

# PORTS *and* HARBORS

March, 1972 Vol. 17, No. 3

## Port Adelaide Australia



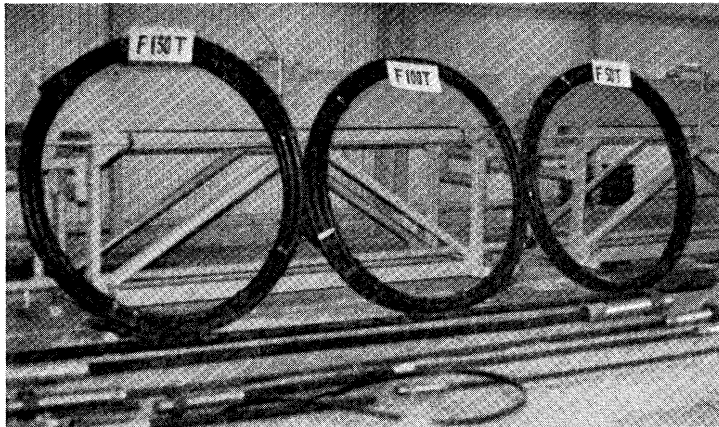
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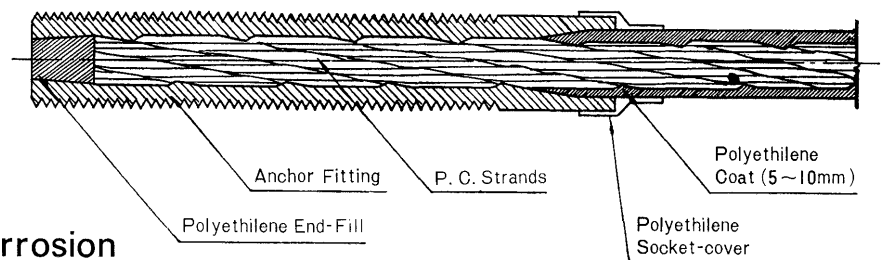
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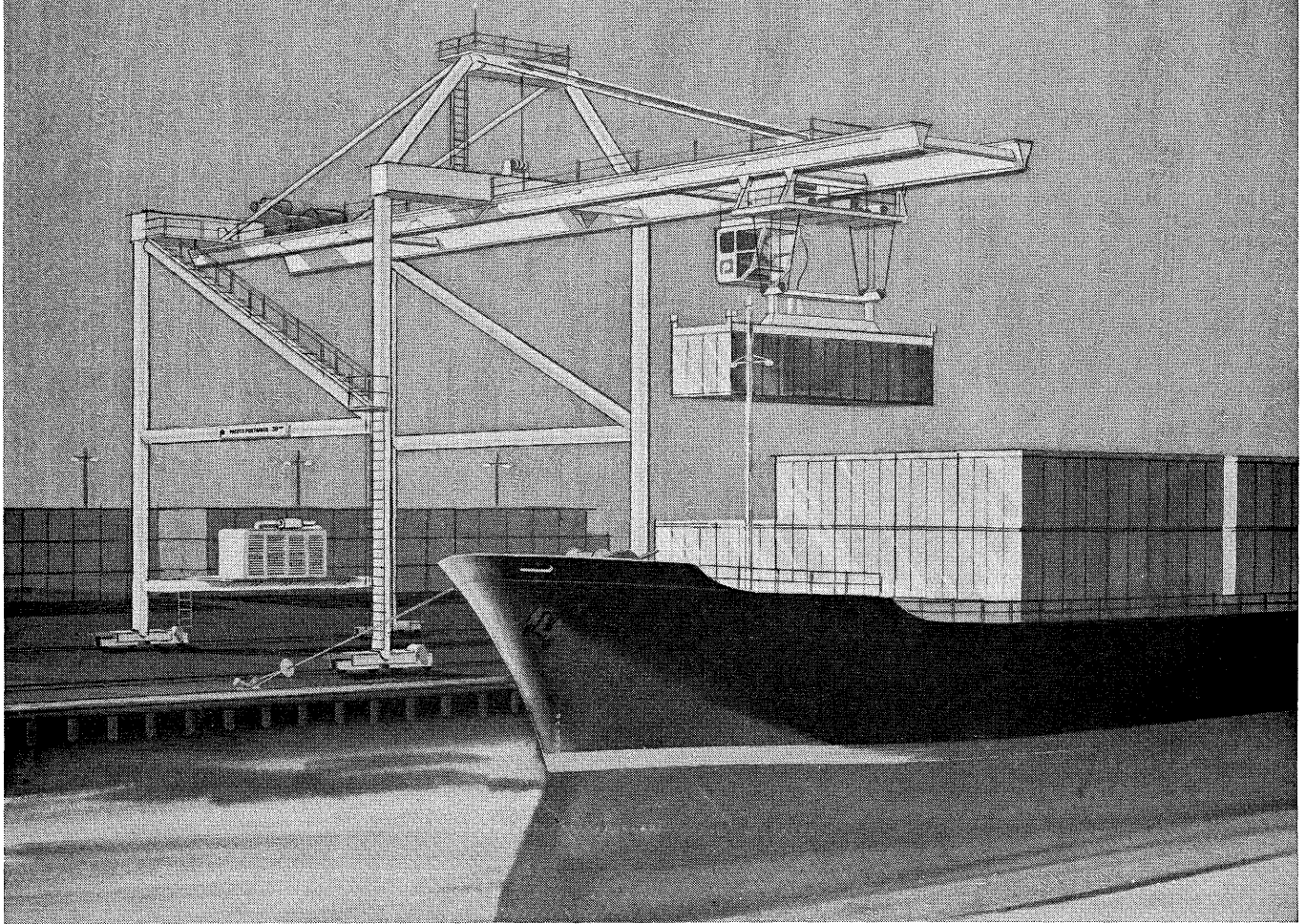
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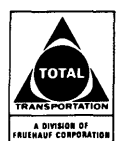
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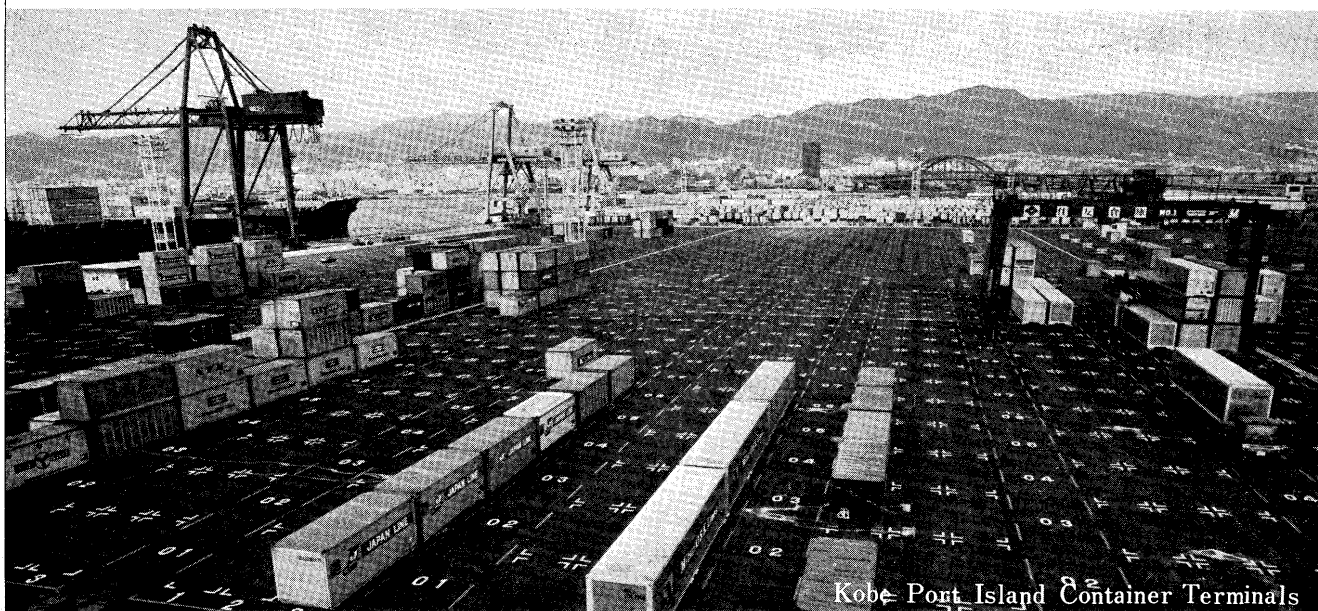


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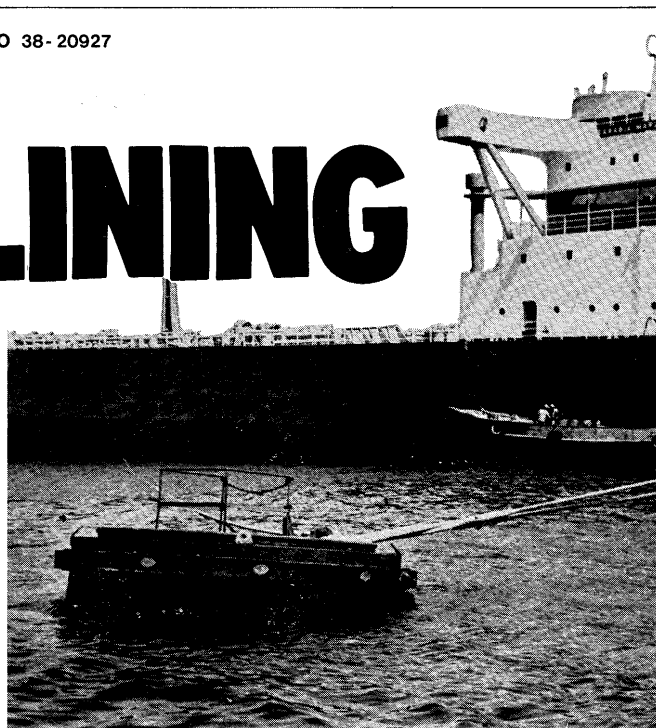
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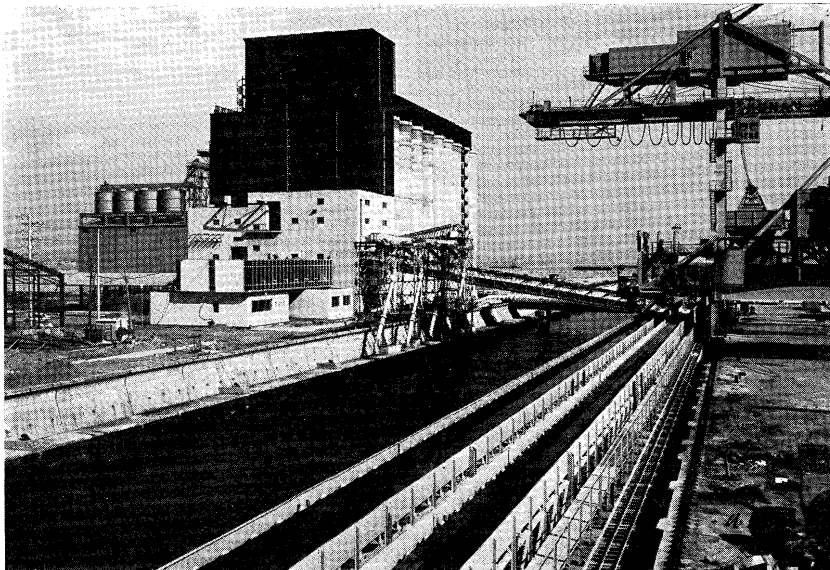
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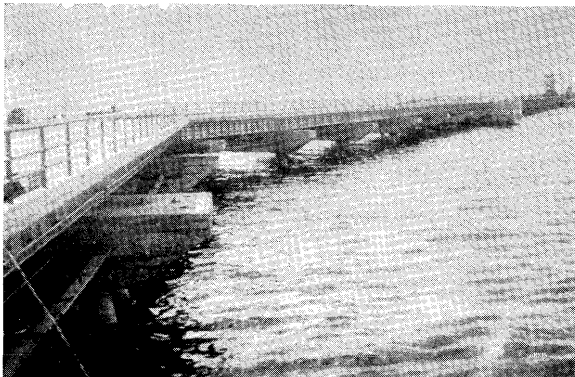


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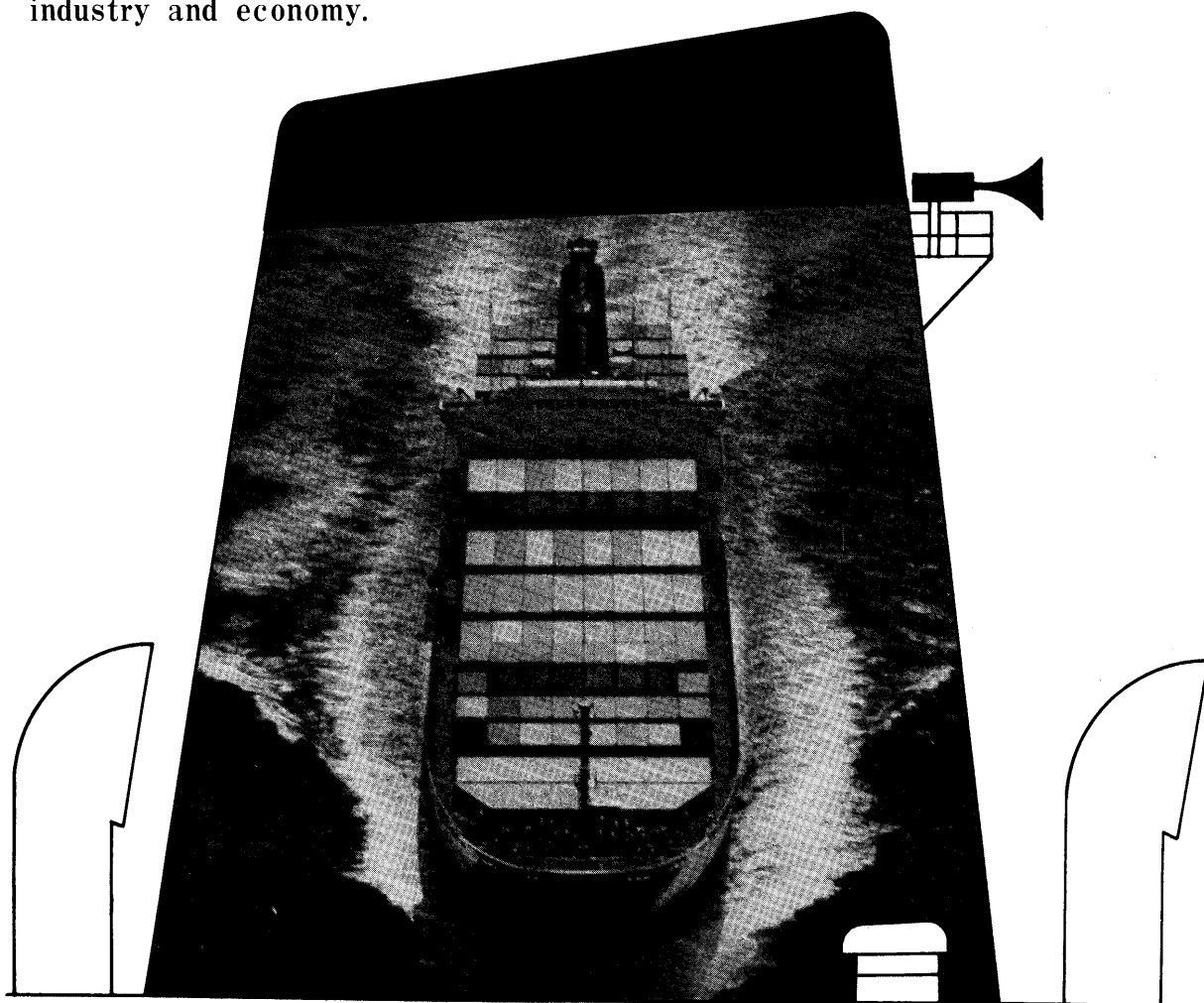
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(13)

## IMPROVEMENT IN PORT OPERATIONS AND RELATED INSTALLATIONS. OPTIMIZATION AND SIMULATION METHODS

BY

**GEORGES MAFFAIT**

ENGINEER

77 VAIRES-SUR-MARNE

FRANCE

### I — General Information on Ports

It is rather difficult to give a definition of a port, because of the numerous basic criteria which warrant consideration. In fact, ports can be classified according to various criteria or contexts.

Geographical criterion (natural or artificial ports, inland or sea ports, with or without tide).

Administrative criterion (mode of management).

Functional criterion (type of merchandise and equipment).

Economic context (related to the notion of Hinterland).

Political context.

However, in the present study, we will refer to the existence of the ports only under two aspects.

#### **A — The Port — Trans-shipment Point**

A port is a boundary, a frontier or a link between sea and land, an indispensable passageway where goods are necessarily in transit when in the process of being transferred — handled — from a ship to another means of transportation (road, rail, water and even sea in the case of coastal navigation) or conversely.

These operations are always fairly complex and consequently fairly costly. This complexity evidently has some effect on the overall cost of port operations through numerous parameters which have, for the most part, only a remote inter-relationship.

Some examples are:

- various technical operations related to the ships entering and leaving the port;
- immobilization of the ships, idle time, changes in berths;
- cargo handling with all the diversity that this function involves (on board or port equipment; functional systems applicable to the ship (Roll on - Roll off); specialized equipment; manpower);
- nature of the storage operations and facilities (sheds, refrigerated warehouses, silos, etc.); distance involved in the transfer of the merchandise to the storage place and mode of transfer;
- idle time due to congestion at the wharves, sheds, servicing line and also because of the waiting period for the use of transport facilities;
- idle time or slowdown because of the various administrative formalities (customs control and clearance services, veterinary, phytosanitary and other services).

