possible the creation of industrial complexes which are exciting to look at, which consume or neutralise their waste products, and which are landscaped to harmonise with associated residential and civic developments.

Looking to the ports of the future, their location and planning, he sees these as being placed in deep water estuaries nearer to the sea. He calls for Government encouragement to provide port and associated industrial development which will be both pleasing to live near and which will also make good economic sense.

(Mr. Ordman has recently accepted an invitation of the Secretary General of the United Nations Conference on Trade and Development (UNCTAD) to membership of their Ports Project Technical Advisory Group. The task of this group is to advise the secretariat on research into the problems of port development.) (News from PLA)

Shift System

London, 15th September:—The Port of London Authority have announced that with effect from Monday September 21st, and the implementation of the Devlin II agreement, their docks will adopt new hours of working on a shift system. Ordinary working times within the PLA enclosed docks will then become from 0700 hours to 2100 hours daily, Monday to Friday, which

lengthens the working day by four hours. During these times the PLA transit sheds and warehouses will be open for the reception of exports and the delivery of imports, and facilities will be available for the discharging and loading of vessels at dock berths.

The new shift system and longer hours add further point to the very successful vehicle appointment schemes operated by PLA for many dock berths and these will serve the new hours. These schemes co-ordinate vehicle arrivals with labour resources and so provide a regular flow of traffic which minimises delays. Hauliers could use these to advantage in planning their own operations to benefit from the greater availability of dock facilities.

Exceptions from the new working hours will be the PLA Cutler Street Warehouse where the business day will be from 0800 hours to 1900 hours daily, Monday to Friday. Special arrangements will also apply to the Surrey Commercial Docks and the specialist container berths in Tilbury Docks and these details may be obtained from the Docks Managers concerned.

Their telephone numbers are:—

Dock Manager, Surrey Commercial Docks

01-481 2000 Extn. 96/262

Dock Manager, Tilbury Docks

037582 3444 Extn. 323

(News from PLA)

Port Director, Humber

London, 24 September: — A change in the management structure of the Humber Ports is announced today by the British Transport Docks Board. Mr. J. A. Lacey, at present Chief Docks Manager, Hull, becomes Port Director, Humber, with overall responsibility for the ports of Hull, Goole, Grimsby and Immingham and the Board's conservancy functions in the Humber Estuary. Responsibility for day-to-day management will remain with the Managers of the individual ports.

This change in organisation reflects the wider responsibilities assumed by the Board in the Humber in recent years. It will facilitate the

efficient control of the common services in the Humber Estuary and will promote closer co-ordination of the management and development of these ports.

Mr. Lacey has been Chief Docks Manager, Hull since 1963. He was Port Master, Grimsby and Immingham from 1959 to 1963, and before that held port appointments in Middlesbrough and the Hartle-pools. His career in the transport industry goes back to 1934 when he joined the L.N.E.R. As Chief Docks Manager, Hull he was responsible for the initiation and carrying through of a number of important port development schemes, notably the construction of the new Queen Elizabeth Dock which was opened by the Queen in 1969. (British Transport Docks Board)

Oceanography Meet

Paris:—International Colloquium on the Exploitation of the Oceans is to be held in Bordeaux, France, March 9—12, 1971. The Honorary Committee comprising 27 international members is headed by M. Louis Armand of the French Academy. Further details may be obtained from Secretariat du Colloque c/o CNEXO, Boite Postale 107, Paris XVI, France.

Water Plant for Kuwait

Rouen, June, 1970:—On June 22nd after loading on the "Laconia" a coke plant for Greece, the Port of Rouen begins the export of a sea water desalination plant for Kuwait. Actually, on Thursday, June 25th, and Friday, June 26th, 525 packages weighing 1,130 t were loaded, namely 6 cases of 150 t, 1 reheater of 74 t, 1 package of 11 t and various materials.

These were the first elements of a desalination plant which makes up a total 9,000 t composed of 60 cases of 150 t each and 4,000 to 5,000 t of accessory materials.

This plant is exported by a group of companies led by the ALSTHOM company. The largest parts were made by C.F.E.M. at Rouen, and the other parts were sent from various regions of France (Nord, Ain) by train and by truck.

The entire shipping operation will be done in five phases. The round-trip between Rouen and Kuwait taking 75 days, it will take more than one year for the entire plant to be delivered.

Loading was effected on the "Borag". This oil tanker belonging to the Hameor Tanker Corp. Inc. at Monrovia has recently been modified for the transport of shrimp fishing boats as on-deck cargo. The heavy packages were loaded on the vessel in place of the shrimp fishing boats which are normally carried on the France—Kuwait run.

