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# HARBORS

#### Published by

#### The International Association of Ports and Harbors

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The Cover: Import boom of automobiles at Bremerhaven. Japanese automobiles are being unloaded at the Kaiser Automobile Terminal.

Price US \$3.50 per copy US \$35.00 per year

## The New Red Hook Container Terminal

Atlantic Basin-Brooklyn Another major project undertaken for the Port of New York/New Jersey



**T**hrough the combined efforts of the State of New York, the City of New York and the Port Authority of New York and New Jersey, construction has begun on the 1,000,000 ton capacity Red Hook Container Terminal. Designed with the newest container facilities available, it will provide over 1,200 new jobs, contributing \$13 million to the Port economy.

> THE PORT AUTHORITY OF NY & NJ Marine Terminals Department

## **IAPH** announcements and news

## Invitation to the IAPH Bursary Scheme 1980 – The Gate is now made wider 3-fold –

Mr. J.K. Stuart, Chairman of IAPH Committee on International Port Development, announces the Bursary Scheme for the year 1980 with the conditions given hereunder:

"Thanks to the good cooperation in the form of voluntary donation of dues to the IAPH Special Technical Assistance Fund by those developed port members, the Committee could decide to increase bursary units from 3 to 10 for the next year in belief that this programme of assistance will be a most important step forward in solving the problems held by port personnels in developing countries.

"Those qualified applicants are encouraged to send their entries in accordance with the sample of the application form reproduced hereunder to the Committee Chairman using a standard international letter paper (295 mm height x 210 mm width) within 1980." (TKD)

#### **Conditions for entry:**

- 1. The object of the Scheme is to provide financial assistance towards the cost of sending selected applicants on approved training courses overseas. Approved training courses are, for instance, those available in developed ports as set out in the International Survey of Port Training Facilities and Requirements published by the Committee on International Port Development and distributed to all IAPH Members.
- 2. Subject to the availability of funds, up to 10 bursaries not exceeding US\$3,000 each will be awarded to approved applicants from any developing port in all developing countries in membership of IAPH.
- 3. Applicants, must have been employed in an IAPH member port for at least three years, should not be older than 50 years of age, and must already be employed in a junior or middle management capacity. After completion, the application form, which may be obtained from the Secretary General of IAPH, must be sent to the Chairman of the Committee on International Port Development. The form must include a statement confirming the suitability of the applicant for the course he wishes to attend and indicating the benefit both the port and applicant seek to achieve from the course. The statement should also indicate the applicant's potential for future promotion.
- 4. The application form must be accompanied by a letter from the developed port confirming its willingness to provide the required training and specifying the date of commencement and duration of the course.
- 5. The Bursary Scheme will be open, subject to the availability of funds, throughout 1980 and during 1981 up to the commencement of the 12th Conference. Appli-

cations may be forwarded to the Chairman of the Committee on International Port Development at any time during 1980 and will be considered by him. The decision of the Chairman of the Committee on International Port Development will be final. The decision will be notified to the applicant, his Chief Executive, the Chief Executive of the developed port in which the training is to take place and the President of IAPH who will authorize the Secretary General of IAPH to disburse the necessary funds from the Technical Assistance Fund in due course. Fees payable to the host port authority will be remitted direct and the balance of the bursary after travel costs will be deposited with the host port for the applicants use. The host port/applicant will be required to account for expenditure and to reimburse the Technical Assistance Fund any monies not spent out of the bursary award.

6. After completion of the course, successful applicants will be required to prepare a brief report indicating how they propose to apply the training to their present employment. The report, which must be sent to the Chairman of the Committee on International Port Development within one month of the completion of the course, will be published at the discretion of the Chairman of the Committee on International Port Development, in "Ports and Harbors" magazine. Successful applicants will also be required to obtain and forward with their own report a letter from the developed port giving their opinion of how he has carried out the course and the benefits he has derived from it.

### Application Form for International Association of Ports and Harbors' Bursary

For completion by applicant personally

- 1. Name of Applicant Age
- 2. Port Authority
- 3. Present Appointment
- Educational Qualifications (Please also indicate whether you are fluent in the English, French or Spanish?)
- 5. Professional/Technical Qualifications
- 6. Career History
- 7. Previous Overseas Courses attended
- 8. Course for which application being made (Specify nature of Course, duration and location of host port/college)
- 9. Applicant's reasons for selecting required Course
- 10. Amount of Bursary for which application is made (Particulars of costs should be given in support of the application)

Date Appointed

Travel Costs Course Fees Accommodation and other costs

Total

11. State any other source from which finance for undertaking course will also be obtained and the amount of finance already obtained. (e.g. employing port authority, government, international aid organisations such as UNCTAD, etc.)

#### APPLICANT'S SIGNATURE DATE

Form to be returned with evidence of acceptance by host port/college for specified course to:

Mr. J.K. Stuart, Chairman, IAPH Committee on International Port Development, c/o British Transport Docks Board, Melbury House, Melbury Terrace, London NW1 6JY England.

#### A New Survey Form now in circulation for Container Handling Statistics

Much simplified and reconstructed, a new survey form of IAPH Committee on Containerization, Barge Carriers and Ro-Ro Vessels was distributed to the members on November 13, 1979 via Head Office, Tokyo.

Committee Chairman Lorimer of Auckland Harbour Board is assured that the new survey form will enjoy better response from all port members.

The Committee, under the chairmanship of Mr. R.T. Lorimer, General Manager of Auckland Harbour Board, New Zealand, agreed at the 11th Conference to continue the collection of container handling statistics. It was recommended, however, that the current form, on which returns are made, should be reviewed with the objective of simplifying it and seeking information that would give further options in the analysis of the statistics.

An extensive consultation by correspondence was made between the Chairman and the Committee members up to early August, 1979, before the final product was obtained.

The survey form (See page 9.) with explanatory text follows. (TKD)

#### Chairman's Explanatory Note to CONTAINER HANDLING STATISTICAL RETURN

The Committee on Containerization, Barge Carriers and Ro/Ro Vessels has, since 1975, been developing a statistical return suitable for recording the berth and crane performance details of cellular container ships at container terminals.