#### **B — The Port — Operational Complex**

The port is, on the other hand, an intricate operational complex which permits the transfer of merchandise from a ship to another means of transportation or vice versa.

This transfer operation implies that there are a certain number of elementary operational systems in existence, such as:

- Signalling devices, navigational aids (beacons, lights, radar and VHF);
- waiting zones, anchorage, channels (or approach channels)
- tides, various weather conditions
- “bottlenecks” such as locks, drawbridges or swing-bridges
- maintenance of the port’s protective devices (dams, breakwater) and harbour depth (dredging)
- pilotage, towing and inshore pilotage services
- nature of the work stations (mooring buoys, buoys, specialized or unspecialized berths).
- nature, location, degree of specialization and power of the cargo-handling equipment
- cargo-handling conditions (on roadstead, with lighters, on sea line; on the wharf; direct trans-shipment to vehicle or ship)
- composition of on board and on shore docker teams and related manpower (stitchers)
- methods of loading and unloading
- various administrative formalities
- other parameters (supervision; safety; lighting; floor and ground space).

Good port management implies that all elementary systems operate adequately since the weakness of any one of these systems has some influence on the overall operation. The overall capacity is reduced to the capacity of the weakest basic system.

This capacity is influenced by several factors which affect its quality. The weakness in the capacity of a system can be due to:

- a shortage of personnel (skilled or unskilled) or equipment (specialized or not)

- poor maintenance of the equipment and frequent breakdowns, obsolescence of the equipment resulting in an unbearable increase in operating costs.
- poor weather conditions (rain, fog, tides)
- human or social factors (work schedules; strikes)
- poor management (congestion of the storage zones).
- insufficient supervisory and safety facilities

It is interesting to observe that the capacity of the various elementary systems is subject to variations and that it is practically impossible to achieve the same capacity for the various elementary systems. In fact, improvement to these systems can usually be made only to complete and undivided units (crane, tug-boat, lift truck which influence the elementary systems by gradations).

The search for an optimum (economic for example) results in the search for a compromise, a search which is based on a precise analysis of the various elementary systems. The optimum is realized when the savings related to improved time-limits are equal to the expenditures incurred to arrive at these savings. The elementary systems can be expressed by mathematical formula and thus the capacity of a port can be linked with its own cost and with the variations it brings about in the immobilization cost of the ships and the merchandise. It is then entirely possible to calculate the influence that any change in the capacity of one of the elementary systems will have on direct costs and related costs.

The United Nations Conference on Trade and Development had suggested (1) that a study be made of "THE MEASURES LIKELY TO IMPROVE THE OPERATION OF THE PORTS AND INLAND TRANSPORTATION SERVICING THEM, PARTICULARLY IN THE CASE OF PORTS WHOSE ACTIVITY IS IMPORTANT FOR THE ECONOMY OF THE COUNTRY IN WHICH THEY ARE LOCATED OR FOR WORLD TRADE"

This was in fact an extensive program which sought to achieve several objectives:

- define methods which would permit increased efficiency of the transportation and cargo-handling operations at the least possible cost.
- define methods through which it would be possible to detect the problems slowing down port and inland transportation activities.
- establish a series of programs which would help to correct the disequilibrium existing in the transportation system under study.

The purpose of the program was to seek the optimal dimensions of the main elements of a port and to go over the operation of a port considered as an operational complex, including all activities involved in the transfer of the cargo from the ship to any other means of transportation (or conversely). It aims to bring out the interrelation between the in-coming traffic, the level of equipment in the port and the overall operation.

## II — Simulation Program: (2)

As we have seen, a port is a complex group of elementary systems, each having an influence on the overall operations.

It is admitted that a port schematically includes:

operational sections

mooring or receiving areas for ships

cargo receiving and storage areas water levelling facilities (locks, channels...) means for shipping the merchandise to the Hinterland (or the reverse)

storage zones in the Hinterland.

---

(1) Recommendation of April 29, 1965 — decision 12 — CNUCED GENEVA

(2) This communication has been inspired to a large extent by the TD/B/C/4/42 study and by additional works presented at the United Nations Conference on trade and Development (CNUCED).

These various zones and sections are studied by means of a program which reproduces the present conditions related to port operations and which makes it possible to study the foreseeable consequences of the introduction of the new operational methods. The immobilization periods for ships and merchandise can also be studied and analysed through this program. This analysis will help to determine the port's operating cost and the influence which each elementary system has on the total cost. It will make it possible to supply at a later date the basic data necessary for carrying out long term planning studies.

The simulation process is realized by means of "simulation programs" and "satellite programs".

The initial program is known as "data recording". The data is processed on cards and is then re-grouped and recorded on a magnetic tape; it is known as the "frequency list" or "FRELIS".

The predicted future conditions will be based on recognized external trade forecasts for merchandise. With regard to the anticipated volume and traffic composition of ships, the specialists rely on various factors such as trade forecast, present traffic requirements and the technological developments in sea transport.

The program for "generating traffic" is a satellite program supporting the simulation program by providing for each period of investment some hypotheses on the evolution of ship traffic and the volume of merchandise.

The traffic models are recorded on a tape. A given port can be dealt with by using a standard program consisting of elementary systems to which parameters have been added to permit a study of an overall system corresponding to the hypotheses on this port.

The introduction of other parameters helps to study port management and operations according to the various hypotheses. The overall study program includes a "basic system" and some "activities". The activities make it possible to successively study specific port functions.

Thus the SHIP activity keeps in close contact with the ship as it moves through the port and it controls the loading and unloading processes.

The SHIFT activity figures the amount of time left for the work in process and determines the various types of equipment available for this work. "Technical procedures" complete this activity with each procedure related to a very definite port function. Thus the "PILTUGALL" procedure groups the pilotage and towing activities. The "CALTIM" procedure calculates during each season the immobilization periods for various types and groups of merchandise and ships.

### **FRELIS Program**

The purpose of this program is to collect maximum data. It contains eight types of information:

- a) ships (classified according to their type) (SHIPTY)
- b) tonnage (classified according to groups) (SIZESH).
- c) main type of imported and exported merchandise transported by the ship (TY CARG) (IMP and EXP).
- d) Tonnage of imported cargoes (VOCASH 1) and exported cargoes (VOCASH 2) classified according to tonnage groups.
- e) fraction of bulk merchandise compared with the total cargo imported (BUFRSH 1) and exported (BUFRSH 2).

The forecasting program includes data (FRELIS completed) on merchandise classified according to type. It includes sub-programs (SEASON: TYSHIP: ZIZESH: TYCARG) which determine an overall TONSES (merchandise tonnage in tons).

Special input matrixes include the multiplying factors which are to be applied to TONSES to determine the approximate future tonnage, and to FRELIS so as to integrate future changes likely to intervene in the mooring frequency of ships which do not transport any merchandise to or from the port.

### **III — Problems of Growth**

The systems analysis method, created to facilitate decision-making, helps to study various problems



such as:

- the short term improvement of port operations (little or no investments)
- the search for optimum port activity in a “static” sense. The traffic is presumed to be constant. Investment opportunities. Short term decisions, average term financing.
- the search for optimum port activity in a dynamic sense.

To solve these problems, it is necessary to have a knowledge of hypotheses such as:

- the definition of the system for which the decisions are taken.
- initial traffic conditions (1)
- calculation of current costs and costs related to improvements (changes in technical standards).
- definition of the optimization criterion.
- definition of economic conditions: anticipated duration of development; restraints due to financing delays; restraints due to credit restrictions.

#### IV — Optimization:

In an optimization program, the port is treated as a group of elementary systems likely to be adapted to any of the possible standards and defined by means of

- either an investment
- either modifications in the operating standard, or
- a combination of the two

The desirable optimum can be defined according to various standards, but from an economic point of view, it is logical to choose the one with the “lowest cost”.

Experts make a distinction between static optimum and dynamic optimum.

*Static optimum* relates to the improvements that can be expected from the improvement in existing facilities through improved operating regulations (administrative measures) or by the combined effect of improved operating regulations and improved systems (administrative measures and investment decisions).

The following studies can be undertaken:

- readjustment of mooring tariffs to accelerate unloading and limit the shifting and regrouping fees.
- sounder management of the storage areas (classification, stowing) resulting from improved operating regulations applicable to these surfaces with a view to avoiding congestion.
- measures related to the use of storage surfaces and transit space (wharves).
- control of motor vehicle parking, of rail and river equipment (and even naval equipment in the case of coastal navigation).
- concentration of responsibilities
- various measures aimed at facilitating the maintenance of the port installations and equipment.
- “rationing” — by establishing priorities when there is a shortage of port equipment.
- various measures concerning manpower (control, training, organization, pay and various problems, particularly social ones).

The *dynamic optimum* deals with questions resulting from traffic growth. It calls upon statistical data and projections based on a planning process.

It helps to find the answer to a certain number of problems:

What equipment should be installed, when and where?

---

(1) The French Departments of Transportation, Equipment and Housing have studied the creation of a “transportation data bank” which would collect all economic data concerning transportation policies: nature and characteristics of what is transported

- function (regional, international transportation, etc . . .)
- mode of transportation and technique
- economic data (companies, vehicles, tariffs, regularizations)
- traffic
- infrastructures

What productivity can be expected?

What scale of investments should be expected in future? under what form?

Practical optimization program:

It is necessary to define the optimum sought, which, as previously seen, will be that of the "lowest cost".

The optimization program includes one (1) basic program and a certain number of satellite programs.

The basic program controls the various calculations by introducing the different programs in proper order.

Without mentioning all the sub-programs, we shall state the following:

**COST** : The calculation of independent costs for all elementary systems corresponding to all possible policies.

**IWORK** : Manpower required for each elementary system per investment period and technical norm.

**RANDAN** : Conclusions to be drawn from each elementary data.

**INPEP** : Adds the independent costs corresponding to the **RANDAN** conclusions.

**INPROV** : Calculates the related costs.

**TEST** : Compares the value of the economic function of the last combined policy to those of the best solutions previously found.

The program then makes it possible to determine the related costs resulting from each policy by means of data on incoming ships (cost for the various ships according to tonnage and type; lapse of time for the ships according to type and tonnage; lapse of time for the merchandise according to type).

Two concrete examples:

1 — Optimization on the operation of a group of berths:

A — Specialized berths (containers) (1)

It is evident that the studies will be conditioned by a group of basic hypotheses such as:

- number of berths
- overall surface
- number, capacity of the cargo-handling equipment.

The study will be carried out by analysing the influence of several variables:

1-2: Statistical distribution of the ships' arrivals and departures.

3-4: Statistical distribution of the containers' arrivals and departures.

5-6: Availability; cost of land

7-8-9: Initial cost, maintenance, life span of surface.

10-11-12: Initial cost, maintenance cost, life span of wharves

13-14: Manpower availability and cost.

15: Loan charges.

B — Non specialized berths.

The problem is even more complex when we try to define the optimal capacity of a berth, or of a number of berths likely to receive a variety of merchandise.

This is why experts have established an optimization method in very definite cases. This method can be considered as a specific case in the general program established by of the CNUCED experts.

---

(1) cf Conference by MR. ARNOUX de MONTEYNARD Cie Maritime des chargeurs réunis — quoting the work of Professor HARRY BENFORD University Ann Arbour MICHIGAN (2nd Seminar on Industrial and Commercial Logistic — Data processing and Transportation — Institut de formation aux techniques d'implantation et de manutention IFTIM 46, rue Troyon 75 -SEVRES)

It is interesting to study more closely the structure of the system (1). The group of berths under study has physical characteristics (geometric configuration, number of boarding berths, importance, nature and distribution of the storage zones, importance of the work areas, distance between the berth zone and the storage zones).

This system also takes into account the equipment (number of cranes on the wharf) or the elevators likely to be used.

Another element is also important: the operating policy adopted by port management.

The simulation model receives some data based on actual movements:

- arrival, berthing operations of the ship
- various handling operations
- conditions, rate of operations related to receiving and unloading

At this stage, the experts take into account three series of variables:

The variables of condition, action and the intermediary variables.

The variables of condition define the operating conditions over a series of past periods and the measures taken for future periods.

characteristics, occupancy of berths

ships waiting, nature of their cargo

level of congestion in the various storage zones (for merchandise imported and exported).

The variables of action define the characteristics governing ships and cargoes.

The intermediary variables correspond to the decisions made (berth, docker team formation, equipment, work planning) and to the relation between the system studied and the external agents.

- performance of cargo-handling operations
- tonnage delivered or received on shore
- movement towards the Hinterland.

## 2 — Cargo-handling Function

### Improved Productivity —

We have already defined a port as the indispensable passageway for goods transferred from a ship to any other means of transportation (land or sea) or conversely. The cargo-handling operation of a port is among the most important and it has a determining influence on port competitiveness.

This is why a certain number of studies have been undertaken in a number of ports (particularly in Dutch ports) with a view to improving the various operations.

Messrs. H. K. J. MELESSEN and C. H. VERWEY, respectively Director of the Consulting Engineers Office, B. W. BERENSCHOT (Procedures and Transportation Section) and Manager of THONSEN'S HAVENBEDRIJF N.V., mentioned at the ICHCA Congress organized in 1969 in STOCKHOLM the studies that have been made to improve the stowing and handling operations. We invite our listeners to refer to the documentation concerning these informative conferences which should facilitate research in this field (See "Revue de la navigation fluviale européenne 3, Route du Rhin — STRASBOURG NEUDORF No 21 (1969) and 01 (1970).

The studies on improvement to cargo-handling operations were based on information provided by work reports and transferred to punched cards and then placed on magnetic tapes or summary cards. Results made it possible to determine group and individual productivity indexes, the productivity indexes by types of merchandise, the reasons for low or high productivity levels (numerical importance of a work team, methods, organizational improvement) the potential basis for the establishment of the tariffs.

Results obtained are evidently specifically related to the ports under study; however, with the permission of the authors and taking into account the interest that such a model can have for all port installations, we present hereafter copies of the documents prepared at the time these studies were made.

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(1) of the study of operational optimization related to a group of berths by MR. MANDRY — Independant port of MARSEILLE

- 1 — Work report
- 2 — Annex to the work report (1)

### Conclusion:

It is impossible to deal with the overall problems in a few pages. Simulation and optimization methods have been established in various parts of the world and cover such a variety of questions as the management of a fleet of ships, a fleet of tugs (Port of HAVRE), port equipment or dock workers.

We are presently going through a transitional period where each detail has its importance. It is therefore urgent that all operational managers be persuaded of the need to immediately collect maximum information on their port, even if they are not presently faced with problems serious enough to think about data processing in the immediate future. However, as Professor J. G. BAUDELAIRE (2) has said: "predicting the future generally requires an extensive knowledge of the past. A serious analysis of port operations in the past is essential for studying the improvements which could prove desirable".

### DETAIL OF WORK REPORT

#### 1 — On/Ex:

- |               |                 |               |
|---------------|-----------------|---------------|
| 1. Coaster    | 4. Shed         | 7. Open truck |
| 2. Deck barge | 5. Closed truck | 8. Open wagon |
| 3. Lighter    | 6. Closed wagon | 9. Wharf      |

#### 2 — Packing:

- |                      |                               |                         |
|----------------------|-------------------------------|-------------------------|
| 1. Pressed bales     | 14. Cans                      | 26. Bars                |
| 2. Blocks            | 15. Cases                     | 27. Barrels (wood)      |
| 3. Bundles, packages | 16. Crates                    | 28. Barrels (metal)     |
| 4. Solids            | 17. Liftvans<br>(large cases) | 29. Barrels (paper)     |
| 5. Bulk              | 18. Baskets                   | 30. Bags (jute)         |
| 6. Packages          | 19. Bottles                   | 31. Bags (canvas)       |
| 7. Tin-plate boxes   | 20. Mats                      | 32. Bags (paper)        |
| 8. Containers        | 21. Unpacked                  | 33. Bags (plastic)      |
| 9. Barrels           | 22. Packed                    | 34. Miscellaneous goods |
| 10. Cardboards boxes | 23. Plates                    | 35. Cylinders           |
| 11. Pail, buckets    | 24. Rings                     | 36. Pallets             |
| 12. Spools           | 25. Rollers                   | 37. Lost pallets        |
| 13. Drums            |                               |                         |

#### 3 — Items:

Mention the name of the loading papers

Name of the wood

For sawn timber give:

size of cut (width and thickness), country of origin, indicate in column 10C, the number of standard pieces (sawn wood) or the size (round timber).

Name of the iron

For sectional iron, show IHZLUT

Ditto for round bars or bar iron

Structural iron (bars assembled by welding, bolts, rivets), give the length if over 12 m.

#### 4. A — Work Method, Stevedore

- |                               |                                       |
|-------------------------------|---------------------------------------|
| 1. Single derrick             | 7. 2 dockside cranes (uncoupled)      |
| 2. 2 single derricks          | 8. 2 dockside cranes (coupled)        |
| 3. Op on over (coupled)       | 9. Loading platform                   |
| 4. Dockside crane             | 10. Op en over and dockside crane     |
| 5. Floating crane             | 11. Dockside crane and floating crane |
| 6. Derrick and dockside crane | 12. Derrick and floating crane        |

(1) Copies of these documents, reproduced with the authorization of Mr. H. K. J. MELESSEN and the "Revue de la Navigation Fluviale Européenne", are attached.