The consignment was insured by SATCO, the warehousing was done by WORMS company and the broker was Mr. HUMAN. The warehousing is done at the pier of Petit-Couronne.

Ever since the opening in autumn 1969, this pier of 600 meters has seen intense activities. As to the utilization of cranes, this pier has the best port coefficient, and to cope with the work load a 9th crane of 6 tons had to be installed.

The principal cargoes handled at this pier besides heavy cargoes are gypsum, fertilizer and various merchandise. The pier of Petit-Couronne is indeed very well situated to handle the goods of the many neighborhood industries, and so its activities can only grow.

Characteristics of the "Borag":

Gross tonnage: 21, 848 tx

Net tonnage: 12,510 tx

Maximum loaded weight:

34,793 t

Length: 203,90 m

Equipped with 2 derricks of 150 t

Rouen and Norway

Rouen:—The town of Bergen and the Norwegian trade fair are organizing a large exhibition and lecture on matters relating to the ports: Port' 70, to be held from September 28 to October 4.

The port of Rouen Authority is pleased to take this opportunity of renewing contact with the principal bodies of shipowners and shippers from Scandinavian countries.

The port of Rouen will hold a

stand in the fair area and should be pleased to meet you.

On the other hand on September 29th will take place a press conference in the French Chamber of Commerce building at Oslo (Pilestredet 17) at 2 p.m. On September 30th a delegation of the Port Authority composed of the Chairman M. CINTRAT, MM. CLAMAGERAN and LEFEBVRE, members of the Board of Directors, and the General Manager M. RICHARD, M. THOMAS the Commercial delegate and M. BOUJU the public relation manager, will be at Oslo in order to enter into contact with some diplomatic and maritime personalities.

On October 1st it will be at Bergen to visit the stand of the port and hold an informative meeting followed by a cocktail at 4 p.m. at the grand café.

The delegation will leave Norway on October 2nd. (Rouen Port News)

15 Container Lines

Bremen:—The concentration of eight full-container lines and seven semi-container lines in the Bremen/Bremerhaven port-group with, in 1971 (as is already firm), a full-container service to Japan—will result in Bremen/Bremerhaven being still further expanded; causing it to retain its reputation of having, of all European ports, the largest offering of container-ship sailings. Expert circles assert the reason for this unequivocal lead-position as being the unprecedented location to the sea and to the hinterland; the ideally positioned 'TERMINAL ON THE SEA'; and the longest experience had by this port group in the treatment, application and handling of containers. A 35 per cent increase in container handling is expected for 1970, as against 1969. Thereby more than 75 per cent of the 1.5 million tons of goods moving between the Bremen ports and the USA-Eastcoast are already transported in containers. (Bremen Air Mail, September 1970)

Oil Shipment

Bremen: — Prepared material from the sources of the Institute of

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Maritime Trade Economy, in Bremen, shows that the shipment of mineral oil in large tankers of over 60,000 tons, has increased by nearly 20 times in the last 8 years (1962-1969). Europe and Japan were more actively involved in the increase in crude-oil supply than any of the other receiving areas. (Bremen Air Mail, September)

Barcelona in 1969

Traffic

In accordance with a provisional estimate of the currently known data which naturally are not synonymous with the annual totals, the traffic of Barcelona Harbour will reach the total amount of 8,200,000 tons. Thus, for the first time, the traffic will pass the 8 million figure.

Approximately 2,650,000 tons of this traffic will be comprised of petroleum; 550,000 tons of non-petroleum bulk liquids, 2,100,000 tons of bulk solids and 2,900,000

tons of general cargo.

This indicates a general increase of 11% and, in the case of general cargo, an increase of 16%. These figures permit us to take an optimistic view of the harbour's growth during this year.

As seen in the foregoing paragraphs general cargo, a characteristic of Barcelona Harbour, has increased once again and the figure we have reached is truly important even in comparison with other international ports of the first order.

Container shipping has also continued to grow and now there are two regular lines composed of container-carrier ships which make scheduled stops in the harbour.

As we do not yet know the exact annual figures, we can only give the approximate estimate that by the end of the year more than 8,000 unified ISO containers of 20 feet will have been unloaded.

On the other hand there has been a decrease in the amount of cereals unloaded due; undoubtedly, to the

improved domestic production of said products.

The remaining transit merchandise has been as varied as ever and has caused the habitual congestion of our wharfs- a problem which we are trying to resolve in the best way possible.