The response by Members of the Association has been disappointing. It was felt that two of the major factors limiting Port involement in the survey were the complexity of the information requested and the concern of terminal operators that the information was confidential. The Committee agreed at the 11th Conference that the objectives of the study would remain the same and could be restated as-

- (1) To enable berth and crane <u>performance</u> of various terminals throughout the world to be compared.
- (2) To ensure that there is uniformity of definition.
- (3) To encourage maximum involvement of the ports handling cellular ships.

(4) To achieve the above whilst still preserving <u>confiden-</u> tiality.

With these objectives in mind, the Committee have produced a new data collecting form which requests the basic information in the simplest way, thereby encouraging maximum involvement of the Association's Membership. Ideally the returns should be made quarterly, but if it is convenient for the port to complete the return monthly then do so.

Completed returns should be posted to Mr. R. T. Lorimer General Manager, Auckland Harbour Board P.O. Box 1259, AUCKLAND New Zealand

Each quarter the information will be summarised and made available to participating members through the Secretariat.

It is hoped that members will give their continued cooperation to the next phase of the Committee's survey programme and that the new form will receive added support from those members who have not participated before.

#### Mr. Tozzoli reports on CAORF Symposium

Mr. Anthony J. Tozzoli, IAPH Second Vice-President and Director of Marine Terminals, the Port Authority of New York and New Jersey, wrote to Secretary General recently on the Third Annual CAORF Symposium which was conducted by the National Maritime Research Center on October 15-16, 1979, at Kings Point.

Mr. Tozzoli had one of his staff attend the meeting for him and made this quick report on the high lights of the symposium in time for this issue.

The following is what Mr. Tozzoli says and the contents of a 200-page record of it Mr. Tozzoli procured for IAPH. (TKD)

By way of background, CAORF, stands for Computer Aided Operations Research Facility and involves the use, primarily, of an ultra-sophisticated simulaltor to conduct three basic types of research. The three types are as follows: **Experimentation into Human Performance** – This essentially is an attempt to determine how human abilities (cognitive, perceptual, motoric, and physiological) contribute and interact with other factors (bridge instrumentation, navaids, ship type, environmental and traffic conditions) in determining the navigation of a vessel.

**Modeling Human Performance** – The system which includes man as an element, has been modeled based on how well the parameters defining his actions can be described. The CAORF simulator can accurately plot the ground track of the ship, the timing of each command and change in setting of the control elements can be captured and analyzed, and the test subject's position estimation can be determined by observations during the runs and by discussions immediately after.

**Operations Analysis** – The methodology used at CAORF is similar to the mathmodel tool and has been directly applied to specific problem areas such as Santa Barbara, Valdez, Alaska, Port Arun, Indonesia, and more recently Galveston, Texas. All of these studies were conducted with the objective of safety of entering or leaving a specific waterway with specific types of ships.

(Continued on page 10)

8 PORTS and HARBORS - DECEMBER 1979



The International Association of Ports and Barbors

CONTAINER HANDLING STATISTICAL RETURN

PORT	
TERMINAL	
NUMBER OF BERTHS	

FROM TO

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1014	11-	NU.	
$\Delta r$	71.TT	DC	
Vr c	эгіл	ro i	

NUMBER OF CONTAINERS HANDLED BY BERTH CRANES						
CONTAINER LENGTH	10ft	20ít	30ft	35ft	40ft	Other
INWARD & OUTWARD						
RESTOWS (X 1)						
LAND & RESHIP (X 2)						
NO. HANDLED BY SHIPS CRANE. HOIST OR TRAILER						

TIME IN HO (TO NEAREST 0.1	URS HOURS)
BERTH TIME See Note 1	
See CRANE TIME Note 2	

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REMARKS			
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- Note 1 BERTH TIME is the gross number of hours the vessel occupies the operating berth from time of first line ashore to the time the last line is cast off, calculated on a 24 hour basis without any deductions.
- Note 2 <u>CRANE TIME</u> is the number of hours worked by each berth crane on the vessel from the first movement in each day until the last movement. <u>No deductions for delays</u>, in the case of 24 hour operation of terminal. Total crane time should be calculated on a 24 hour basis i.e. first movement after mooring to last movement before leaving berth.

Post Completed Forms te:

Mr R.T. Lorimer General Manager Auckland Harbour Board C.P.O. Box 1259 Auckland 1 <u>NEW ZEALAND</u>

See "Additional Note" on page 10. -Secretariat

#### (Continued from page 8)

The methods used to conduct the foregoing research utilized extensive simulator capabilities and experimentation was grouped loosely in five main research areas:

Harbor and Waterways Analysis: To address piloting operations in specific harbors and waterways.

Bridge System Design: To address man/machine/equipment concepts and operating procedures on the bridge. Grounding/Collision Avoidance: To address collision avoidance procedures in open waters and navigation in coastal waters.

Ship Control and Maneuverability: To address piloting performance as a function of ship design, aids to navigation, environmental conditions and ship strategies.

Certification and Training Research: To address training methods and technology for all potential bridge watchstanders.

During 1979, 13 experimental projects were run at CAORF in one or more of the five above research areas. These projects cover a broad spectrum of topics most of which are contained in papers presented during the Symposium. As mentioned earlier, we have provided a complete set of these papers.

A discussion of the future of CAORF brought into account this nation's maritime policies which are currently under extensive review by both the executive and legislative branches of government. Recent, as well as pending legislation will inevitably affect and increase the need for this unique facility. The Port and Tanker Safety Act of October 17, 1978 will significantly influence CAORF's research for the next several years. Other aspects of U.S. Maritime Policy which will affect CAORF research include the promotion of a dry bulk U.S. flag fleet, a committment to a fleet rebuilding program, and the emphasis on standard designs advocated in the House of Representatives Bill 4769.

#### (Continued on page 24)

#### **Recent SDR unit**

Movement of the SDR unit against the 16 currencies in the SDR system during the period of October 4-15, 1979, is as shown below.

#### Visitors :

Mr. A.S. Mayne, Chairman of Port of Melbourne Authority and the First Vice-President of IAPH visited the Head Office on October 10, 1979, and was met by Secretary General Hajime Sato. Mr. Mayne was on his way home from Oakland, U.S.A. where he had attended the Container Terminals Operators Conference.

Mr. Martin C. Pilsch, Jr., Port Director and Mr. Francis J. Sheehan, General Sales Manager, Massachusetts Port Authority, accompanied by Mr. Y. Matano, Manager MASSPORT's Tokyo Office, visited Head Office on October 17, 1979 and were received by the Secretary General and his staff. The party was in Japan visiting shipping companies for promotion of their new port facilities.