(2) "Administration et Exploitation Portuaire" Eyrolles Editeur PARIS



Annexe 1				
RAPPORT DE TRAVAIL				
NAVIÈRE / CABOTEUR		DATE :	Début à heures	
Chargement : 1	1/	2/		
Déchargement : 2	sur/ex :		emballage (laisser en blanc)	
3/				
article :				
4/ A		B		
méthode de travail arrimeur :		matériel auxiliaire à bord :		
C		5/		
matériel auxiliaire sur quai :		outillage arrimeur :		
6/ REPARTITION DES EQUIPES		7/ A Contrôle :		
SUR LE PONT				
Chef d'équipe		B		
Conducteur de treuil		facteur permettant une économie de travail :		
Conducteur grue de bord		C		
Préposé pesage		facteur retardant le travail :		
DANS LE NAVIRE		poids moyen par élinguée :		
Ouvrier de cale		nombre de colis par élinguée :		
Ouvrier à autre emplacement				
Conducteur élévateur à fourche		8/ Conditions météo changements à		
Réparateur		A B C		
A L'EXTERIEUR ( DU NAVIRE )		heure		
m.o. allège		heure		
m.o. caboteur		heure		
m.o. chaland ponté		heure		
SUR LE QUAI		9/ TEMPS d'ARRÊT		
préposé au crochet		Code	Nombre d'ouvriers	de (h) à (h) (laisser en blanc)
m.o. sur wagon ouvert				
m.o. sur camion ouvert				
m.o. sur wagon fermé				
m.o. sur camion fermé				
conducteur chariot/grue mobile				
m.o. hangar				
conducteur diable				
conducteur chariot plat				
grutier				
à heure				
à heure				
à heure				
à heure				
10/ A		B		C
Nombre d'élinguées :		Nombre de pièces		total brut : kg
11/ A		B plancher de		C emplacement de
Cale :		chargement :		D degrés de
				difficultés :
12/ Observations sur le chargement :		fin à heure		
BRUT :		REMARQUES PARTICULIÈRES À METTRE AU VERSO		
ARRÊTS :				
NET :				
		Contrôleur	Code	Paraphe chef contrôle
(laisser en blanc)				

13. Open over and floating crane
14. Deck crane
15. Heavy machinery appliances
16. Floating dam
17. Ditto with top rigging
18. Heavy crane
19. Elevator
20. Remote control deck crane
21. ....

#### 4. B — On board auxiliary equipment

1. Fork lift truck
2. Roller conveyor
3. Assembly conveyor
4. Conveyor belt(s)
5. Hand truck

#### 5. — Stevedore Equipment

1. Endless rope strap
2. Single strap
3. Steel strap
4. Knotch strap
5. Chain sling
6. Sling or cable hooks or clips
7. Yoke
8. Net

#### 6 — Distribution of the teams

In the blank column, indicate the additional personnel, if necessary. Also mention the controller(s) or the sorter(s).

#### 7. A — Control

1. Unsorted
2. Checking in the hold
3. Sorting and checking in the hold
4. Checking on deck
5. Checking in sheds/on wharf
6. Checking and sorting in sheds/on wharf
7. Measuring
8. Weighing
9. ....

#### 7. B — Labour savings factors

1. Merchandise on pallets or slings
2. Transfer of merchandise to pallets or slings
3. Merchandise partially placed on pallets or slings

(Mention on reverse side the partially unpacked sling loads)

#### 8. — Weather Conditions

##### A. Humidity

1. Dry

##### 2. Foggy

3. Drizzly

##### 4. Squall

5. Rain

##### 6. Snow/Hail

6. Platform truck
7. Electric elevator
8. Manual elevator
9. Deck tractor
10. ....

#### 4. C — Auxiliary equipment on wharf

1. Fork lift truck
2. Wagon mounted crane
3. Travelling crane
4. Hand truck
5. Platform truck
6. Tractor
7. Tractor(s) with trailer(s)
8. ....

9. Post pallet
10. Container (wood or metal)
11. Platform scales
12. Tweesprong
13. Viersprong
14. Hook — Pallet with double wings
15. Miscellaneous equipment
16. ....

4. Partial transfer or merchandise to pallets or slings
5. ....

#### 7. C — Factors delaying the work

1. Carrying on board
2. Carrying from the ship
3. Cutting and discharging
4. Putting in bags
5. Picking up
6. ....
7. Placing on deck
8. Sewing
9. Transferring sling loads on other pallets
10. Placing sling loads in other sling loads
11. ....

**B. Wind speed**

1. No wind
2. Light wind
3. Moderate wind
4. High wind

**C. Temperature**

1. Hot
2. Normal
3. Cold
4. Frost

**9. — Stoppage**

- |   |   |
|---|---|
| 1. Opening and closing the holds                                | 18. Power failure   |
| 2. Ditto steerage   | 19. Waiting for lighter/deck barge/coaster                          |
| 3. Ditto cold-storage room                                      | 20. Waiting for truck/wagon   |
| 4. Ditto water-tanks  | 21. Waiting for crane/crane operator                                |
| 5. Mooring and unmooring  | 22. Waiting for the team/ replacing team                            |
| 6. Change in team formation                                     | 23. Waiting for load  |
| 7. Procurement of cargo-handling equipment and cranes           | 24. Waiting for orders  |
| 8. Additional adjustment of cargo-handling equipment and cranes | 25. Waiting for mooring equipment                                   |
| 9. Unloading before reloading and/or reloading                  | 26. Waiting for fork lift trucks and other transportation equipment |
| 10. Removing dunnage wood, and unloading                        | 27. Deck barge hauling off/ lighter/ coaster hauling off            |
| 11. Cleaning  | 28. Crane hauling off   |
| 12. Restowing   | 29. Ship hauling off  |
| 13. Dunnage   | 30. Bunkering and supplies  |
| 14. Separation  | 31. Waiting following an accident                                   |
| 15. Rain  | 32. Coffee break  |
| 16. Crane breakdown   | 33. Snack   |
| 17. Tackle breakdown  | 34. ....  |

**10. — Number of items**

Mention the number of items as indicated by your control. For the pallets and the packages, indicate the number of unit loads.

**11. — Stowage Location****A. — No. of hold in Roman figures****B. — Loading platform**

P — Pont (Bridge)

EP — No entrepont (Steerage)

CI — Cale inférieure (Lower hold)

**C. — Position in the hold**

1. Framing
2. Lower decks
3. Lower decks and framing
4. Cold room and refrigerated room

**D. — Degree of difficulty**

1. Normal
2. Hard
3. Very hard (give reason)
4. 2 teams in the hold
5. 3 (or more) teams in the hold

5. Refrigerated hold and cold-storage hold
6. Water tanks
7. Locker
8. Alleyway

**12. — Observation on shipment**

- |                             |                       |
|-----------------------------|-----------------------|
| 1. Packaging breaking up    | 7. Damage — dry goods |
| 2. Badly sewn packaging     | 8. Damage — liquids   |
| 3. Badly tied packaging     | 9. Faulty partitions  |
| 4. Packaging releasing dust | 10. Faulty marking    |
| 5. Packaging not damp-proof | 11. Tarred packaging  |
| 6. Sticky packaging         |                       |

**Particulars**

Indicate on the reverse side the data not shown in preceding columns.

# Port of New York Improves Service

## The Port of New York Authority

In May, 1970, the Executive Director of the Port of New York Authority, Austin J. Tobin, established an interdepartmental Port Service Improvement Committee for the purpose of investigating and developing practical improvements of service in the Port of New York.

The Committee consists of A. Lyle King, Director, Marine Terminals (Chairman), Roger H. Gilman, Director, Planning & Development, and Clifford B. O'Hara, Director, Port Commerce. The Manager of the Committee is Townsend M. Lucas. The working arm of the Committee consists of staff members drawn from the participating departments.

Many of the factors affecting service in the Port of New York reflect great changes in technology and

operating methods which have occurred in recent years. Although the New York-New Jersey Harbor has been a fore-runner in innovative cargo moving methods, this advantage could be diminished as other ports develop their capacity to compete technically. In order to retain a healthy, competitive position, improved service and efficiency in the movement of cargo is essential.

Uncoordinated systems in the interchange of freight between trucks, pier, steamship company and customer are among the major problems affecting ocean transportation today. This applies both to the physical transfer of cargos as well as the associated documentation.

The Port Service Improvement Committee has undertaken a number of important projects dealing

with these problems. First, was the development of a Standard Delivery Order to be used by all parties involved in import cargo in the Port of New York. Many of the errors of documentation occur because of the lack of information or incomplete documentation relating to importation of goods. The Committee has been able to convince truckers, customs brokers, steamship lines, and the Bureau of Customs that decided advantages could be obtained if a standardized form was introduced. The Committee has received strong support from the industry and plans to have this standard form in general use by the first of the year.

In addition, the Committee has prepared a step-by-step procedure showing the responsibilities of each party involved in the importation and exportation of cargo. The Guide is printed in key colors which makes it attractive and allows for easy reading. This device has also received wide attention and the initial supply was completely exhausted.

In terms of long range communication improvements, the Committee has tackled the problem of rationalizing the use of electronic data processing equipment in New York's maritime trade. On December 9, the Board of Commissioners of the Port Authority approved a \$120,000 contract for the retention of a consulting firm to investigate the situation and to develop an appropriate "master" plan for the integration data in the Port.

Finally, the Committee is undertaking the development of a computerized simulation model of a container terminal. The model will be used for operational planning as well as physical planning of future facilities. Work has already commenced on the development of this model and the Committee anticipates having it in operation in late 1972.



The members of the Port Service Improvement Committee (left to right) Roger Gilman, Director of Planning and Development, Townsend Lucas, Manager of the Committee, Lyle King, Director of Marine Terminals and Committee Chairman, and Clifford O'Hara, Director of Port Commerce confer on strategy for improving future cargo movement through the Port of New York.

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See diagrams in the following pages 19 (Export Guide), 20 (Import Guide) and 21 (Port of New York Delivery Order).



# Export Guide

Port Service Improvement Committee  
The Port of New York Authority



Cargo moves on paper!

The part you play is shown in the following steps.

<b>Shipper</b>	acceptance by ocean terminal.	<b>14</b> Checks driver's papers: ✓ Dock Receipt ✓ Permits
	<b>8</b> Obtains Dock Receipt from forwarder or other representative to accompany cargo.	<b>15</b> Calls driver for unloading.
	<b>9</b> Contacts terminal operator to make appointment for special handling or equipment, if required, at least 24 hours before delivery.	<b>16</b> Assigns driver a checker and an unloading spot.
<b>1</b> Prepares Domestic Bill of Lading for movement of cargo to pier, and sends copy to his forwarder in New York, along with packing list.	<b>Forwarder</b>	<b>Driver</b>
<b>2</b> Checks Bill of Lading: ✓ number of packages ✓ marks and numbers ✓ description of cargo ✓ foreign destination ✓ gross weights of each package shipped ✓ local party to be notified		
<b>3</b> Marks cargo plainly, to show: • gross and net weights • cubic measurement • foreign destination • identification marks • country of origin		
<b>Motor Carrier</b>	<b>10</b> Provides Dock Receipt and special permits, if any, to delivering motor carrier.	<b>17</b> Unloads his vehicle (using extra pier labor is optional, at rates specified in the Terminal Conference tariff.
	<b>11</b> Checks Dock Receipt for completeness: ✓ name of shipper ✓ name of vessel ✓ ports of loading and discharge ✓ number and type of packages ✓ description of cargo ✓ gross weight, dimensions, and cubic measurement of each package ✓ marks and numbers ✓ shipper's export declaration number, if required.	<b>18</b> Obtains signed copy of Dock Receipt, and receipt for extra labor, if used.
	<b>Driver</b>	<b>Terminal Operator</b>
<b>4</b> Secures interchange agreement with steamship company on containers.	<b>Driver</b>	<b>Driver</b>
<b>5</b> Accepts cargo for transit to the Port of New York.		
<b>6</b> Advises freight forwarder or shipper's local representative of cargo's arrival in New York.		
<b>7</b> Obtains the following information from forwarder or representative: • name of vessel • sailing date • pier number and location • location of any special permits needed to clear hazardous or oversize cargo for	<b>12</b> Moves his truck on line upon arrival at pier.	<b>Terminal Operator</b>
	<b>Terminal Operator</b>	<b>21</b> Forwards Dock Receipt to steamship company.
	<b>13</b> Issues pass to driver at gate house.	<b>Steamship Company</b>
		<b>22</b> Issues Ocean Bill of Lading to shipper or his agent.

Import/Export Guide (this and the following pages) outlines the procedures of international trade. Copies may be obtained from Mr. Robert Unrath, The Port of New York Authority, Room 1548, New York, New York 10011.



Cargo moves on paper!

The part you play is shown in the following steps.

## Steamship Company

**1** Notifies consignee two days prior to ship's arrival.

**2** Provides freight release to terminal operator.

## Broker

**3** Obtains customs release, freight release, Department of Agriculture clearances, etc., before contacting motor carrier.

**4** Forwards to motor carrier an original of the Domestic Bill of Lading and an Original Delivery Order, which authorizes pick-up of import cargo.

**5** Checks Bill of Lading for completeness:  
✓ number of packages  
✓ description of cargo  
✓ marks and numbers  
✓ inland destination  
✓ gross weights of each commodity shipped  
✓ consignee

**6** Checks Delivery Order for completeness:  
✓ forwarder's name  
✓ shipper's name  
✓ ultimate consignee's name  
✓ motor carrier making pick-up  
✓ vessel  
✓ arrival date  
✓ voyage number  
✓ ocean bill of lading number  
✓ pier number and location  
✓ marks and numbers  
✓ number of packages  
✓ description of goods  
✓ gross weights  
✓ legible signatures

**7** Guarantees with terminal operator loading charges and demurrage.

## Motor Carrier

**8** Secures interchange agreement with steamship company on containers.

**9** Ascertains expiration of free time and availability of cargo for pick-up before dispatching driver to pier.

**10** Provides driver with original and copy of Delivery Order before departure for pier.

**11** Contacts terminal operator to make appointment, if required, at least 24 hours before pick-up.

**12** Checks Bill of Lading and Delivery Order for completeness, as above.

**13** Dispatches truckman to the pier.

## Terminal Operator

**14** Issues pass to driver at gate house.

**15** Checks Delivery Order for completeness and legibility, as above.

**16** Verifies motor carrier's credit rating for loading charges.

**17** Makes arrangements for payment of demurrage, if any has accrued.

**18** Directs driver to pier customs office.

## Customs

**19** Verifies driver's papers against pre-lodged customs permits.

**20** Stamps Delivery Order or tally sheet as cleared.

## Terminal Operator

**21** Calls driver for loading.

**22** Assigns checker and loading spot.

**23** Loads cargo onto vehicle with pier personnel.

**24** Retains original Delivery Order.

## Driver

**25** Assists in and/or supervises loading of his vehicle.

**26** Signs tally and loading ticket after loading is completed.

**27** Reports back to delivery office, if required.

**28** Retains copy of Delivery Order.

**29** Surrenders gate pass at gate house.

## Motor Carrier

**30** Advises broker of completion of cargo pick-up.

Order No.	ID/Entry No.
Free Time Expires 5 p.m.	Our Ref. No.

Firm Name  
Address  
Telephone Number

## Port of New York Delivery Order

Port Of	<b>New York</b>	Date	Country of Exportation
Vessel or Carrier	Voyage No.	(Expected) Date of Arrival	Period (From-To)
To Be Entered in the Name of (Consignee)		Port of Lading	B/L No.

Quantity Marks and Numbers	Description of Packages and Goods/Gross Weight	Tally
<div style="font-size: 4em; transform: rotate(-15deg); opacity: 0.3;">SAMPLE ORIGINAL</div>		

Delivery Clerk:	Please Deliver to:
-----------------	--------------------

Special Instructions:
-----------------------

Ultimate Destination (City and State)
---------------------------------------

Freight Release ____/____/____ Date	Customs Permit Lodged at Pier _____ Attached _____	Demurrage Paid/Guaranteed By Through ____/____/____ Date	Loading Charges Paid/Guaranteed By
---	--	--	---------------------------------------

LEGIBLE SIGNATURE

Delivery Clerk certifies above goods delivered  Signature _____ Date ____/____/____	Receiving Carrier, hereby acknowledges receipt of above  Signature _____ Date ____/____/____
Customs Officer (If Verification Is Required in Accordance With TD 71-39)  Signature _____ Date ____/____/____	Company/Broker Authorizing Pick-up  Signature _____ Date ____/____/____

Standardized Delivery Order which the Port Service Improvement Committee is encouraging New York maritime interests to adopt.

# PLA Future Plans

## News from PLA

London, 17th January: — Mr. John Lunch, Director-General of the Port of London Authority, has sent a letter (copy attached) to all 8,700 employees of the PLA today. In it he said that "the total trade of the Port will increase—but the number of berths and people handling this trade will be much fewer than in the past. This re-shaping is essential for the Port to grow in strength. And when it is complete our Port will give a more secure and worthwhile career to all who work in it than has seemed likely in recent years".

PLA's plans for re-shaping the Port for customer requirements in the years ahead remain substantially unaltered. However, with the increasing change to containers and other modern methods it will be necessary in 1972 to speed up the implementation of the plan and to increase the planned reduction in manpower. The letter explains why PLA intend to reduce their employees by some 2,000 in 1972 instead of the 1,200 forecast last year. This will continue to be done in consultation with the Trade Unions.

Since late 1967 PLA have reduced their employees from over 12,500 to 8,700 without industrial unrest. The Director-General is confident that with the continued co-operation of all concerned, the 1972 reduction to 6,700 will be achieved.

As part of the re-shaping, there will be a further closure of 10–15 conventional berths in 1972 beyond those already announced.

There are plenty of reasons for encouragement as is evidenced by the following examples, which Mr. Lunch gives in his letter:—

### Tilbury

- \* PLA container berths are gaining new business through their well-earned reputation for efficiency and reliability.
- \* the grain terminal has had its best year ever.
- \* you will have read of the successful OCL operation at their container berth.

- \* recently announced West African Terminal plans show how conventional general cargo is going to be efficient and profitable when handled in modern ways.

### The Upper Docks

- \* have gained the 1972 New Zealand apple and pear contract after a successful 1971 operation of direct delivery to road.
- \* the new service for exporting caravans and importing cars has been very encouraging.

### The River

- \* PLA have signed a contract with Lykes bringing their 'lash' ships to London shortly.