Another item which is worth mentioning is that the embarkations, i.e. exportations, have increased more than the importations, thus tending to reduce the traditional lopsidedness between the one and the other in our harbour.

Construction

During this nearly-completed year, the quantity of 240,000,000,000 pesetas was invested in expansion.

During this year remodelling and modernisation work has commenced on the Balears Dock and the Fisherman's Harbour, the only remaining zones of the old harbour which remained in the process which is now being completed.

With the initiation of these

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works, the cycle of modernization of the old harbour is nearly at its end. This coincides with the termination of two very important docks, the Breakwater Wharf and the Counterdike Wharf Widening programme which have constituted the basis of the expansion of harbour capacity during the past years. These constructions are ready to go into full active service.

As to private initiative, two very important constructions have gone into service: the dock for petroleum tankers, built by CAMPSA, which permits the simultaneous fueling of 6 tankers and which frees the Costa Dock for other traffic, thus increasing our utility fuel line for solids and general cargo; and also the gas plant installed by Gas Natural, which has already received its first shipments of liquid gas and therefore may be considered as fully functioning.

During this year basic work has continued on the system of communication with the inner harbour, i.e. the network of roads which will make it possible to circumnavigate

and arrive at the new basins situated in that part of the Harbour. This will cause the 750 hectares over which our service area extends to be closely connected and fully exploited. It is our hope that this system of communication will be completed during the coming year.

At the close of this year important decisions were made in the final Cabinet Meeting—decisions which reflect the Government's decision to facilitate the expansion and progress of our harbour.

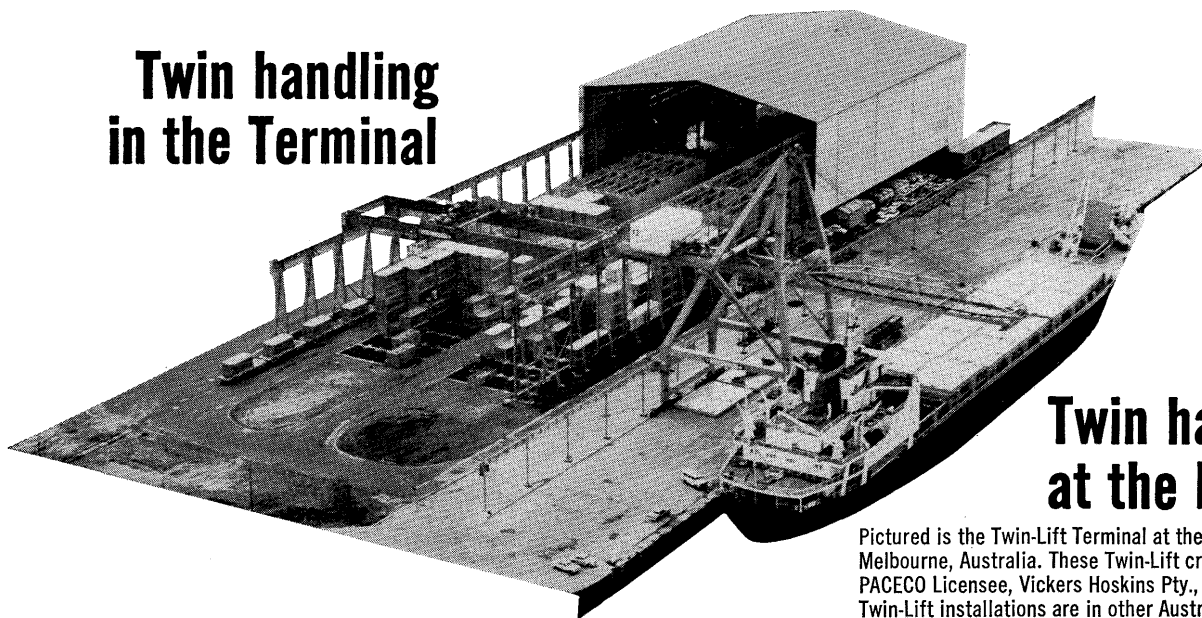
I am referring to the authorisation to open bidding for 4 extremely important projects: the completion of the East Dike which will complete the harbour haven of all our basins; the outfitting of the Southern Counterdike Wharf, which will give us a special installation for large—capacity bulk shipping; the dredging of the internam pier and construction of 5 piers for liquids which will put into full activity an extensive zone of 41 hectares destined for the storage of inflammable liquids; and; last but not least, the Combined Transport

Terminal, a basic element in the modernisation of the harbour operative system.