Ing. Juan F. Valera and Ing. Hector Lopez Gutierrez, Coordinacion de Proyectos de Desarrollo, Mexico, visited Head Office on October 30, 1979. The party was in Japan for the purpose of inspecting the port facilities at Kashima Industrial Port.

Mr. Robert D. Kleist, Director of Trade Promotion, Port of Los Angeles, accompanied by Mr. Katsuya Yokoyama, Far East Representative of the Port, visited the Head Office on November 8, 1979 and was received by Deputy Secretary General Hiroshi Kusaka and other staff. Mr. Kleist expressed his satisfaction at having attended the 11th Conference which he found very meaningful and fruitful.

#### **Receptions in Tokyo**

HAMBURG: In the name of Mr. Klaus-Dieter Fischer, Executive Director of the Port of Hamburg, a cocktails and buffet was held on Thursday, November 1, 1979 at Hotel Okura, from 18:00 till 20:00.

LONG BEACH: On Thursday, November 8, 1979, a reception was held in the names of Dr. Thomas J. Clark, Mayor of the City of Long Beach, California, and Mr. E.J. Hanna, Vice President of the Board of Harbor Commissioners, Port of Long Beach, at the Imperial Hotel, 18:00-20:00 hours.

## Additional Note on container handling survey

**CRANE TIME** is the total number of hours worked by all terminal cranes from the first movement on a particular vessel to the last movement on that vessel including delays

Currency Units per SDR								
October								
Currency	4	5	8	9	10	11	12	15
Australian dollar	1.16708	1.16413	1.15932	1.15844	1.16250	1.16151	1.16088	1.16216
Austrian schilling	16.6517	16.6147	16.6941	16.8276	16.7505	16.7195	16.7754	16.7851
Belgian franc	37.3737	37.3484	37.6266	37.8048	37.6117	37,4801	37.6002	37.5316
Canadian dollar	1.52962	1.52894	•••	1.50390	1.52791	1.52969	1.52544	1.52293
Deutsche mark	2.31860	2.30815	2.32380	2.33862	2.32,624	2.32372	2.33063	2.33235
French franc	5.45008	5.42725	5.46739	5.48520	5.45914	5.44550	5.47166	5.47242
Iranian rial	92.5640	92.3878	91.8508	91.2743	91,7669	91.8113	91.5407	91.4448
Italian lira	1069.13	1070.37	1077.84	1080.14	1074.90	1074.44	1077.12	1076.97
Japanese ven	294.734	294.042	294.287	293.088		294.422	294.463	297.398
Netherlands guilder	2.57301	2.56418	2.58577	2.59479	2.58015	2.57098	2.57964	2.58277
Norwegian krone	6.39772	6.45305	6.48071	6.47241	6.40252	6.45122	6.45753	6.46180
Pound sterling	0.599877	0.600243	0.602687	0.604072	0.600470	0.600899	0.601765	<b>0</b> .601163
Saudi Arabian rival	4.39342	4.38506	4.35957	4.33221	4.36861	4.37073	4.35784	4.35328
Soanish peseta	86.7192	86.6236	86.1814	85.8037	85.9959	85.9945		85.6993
Swedish krona	5.43563	5.45216	5.45370	5.47192	5.45198	5.45422	5.47815	5.46697
U.S. dollar	1.31343	1.31093	1.30331	1.29513	1.30212	1.30275	1.29891	1.29755

Note: The value of the SDR in terms of the U.S. dollar is determined as the sum of the dollar values, based on market exchange rates, of specified quantities of the first 16 currencies shown above. The value of the SDR in terms of any currency other than the U.S. dollar is derived from that currency's exchange rate against the U.S. dollar and the U.S. dollar value of the SDR.

Data: IMF Treasurer's Department

but excluding periods when the terminal was closed. Terminals which work on a 24 hour basis by definition do not close and therefore this exclusion doesnot apply when calculation crane times in such terminals.

#### **Membership Notes**

**New Members** 

#### **Regular Member:**

#### The Toronto Harbour Commissioners

60 Harbour Street, Ontario, M5J 1B7 Office Phone: (416) 863-2000 Telex: 06-219666 Cable Address: TORPORT (Mr. Gary F. Reid, Secretary to the Board)

#### Associate Member:

#### U.S. Department of Transportation (Class B) 400 7th Street SW. Rm. 9400 Washington, D.C. 20590 Office Phone: (202) 426-4144

(Mr. Ernest T. Bauer, Chief, Ports Division)

#### Status Change From Regular to Associate:

#### Panama Canal Commission (Class B)

(formerly known as Panama Canal Company, Panama Canal Zone) Balboa Heights, Republic of Panama (Colonel Charles R. Clark) Season's Greetings and Best Wishes for A Happy New Year

> IAPH Head Office Secretary General and Staff

#### Change of Name, Regular Member:

<u>Ministry of Public Works, Bureau of Ports, Harbors and Reclamation</u> (formerly known as Department of Public Works, Transportaton and Communications, Bureau of Public Works) Bonifacio Drive, Port Area, Manila. The Philippines (Mr. Candelario A. Patino, Officer-in-Charge)

#### New Edition of IAPH Membership Directory Completed.

The Membership Directory 1980 was dispatched to all members from Tokyo at the end of November.

Regular Members and Associate Members of Grade One of Class A, Class B and Class C are entitled to receive 3 copies and other members, 1 copy per unit.

If members wish to receive additional copies, they are available at US\$5 per copy including surface mailing charge.

The distribution of the Membership Directory is limited to its members only. (TKD)



## Open forum: Port releases:

## Standard shipping notes— A practical trade facilitation tool

#### by Mr. R. Dale, General Manager and Secretary, Simplification of International Trade Procedures (SITPRO), U.K.

A Shipping Note can be defined as the document provided by the shipper or his agent to the depot, terminal, berth or shipping company ("Receiving Authorities") giving information about the export consignment(s) offered for shipment. In some countries it is called a Mates Receipt, Haulage or Cart Note.