### Oil

- \* recent announcements mean that by the mid-1970's London's crude oil imports should more than double.

Between mid 1971 and mid 1972 the staff at PLA central headquarters will have been reduced from over 800 to less than 200, with management devolution, relocation and elimination of posts. The sale of the Head Office buildings, which this has facilitated, has given added strength to PLA finances.

PLA are confident for the future Port of London and see it growing in trade and strength—handling a growing volume of traffic through fewer berths with fewer men and lower overheads.

### To All Port of London Authority Employees

I would like you to know from me the outline of what the PLA has to do in 1972, with our future plans in mind. Let me start by setting out the main points.

### Main Points

- speeding up previous plans, for reasons explained below.
- therefore need for greater manpower and conventional berth reductions in 1972 than previously forecast.
- pensions from 50 for staff leaving on severance.
- good opportunities for trade growth.
- but revolution in cargo handling means more traffic through

### fewer berths with less people. Why the Plan is Being Speeded Up

Basically the PLA plans for the next five years follow the lines presented by my predecessor in 1970 and by me in 1971. In April 1971 I forecast that by 1975 the PLA's total traffic would be 25% more with one third less people. That is still about right.

But we must speed up the implementation of this plan in 1972 because:

- conventional cargo shipowners are re-arranging their movements to carry more cargo per vessel faster than we foresaw.
- world trade, particularly in general cargo, has been below the level we anticipated last April. This is affecting other ports in Britain and on the Continent. When recovery comes, the growth is likely to be more in containers than in conventional cargo.

For both these reasons we therefore need fewer berths for more cargo.

### Effect of Speeding Up the Plan

We need to reduce the PLA's conventional general cargo facilities by some 10 to 15 berths in 1972 beyond the closures already announced. That is, instead of the 70 conventional berths that I forecast we would need by the end of 1972, we now judge we shall need only 55 to 60 berths. Looking ahead, the former estimate of 54 such berths by 1974/75 becomes about 45.

At the same time, to make ourselves more competitive we must continue the drive to reduce overheads. This includes completion of the re-organization of our central headquarters and dock headquarters as well as re-arrangements everywhere to ensure that we have the right manpower—and no more—to do the job.

In April 1971 I forecast a reduction of 1,700 in PLA personnel by the end of 1972, 1,200 of which were during 1972. I now estimate that we shall need by the end of 1972 about 6,700 people—a reduction of some 2,000 during the year. This is a large number but to keep it in perspective over 1,600 people left the PLA in 1968.

A reduction of this size means many of the PLA's good workers leaving us in addition to those retir-



ing normally for age and other reasons. I am very conscious of the human problem this creates. We shall do our best to help.

From Monday, 17th January 1972 the age at which staff may leave the PLA with pensions under severance terms is reduced from 55 to 50. The voluntary severance scheme will, of course, be available to all sections of the PLA's staff wherever there is a surplus.

Discussions are taking place both locally and nationally, with the object of achieving, through the Dock Labour Board scheme, arrangements for the reductions in registered dock workers that are necessary.

#### **What Are Our Aims for the Future?**

In brief our aim is more trade through the Port of London. We shall achieve this if we provide the right facilities and if we operate them with maximum efficiency. Through this we shall improve our profitability—which is essential if we are to find the new money to finance new developments that will make London the best of ports in the future.

There are plenty of reasons for us to feel encouraged. Here are some examples:

##### **Tilbury**

- PLA container berths are gaining new business through their well-earned reputation for efficiency and reliability.
- the grain terminal has had its best year ever.
- you will have read of the successful OCL operation at their container berth.
- recently announced West African Terminal plans show how conventional general cargo is going to be efficient and profitable when handled in modern ways.

##### **The Upper Docks**

- have gained the 1972 New Zealand apple and pear contract after a successful 1971 operation of direct delivery to road.
- the new service for exporting caravans and importing cars has been very encouraging.

##### **The River**

- PLA have signed a contract with Lykes bringing their "lash" ships to London shortly.

##### **Oil**

- recent announcements mean that by the mid-1970's London's

# **Mozambique Harbours**

Extracted from

## **"Mozambique Harbours and Transport"**

### **Panorama of Transport**

The economic infrastructure of Mozambique, concerning communications, has always benefited to a great extent by the irregularity of its long coastline. This has allowed the establishment of seaports for its own use, that of neighbouring countries of Southern Africa and also in its relationship with lands of other continents.

Thus, coastal and long distance shipping came into existence, which met the requirement of the several periods of its history, and considerably promoted the economic development of the vast Portuguese territory of the East Coast of Africa. This began, naturally, from the coast, and gradually spread inland with the use of rivers and the opening up of tracks through impenetrable jungle to the main production areas and markets. Particularly noticeable, are the activities established by the Portuguese settlers along the Zambezi River. Settlements and market fairs were found-

crude oil imports should more than double.

The Government's decision on a deep water seaport at Maplin is still awaited—we are cautiously optimistic. Meanwhile we are reviewing our plans for riverside facilities at Tilbury.

### **Challenge and Opportunity**

As I said last April the years ahead will be difficult until the revolution in cargo handling has worked its way through. 1972 will be as challenging as any we have experienced. But if through the co-operation of all concerned we can manage our affairs right in the Port of London in 1972 I believe we shall be well placed to reap the rewards of trade growth in the future. The total trade of the Port of London will increase—but the numbers of berths and people handling this trade will be much fewer than in the past. This re-shaping is essential for the

ed, and the heart of the African hinterland was penetrated, as far as the regions that comprise today Rhodesia, Zambia and Malawi—not to mention the famous expeditions from coast to coast—bringing, in this way, the primitive inhabitants of those far distant lands into contact with Western civilization.

This was the panorama of the harbours and transport which for centuries made up the infrastructure of the economy of Mozambique, and which did not require greater development because the world at that time was not able to absorb greater quantities of African raw materials then exported.

In the middle of the 19th Century, however, traction by steam power appeared on the scene, coinciding in Africa with the discovery of gold in the Transvaal, situated to the west of Mozambique, and in the zone of British influence in Central Africa (today Zambia, Rhodesia and Malawi) to the West of the central part of our territory. As these developments did not permit methods

Port to grow in strength. And when it is complete our Port will give a more secure and worthwhile career to all who work in it than has seemed likely in recent years.

I want to thank you all for your help and co-operation in 1971 which has made possible the achievements I have described, and to give you encouragement for the future. You know my belief that it is most important for everyone who works for the PLA to know what is likely to happen and why. Only in this way can each of us contribute our best to the PLA's success. I therefore hope you will study this letter carefully and give it much thought.

The PLA management will, as always, consult the trade unions, port users and other port employers on precise measures to be taken.

John Lunch

Director-General

18th January, 1972



ing countries, especially the Republic of South Africa, Rhodesia, Malawi and Swaziland, whose services attract mainly the fast traffic of passengers, air freight and mail.

This network of communications, served by these four means of transport—rail, road, shipping and airways—constitute, therefore, a system that up to now has fully met the various requirements, offering economic advantages to the commodities which make up the traffic of Mozambique and of its neighbours.

This does not mean that the idea of connecting the different systems has been abandoned. On the contrary, the future connections have already been studied and justified by the development of the interior of Mozambique.

#### **Mozambique harbours, railways and transport administration**

With the exception of sea-borne traffic, which is operated by private shipping lines based in Portugal and in this Province, all the other means of transportation are almost totally operated by the State, through a department having autonomous administration called the Mozambique Harbours, Railways and Transport Administration in Lourenço Marques, which since its inception in 1933 has proved itself efficient, dynamic and competent.

We said "almost" because there are a good number of road motor services and air-taxi services operated by private enterprises, involving a total mileage of reasonable significance.

Having in this way analyzed the general panorama of communications from the point of view of transportation, which is the one that can be observed in a quick glance at the map of Mozambique, let us now examine these transport systems in detail.

#### **Harbours**

The Administration directs the ports of Lourenço Marques, Inhambane, Beira, Quelimane, Nacala, Porto Amélia and Mocimboa da Praia.

The 1969 Report reveals that in this year 4023 vessels called at these ports, having handled a loading and unloading traffic of 16,504,648 tons of goods.

# ***Traffic Increased in 1971 at Port of Montreal***

## **National Harbours Board of Canada**

December 16:—The total volume of cargo handled at the Port of Montreal during 1971 will exceed by a comfortable margin the last ten year average of 22.3 million tons and should reach 24.3 million tons at the closing of the present navigation season.

This was disclosed by the Montreal Acting Port Manager, Mr. N. Beshwaty, during a press conference held at the local port authority headquarters, on December 16, 1971.

According to estimates, total cargo tonnage will be maintained roughly in the same proportions as last year with an increase of 250,000 tons in general cargo which should account for 4.7 million tons, while the bulk cargo category at 19.6 million tons will decrease by about 1.5 million tons.

Commenting on the performance of the bulk cargo category, the Acting Port Manager indicated that grain

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The highly efficient port of Lourenço Marques, described in detail in a similar booklet of this kind, received in 1969 the call of 2005 vessels and handled a total import and export traffic of 12,661,205 metric tons of cargoes, including ores.

The port of Beira, second in importance, handled in 1969 2,969,291 metric tons of varied import and export cargo to and from 1243 merchant vessels. In comparison with the 1965 figures, there was a drop of 785,549 tons, the adverse factor being the blockade imposed by Britain on Rhodesian bound traffic through the port, a natural gateway to that country.

The Port of Nacala, also described in detail in a similar booklet handled in 1969: 520,554 tons from 341 mercantile vessels.

Inhambane handled 8648 tons. Quelimane 216,197 tons, Porto Amélia 107,202 tons and Mocimboa da Praia, which began operating in May 1969, handled, 21,554 tons.

for export will show a drop of 3 million bushels to reach 155,000 million bushels and petroleum products which accounted for 9.4 million tons last year, should total 8.5 million tons.

The main components of bulk cargo by order of importance were: petroleum and petroleum products, grain, metallic minerals, non-metallic minerals, coal and coke, sugar, salt, other liquid bulk and other dry bulk.

Containerized cargo has again registered a substantial increase and it is estimated that for the year under review more than 86,750 loaded containers will have been handled with a tonnage of 1.2 million tons, compared to 64,625 units last year and a tonnage of 901,000 tons.

The number of passengers who have passed through the port was 49,320 against 46,677 last year and this slight increase is due, according to Mr. Beshwaty, to the increased popularity of inland and foreign cruises. This upward trend should continue during 1972, as a result of the recent announcement of increased service by the addition of a new passenger liner and additional cruise ship.

Despite a record severe winter, navigation during the first three months of 1971, has met with new success and 287 ships called at the Port of Montreal, compared with 263 during the corresponding period last year.

In his closing remarks Mr. Beshwaty indicated that as a result of its activity, the Port of Montreal injects in the economy of the metropolis and its region, an amount of approximately \$250 million and he expressed the hope that the harmonious working relationship which presently prevails between employers, employees, port users and representatives of the port authority, will con-

**(Continued on Next Page Bottom)**

# 1970—A Record Year for British Ports

## Increase in Goods and Passenger Traffic

Traffic through British ports in 1970 reached a record level of 346.6 million tons. Over 206 million tons of this was crude oil and petroleum products—also a record.

These figures are given in the latest edition of the National Ports

tinue to improve.

### Modernization and Improvement of Port Facilities

During 1971 an amount of \$3.5 million has been spent towards modernization, improvement and maintenance of port facilities.

These funds have been earmarked for the implementation of the following projects:

1. Construction of Longshoremen Hall at Section 73;
2. Construction of a restaurant adjoining the Longshoremen Hall at Section 49;
3. Construction of Rest Room for Railway employees at Section 73;
4. Construction of Shed 73;
5. Construction of an office for the Truck Control No. 2 at Section 50;
6. Construction of truck loading platforms at Sheds 14 and 41;
7. Improvement to open space and roadway lighting;
8. Fencing of harbour property;
9. Paving at Sections 76-77-78;
10. Extension of railway lines at Shed 73 and Sections 76-77;
11. Paving at Sections 92 and 93;
12. Installation of fenders at Section 77;
13. Purchase of trucks, salt spreaders and police patrol cars;
14. Installation of anti-explosion equipment in Grain Elevators;
15. Purchase of mechanical equipment for the Cold Storage Warehouse, the Fleet and road network.
16. Construction of a loading ramp for the installation of a Roll-on/Roll-off Terminal at Section 12.

Council's *Digest of Port Statistics\**, published today. The Council first published the *Digest* six years ago, when the annual tonnage passing through the ports was just under 300 million. At that time, in 1965, 229,000 ship arrivals were recorded. Last year the corresponding number was down by over 2,000, at 227,683, despite the increase in tonnage.

The Council said today that these comparisons illustrated clearly the modern trend to use large ships in virtually all trades, and the consequent requirement for ports to concentrate activity at fewer, high-throughput berths where the larger, more expensive ships can be turned around as rapidly as possible.

A record number of passengers also passed through British seaports in 1970—11.5 millions, compared with just over 7 millions in 1961. By far the busiest passenger port is Dover (5,029,000), followed by Harwich (1,232,000) and Southampton (1,009,000). The *Digest* also gives details of all passenger traffic, by sea and air, in and out of the United Kingdom. This total was over 33 million in 1970, having grown from just over 14 million in the ten years 1961 to 1970.

The *Digest* gives details of traffic between Britain and the main trading areas overseas. Traffic with the Common Market countries totalled 36.1 million tons in 1970, compared with 28.1 million tons in 1965. Of the 1970 total, 23.7 million tons was imports, including 14.6 million tons of fuels, and 12.4 million tons exports (including 5.8 million tons of fuels). Ports most heavily engaged in traffic with the Common Market were London (8.5 million tons); Tees and Hartlepool (3 million tons); Manchester (3 million tons);

Immingham (2.4 million tons); Southampton (2 million tons); Harwich, Hull and Swansea (each 1.5 million tons) and Forth (1.4 million tons).

Traffic between Great Britain and other main trading areas is given as follows: India and the Persian Gulf, 61 million tons (including 59.7 million tons of oil); Spain and the Mediterranean, 37.7 million tons (including 33.5 million tons of fuel, mainly oil); Scandinavia and the Baltic, 34.7 million tons; Africa, 19.3 million tons; Canada, 11.3 million tons; South America, 10.7 million tons; U.S.A. 8.8 million tons; Eire, 7.8 million tons; Australia, 4.1 million tons; Central America and West Indies, 4.1 million tons; Far East, 2.6 million tons; and New Zealand, 1.1 million tons.

All British ports with an annual traffic in excess of 5 million tons are listed below. The amount of oil which is included in each port's total is given in brackets.

London	56.1 m.	(29.3 m)
Milford Haven	40.6 m.	(40.6 m)
Liverpool	28.9 m.	(14.2 m)
Southampton	27.2 m.	(25.3 m)
Medway	26.2 m.	(23.6 m)
Tees and Hartlepool	22.2 m.	(13.0 m)
Immingham	21.6 m.	(13.8 m)
Manchester	15.2 m.	( 9.5 m)
Clyde	14.6 m.	( 8.5 m)
Forth	8.1 m.	( 4.2 m)
Swansea	7.7 m.	( 5.4 m)
Hull	7.1 m.	( 2.3 m)
Tyne	7.1 m.	( 1.4 m)
Bristol	6.5 m.	( 2.8 m)

A comparison between the latest figures with those in the first issue of the *Digest* reveals the spectacular growth of the port of Immingham, on the south bank of the Humber. Traffic through Immingham in 1970 totalled 21.6 million tons, including 13.8 million tons of petroleum, 3.3 million tons of coal, 2.1 million tons of ores and scrap, and 1.4 million tons of various manufactured goods. In 1965 Immingham's total traffic was no more than 5.9 million tons; of this, 1.8 million tons was coal, 1.7 million tons oil, and nearly 2 million tons were basic materials, including ores and scrap.

As a supplement to the *Digest* a series of tables on port finance is provided. These are on lines similar to those published last year, but covering a wider range of ports.

\*Digest of Port Statistics 1971, published by the National Ports Council, 17, North Audley Street, London W1Y 1WE. Price £2.25 net.

# Orbiter Probe

## IAPH News :

### Travelers

A port study team composed of three officers of East African Harbours Corporation, Dar-es-Salaam, Tanzania, arrived in Tokyo Saturday, January 8 and stayed for 9 days. They were Mr. M. H. Mitoko, Assistant Financial Adviser, Mr. G. D. N. Shoo, Management Accountant, and Mr. K. K. Budhwar, Research & Development Office.

On Monday, January 10 evening, Japan Port and Harbour Association invited the team to a tempura dinner at Matsuyama Restaurant, Azabu, Tokyo, where Dr. Chujiro Haraguchi, president, Dr. H. Sato, Director-General (Deputy Secretary General, IAPH), and Dr. Ryokichi Amano, Director represented the host Association. Mr. Toru Akiyama, IAPH Secretary General was also invited.

Eager in pursuit of the subject of port cost accounting, the team visited the Ministry of Transportation on Monday, January 10 and had scores of questions answered by a specialist. The team visited the Port of Tokyo on Tuesday, Yokohama on Wednesday, and Kobe on Thursday. At all these ports the team kept on asking questions on port pricing details.

### Container Committee

The meeting of the Committee on Containerization will be held in Antwerp, Belgium Monday May 8 and Tuesday May 9, according to a cable from Mr. Ben E. Nutter, Chairman of the Committee, received by the Secretary General recently.

### Large Ships Committee

The meeting of the Committee on Large Ships was held from December 6th until 8th, 1971 in

Gothemburg, Sweden.

Those present:

Mr. S. Axelsson, Chairman, Sweden.  
Mr. J. P. Davidson, Clyde Port Authority, Scotland.

Mr. F. L. Dixon, Standard Oil Company, U.S.A.

Mr. H. Ekwall, Gränges Shipping, Sweden.