This terminal, which will extend over a zone of approximately 20 hectares will be located beside the Container Wharf which is now under construction and together with it will constitute a complex destined as an interconnection of container traffic via transshippers, road and rail. This complex will be under the auspices of TIR and TIF and will boast the most modern international tendencies in this system of communication for cargo units and in its capacity to absorb a heavy volume of TIR traffic.

The four projects mentioned above, signal the commencement of a new expansion of our harbour and represent a tota investment of more than one thousand million pesetas, thus providing a fine example of the generous policy of harbour modernization and expansion advocated by the Ministry of Public Works. (Puerto De Barcelona Boletín Informativo. December 1970)

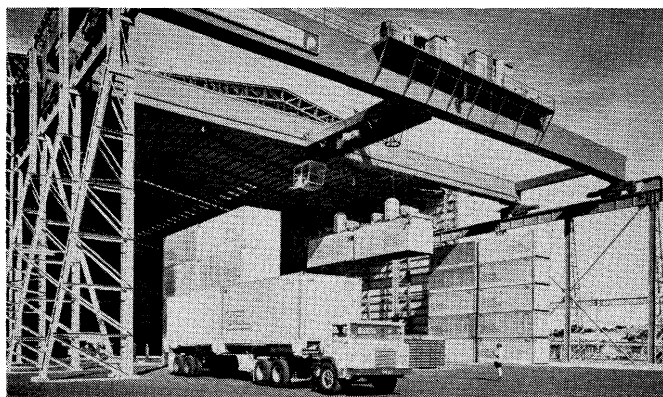
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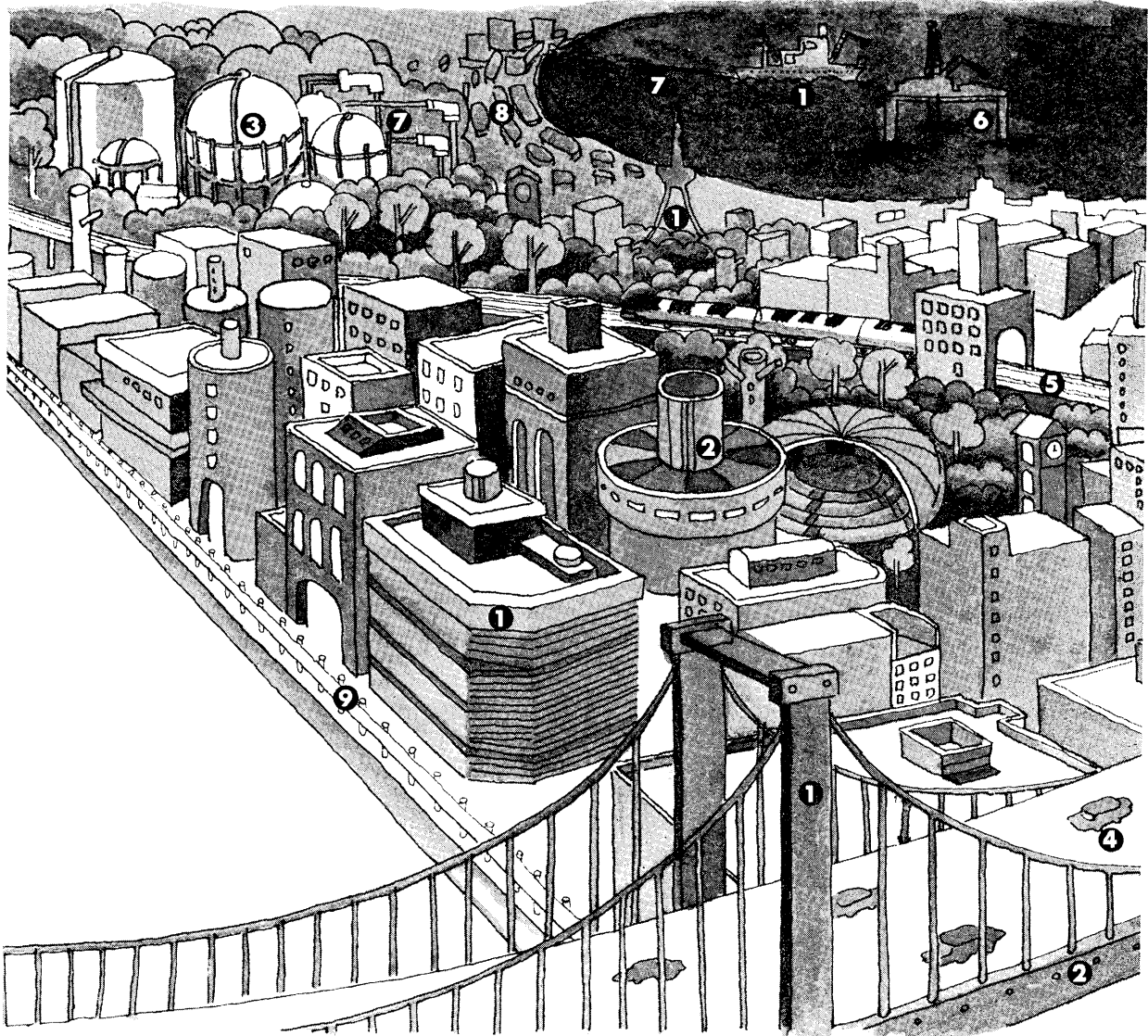
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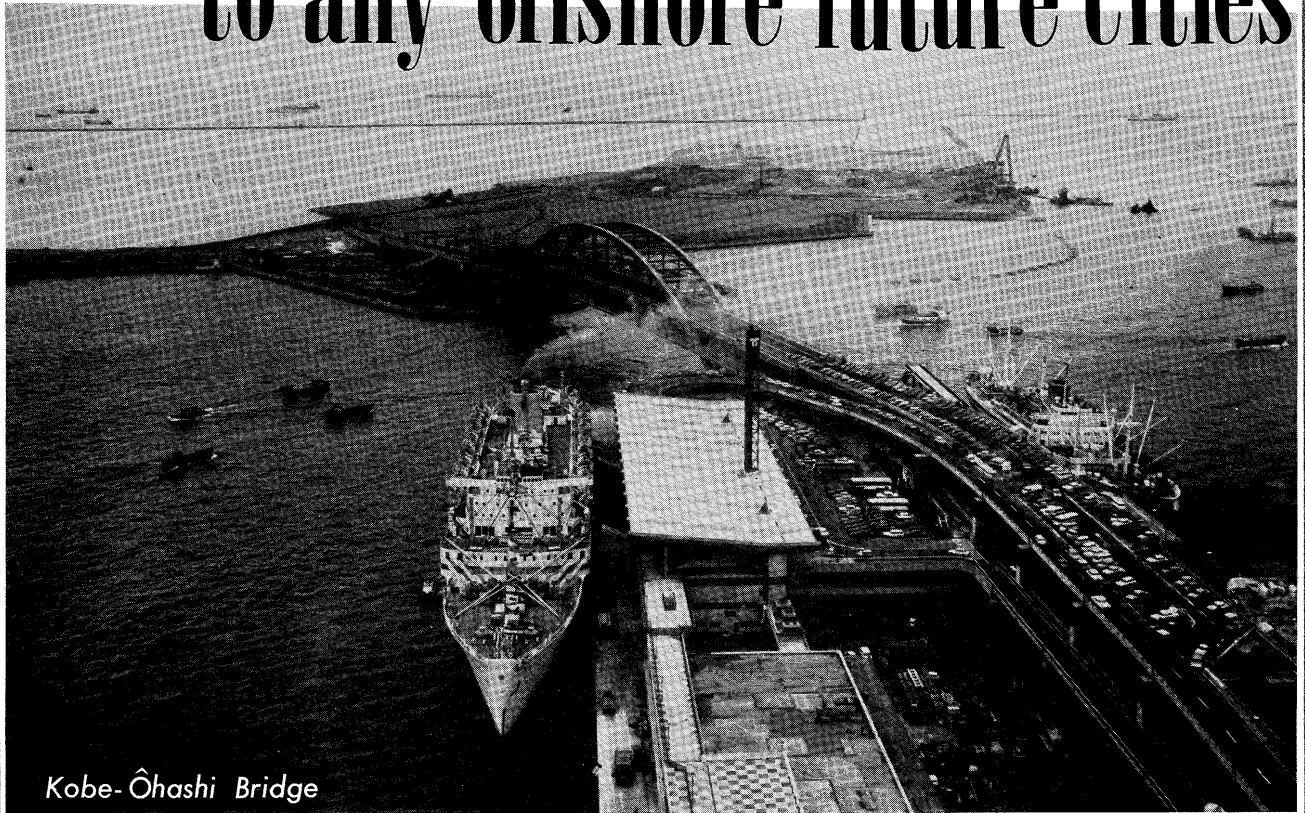
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