The basic problem faced by Receiving Authorities prior to the introduction of the Standard Shipping Note in the United Kingdom in 1975 was that many goods were being delivered to their premises with non-standard documentation or, even worse, almost no information at all about the goods, who was responsible for them, who would issue the Bill of Lading or who would pay the charges. To rectify this problem a number of Receiving Authorities had produced their own Shipping Notes which became mandatory in some ports. This meant that shippers had to stock an increasing number of pre-printed forms and make sure to use the right one for each shipment. The aims of the Standard Shipping Note (SSN) were therefore to:

- provide the Receiving Authority with timely accurate information
- allow the shipper to complete one standard document for their consignments through inland depots and ports
- act as a progression document providing all information relating to the cargo and its movement through the port

An SSN can provide potential information for one or more of the following functions:

- pre-planning of loading activities
- receiving and/shipment of the goods
- matching the consignment of goods with any previous communication of intention to ship the goods
- relating the consignment to subsequent export documentation
- properly identifying those responsible for terminal handling charges

The SSN and its associated procedures overcame the previous problems by:

- introducing a standard format for the presentation of export consignment information
- defining the information required
- providing a standard form that could be completed within the one-run aligned system for export documentation if required
- minimising the duplication or transcription of information from one document to another
- ensuring that the Shipping Note was available at the

docks with the goods in order that sufficiently accurate information was available for all parties to carry out their respective functions

- introducing a higher standard of discipline in following the procedures laid down.

The SSN was issued as a six-part loose form set and followed the UK aligned series of export documents layout on A4 paper. It was printed on self copy sensitised paper (not requiring carbon interleaves) which allowed the operations of receiving and tallying to be streamlined by its use as a progression document. Thus the final copy contained all information, both that provided initially by the shipper and that subsequently added by those responsible for moving the cargo through the docks and on board ship. The streamlined procedures minimise disputes regarding cargo shortages, speed the movement of goods and enable Bills of Lading to be released to the shipper at an earlier date.

Some two million SSN's were used in the UK in 1978. It has been found to benefit both suppliers and users of the document. Those Receiving Authorities who have used the full SSN system did so to facilitate accounting procedures and improve cash flow.

The greatest benefit of the Standard Shipping Note brought out by shipping companies, port authorities and shippers has been that, because it is a standard document, it enables staff to learn the information, requirements and associated procedures more quickly. Furthermore the standard format of the Notes has generally improved the accuracy of their work.

Besides the direct systematic benefits achieved by Receiving Authorities carriers and cargo insurers said shortly after the introduction of the system in the UK that its use made the administration of cargo claims much simpler as the state of the goods at different stages was clearly marked on the final copy and was available to the shipowner or his tally clerk.

A further benefit of standardisation is that the procedures associated with the Standard Shipping Note introduced a considerable degree of discipline. This has facilitated the use of mechanised systems and computers.

The following is an example of the way in which the Standard Shipping Note is used.

Shipper prepares document within his aligned system retaining one copy for file purposes and passes five copies to haulage company or driver, driver delivers goods and SSN to dock, Receiving Authority tally clerks take five copies mark on them any comments as the state of the goods and quantity received, add details of road haulier, vehicle registration no. and driver signs as correct, driver keeps one copy. Receiving Authority also marks on copies where goods are stowed in transit shed.

#### (Continued on page 14 bottom)

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## Report on a Research Project entitled : "Cost-Effective Cargo Loss Prevention Program"

Sponsored by United States Department of Transportation and Port of Oakland

by Mr. Robert W. Crandall General Manager, Marine Terminals Department Port of Oakland

While the specific operational requirements and physical characteristics of the Port of Oakland have been the subject of the study, the findings developed will be applicable and

#### (Continued from page 12)

Receiving Authority sends one copy to its accounts department and three copies to the shipowner's tally clerks.

Tally clerks send one copy to shipping company as indication of goods received, the shipping company can now start to compare with Bill of Lading, amending is necessary or if not contact shipper or agent and ask for document.

When goods are loaded onto vessel tally clerks will note state of goods on SSN when passed to them by the Receiving Authority (and when in ships hold if different) and indicate stowage point in vessel. One of the two remaining copies held by tally clerks is now sent to the shipowner as "shipped on board" indication (in some operations such additional comments upon the shipment are listed separately and master receives last copy of Shipping Note for information purposes). Final copy is held on tally clerks file.

The purpose of this series of articles on facilitation, prepared through the IAPH Trade Facilitation Committee, is to give practical examples of successful developments in information handling practice both for comparison by those operating similar systems and for information of those that do not.

Ports in several other countries use the shipping note concept – in part or in full – and it would be extremely helpful to the IAPH Facilitation Committee to receive comments on their own experience and developments.

These comments, and requests for further information, on the recommended UK system, which is currently being extended should be sent to:

> Mr. R.L.M. Vleugels Chairman, IAPH Technical Committee on Trade Facilitation Port of Antwerp City Hall ANTWERP Belgium

Mr. R. Dale Rapporteur, IAPH Trade Facilitation Committee SITPRO 11 Waterloo Place London SW1Y 4AU England available to all United States ports. With certain adjustments for correlation of various entities unique to United States ports as distinguished from worldwide port authorities, the study will most likely have applicability to many world ports.

By way of background, I believe it would be well to know that the Port of Oakland is a non-operating port and an independent department of the City of Oakland with autonomous authority. The predominate cargo movements through the Port of Oakland are high value general cargo commodities which comprise nearly 90% of our total cargo volume now exceeding 10,000,000 revenue tons annually.

At the present time, the Port of Oakland has eight container terminal facilities and three break bulk general cargo facilities. Being a non-operating port and recognizing possible inherent limitations in sufficient direct contact with water carriers and terminal operations, the Port of Oakland sponsors a coordinating group known as the Port of Oakland Terminal Operations Committee. This committee is composed of all the terminal operators and meets on a monthly basis to discuss terminal operations and ways to prevent anticipated problems. Among the subjects receiving considerable attention is cargo security.

A specific item of interest related to cargo security is that the Port of Oakland does not maintain a security guard force as many ports do throughout the world. We rely on the law enforcement services provided by the City of Oakland Police Department. The basic responsibility for security is placed directly upon each terminal operator.

As a result of discussions in our Port Terminal Operations Committee, the Port of Oakland sought Federal funds to make an extensive investigation of all port and terminal cargo security practices. While we are extremely fortunate in having a very low incidence of theft, we felt the dynamic aspects of containerized cargo movements, the significant volume of high value general cargo moving through Oakland made it essential that we explore every way to insure that cargo security is at the very highest level possible.