Capt. R. Maybourn, BP Tanker Co., Ltd., U.K.

Mr. J. E. McGuire, Saxon Marine Services Ltd., U.K.

Mr. K. E. Naumann, (for Mr. Westendorf) Port of Hamburg, Germany.

Apologies were received from Mr. P. Bastard, Mr. A. M. Eschbach, Dr. T. Hida, Mr. R. T. Lorimer, Capt. A. V. Pearson, Ir. F. Posthuma, Dr. H. Sato, Mr. G. Tsuboi and Mr. H. Westendorf.

The Committee wants to meet again on September 25, 1972 somewhere in the Far East.

### Col. Earle Retiring

London, 31st December:—At the last meeting of the ICHCA Executive Committee, it was announced that the Secretary General, Lt. Col. Charles Earle, would be retiring on 1st June 1972. All members of the Executive present at the meeting expressed their sense of shock and regret at this news and testified to the excellent service given to the membership worldwide during the 10 years that Charles Earle has been with the Central Office. (ICHCA Press Information)

### "Industrial World Ahead"

New York, N.Y.: — President Richard Nixon will address the first evening session of the White House Conference, "The Industrial World Ahead—A Look at Business in 1990". This meeting will take place in Washington, D.C. on February 7,

1972. Secretary Hodgson will address the opening session Monday morning. Secretary Stans will address the adjournment session on Wednesday, February 9, 1972.

More than 1500 decision-makers from all parts of the nation are expected to attend the conference. Presidential invitations have been sent to the chief executive officers of the "Fortune 750", plus carefully selected cross sections of medium and small businesses, labor organizations, national association, presidents of many universities, and deans of schools of business administration. In addition, Governors of the 22 largest industrial states some students and interested leaders of our private enterprise system have been invited by the President to attend the White House Conference, February 7 to 9 in Washington.

One important aspect of the White House Conference will be discussions and exhibitions of our pending "energy crisis" which is expected to become critical in the seventies. This is substantiated by a massive report being prepared for the Maritime Administration by Soros Associates, Consulting Engineers of New York. Some details of the study and recommended solutions to the pending "energy crisis" will be included in a 20' x 30' exhibit jointly sponsored by the Maritime Administration in Washington, and by Soros Associates. A seven by twelve foot model of a contemplated offshore terminal system for large ships will be part of the exhibit.

The impressive list of some twenty five exhibitors includes: Alcoa, AT&T, Bell Aerospace, Brown & Root, Hughes Aircraft, N.A.S.A., Raytheon, U.S. Department of Transportation, Westinghouse, Whirlpool, American Society of Mechanical Engineers, American Society for Testing and Materials, Forest Products Laboratories, General Motors, Litton Industries, Newport News Shipping, Olin Corp., and PPG Industries.

The White House Conference speakers list is practically a Who's Who of United States industry and includes:

Dr. Willis Harman, Director of Educational Policy, Stanford Research



Mr. Roger O. Beauchemin, above, was elected Vice-Chairman of the Port of Montreal Authority, it was announced on December 20, 1971 by Mr. J. M. Chabot, Chairman. Mr. Beauchemin is a Consulting Engineer and a partner in the Montreal consulting firm of Beauchemin, Beaton, Lapointe. (N.H.B. Montreal Harbour News Release)

Mr. Herman Kahn, Director of Hudson Institute (Croton-on-Hudson, N.Y.)  
 Dr. Walter Hoadley, Executive V.P., Bank of America, San Francisco  
 Mr. Arjay Miller, Dean, Graduate School of Business, Stanford  
 Mr. Simon Ramo, Vice Chairman, TRW, (California)  
 Mr. Max Ways, Member, Board of Editors, *Fortune* Magazine, N.Y.  
 Mr. Elisha Gray II, Chairman of the Board, Whirlpool Corp.  
 Mr. W. M. Batten, Chairman of the Board, J.C. Penney Company  
 Dr. Weldon B. Gibson, Executive V.P., Stanford Research Institute  
 Mr. Richard H. Holton, Dean, School of Business Administration, Univ. Calif.  
 Mr. Howard W. Johnson, Chairman of the Board, MIT  
 Dr. Joseph L. Fisher, President, Resources for the Future, Washington, D.C.  
 Mr. Robben Fleming, President, University of Michigan  
 Dr. Robert D. Helsby, Chairman, N.Y. Public Employment Relations Board  
 And, in addition to the above, Presi-

dent Nixon will address the first evening session at which more than 2,000 industry, educational and political leaders are expected to be in attendance. (Soros Associates)

## New Container Service

Baltimore, Md., December 23:—The Port of Baltimore's ninth all-container service is scheduled to begin on December 23, with the maiden voyage arrival of the M.S. *Atlantica Genova*, a new 14,000 ton, 700 container capacity vessel of Atlantica Line, a joint venture of Hansa-Fassio Lines.

The new Mediterranean service will sail directly from Baltimore fortnightly for the ports of Genoa, Naples, Leghorn and Marseilles, according to officials of United States Atlantica Containership Agencies, Inc., the line's U.S. general agents. Their ships will use the Maryland Port Administration's modern Dundalk Marine Terminal, Baltimore's most extensive container facility.

In early January, the *Atlantica Genova* will be joined in the new service by her sister ship, *Atlantica Livorno*, both having 20 knot service speeds. The new ships are fully containerized with no shipboard cranes. Both 20 ft. and 40 ft. containers will be available to shippers in closed or open top designs.

The *Atlantica* Line has opened a Baltimore office at 1006 Court Square Building and appointed Frank W. Pickell as their local container manager. John T. Clark & Son of Maryland, Inc. has been named stevedore. (News from Maryland Port Administration)

## Appointments

Baltimore, Md., December 30:—For the first time since it was created in 1956, the State agency promoting and developing the Port of Baltimore has a new Director of Engineering.

Robert L. Nelson, a Baltimore engineer for 25 years, has been appointed to the top engineering post at the Maryland Port Administration, effective January 3, 1972. He succeeds Dr. Walter C. Boyer, the first Director of Engineering at MPA.

For many years now Dr. Boyer has served in the dual capacity of

Deputy Administrator and Director of Engineering. With the appointment of Mr. Nelson, he is now free to devote his full attention to overall MPA engineering and operations. As new director of engineering, Mr. Nelson will report directly to Dr. Boyer.

A native of Syracuse, New York, Mr. Nelson brings a background of extensive engineering experience and knowledge to his new position.

A holder of a Bachelor of Civil Engineering degree from Cornell University, Mr. Nelson served as a lieutenant in the Army Corps of Engineers from 1943-46. From 1947-1960, he worked as a structural engineer for the J. E. Greiner Company, Inc., a major Baltimore engineering consultant firm.

During the 1960s, Mr. Nelson served as a promotional engineer with the Portland Cement Association and the last eight years with The Arundel Corporation, also of Baltimore, as concrete operations manager.

During his 15-year term as MPA's Director of Engineering, Dr. Boyer was responsible for about \$70 million worth of port construction. According to current projections, the new head of engineering will be responsible for more than twice as much construction during the next ten years.

A registered professional engineer in Maryland and Ohio, Mr. Nelson, 50 years old, lives with his wife and younger son in Lutherville, Maryland.

MPA also announces the appointment of a new editor for its monthly publication, the *Port of Baltimore Bulletin*. He is Thomas B. Johnson, a graduate of the University of Maryland's Department of Journalism.

Prior to joining MPA's editorial staff, Mr. Johnson worked in the public relations department of the Western Electric Company's Baltimore Works and also as a copy editor on the staff of the *Wall Street Journal*.

Mr. Johnson is a native of Washington, D.C. and lives with his wife in Riverdale, Maryland. (News from Maryland Port Administration)

## Full Container Service

Houston, Texas (Special): — Houston has been chosen the only U.S. Port for the new, direct, full container service of Seatrain Lines between the Gulf and northern Europe and the first vessel, the VISURGIS, will discharge and load here on its maiden voyage January 26th.

This is the second major steamship company within a week to include Houston as a principal Gulf port in its plans for the new-concept shipping of containers and barges aboard ship. The COMBI Line, composed of Hapag-Lloyd and Holland America Lines, announced January 16th Houston would be a major Gulf port for its barge-carrying vessels when they begin arriving in June.

The Seatrain announcement was made by Thomas F. Cermack, assistant vice president of Seatrain's container division, who is in Houston to open the company's office and arrange for the new service to begin. John Bollin will be in charge of the office as Houston marketing manager.

"This is tremendous news for the Port of Houston and gives us our first direct full container service to any foreign ports" said George W. Altvater, executive director of the Port. "This will be a great boon to our customers and shippers throughout the vast hinterland we serve and to the trade in general", he added.

The Port of Houston is the only port in the Gulf with not one but two container cranes in operation. The Seatrain service will use the port's brand new \$1.5 million container crane which has just gone into service on Open Wharf 29. It is a mobile unit and can service ships anywhere from Open Wharf 23 through Wharf 31.

Lying immediately behind these wharves is the Port Authority's new million dollar container marshalling yard, which is also unique in the Gulf.

Seatrain Lines is a full container service developing the container concept, according to Cermack. The line also operates out of East Coast ports and Puerto Rico, and plans to

operate soon from the West Coast to the Far East.

Houston presently has container service to Europe and elsewhere but either on a trans-shipment basis from East Coast ports or on vessels that carry both container and general or "break-bulk" cargo.

The VISURGIS, which can carry 209 of the 20-foot long containers, will be followed on February 10th by Seatrain's new TRANS IDAHO which is a larger vessel carrying 481 of the 20-foot units.

The vessels have a speed of better than 18 knots and make the trans-Atlantic run between Houston and northern Europe in 13 to 14 days. Ports of call in Europe are Bremerhaven, Germany; Rotterdam, The Netherlands, and Greenock in the United Kingdom.

Seatrain has opened offices on the first floor of the World Trade Building, 1520 Texas Avenue. (Port of Houston News Release)

## LASH Service

Houston, Texas (Special), January 16:—Houston has been chosen as one of three U.S. ports to receive the giant new LASH (Lighter Aboard Ship) vessels of the COMBI Line, a combination service of the Hapag-Lloyd A.G. and Holland America Line.

The announcement came from Biehl & Co., U.S. general agents for the COMBI Line who will maintain the operations control center for the COMBI LASH service at its Houston office.

The first vessel, the BILDERDYK, is expected in Houston in early June at the new Barbours Cut Terminal which the Port Authority is building especially to handle such giant vessels.

"This is great news for us at the Port Authority", Port Executive Director George W. Altvater stated. "It clearly proves the need for our Barbours Cut facility and all construction and dredging is right on schedule to be ready to handle the BILDERDYK when she arrives."

The BILDERDYK was launched at Hoboken, Belgium, in November and is the first of two vessels which will be in the COMBI service to Houston. The other is the MUNCHEN which will begin service here

in September.

Each ship will carry up to 83 lighters and each lighter will have a capacity of 370 tons and will serve as a detachable cargo shell. A 510 ton travelling gantry crane will load and unload the barges over the stern of the mother ship in a maximum time of 15 minutes each.

Beginning in March barges will be available to load cargo at seaports and intercoastal and inland locations prior to the arrival of the BILDERDYK.

The BILDERDYK is 875 feet long and 43,000 tons deadweight and along with the MUNCHEN will also call at Savannah and New Orleans on the service to the Gulf and South Atlantic. In Europe the service will call at Rotterdam, Bremerhaven, and Sheerness in the U.K.

The lighters or barges can reach points of origin or destination on or near navigable waters on the Mississippi, Missouri, Ohio, Tennessee and Arkansas River systems in the United States, and on the Rhine, Weser Schelde and Thames River systems in Europe and the U.K. Direct shipments on the U.S. intercoastal waterways from Brownsville, Texas, to Apalachicola, Florida, and from Jacksonville, Florida to Wilmington, North Carolina, are possible.

Biehl & Co. stated that in addition to the BILDERDYK and MUNCHEN LASH service, COMBI Line will continue to offer frequent sailings to Europe from Houston and other Gulf ports with break-bulk ships and container service. (Port of Houston News Release)

## Supertanker Service

Long Beach, Calif.: — Atlantic Richfield Company's newest supertanker, the 70,000 ton Arco Prudhoe Bay, arrived at the Arco Terminal in Port of Long Beach recently on its maiden voyage to enter regular service bringing Alaskan oil to California.

The 810-foot vessel features the most modern safety and ecology systems afloat, including a \$1.25-million onboard sewage disposal system which purifies waste water to swimming pool standards before discharge overboard at sea.





Long Beach, Calif., January 11:—Prime Minister Eisaku Sato of Japan has been named an Honorary Port Pilot by the Long Beach Harbor Commission, thus becoming the third head of state to be so honored (President Dwight D. Eisenhower and Emperor Haile Selassie are the others). Pictured making the presentation of a ship clock plaque to Mr. Sato during outdoor ceremonies held near the Queen Mary in Port of Long Beach is Harbor Commissioner James G. Craig, Jr., left. Others in photo are, from left, Long Beach Chamber of Commerce president Don Gill, Long Beach Mayor Edwin W. Wade, Takeo Fukuda, Minister of Foreign Affairs, an American interpreter, and Kakuei Tanaka, Minister for International Trade and Industry. (Port of Long Beach News)

Among other types of environmental equipment aboard is an automated cargo control system to detect and prevent oil spillage during loading and discharging operations and engine exhaust devices designed to minimize funnel emissions.

Named for the exploratory well which led to discovery of the Alaska North Slope oilfield, the Prudhoe Bay is the first of five such ships Arco is building in American shipyards.

With a 60-foot-deep entrance channel, Port Long Beach provides the deepest water berthside of any

U.S. West Coast port, designed to accommodate superships of up to 200,000 tons. (Port of Long Beach News)

### Revenue, Tonnage Up

Los Angeles, Calif., December 29:—Gross revenue, total commerce tonnage, general and foreign cargo, and imports and exports all increased at the Port of Los Angeles in the 1970-71 fiscal year ending June 30, according to the recently released annual report of the Los Angeles

Harbor Commission. The report was submitted to Mayor Sam Yorty by Frank C. Sullivan, Commission president for that year.

Gross revenue to the Harbor Department was up 7.25%—\$16,153,643, compared to \$15,061,951 in the previous 12-month period, with an actual dollar gain of \$1,091,692.

Total all commerce tonnage, the 12-page report reveals, was 27,240,590, compared with a 1969-79 total of 25,937,196, showing an increase of 1,303,394 short tons, or 5%.

Within the total tonnage an in-

crease was recorded in general cargo—all commodities exclusive of petroleum and lumber—with the figure 7,367,723 showing a 6% rise over the previous year's 6,963,994 short tons.

Foreign imports increased 22%, while foreign shipments rose by more than 5%. Actual foreign import figures were 6,412,749 over 5,237,385 for the previous period. Foreign shipments were 4,324,220 in 1969-70 and 4,544,478 in 1970-71.

While 100 fewer foreign flag vessels entered the port last year (2,194 compared to 2,294 the year before), the ships were of larger carrying capacities, as evidenced by the rise in total tonnage figures for the harbor.

A reduction of net income by 1%—\$4,945,420 in 1969-70; \$4,875,898 in 1970-71—reflects increased operating and administrative costs, greater depreciation expenses, less interest income from investments, and an increase in interest expense.

During the 1970-71 fiscal year, the Commission approved the sale of \$15 million in revenue bonds at an average interest rate of 5.48%. Both principal and interest on the bonds are being paid out of Harbor Department revenues at no cost to the taxpayers. The bonds provide additional funding capabilities for capital improvements for the port, some of which are already underway.

In a review of facilities developing at the port, a land exchange opened the way for tripling of backland area for one major container terminal, and a new 50-acre terminal was finished and placed in operation. Expansion of still another existing terminal was begun and design work was finalized for construction in the near future of a LASH (lighter aboard ship) terminal.

The land exchange between Westoil Terminals Co. and the Harbor Department involved acquisition by the department of a developed 17-acre parcel and the release to Westoil of an undeveloped 26-acre area. A \$1.85 million payment of Westoil represented the difference in property values plus the cost of relocating Westoil facilities from the 17-acre plot. With the exchange made, the Harbor Department can now add another 120 acres of back-



Fred Crawford, assistant general manager of the Port of Los Angeles, second from right, is shown presenting a plaque to Captain I. Miyamasu, master of the M/V Asia Maru, on the ship's first visit to Los Angeles Harbor. The huge 40-ton container crane at Los Angeles Harbor's East-West Container Terminal provides the background. From the left are: John W. Zundel, district manager, Williams, Dimond-Rountree Agencies, Inc.; Takeshi Chijiwa, Los Angeles representative, Mitsui O.S.K. Lines, Ltd.; Captain Miyamasu; Crawford and K. Takezawa, chief engineer of the ship. The Asia Maru, one of the latest Japanese container ships, called at the Port of Los Angeles on her maiden voyage. The vessel is co-owned by Mitsui O.S.K. Lines, Ltd. and Yamashita-Shinnihon Steamship Co. Williams, Dimond-Rountree Agencies, Inc. are U.S. Pacific Coast general agents for Mitsui O.S.K. Lines, Ltd., while Lilly Shipping Agencies represent Yamashita-Shinnihon Line. (Port of Los Angeles)

land and 1,700 feet of wharf to its East-West Container Terminal in West Basin, thus expanding the terminal to handle five ships at a time.

Early in 1971 the Matson Container Terminal was opened at a cost of \$10 million for the ultra-modern 50-acre complex of land and buildings. The facility, operated by the Matson Navigation Co., features inventory control, computer calculations of ship stability, and the capacity to handle two specially-built container ships at once with Matson's giant 400 and 360-ton cranes.

In a \$2.9 million expansion program at Overseas Shipping Company, phase one was completed in which \$700,000 was spent for wharf modification to support the company's second container crane.

Phase two involves the filling-in and paving of Slip 230 to add about seven acres of usable land space to Terminal Island, some of which will be used by Overseas as backland for their expanding container operations.

Other projects reported for the year included final design work for a LASH terminal, where huge barge-carrying ships can unload either containers or lighters in the world's newest cargo-shipping concept; engineering feasibility studies for the planned Fish Harbor Marina; near-completion of designs for a new \$5.5 million sewer system for the port; and backland improvement for Berth 216 on Terminal Island. (Port of Los Angeles)

## Second Container Terminal

New Orleans, La., January 25:—The Board of Commissioners of the Port of New Orleans has taken action to move ahead promptly on construction of the second full container berth at its France Road Container Terminal.

Port Director E. S. Reed, at a meeting of the Board, stated that the berth and its container crane will be open to all steamship lines offering full containership service in the port. Construction bids will soon be solicited, and work on this berth (designated Berth 5) is expected to get underway by May of this year. The wharf will be 700 feet long by 100 feet wide, and there will be 40-foot wide approach ramps at each end. Like berth Number 1, this will be a heavy-duty wharf, with container crane rails and provisions for railroad tracks.

Also in May, the Board will receive bids for erection of a high-speed container handling crane at Berth 5. The crane will have an outreach of 113 feet and a lift capacity, is estimated at \$5 million.

The port has already initiated preliminary development of back-up land to serve Berth 5. The area will include a container marshalling yard and a consolidation shed. The work is expected to be completed at the same time that the wharf is completed—in July of 1973.

Selection of the Berth 5 site allows for eventual expansion in each direction. The berth will be located adjacent to a barge slip and could be used in conjunction with barge loading facilities, should it prove desirable.

The 280-acre France Road Container Terminal site is located at the junction of the Mississippi River-Gulf Outlet and the port's Industrial Canal. The \$64 million, nine-berth project is a crucial part of the port's 30-year, \$400 million CENTRO-PORT development plan. Facilities such as this one are designed to accommodate an expected 135 per cent increase in cargo tonnage by the year 2000. A substantial portion of the port's general cargo tonnage is expected to be containerized by that time.

Construction of this second fully equipped container berth is expected to meet the needs of several major shipping lines which have indicated interest in serving the Port of New Orleans with high-speed, full container vessels in the near future.

Berth 1 of the terminal will be operated by Sea Land Service for its container service. (Port of New Orleans)

## Ship Services Directory

New York, Jan. 19:—The 1972 edition of the *Port of New York Steamship Services Directory* has been issued by the Port Authority for use by importers, exporters, freight forwarders and other business organizations and government agencies.

The 16-page Directory, published annually since 1955, lists the names, addresses, telephone numbers and pier locations of 179 steamship lines and their agents offering regularly scheduled services from the New Jersey-New York Port on international, intercoastal and coastwide routes. It also contains names, addresses and pier locations of the Port's terminal operators and a listing of world ports served by the Port of New York.

Copies of the new Directory may be obtained without charge from the Authority's Port Promotion Division, 111 Eighth Avenue, New York, New York 10011, or from the Port of New York Trade Development Office at 170 Broadway, New York, New York 10038. (News from The Port of New York Authority)

## Honors, Medals, Awards

New York, Nov. 23:—The Port of New York Authority's highest honor for outstanding service, the Howard S. Cullman Distinguished Service Medal, was awarded today to Matthias E. Lukens, Deputy Executive Director of the bi-state agency, and to A. Lyle King, Director of the Authority's Marine Terminals Department.

At the same time the Port Authority Commissioners awarded 13 Distinguished Service Medals, five Police Commendation Medals, and four Commendation Medals. Six

Executive Director's Awards of Achievement, and an Executive Director's Unit Citation Award were also awarded at ceremonies held at the Statler-Hilton Hotel at 3 o'clock this afternoon.

The medals were presented at the direction of the Port Authority Board of Commissioners by Executive Director Austin J. Tobin before an audience of Port Authority staff, and families and friends of the award winners.

## 2 Engineering Contracts

New York, Dec. 9:—Two construction contracts totaling \$2,011,789 for the continuing development of container facilities at the Elizabeth-Port Authority Marine Terminal were awarded by the Port Authority according to an announcement today by Chairman James C. Kellogg, III, following the monthly meeting of the Commissioners of the bi-state agency.

A \$1,387,789 contract for construction and installation of 2,350 feet of crane rails and foundations for Berths 94 and 96 was awarded to Donald E. Hernly, Inc. of West Amityville, New York. The work, which will begin immediately and be completed next June, includes the construction of piles, installation of concrete support beams and placement of double rails for the 30-ton cranes.

The second contract for \$624,000, covers construction of an entry complex at the new 87-acre facility to be operated by Maher Stevedoring Co., Inc. at Berths 80 and 82 for the container services of Zim Lines. It was awarded to Triton Construction Corporation of Jamaica, New York. The entry complex will include an inspection building, scales, booths and canopies. Construction will begin immediately and will be completed in mid-1972.

The Elizabeth-Port Authority Marine Terminal is being developed at a rapid pace by the Port Authority to handle the steadily increasing volume of goods shipped in containers to worldwide markets. When completed by the end of 1972, the Elizabeth terminal is expected to handle some nine million tons of containerized cargo annually. Sup-

ported by vast container marshalling areas and cargo distribution buildings, the Elizabeth terminal will have over three miles of containership berthing space along the Elizabeth Channel and Newark Bay. (News from the Port of New York Authority)

## Bulk Terminal in Patagonia

New York, N.Y., October 1971:—Plans and specifications have been completed by Soros Associates, Consulting Engineers of New York, for the iron ore pellet loading terminal at Punta Colorada, in the Argentine Republic, at latitude 41°35' south and longitude 65°27' west. This terminal will be used to load the output of the iron mine of Hierro Patagónico de Sierra Grande, which was opened in December 1970 and is being steadily advanced. Ocean-going ships will transport the iron ore pellets to Argentine steel mills located in the Río de la Plata basin.

The terminal installations include stockpiling and reclaiming facilities, with a storage capacity of 150,000 tons of pellets, a shiploading station in the open sea approximately 4,000 feet from shore, and a small-boat harbor. The Soros Associates' design for the terminal provides for loading ships in variable orientation. Thus, the ships can always head into the wind and waves for maximum safety, maneuverability, and ease of loading.

The terminal is designed to load bulk carriers with iron ore at the rate of 2,000 tons per hour. The initial production of the pellet plant is 2 million tons per year. Pre-qualification of Argentine and international contractors for the construction of the terminal, is also being completed. (Soros Associates)

## ICHCA U.S. Meeting

Oakland, Calif., January 19:—A host of world shipping and transportation leaders will gather in Oakland, Calif. April 20 and 21 for a cargo systems science conference sponsored by the U.S. National Committee of the International Cargo Handling Coordination Association (ICHCA).

"New developments in cargo

handling techniques are changing the distribution systems of cargo and making significant impacts on the world's trade patterns," said Ben E. Nutter, Executive Director of the Port of Oakland and general chairman for the ICHCA conference. "This conference will discuss the challenges posed by these changes and discuss what they mean to the efficient and economical handling of cargo."

The two-day symposium will consist of six panel discussions featuring shipping executives, labor leaders and government officials, several topical addresses, including one by Weldon B. Gibson, Executive Vice President of Stanford Research Institute, a boat tour of Port of Oakland marine terminal facilities and other events.

Discussion topics for the April 20 portion of the event include "Innovations in Marine Terminal Design and Operation" and "New Developments in Refrigerated Cargo Movements." April 21 discussion items are "Air Cargo Intermodal Handling and New Developments," "Load Center/Feeder Systems Port Relationship," "Labor Practices and Port Productivity," and "Improving Interface Between Transport Modes by Precise Research."

The conference will be held at the Hilton Inn in Oakland.

Registration for the symposium is \$36 for ICHCA members and \$48 for non-members.

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

## Second in the World

Oakland, Calif., January 18:—The Port of Oakland continues to rank as the second largest container port in the world, according to survey results published recently by Container News magazine.

Container News compiled the survey material, based on 1970 statistics, from information received from the ports themselves.

The Port of New York, including

its facilities in New Jersey, led the way in containerized shipping with 8.5 million long tons of cargo moving over its docks.

The Port of Oakland was second with 3.259 million long tons, making it the largest container shipping center on the Pacific Ocean.

Other world ports handling more than two million long tons of containerized freight in rank order were Melbourne, Australia, 2.75 million; Rotterdam, Netherlands, 2.26 million; Antwerp, Belgium, 2.216 million; Los Angeles, 2.068 million; Gothenburg, Sweden, 2.030 million; and Yokohama, Japan, 2.001 million.

Oakland became the world's second largest container port in 1968 when initial portions of the mammoth Seventh Street Terminal were opened. Since that time the 140-acre terminal, largest container facility on the Pacific, has been completed and construction of the Middle Harbor Container Terminal has begun.

"When the Middle Harbor construction project and expansion of the contiguous Seatrain Terminal are completed about a year from now, Oakland will have 12 container berths served by 12 container cranes and more than 280 acres of backup space," Port Commission President Y. Charles Soda said. "The combined Middle Harbor complex will give the Port an additional container capacity of two million tons a year. (Port of Oakland)

## Purchase of Piers

Philadelphia, Pa., 11/11/71:—Mayor James H. J. Tate today submitted to City Council an Ordinance authorizing the purchase of Piers 96, 98, and 100 South, located on the Delaware River at Oregon ave., on Philadelphia's waterfront.

The three piers, which are presently owned by the Federal Government, have been declared excess to Federal requirements. The area covers approximately 40 acres and the purchase will cost \$1.9 million. The money has already been set aside by City Council in the 1972 capital budget and has been made available through self-sustaining loans.

In his letter submitting the Ordi-



**UNITY ON CUTTING "RED TAPE"**—Three Pacific Coast transportation executives agreed recently that there was no reason to further tolerate excessive and burdensome documentation procedural demands on international commerce. (Left) John J. Greene, General Steamship Corp., Ltd. vice president and chairman of the San Francisco Marine Exchange's facilitation committee, joined with E. F. Andrus (right), office manager of Sea Land Service, Inc., Oakland, to symbolically remove some of the encumbrance on U.S. foreign trade which is estimated to cost \$6½ billion annually in "red tape" and paperwork expense. F. Peter Gomes (center) of Marine Terminals Corp., San Francisco, joined in the session which resulted in agreement among most Bay Region ports and terminals to adopt by Jan. 1 or shortly afterwards a common format for cargo receiving, patterned on the U.S. Standard Master for International Trade. This layout key in turn has found universal acceptance among European countries as meeting the demands for alignment with the European Economic Community and United Kingdom standards on uniform paperwork. Simultaneously, Greene's Marine Exchange task force revealed that most Pacific Coast ocean carriers and agents were phasing in use of the common format starting on Jan. 1 and continuing through July 1, to achieve similar uniformity in bills of lading preparation and other financial, insurance and even Government documentation applications. (Marine Exchange of the San Francisco Bay Region, 12/14/71)

nance, Mayor Tate said that the purchase of these piers culminates more than 12 years of effort in negotiating their acquisition from the U.S. Government for inclusion in the City's Port development program.

The three piers have been a major factor in the cargo handling of the Port for many years. They are capa-

ble of handling over one million tons of general cargo per year. This capacity would be lost to the Port if it were sold to private industry which could convert them to other than Port uses. (Office of the Mayor News Release, City of Philadelphia)

### Board Chairman

San Diego, Calif., January 4:—

Miles D. Bowler, a member of the San Diego Unified Port District Board of Commissioners assumes the chairmanship January 4. This marks Bowler's second period of service in the post. The Commission chairmanship rotates annually through the seven-man group representing the cities surrounding San Diego Bay.

Bowler has been a Port Commissioner since the UPD was established. He was appointed to the commission on December 26, 1962, by the Imperial Beach City Council. His position was extended in January 1967 and he was reappointed in 1971. His present term expires January 2, 1975.

Bowler has been active in civic affairs since he came to the San Diego area in 1945. He is a member of the Imperial Beach Charter City Council and served as that city's mayor for three and a half years.

Bowler was instrumental in the organization of the Imperial Beach Fire Department and has been actively involved with it for over 20 years now. He has been a trustee of the South Bay Union School District and held directorships of the South Bay Community Center and the Palm City Sanitation District.

According to Bowler, his time as a commissioner has afforded him the opportunity to do something for his fellow San Diego Bay citizens. The well-being of the District is his primary concern. He estimates an average of one day a week devoted to his non-pay role as a commissioner.

He and his wife live at 212 Daisy Street in Imperial Beach. They have three children; Paul, who lives in North Highlands, California; Lee, a San Diego resident; and daughter, Peggy Sammons living in Chula Vista.

Bowler is Vice President of California Marine Constructors, a San Diego firm specializing in wharf construction. (Port of San Diego News Release)

### New Bulk Terminal

Savannah, Ga., January 17:—The first ship arrived today at the Georgia Ports Authority's new \$9 Million Multi-Product Bulk Terminal to load, appropriately enough, Georgia peanuts . . . the first com-



modity to move through the new facility.

The peanuts, nine(9) million pounds of them, destined for Europe, began arriving by rail at the new terminal last week.

The first ship, the M/S HASSELBURG, will load approximately one-third of the shelled nuts, with the balance slated for another vessel later this month.

Mammoth in size, the multi-product storage warehouse is one of the largest wooden structures ever built, covering nearly five acres of floor space under one roof.

The facility provides two ship berths, one for loading, and one for discharging, dry bulk commodities.

The major advance of the new terminal is that various products can be received and stored for later reclaiming and shipment.

The covered storage area provides compartmental areas for some 30 grades of kaolin and numerous other dry bulk commodities.

The facility is equipped with a sophisticated system of conveyors, stackers and reclaimers, which will provide a smooth, swift flow of export materials from rail or truck to storage or shipside. The system can be utilized with imports moving the material from shipside direct to rail, truck or storage.

Maylon Nicholson, of the Georgia Peanut Commission, was on hand for the terminal opening, and said the shipment represents 4,500 acres of peanuts out of 528,000 allotted peanut acreage in the state.

"This new terminal will allow the Georgia peanut industry, the largest supplier in the world, to export more peanuts and make the export market more attractive," Nicholson said.

He said it was "incredible" that nine million pounds of any bulk commodity could be stored under one roof and noted that the HASSELBURG shipment was the first time peanuts had been moved in bulk. (George Ports Authority News Release)

### Mr. McWilliam, Head of Staff

Toledo, Ohio, December 14, 1971:



**BEING AT SEA—EVEN AT DOCK—IS FUN!**—A recent shipboard gala of the San Francisco Marine Exchange aboard the SS Mariposa found (left to right) Sam N. Mercer, Pacific Far East Lines' vice president-passenger, and Mrs. Mercer; George M. Turner, president of P & O Lines USA, and Mrs. Turner, and Mr. and Mrs. Edward D. Ransom—all enjoying themselves. Ransom is president of the Marine Exchange, and presided at the event which was attended by over 200 steamship, government, civic and labor leaders and their wives. (Exclusive to "Ports and Harbors", Marine Exchange of the San Francisco Bay Region, 12-21-71)

—John A. McWilliam, general manager of the Toledo-Lucas County Port Authority, has been appointed to the newly-created position of General Manager and Chief Executive Officer of the Port Authority. Louis C. Purdey, executive director of the Port Authority since 1960, has stepped down as the port agency's top executive to assume the new title of Director of International Relations. The position of Executive Director has been eliminated.

The moves were approved at the Port Authority's December board of directors meeting. Both positions become effective January 1, 1972.

As Director of International Relations, Mr. Purdey will be responsible for Federal, State and local governmental relations of the Port Authority, and foreign customer relations. His activities will also entail participation and interest in national and international associations concerned with the development of waterways, ports and harbors.

In his new post, Mr. McWilliam will become the Port Authority's chief executive while remaining as

the agency's top administrative and fiscal officer. He will report directly to the board of directors on all matters relating to Port Authority activity.

Mr. McWilliam joined the Port Authority in 1958 as staff attorney. He held the position for nine years prior to being appointed manager of development in 1967. In 1968, he was elevated to director of development and remained in that post until his appointment by the board of directors as general manager in January, 1970.

A graduate of Dartmouth College and the University of Toledo College of Law, McWilliam has practiced before the Interstate Commerce Commission, the Federal Maritime Commission and the Federal Maritime Administration. Presently, he is Chairman of the Great Lakes Task Force and first vice president of the American Association of Port Authorities. In the latter position, he automatically is in line for the presidency of that international group next year. (Port of Toledo)

# Port Adelaide Today

By J. R. Sainsbury

Director of Marine and Harbors  
Adelaide, South Australia

(See front cover also.)

Much of the general cargo through Port Adelaide is now carried in modern roll-on/roll-off vessels and this trend will continue.

The latest vessels to call here are three of the Pacific Australia Direct Line which carry their own angled stern ramps and fleet of fork trucks and straddle carriers and can operate at typical general cargo wharves. These are at present the largest of their type, having a length of 653 ft.,

## Grain Loading Record

Toledo, Ohio, December 22, 1971:—An all-time single season grain loading record has been established at the Port of Toledo, according to figures released by the Toledo Board of Trade. A record 91,292,000 bushel total was loaded during 1971 by The Andersons, Cargill, Inc. and Mid-States Terminals, Inc., the port's three waterside grain terminals.

This season tops the port's previous record grain year of 1968 when 87,511,000 bushels were loaded. The 1971 bushel figure represents a 44 percent gain over last season when 63,302,000 bushels were loaded by the three terminals.

For the third year in a row, soybeans led all grains with 49,730,000 bushels handled. Corn and wheat followed with shipments of 37,561,000 and 4,001,000 bushels respectively.