Some of the terminal operators were initially reluctant to pursue the project because it was feared a study might focus attention upon the Port in a way that would be detrimental to our competitive position. In coordinating the proposal for the Cargo Security Study with the U.S. Department of Transportation we were careful to insure that the study was being approached on the basis of improving cargo security even though we have a very low theft incidence. The final consensus of the committe was that the study should be pursued becuase it would uncover potential problems and this more complete awareness would give terminal operators significant added information to ensure theft free cargo movements.

The main components of the project are:

1. Conduct a detailed operational, procedural and physical

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cargo security examination and analysis of cargo handling, storage, cargo flow, documentation and related cargo loss liability responsibilities.

- 2. Determine, analyze and document future port plans, including but not limited to, modernization, expansion, automation, operations and any significant change in the nature of cargoes expected to flow through the port.
- 3. Based on a full evaluation and analysis, develop recommendations for improving the security of cargo, taking into consideration the full scope and inter-relationship of cargo operations, procedures and cargo liability responsibilities by the marine terminal operators, steamship companies, rail, truck and storage operations and the Port of Oakland.
- 4. Analysis of the application of cargo security hardware and related practices and procedures along with a supportive evaluation of the cost-effectiveness of proposed recommendations for improving cargo security.
- 5. Identify all Federal, state and local agencies that have authorized jurisdiction within the full scope of security of maritime cargo. Recommend practices and procedures that will improve terminal operations and port cargo security coordinative efforts with these agencies.
- 6. Develop a detailed and comprehensive report suitable for use as a management handbook by terminal operators and ports.

The successful contractor was Coopers and Lybrand, an international accouting and consulting firm having extensive expertise in operational analysis. The project research was directed by Larry Barbu and Tom Hresko. Their unique professional background proved to be highly effective in the specific planning and actual conduct of the research. There was excellent cooperative coordination between the contractor, the Port of Oakland, the U.S. Department of Transportation and all Port of Oakland terminal operators.

Our focus of the cargo security study at the time of the initiation of the project centered around the physical aspects of cargo theft prevention such as security fencing, lighting, guard service, employee theft prevention methods, and correlation factors essential between terminal operators and all categories of employees involved in the movement of cargo.

As a result of our participation in the study, we recognized that cargo security at marine terminal facilities is undergoing fundamental changes in exposure to theft.

The analysis developed that loss of cargo can be divided into three categories:

- 1. Losses related to cargo theft by individuals
- 2. Losses related to people through organized methods
- 3. Losses related to paper and computer systems thefts and fraud.

As the research project progressed, it was determined that the primary emphasis of the study should focus on paper and computer systems thefts and frauds. Organized theft methods and individual cargo theft losses received second and third priority attention.

While physical security practices was covered in the project, the totally new and surprising development of potential paper and computer systems thefts and frauds was emphasized. This is the type of theft that is only possible in our modern computer age where persons of unknown veracity, but with the highest level of sophistication can manipulate documents, reach into files electronically, create pseudo documentation and get away with the very common denominator of what theft is all about – money. This theft can be done without coming on to a marine terminal facility. This theft can occur with the best physical security. This theft can be done in financial increments and ways that will dazzle your imagination. The potential for "paper thefts", "pseudo thefts" and "computer system thefts and frauds" should be of significant interest to everyone in the maritime industry. The cargo security study provides valuable information on ways to prevent a potential problem that will be of great benefit to ports and terminals throughout the world.

The study is based on management system analysis techniques which involves a functional operational analysis of cargo movement flows concentrated at container facilities and tracing every aspect of cargo and paper document flows through the marine terminal facilities to the ship and from the ship through the marine terminal facilities including analysis of the interfacing of cargo and paper flow with all entities involved in the physical movement of cargo. This technique is titled a "Security Systems Analysis" or SSA.

Based on this comprehensive functional operational analysis of cargo and paper movement flow by using the "Security Systems Analysis" or SSA at the Container Yard (CY) and the Container Freight Station (CFS), a very extensive list of recommendations was made -72 in all, practical, cost effective of ways to prevent theft.

From my review of the draft report and extensive discussions with the project leaders, Larry Barbu and Tom Hresko, I am highly pleased with the project and commend them for their outstanding research. I am particularly pleased with the detailed specific recommendations that have been developed by Coopers and Lybrand and discussed with each of the Port of Oakland terminal operators as a result of their cooperation with Coopers and Lybrand in the project. I am convinced there will be substantial benefits to each terminal operator in making cargo security the very best possible at the Port of Oakland.

I wish to also commend Louis A. Manoliades of the United States Department of Transportation for his activities in coordinating the cargo security project.

I would also like to point out that the American Association of Port Authorities (AAPA) is making a study entitled "Standards for Cargo Security" that emphasizes physical security standards. The AAPA handbook will be a desirable companion to the cargo loss prevention project handbook to be published by the U.S. Department of Transportation which will emphasize "Systems Thefts and Frauds".

It is my opinion that theft prevention and cargo security requires constant attention. I suggest that this project entitled "Cost-Effective Cargo Loss Prevention Program" be more thoroughly examined at future meetings of the International Association of Ports and Harbors when the complete report is available for study and implementation.

Inasmuch as the cargo loss prevention project is still in draft form and has not been accepted by the U.S. Department of Transportation, I am not at liberty to release any specific information in the study. It is anticipated the project will be completed by October, 1979.

## Annual Report 1978: Port Authority of NY & NJ

#### 1. Chairman's Statement (extracts)

#### 1978 Foreign Trade Summary

The Port of New York-New Jersey's foreign oceanborne general cargo trade rebounded significantly in 1978 from the 1977 cargo levels which were depressed by a two-month dockers strike. Volume was 15,708,124 tons, up 10% from 1977. Both general cargo exports and imports participated in the rise. Exports rose 9.1% to 5,305,214 tons, while imports climbed 10.4% to 10,402,910 tons.

In contrast to the rise in general cargo, the Port's foreign oceanborne bulk cargo fell 10.2% to 44,931,434 tons in 1978, reflecting a temporary decline in this region's demand for imported petroleum. Petroleum, which accounts for over 95% of the Port's total bulk cargo, fell 11.1% to 42,726,804 tons.

The New York-New Jersey air gateway posted another all-time record in foreign air cargo in 1978. Volume was 677,233 tons, up 16.4% from 1977. Exports rose 19.4% to 368,312 tons, while imports advanced 13% to 308,921 tons.