Alfred E. Schultz, executive manager of the Toledo Board of Trade, said that this season's record grain movements resulted from an outstanding Midwest grain production year and a sizable increase in the number of ocean ships calling in the Great Lakes. In 1971, 109 overseas vessels loaded grain in Toledo as compared to only 54 last year. (Port of Toledo)

a breadth of 94 ft. and a capacity of about 20,000 tons of cargo in containers, unit loads and other large pieces. They provide a 3 weekly service between Australian ports and the west coast of North America and share a new berth at Port Adelaide with a recently introduced roll-on/roll-off service provided by the Australian National Line between Port Adelaide and Australian east coast ports.

In addition to the above, a new berth is being constructed for two RO/RO ships of the B.H.P. Company which will begin transporting steel products around the Australian coast late in 1972. These will be the same type as the PAD vessels but not as large, having a length of 590 ft. and a carrying capacity of about 15,000 tons.

Another new RO/RO service began recently between Port Adelaide and Tasmanian ports with the vessel "Mary Holyman" of 350 ft. length and fitted with a stern ramp. Additions and modifications to an existing wharf were made for this service.

Even larger RO/RO vessels with angled stern ramps are likely to commence calling at Port Adelaide later in 1972. These are the five vessels now building for the Scan Austral Line which will provide a two weekly service between Australian and north European ports. They will be a larger version of the PAD type ships and have a length of 682 ft., a 97 ft. breadth and 32 ft. loaded draft. Plans are in hand to modify a berth and storage area at the Outer Harbor of Port Adelaide as an interim measure for these RO/RO vessels.

A scheme is, however, being prepared for a new berth adjacent to the Outer Harbor wharves capable of accommodating both the Scan

Austral vessels and the largest cellular container ships serving Australia's overseas trade. It is planned to equip the wharf with one container crane and large terminal and depot areas. State Government approval of the scheme will be sought soon, following which construction could take 2 to 3 years.

In addition to the above facilities provided for RO/RO vessels, the 7 mile channel leading to the Inner Harbor has been deepened to 30 ft. I.S.L.W. (35 ft. M.W.L.) and its widening to 500 ft. minimum is now in progress. Also a modern passenger terminal is being constructed at one of the Outer Harbor berths.

## Port's New Tender

Melbourne:—The Port of Melbourne has justly earned a reputation as one of the world's safe ports through its unique Port Emergency and Safety Service whose main function is to deal with all types of emergencies within the port boundaries.

Formed during the last war as a safeguard against saboteurs, it proved so successful that the Commissioners of the Melbourne Harbor Trust decided to continue with the service in peace time.

It has found ready acceptance by all branches of the shipping industry and is today an essential service which keeps accidents and disasters down to the bare minimum.

Specialized equipment and appliances are constantly added to the force aimed at increasing the port's safety record.

The Commissioners of the Trust in keeping with this policy have introduced a new all purpose tender to carry every conceivable equipment necessary to handle emergencies within the port.

Known as an Emergency, Salvage and Decontamination Tender, it is the end result of a combined effort by officers and personnel of the Service.

Before construction commenced, suggestions from the staff of the P.E.S. were invited. Drawing and specifications were then prepared under the supervision of the Deputy Chief Officer of the Port Emergency Service, Mr. A. Lord.



The Tender is mounted on an International CM 1510 chassis driven by a 142 b.h.p. six cylinder petrol engine costing \$9,000 with approximately \$6,000 worth of equipment.

The vehicle is fitted with the following:

- Diving equipment including S.C.U.B.A. and hose supplied, breathing sets for five skin divers, together with a 12 volt under water lighting, operated from the tender and supplemented by transformers from normal service lighting.
- All tools necessary for emergency under water work including oxy-acetylene and oxy-hydrogen underwater cutting equipment, while inclusion of underwater compressed air tools and thermic lances are under consideration.
- Two complete chemical suits for surface work operable from self contained or line fed breathing equipment.
- Four two-hour Proto Oxygen sets and sufficient spare cylinders and equipment to allow four men to operate up to six hours each.
- Minimum fire fighting equipment, pending arrival of fire fighting machines.
- Positive Oxygen Resuscitation equipment and Paraguard and normal stretchers for rescue work.
- Full complement of First Aid equipment and Oxygen deficiency, gas detection, and radiation monitoring equipment.
- Rescue lines of all types and hydraulic powered tools.
- A wide range of ladders, and a ½ ton hand operated winch, with a removable twin boom jib with a ½ ton lifting capacity.
- V.H.F. radio and telephones that can be plugged into wharf side connections.
- The tender has been designed to tow a high pressure Air Compressor for recharging diving or breathing apparatus, which is carried on a trailer. This can be connected to any normal electric supply on the wharves.
- Equipped with four flashing visual indicators, two at the front and two at the rear and two tone repeater horn as well as road warning lights for use when the vehicle

is stationary.

- In event of a major incident, the unit may be partially converted into a forward control/communications centre thereby reducing traffic through Head Quarters control. It may further be used for services on site conference purposes for liason. (Melbourne Harbor Trust Port Gazette, December, 1971)

## New Pilot Vessel

Sydney, 11th January:—A new pilot vessel for use at Clarence River will be named at a short ceremony to take place at the Commissioners Steps on the western side of Sydney Cove opposite the main entrance to the Maritime Services Board head office building at 10.30 a.m. on Friday next, 14th January, 1972.

In announcing this to-day, the President of the Maritime Services Board, Mr. W. H. Brotherson, said that the new vessel will be named "Francis Freeburn" to commemorate the name of the first pilot stationed at the Port of Clarence River.

Mr. Brotherson said that the new vessel had been built for the Board by Stannard Bros. Pty. Ltd., at a cost of \$75,000.

It is a steel vessel of 46.6 feet in length, a beam of 16 feet, a draft of 5.5 feet, and is powered by a 12V71 series G.M. engine of 340 continuous horsepower. It has an operating speed of 9 knots.

He said the design of the vessel had been selected by the Board as being eminently suited for the needs of the pilotage work at the Port, as well as the other duties it will perform such as the sounding of the bar, the maintenance of navigation aids in the river and the policing of the Board's Regulations. (The Maritime Services Board of N.S.W.)

## Tragic End of QE

Hong Kong, 10 January:—The 83,000-ton Seawise University, formerly the Queen Elizabeth, capsized at noon today following a 24-hour blaze described as the worst in the colony's maritime history.

The end came just one week before her first sea trials, on completion of a massive six-month refit that cost more than HK\$30 million (£2 million; US\$5.3 million).

Despite the extent of the blaze, of the 300 on board at the time the fire broke out, only 14 workmen and crew members were injured, and none seriously. The largest passenger liner ever built, the Seawise University now rests in 50 feet of water in the northwest corner of the harbour, awaiting a decision on how to salvage her.

The former 'Queen' was purchased in late 1970 by the C.Y. Tung Group for HK\$19.2 million (£1.33 million; US\$3.2 million). Intended as a floating university, she joined one of the largest merchant fleets in the world. The C.Y. Tung Group has almost 100 vessels, totalling more than four million tons. (The Week in Hong Kong)

## Minister's Message

I am glad to note the initiative of the members and staff of the Sabah Ports Authority in producing their quarterly news bulletin entitled 'Berita Pelabohan 2 Sabah.' I understand that this Bulletin is intended to provide information on the port services and facilities available in our ports and port improvements and developments that are planned and/or are being carried out by the Authority, and also to keep the members and staff informed of staff news and general matters which might be of interest to them. I am sure that the Bulletin will be of interest not only to the general public particularly the port users.

We are now in the midst of a revolutionary era in the history of sea transportation, with the introduction and popular acceptance of unitization in its various forms and magnitudes. This revolution calls for active participation and not indifferent response, positive action and not passive reaction. All modes in this transportation chain have to be modernized to adapt to and to take advantage of the revolutionized methods of cargo handling. We in Sabah too are keeping abreast with the new developments in the

transportation industry. We have streamlined our port administration and operations by forming the Sabah Ports Authority. We have adapted our existing port facilities to handling palletised cargo, and we have planned ahead to provide facilities for containerization in the two new port projects that are being implemented at Kota Kinabalu and Sandakan.

With such active participation and modernizing efforts. I am sure the Sabah Ports Authority would be in a good position to provide modern and efficient port services and facilities to all the port users. I am glad to note, indeed, that since its formation in April, 1968, it has achieved and maintained a high level of port operational efficiency. I have confidence that the Authority will attain even greater efficiency, and play an even greater role than before in the field of economic development and progress of the State.

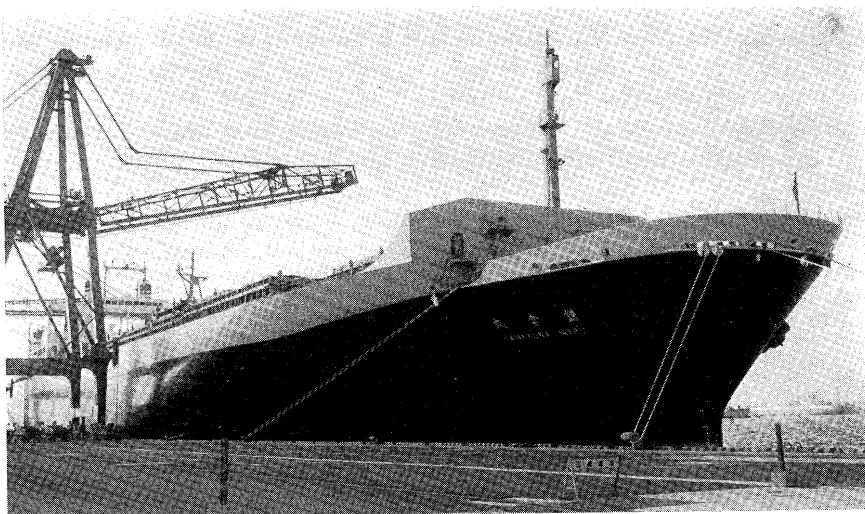
In conclusion, I should like to take the opportunity of this inaugural issue to congratulate the Organizing Committee and the Editorial Board of the "Berita Pelabohan Sabah" on their achievements and to send my best wishes to all concerned for the continued success in their praiseworthy endeavours and future undertakings. Dato Pang Tet Tshung, SPDK Minister of Communications and Works, Sabah

### "Kamakura Maru" in Kobe

Kobe:—The new full-container ship Kamakura-maru left the 3rd container berth of the Port-Island, Kobe Port, for Europe, on December 26, 1971, with approximately 600 containers loaded at this Port. This was in fact the "start" of the Europe-Japan container service.

She was to call at Tokyo, (via the Panama Canal), Southampton, Rotterdam and the final port Hamburg in turn, with the number of days required from Kobe to Hamburg being expected fifty-five for a round trip.

On departure a memorial shield was presented to Captain from Mayor Tatsuo Miyazaki of Kobe and bouquets were handed to Cap-



tain and Chief-Engineer respectively by two Queens Kobe. The Captain was also entrusted with two messages of Mayor Miyazaki addressed to Mr. W. Thomassen, Mayor of Rotterdam, and to Mr. Beter Schulz, Mayor of Hamburg, both of which sincerely hoped further promotion of friendliness as well as development of trade between these Port Cities.

The specifications of the Kamakura-maru are:

Gross tonnage	51,300
Length	261 m
Maximum speed	27 knots
Container loading capacity	

1,840 containers (in terms of 8 × 8 × 20 ft. size)

The owner Nippon Yusen Kaisha

Number of crew 46 persons

Shipbuilder

Mitsubishi Heavy Industries Ltd.

Kobe Dockyard

(News Releases from Port & Harbor Bureau, Kobe City Government)

### Offshore Mooring

New Plymouth:—"The best method of regulating the location, operation, control and supervision of future offshore mooring terminals in New Zealand waters would be to grant harbour boards the right to control foreshores between mean high water mark and the seabed for a distance of ten miles," said Mr. J. G. Boddy, general manager of the Taranaki Harbours Board, in submissions to the New Zealand Ports Authority last month.

The submissions were requested

by the Authority following a suggestion by Mr. Boddy at the August meeting of the Board.

The submissions contended that an offshore mooring terminal was a harbour facility or function, "since the transfer of goods from ship to shore, or vice versa, is at present the primary role of port authorities in New Zealand. In other words, where cargo and ships are involved, control should be exercised by the nearest harbour board. There should be a maritime policy for this subject, finally determined by Government."

The submissions outlined the Taranaki Harbours Board views on such marine policy and dealt in some length with the role of harbour boards' responsibilities in servicing offshore mooring terminals.

Referring to legislation which had a bearing on the matter the submissions referred to the Iron and Steel Industry Act 1959, which vests in the Crown the right to prospect for and mine ironsands in certain areas.

"Harbour Boards throughout New Zealand are not happy with the arrangements entered into between the Government and the Marcona Corporation concerning the export of ironsands from the Waipipi area," said the submissions.

"The knowledge of this Board leads us to believe that the Wanganui Harbour Board has little or no control over many aspects of this particular operation. If this Board's suggestions are implemented the present dissatisfaction could be overcome and harbour boards would have control of all such operations."

It was also proposed that control

of the seabed be given to boards for a distance of ten miles from mean low water mark, and that the necessary amendments be made to the relevant Acts.

The submissions concluded with suggestions for handling vessels in connection with offshore undertakings and urged that such undertakings should be compelled by legislation to make an approach to harbour boards. Disputes should be referred to arbitration. (Taranaki Harbours Board Port News, November)

## Hihiaua Reclamation

Whangarei, N.Z.: — The Northland Harbour Board hopes to proceed this summer with the completion of the reclamation and subdivision of the Hihiaua Block, an area developed by the Board for the extension of Whangarei's commercial centre.

This progress depends on the Whangarei City Council removing an embargo which it placed on the Block in December, 1970, under Section 29 of the Town and Country Planning Act, to "protect" a proposed motorway route.

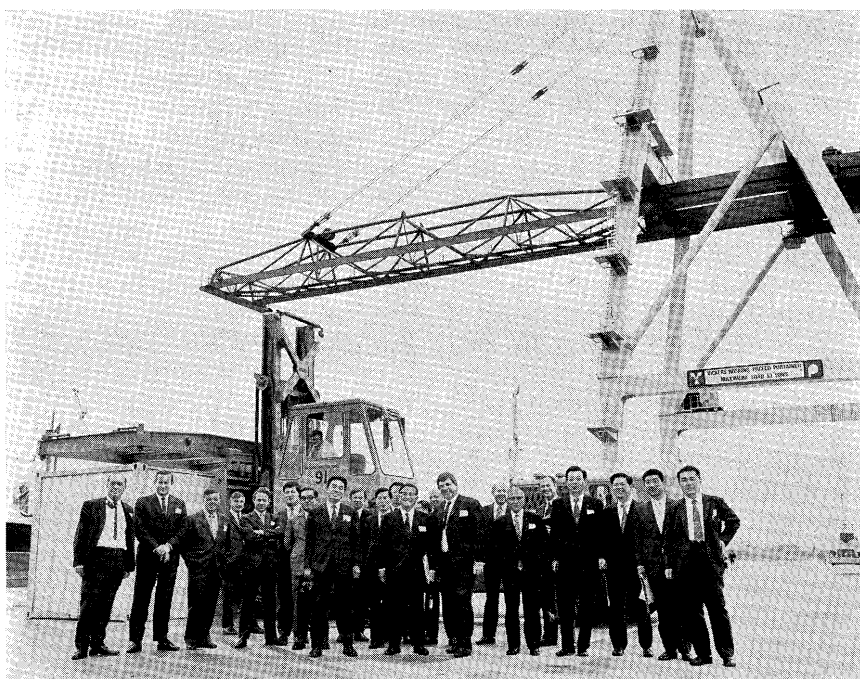
On October 5, four days before the local body elections, the Mayor, Mr. K. Haslett, revealed a new route skirting the edge of the Hihiaua Block, instead of slicing through the block.

The Chairman of the Board, Mr. R. K. Trimmer, described the announcement as a "tremendous victory" for the Board.

Concerned about the effect of the "centre route" on the Hihiaua Block, the Board obtained reports from Murray-North Partners, of Auckland; K. P. Tapper and Partners, of Whangarei; Mr. F. M. Hansen, former Commissioner of Works, of Wellington; and Swan Wooster Engineering Co. Ltd., of Vancouver.

The cumulative effect of the reports, say Board spokesmen, is that a motorway between Limeburners' Creek and Kiripaka Road would not solve the traffic problem of Whangarei's business area.

However, in announcing that the Board would hand over its motorway reports, obtained from experienced consultants, to the incoming



**Auckland:—The Japan Container Association survey team with their New Zealand hosts at the Auckland Harbour Board's Fergusson Wharf Container Terminal. In the centre front of the group are the leader of the team, Mr. Shigeru Watanabe (carrying folder) and the Chairman of the Auckland Harbour Board, Mr. R. W. Carr. (Auckland Harbor Board)**

City Council, Mr. Trimmer said:

"It is not the responsibility of the Northland Harbour Board to solve traffic problems: it is for future City Councils to make such use of these reports in solving the traffic problem as they see fit.

### Hatea bushland

"As the largest ratepayer in the City, the Board feels it is duty bound to say that it does not approve of a motorway, or any other form of roadway, going through the bush of Hatea Valley and it will, at all times in the future, join with other people and institutions in opposing such action." (Points North, November, 1971)

## Japan Day in Antwerp

Antwerp: — On Wednesday 27th October last, a Japan Day arranged by the Port of Antwerp Promotion Association, in cooperation with the Antwerp City Council, was held in Antwerp. This Day aimed at informing and documenting the representatives of subsidiaries, agencies or sister companies of Japanese enterprises in Europe, on the possibilities offered by the Antwerp port in order

to promote the relations between Japan and Belgium/the European Common Market. This event was the summit of the programme for 1971 of the Japan Committee, which for some years is active within the frame of the Port of Antwerp Promotion Association. During the last two years this "Japan Committee" has realized a comprehensive programme with amongst other things a journey of a "Port of Antwerp Mission" to Japan in 1970, the results of which give rise to a follow-up journey, early in 1972. This working group is also involved in an enormous number of visits to Antwerp of groups and delegations from all parts of Japan. Finally, this committee has also taken the initiative of diffusing in Japan and in Europe a newsbulletin, drawn up in the Japanese language.

Apart from a great number of Belgian personalities, the audience also included a representative of the Embassy of Japan in Brussels, the Consul-General of Japan in Antwerp, representatives of Jetro (Japan External Trade Organization), of the Japan Machinery Exporters' Association and of a great

number of Japanese enterprises in Europe, as well as a delegation of the Keidanren (Federation of Economic Organizations) headed by Mr. K. Uemura.

The programme of this Day mentioned an informative session with a slideshow, where the audience was welcomed by Mr. Walter H. Osterrieth, President of the Port of Antwerp Promotion Association.

As lecturers acted Mr. L. Delwaide, Alderman of the Port, who described the present position and possibilities of Antwerp, whereas Mr. A. Scheirs, President of the "Japan Committee" of the Port of Antwerp Promotion Association dwelt on some commercial aspects of the port.

At the end of the event a port inspection was made and the port installations were visited. (Port of Antwerp Promotion Association)

### Change of Address

London:—Please note that on 5th/6th January, 1972 the following organizations:

Dock and Harbour Authorities Association, National Association of Port Employers, National Joint Council for the Port Transport Industry

will be moving to:

3/5 Queen Square, London, WC1N 3AR, United Kingdom.

### New Zealand Fruit

London, 17th January:—London will again be the main port of call for ships bringing New Zealand apples and pears to U.K. in 1972. Agreement has been reached between the New Zealand Apple and Pear Marketing Board, J. Lauritzen Shipowners, Maritime Fruit Carriers & Co. Ltd., London Agents, Finzi, Layman, Clark & Co. Ltd., and the Port of London Authority following a most successful year of operations at India & Millwall Docks in 1971 when 30,000 tons of New Zealand fruit was discharged.

Commenting on the latest development, Mr. Neil Guymer the Board's Manager for Europe said: "Ten years ago we in New Zealand pioneered a method of pre-sorting of fruit cargoes and segregation of different

lines of produce when loading vessels. The basis of this operations was that the planned assembly of cargo offered greater savings by eliminating delays and handling at discharge. This streamlined 'ship to shop' operation enables New Zealand fruit to be on the market within hours of the discharge of the first carton. This simple premise has developed considerably over the years and was further successfully refined in 1971 by the introduction of a shipping service involving the use of fast modern specialist ships with full fruit cargoes. The result of the 1971 season augur well for 1972 and we look forward with confidence to a continuation of this successful partnership."

Mr. William Caunter, Docks Manager, India & Millwall, said: "The close co-operation between those involved has resulted in the opportunity to prove that London once more can give the service its customers require, and it is this service that provides the basis upon which India & Millwall Dock was able to retain this traffic in the face of intense competition from other ports." (News from PLA)

### Tilbury/West Africa

London, 10th January: — The Port of London Authority have decided to apply to the Secretary of State for the Environment, for permission under Section 9 of the Harbours Act 1964, to redevelop the South side of Tilbury Docks (berth Nos: 31-33). The multi-million pound joint project will provide facilities for the UK/West Africa Lines Joint Service, by the construction of a custom-built terminal of approximately 39 acres for the West Africa trade.

For many years the West African trade has been operated from a number of different berths in Tilbury. The scheme provides for all West African services to be operated from one area in the dock. The modern facilities to be provided will enable the Lines to handle a considerable proportion of their export cargo on pallets and offer their customers improved methods of handling imports. It is planned to phase the redevelopment and so maintain

uninterrupted service during the construction staged but it is hoped that the terminal will be fully operational within two years of commencement of building.

The Lines and their agents currently operating from Tilbury in the UK/West Africa Lines Joint Service are:—

Elder Dempster Lines Ltd.  
Palm Line Ltd.  
Guinea Gulf Line Ltd.  
Black Star Line Ltd.  
Nigerian National Shipping Line.  
Agents—Killick Martin & Co. Ltd.  
Leif Hoegh & Co. A/S  
Agents—Brown Jenkinson & Co. Ltd.

(News from PLA)

### Appointment Scheme

London, 3rd January:—Following the successful implementation of lorry appointment schemes for export services operating from the Royal Docks, the Port of London Authority have published a new leaflet giving full details of all these schemes. From January 10th, 1972 all exports for the Royal Docks must be pre-booked.

Some 12,000 copies of the 8 page leaflet are being distributed to port customers and haulage firms as well as trade associations.

Specially designed to assist hauliers and drivers the brochure carries a diagram of the docks showing road routings, lorry parks, refreshment points etc., as well as lists of important telephone numbers and information on how to obtain maximum benefit from the appointment procedures.

Lorry appointment schemes, which are aimed at giving a controlled, regular and speedy flow of cargo into the docks, have proved an outstanding success in the Port of London. Delays and turned-away lorries have been virtually eliminated.

Copies of this brochure are freely available from the Docks Manager, Royal Docks or the Lorry Control Points in the Docks. (News from PLA)

### New Zealand Meat

London, 20th December:—The first application of the New Meat

Handling Code drawn up by the New Zealand Tonnage Committee, in consultation with the Port of London Authority, importers, the New Zealand Meat Producers Board and others, came into operation last week with the discharge of the Zealandic at No. 33 Shed in PLA's Royal Albert Dock. The rate of discharge was doubled.

The Zealandic's coded cargo consisted of 160,332 carcasses and nearly 18,000 cartons—a total of 2,480 tons of New Zealand meat. The discharge rate was about 6,000 carcasses per gang for each working shift.

The ship, owned by Shaw Savill and with Thames Stevedoring (1965) Ltd. as its labour contractors, will now sail on December 23rd/24th—considerably earlier than would have been possible under the old methods.

In effect, the new code, which has also been brought into operation in New Zealand for loading, means that excessive sorting to grades in the ship and on the quay has been significantly reduced and additional delivery bank facilities at the rear of the shed and the co-operation of the hauliers have contributed to this success. (News from PLA)

## Container Record at Tilbury

London, 20th December:—The highly-successful multi-user container berth No. 41/43 Tilbury Dock achieved a new record last week when 2,562 containers were dealt with between ship and quay by the end of the shift 11 p.m., Friday, December 17th.

Among the ships turned round was the ocean going C.P. Discoverer, which discharged and loaded over 800 containers.

Tilbury container berths operate on a year-round 24-hour basis and No. 41/43 Berth expects to exceed 75,000 container throughput this year. The PLA dockers on these berths will have a deserved break this year as no ships are on offer for Christmas Day and Sunday, December 26th, but operations resume on Boxing Day (December 27) at 0700 hours with a full programme of shipping in the final week of the year. (News from PLA)

## Car Imports via London

London, 16th November:—Nearly 400 foreign cars were discharged in the India & Millwall Docks today (Tuesday) representing another major breakthrough for the dock group. The cars were aboard the roll-on/roll-off vessel 'Autoroute', owned by Ugland Management Co. of Norway (London agents: John Williams Son and Sharps Ltd.), and were unloaded at 33/34 Berths, India & Millwall Docks.

The 'Autoroute' is making her

fourth visit to the docks, but on previous trips had only loaded export caravans. With the completion of the unloading of today's consignment of cars she will again take aboard some 160 caravans destined for France.

Car importation on this scale is a new venture for India & Millwall Docks, well placed for the centre of London and for the major vehicle distribution points, and could mark the beginning of a regular service every ten days. At present it is limited to imports from one con-

(Continued on Next Page)

## 1971 Trade Total Highest

London, 26 January:—Over 21 million tons of trade passed through the British Transport Docks Board's South Wales Ports in 1971, giving the the group its highest aggregate for 17 years, the Docks Board announced today.

Total traffic, at 21,375,106 tons, showed an increase of 790,718 tons over the 1970 total of 20,584,388 tons, representing a 3.7 per cent growth in trade.

Inward tonnage, at 12,649,844 tons, was the highest ever handled at the South Wales Ports and exceeded the 1970 total by 987,614 tons. Imported coal was almost entirely responsible for the increase, although there were notable gains in the timber, woodpulp, scrap metal and chemical trades which were partially offset by lower levels of iron ore, iron and steel, petroleum and non-ferrous ores imports.

Outward traffics at 7,829,686 tons fell by 261,964 tons as the result of a decline in coal and coke and petroleum shipments, although a big increase in iron and steel exports did

much to improve the position.

Traffic other than cargo increased by 65,068 tons to 895,576 tons.

Vessels arriving at the ports during 1971 numbered 8,972 with an N.R.T. of 11,600,087 tons compared with 9,463 vessels of 10,721,625 tons in 1970.

Principal variations in trade include:—

### Inward Traffic

#### Increases:

Coal	1,639,277 tons
Timber	58,489 tons
Woodpulp	28,956 tons
Chemicals	23,080 tons

#### Decreases:

Iron Ore	332,807 tons
Iron and Steel	233,014 tons
Petroleum	139,317 tons
Non-ferrous Ores	95,689 tons

### Outward Traffic

#### Increases:

Iron and Steel	467,911 tons
Scrap Metal	37,206 tons
Vehicles	30,796 tons

#### Decreases:

Coal and Coke	575,651 tons
Petroleum	230,175 tons

Trade of the individual ports was as follows:

	1971 Tons	1970 Tons	Variations Tons
Newport	5,867,365	2,965,606	+2,901,759
Cardiff	3,370,352	3,678,149	— 307,797
Barry	1,294,184	1,800,246	— 506,062
Port Talbot	379,737	1,524,792	—1,145,055
Port Talbot Harbour	2,853,215	2,182,999	+ 670,216
Swansea	7,298,424	8,042,113	— 743,689
Penarth	278,828	360,023	— 81,195
Lydney	33,001	30,460	+ 2,541
	21,375,106	20,584,388	+ 790,718

(British Transport Docks Board)

tinental manufacturer, but the Port of London Authority hopes that it will be expanded to cover other overseas manufacturers.

The 'Autoroute' is equipped with a stern ramp which can be adapted to right angles giving flexibility in allocating berths. The cars are driven off the ship by PLA dock workers and then taken by transporter to the distribution centre. (News from PLA)

## Newport Docks

London, 13 January:—The first and only U.K. loading of the computer-controlled side-loading motor vessel "Zaida" (6,300 tons dead-weight) began this morning (Thursday, 13 January) at the British Transport Docks Board's Newport Docks (Mon.)

The "Zaida" is loading 2,750 tons of export tinplate for her maiden voyage to the port of Napier in New Zealand, on completion of which she is due to go into regular service between New Zealand and Japan.

Built for the British India Steam Navigation Company by Swan Hunter at South Shields, the "Zaida" is designed for full unit load operation and can carry 2,310 standard ISO pallets in her holds and up to 56 standard containers on deck. The vessel is also fully refrigerated for the carriage of New Zealand produce. Her two side-ports are equipped with computer-controlled elevators each serving three deck levels and having a capacity of 80 units an hour. Fork-lift trucks are employed on the quayside and in the ship's hold, working in conjunction with the elevators which automatically carry the cargo inboard and are activated by the weight of units placed on them.

The Newport stevedoring operation by the Docks Board involves the loading of 2,750 individual 1-ton bulks (sic) of tinplate with only two gangs and is expected to be completed tomorrow (Friday). Local agents for the ship are Bethell, Gwyn & Co. Ltd. (British Transport Docks Board)

## Hull/Denmark Ferry

London, January:—Following the

completion of satisfactory commercial arrangements with the companies concerned, the British Transport Docks Board have authorized plans for the construction of a new roll-on/roll-off terminal at Queen Elizabeth Dock, Hull, to cater for a service between Hull and Denmark operated jointly by Ellerman's Wilson Line and the Danish company, D.F.D.S.

The estimated cost of the scheme to provide Hull's sixth specialized roll-on/roll-off terminal is in the region of £350,000.

The terminal, which will be sited at the North-East corner of Queen Elizabeth Dock, is scheduled to be operational early in 1973 when a new ferry at present under construction enters the service.

Commenting on the announcement, Mr. J. A. Lacey, Port Director, Humber, said that he was delighted at the successful completion of negotiations for the Esbjerg service from Hull.

"The Docks Board believes that the future of Hull lies in the development of unit load trades to Scandinavia and the near Continent, and they are still confidently investing in facilities to meet the requirements of shipowners who are turning from conventional methods to unit load operations. As Britain enters the Common Market unit load traffic across the North Sea will almost certainly increase, and this is an area of trade in which Hull has been most successful and on which we will be concentrating—last year we handled over a million tons of unitized cargo," Mr. Lacey said.

The design of the new ferry terminal includes the provision of a hydraulically operated two-level shore bridge, measuring about 18 m (59 ft.) long and 4.5 m (14¾ ft.) wide, which will serve two decks of the vessel simultaneously. The bridge has been designed to permit use of the berth by a wide range of roll-on/roll-off ferries.

A storage area of 18,380 sq. m (4½ acres) will be provided and equipped with 30 refrigeration points for the bacon containers which will be carried on this service.

The new service will replace the existing Hull/Esbjerg service which has been operating since May 1971

with a chartered vessel, from temporary accommodation in King George Dock. It is estimated that by 1975 the volume of traffic carried on this roll-on/roll-off service will amount to nearly a quarter of a million tons annually.

With the completion of this terminal the Docks Board will have invested over £3 million in specialized facilities for unit load services at Hull in the last five years. (British Transport Docks Board)

## Mr. Richard Resigns

Rouen:—It is advised to I.A.P.H. that Mr. Maurice Richard, General Civil Engineer, Director General of Port Authority of Rouen, France, ceases his functions at the Port of Rouen on December 31, 1971. From January 1, 1971, Mr. Richard is replaced by Mr. Claude Mandray, Chief Civil Engineer. (Port Authority of Rouen)

## 2 Million Volkswagens

Bremen/Bremerhaven:—The Bremen/Bremerhaven ports which also belong to the top European group as far as automobile handling is concerned and which export the majority of German cars, were able to chalk-up a new record at the beginning of October 1971:— the two-millionth 'beetle' for the USA was loaded by the car-handling plant of the Bremen 'Anker-Schiffahrtgesellschaft'. The first car was loaded 11 years ago on the 7th of December 1960; the one-millionth was lifted on board a transporter five years ago, on the 23rd September 1966. Today the cars run ceaselessly, in a roll-on roll-off procedure, from the quay directly into the ships over their stern and side-ramps. The export and import of motor cars has been on the increase continually over the last few years. The dominating makes, outwards, have been Volkswagen, Mercedes, BMW, Opel and Auto-Union; with a total, last year, of 323,968 vehicles. All the popular American and English types were represented in the incoming movements; since 1971 the Japanese Madsda cars have also been arriving for European receivers via Bremerhaven. (Bremen Air Mail, November)



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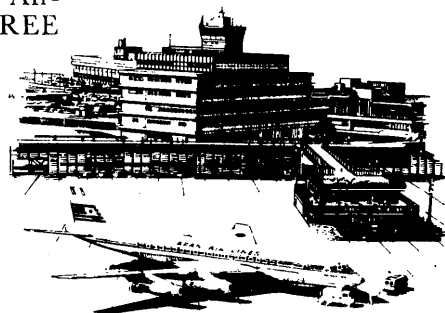
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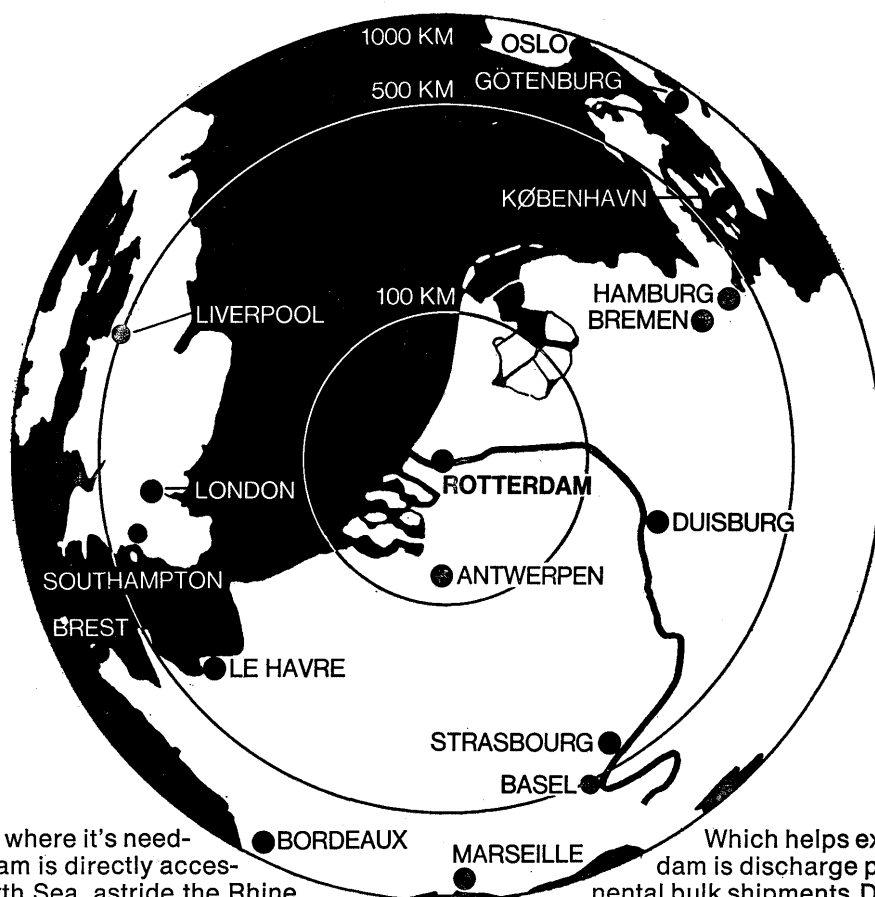


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