The value of the bi-State Port's total foreign trade, oceanborne and airborne, also reached record levels in 1978, climbing to \$58.6 billion, up 24.6% from 1977.

The Port's foreign trade is a major economic asset to the region as a generator of jobs, wages, taxes and investment. To maintain the competitive position of the bi-State Port, the Port Authority pursues a comprehensive program of facility development and operation, and a wide range of promotional, protective, and analytical activities.

#### **Marine Terminal Development**

The Red Hook Container Terminal in Atlantic Basin was begun in September as another step toward reviving the Brooklyn waterfront. With the joint financing of the City and State of New York, the Port Authority is constructing a combined breakbulk and containership project at the Brooklyn-Port Authority Marine Terminal.

The development of 12 acres of new wharfage and upland, part of the 80 acres of reclaimed land in the former Navy area of Port Newark, included the dedication of the Port's only "superberth", built to handle specialized heavy lifts between freighters and the heaviest rail cars in service. An additional 41-acre facility in the area was leased to Toyota Motors for receiving and servicing its vehicles for distribution in the New York-New Jersey metropolitan region.

During the year several bulk salt handling companies began operation in a terminal covering 15 acres of Port Newark, including buildings for drying and bagging bulk salt for distribution.

A new Foreign Trade Zone was established in early 1979 at the Port Newark-Eizaberth seaport complex to serve the specialized needs of the foreign trader.

#### **Regional Port Development**

Efficient and safe access by ocean shipping is critical to port development. In this, the Port Authority serves to unify and coordinate maritime industry requirements for improvements to Federal navigation channels and anchorages and the facilitation of navigation with the Army Corps of Engineers, Coast Guard, and Congress with the support of local interests. Current key goals are the deepening of the Kill van Kull and Newark Bay Channels and the east-west segment of the Arthur Kill, the deepening of the Gowanus Creek Channel, the expansion of the Red Hook Anchorages, the removal of Shooters Island, and the removal of the former Central Railroad of New Jersey lift bridge across Newark Bay. Related to such projects is the need to work closely with the Federal Government to urge policies favorable to the development and operation of the Port.

The Port Authority also assisted the two States in integrating port development requirements and related policies into their respective planning for coastal zone management. It continued its role as the coordinative agency with the States, waterfront municipalities and Federal Government in the cleanup of the blighted sections of the Port's waterfront and shoal waters under the Army Corps of Engineers' "New York Harbor Collection and Removal of Drift Project". The "waterfront cleanup" activity has earmarked as its next targets the cleanup of the Brooklyn, Manhattan East River, northeastern Staten Island, and New Jersey Hudson River and Elizabeth waterfronts.

#### **Industrial Parks Program**

Final approval for the Port Authority program to build industrial parks to strengthen the manufacturing base of the region and create new jobs was obtained in August 1978, when Governors Byrne and Carey signed enabling legislation into law. Subsequently, the Port Authority announced the creation of an Industrial Development Department to carry forward the work initiated by the Planning and Development Department in 1975. The new department is responsible for developing and managing these urban industrial parks in accord with a master plan to be coordinated with participating municipalities and community agencies. The program envisions supplying industrial tenants with low-cost energy through the combustion of solid waste and the construction of resource recovery systems. Toward that end, the Port Authority, with the support of both States and affected counties and municipalities, applied for a \$1 million grant from the Federal Environmental Protection Agency to fund its resource recovery planning.

> Alan Sagner Chairman

## 2. Marine Terminals' operation at a glance

Marine Terminals

	1978	1977
All Terminals		
Ship Arrivals	3,292	3,087
General Cargo		
(Long Tons)	11,379,993	10,990,792
Total Employment	9,016	8,879
New Jersey Marine Terminals		
Ship Arrivals	2,106	1,977

General Cargo		
(Long Tons)	9,971,375	9,782,048
Total Employment	6,375	6,524
New York Marine Terminals		
Ship Arrivals	1,186	1,110
General Cargo		
(Long Tons)	1,408,618	1,208,744
Total Employment	2,641	2,355
Cumulative PA Investment		
in Marine Terminals		
(in Thousands)	\$539,100	534,000

#### 3. Combined Operations in Brief

Gross operating revenues for the year 1978 totaled \$543,810,000, an increase of 3.7 percent over 1977. This growth reflects the continuing increase in the development and utilization of the Port Authority's facilities. Gross operating revenues include increased tolls on tunnels and

#### 5. Port Authority Operations

#### 1. Operating Results

bridges instituted in May, 1975. The additional bus and bus related mass transportation projects and the Port Authority Bus Terminal extension and modernization, made possible by the increase in tolls.

Operating expenses increased 12.5 percent over 1977 to reach \$367,794,000. This increase includes certain nonrecurring costs consisting of: approximately \$6,700,000 of planning costs incurred primarily in connection with potential new rail mass transportation facilities which had been deferred at December 31,1977 and which are not now expected to proceed to construction, approximately \$5,600,000 of advance rental payments relating to Newark International Airport and Port Newark previous included as a receivable in the Consolidated Statement of Financial Position and which are not now expected to be recovered in the foreseeable future, and approximately \$1,900,000 of in-lieu-of tax payments related to the Brooklyn-Port Authority and Erie Basin-Port Authority Marine Terminals in connection with additional property acquired during the period July, 1, 1962 to June 30, 1978.

Financial income on securities held in the reserve and (Continued on next page bottom)

Gross operating revenues by operating segment exclude interdepartment revenues primarily relating to the World Trade Center, of \$13,195,000 in 1978, and \$11,682,000 in 1977. In the table below, gross operating income (loss) consists of gross operating revenues less operating and maintenance expenses and depreciation. General administrative and development expenses, financial income, interest on debt and interdepartmental revenues and expenses are not considered in calculating gross operating income (loss).

	Tunnels &:	Bus & Truck	Rail		Marine	World Trade	Com	bined
	Bridges	Terminals	Facilities	Airports	Terminals	Center	1978	1977
1978				(In The	ousands)			
Gross Operating Revenues	\$135,784	\$14,761	\$14,049	\$263,170	\$44,325	\$71,721	\$543,810	
Gross Operating Income (Loss)	76,873	482	(36,321)	72,428	3,859	15,992	\$133,313	
1977								
Gross Operating Revenues	133,027	14,735	13,506	251,536	44,671	66,850		\$524,325
Gross Operating Income(Loss) Gernal Administrative and	78,552	1,741	(29,485)	73,929	8,984	11,594		\$145,315
Development Expenses							(52,998)	(42,790)
Income from Operations							80,315	102,525
Financial Income							28,242	27,005
Interest on Debt							(92,124)	(90,957)
Net Income							\$ 16,433	\$ 38,573

#### 2. Asset Information

The table below contains a summary of information on the Port Authority's assets. Facilities net consists of facilities at cost less accumulated depreciation.

	Tunnels &	Bus & Truck	Rail		Marine	World Trade	Total
	Bridges	Terminals	Facilities	Airports	Terminals	Center	Assets
1978 Assets				(In Tho	usands)		0.11.220-02-000-00 <b>5</b> -1-0.121
Facilities, net-beginning of year	r \$412,737	\$ 89,783	\$222,247	\$805,587	\$378,664	\$893,825	\$2,802,843
Net capital expenditures	16,949	22,859	5,026	. 22,030	5,089	18,224	90,177
Depreciation	(7,909)	(1,116)	(5,682)	(48,991)	(14,430)	(17,573)	(95,701)
Facilities, net-end of year	\$421,777	\$111,526	\$221,591	\$778,626	\$369,323	\$894,476	2,797,319
Cash, investments and other ass	ets						703,148
Total Assets							\$3,500,467
1977 Assets							
Facilities, net-beginning of year	r \$398,748	\$ 74,255	\$224,071	\$834,952	\$386,777	\$883,440	\$2,802,243
Net capital expenditures	21,650	16,676	3,834	20,046	6,035	27,112	95,353
Depreciation	(7,661)	(1,148)	(5,658)	(49,411)	(14,148)	(16,727)	(94,753)
Facilities, net-end of year	\$412,738	\$ 89,783	\$222,247	\$805,587	\$378,664	\$893,825	2,802,843
Cash, investments and other ass	ets						573,271
Total Assets							\$3,376,114

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## Annual Report 1978: Port of Seattle (Extracts)

#### **President's Message**

The Port of Seattle, unusual in the fact that it is a pubic corporation functioning similar to a business operation, has marked another year of prosperity. Charged with promoting international commerce through the Seattle harbor and Sea-Tac International Airport, the Port also responds to the needs of surrounding communities affected by growth.

The Port has become the No. 1 container Port on the West Coast, second in the United States to only the giant Port of New York. Commercial sea/air traffic in the Port district contributes to an estimated 70,000 direct and indirect jobs.

During the past year the Port has engineered a massive construction project to convert Piers 37 to 46 into a single, large container terminal. Virtually all of the Port's other marine terminals and facilities at Sea-Tac Airport have been scheduled for improvements. The purpose of these projects is to continually upgrade service to all customers, from the largest shipping firm to the youngest airline passenger.

#### (Continued from page 17)

operating funds was \$29,490,000 which resulted from investment income of \$39,471,000, including a \$9,321,000 gain on the purchase of Port Authority bonds, and a downward adjustment of \$9,981,000 in the value of the United States government securities held in these funds.

Thus, net revenues available for debt service and reserves were \$205,506,000.

Interest on the Port Authority's debt charged to operations and reserves totaled \$93,372,000 and long-term bonded debt amortization amounted to \$41,692,000, including \$14,669,000 from government contributions. In addition, \$40,000,000 in principal payments was made to reduce outstanding bank loans in accordance with agreements with the banks. Total debt service charged to revenues and reserves, including reserve funds in trust, therefore, was \$160,395,000.

#### 4. Financial Position at Year-End

As of December 31, 1978, the Port Authority's total assets, as represented by the cumulative amount invested in facilities and balances in construction, operating and reserve funds, were 4,642,895,000, an increase of 5.6 percent, or 2246,336,000, over last year.

The amount invested in facilities rose by 90,177,000, including net interest during construction of 6,852,000 on bonded debt and bank loans, to a cumulative total of 33,882,953,000 at year-end 1978. This increase is largely represented by additional investment in:

Land Transportation Facilities	. \$45,000,000
Air Terminals	22,000,000
The World Trade Center	18,000,000
Marine Terminals.	5,000,000

Bonded debt increased during the year by \$133,308,000 to a total of \$1,955,231,000. During the year, net assets increased by 6.1 percent to a total of \$2,343,706,000, about 60 percent of the amount invested in facilities.

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Meanwhile, the Port has informed the public of proposals for development and landscaping have been designed in order to make industrial progress as compatible as possible with a pleasing environment.

Last year the Port continued to reorganized departments so that staff members could devote time to projects in the most efficient manner possible. The Port also has encouraged employees to attend training programs and classes in order to make the best use of their talents and to improve their opportunities for advancement.

In recent years the Port has met its dual responsibilities of economic progress and public accountability by being not only progressive but also self-analytical. Its experience, its preparedness and its delicate balance between flexibility and decisiveness pervade the facts and figures and "progress reports" in this annual review.

Henry L. Kotkins President–1979 Port of Seattle Commission

#### Harbor Traffic

The Port's consolidation system moved approximately 627 million pounds of freight in 1978. This was one million pounds under the record year of 1977. However, despite the fact that a potential West Coast dock strike caused a diversion of freight from the Port for approximately two months, customers were anxious to return to the Port as soon as the strike threat was averted.

Also, much inbound freight is not included in Port-run consolidations. For the first nine months of 1978, total inbound transpacific freight was up 2.4 percent over 1977, while total export transpacific freight was up 17.7 percent.

The Port opened a new regional sales office in San Francisco to call on the vast California import/export market and to keep close to the offices in San Francisco controlling many steamship companies serving the Port. Day-to-day contacts are imperative in securing new steamship service.

A noticeable trend at Foreign-Trade Zone No. 5 in 1978 was Zone use by small importers. During the fiscal year from October 1, 1977 to September 30, 1978, merchandise valued at \$2,083,610 and weighing 990 short tons was received in the Zone. Merchandise valued at \$1,988,315 and weighing 910 short tons was shipped from the Zone.

Grain exports totaled 1,266,021 short tons, an increase of 60 percent over the 1977 total.

Overall tonnage of cargo carried by container lines between Seattle and the Orient increased substantially in 1978. While all the established container lines' import tonnages decreased by varying degrees, the shortfall was offset by newcomers: Evergreen Line, CSC Line and Korea Marine Transport Company. Export tonnage increased by some 160,000 short tons, with all lines but one showing an increase.

With Saudi Arabia again purchasing large quantities of apples, record shipments of fruit exports continued during 1978.

The Terminal 91 complex handled 124,462 import cars and pickup chassis, a new high for the terminal. Total auto imports for the Port, however, were down to 141,811 units, a decrease from 1977 of 26,116 units. The principal reason for the decrease was General Motors' cessation of imports to Seattle.

Terminal 115, the principal terminal for steel imports, received more than 240,000 short tons of steel products during the year.

## Financial Statements

#### BALANCE SHEETS

ASSETS		
	Decen	nber 31
	1978	1977
	(in the	ousands)
LAND, FACILITIES AND EQUIP- MENT,		
at cost	\$474,868	\$470,042
Less accumulated depreciation	71,930	66,807
-	402,938	403,235
Construction work-in-progress	49,151	11,026
Cash, investments and accrued		,
interest restricted for debt service		
and acquisition of land, facilities		
and equipment	26,380	33,645
• •	478,468	447,906
UNAMORTIZED BOND DISCOUNT AND DEFERRED FINANCE		
COSTS, net of accumulated		
amortization	3,948	4,131
LONG-TERM PORTION OF	anna a nannanna an 18-ride	
CONTRACTS RECEIVABLE	588	
CURRENT ASSETS:	23,697	17,944
	\$506,702	<u>\$469,981</u>
LIABILITIES AND FOUITY		
	Decen	nber 31.
	1078	1977

#### EQUITY OF THE PORT OF

SEATTLE FROM:		
Operations	\$ 23,958	\$ 17,618
Taxation	168,496	158,731
Grants and donations	36,420	32,169
	228,874	208,518
LONG-TERM DEBT, less current		
maturities (Note B):		
Revenue bonds, net	202,669	207,073
General obligation bonds	29,180	30,465
Second lien revenue bonds		
and warrants	15,670	980
Contract payable	1,000	2,000
	248,519	240,518
CURRENT LIABILITIES:	29,309	20,945
	\$506,702	\$469,981

#### STATEMENTS OF OPERATIONS

	Year ended		
	December 31,		
	1978	1977	
	(in thou	ısands)	
Revenue:			
Services	\$46,157	\$45,265	
Property rentals	20,242	17,233	
Other	4,876	3,122	
	71,275	65,620	
Expense:			
Operations	25,894	24,502	
Revenue bond interest	11,861	12,143	
Depreciation	10,421	9,389	
Maintenance	9,123	8,640	
Administration	7,554	8,272	
Other	632	561	
	65,485	63,507	

EXCESS OF REVENUE OVER EXPENSE

## Maritime activities 1978: Cameroon National Ports Authority

(in thousands)

An Analysis of the maritime activities of the ports of the United Republic of Cameroon reveals for dominant facts:

- A noticeable increase in foreign trade
- A stagnancy in exports
- A great push in imports
- An appreciable fall in the number of vessels.

The total traffic (foreign and local trade) of all the ports struck 3.072.132 tons in 1978 as against 2.742.183 tons in 1977, which represents a progress of 329.949 tons, thus +12%.

Foreign trade traffic went to 3.045.972 tons in 1978, from 2.714.549 tons in 1977, a rise of 331.423 tons, thus a rate increase of 12%.

Local navigation realized a slight fall. It went from 27.587 tons in 1977, to 26.160 tons in 1978 (-1.427 tons, -5%).

The foreign trade exports went from 1.009.385 tons to 1.020.841 tons, thus a slight increase of 11.456 tons (+1%). Imports reached 2.025.631 tons in 1978 as against 1.705.163 tons in 1977 thus a remarkable increase of 320.468 tons (18,8%).

The number of foreign trade vessels fell from 1.706 in 1977 to 1.421 in 1978, thus a fall of 285 vessels (-17%). This fall is only apparent because the 1.706 foreign trade vessels of 1977 were also comprised of almost two hundred tug-boats which figure this year under local navigation.

Therefore the real fall is about a hundred vessels be-(Continued on next page bottom)

<sup>\$ 5,790 \$ 2,113</sup> 

## Annual Report 1977–78: Maritime Services Board of New South Wales

#### **President's statement (extract)**

The main activities for the year ended 30 June 1978 are reviewed under separate headings.

**Trade** – Total trade handled through the New South Wales Ports during 1977/78 reached an all-time high of 71.9million tonnes, an increase of 3.6 million tonnes or 5.3% on the previous financial year.

All of the major ports – Sydney Ports (Port Jackson and Botany Bay), Newcastle and Port Kembla – as well as the minor trading ports of Twofold Bay, Trial Bay and Clarence River, posted trade increases.

**Shipping** – During the year, 4,656 ships entered the ports of the State, a decline on the previous year of approximately 5%. Gross registered tonnage, however, rose by more than 1.2 million to 66.2 million tons.

The ability of Port Jackson to handle a wide crosssection of the most modern ships was clearly demonstrated in February when the latest of the great luxury liners, the 65,000 gross ton "Queen Elizabeth 2" berthed at the Overseas Passenger Terminal.

**Port Development** – Work continued throughout the year on the reconstruction of wharfage at the northern end of Darling Harbour, in Sydney. No. 4 Berth, designed to accommodate large conventional and quarter ramp roll-on/ roll-off vessels, was commissioned in November 1977.

The last phase of this major programme, the construc-

#### (Continued from page 19)

tween 1977 and 1978.

#### Douala/Bonabéri Port

The Douala/Bonabéri port handles almost 92,41% of the local maritime traffic of the United Republic of Cameroon. It is therefore easy to understand that the tendencies of its maritime activities, perfectly reflect that of the global traffic of all the ports of Cameroon.

The total foreign trade traffic and coasting of the port of Douala has realized a great increase for two consecutive years. Indeed, it went to 2.838.369 tons in 1978, as against 2.515.826 tons in 1977, thus an increase of 322.543 tons and an expansion rate of 13%.

Foreign trade traffic went from 2.468.239 tons in 1977 to 2.812.209 tons in 1978, thus a progress of 323.970 tons (+13%). This remarkable increase is due to the push in imports, with a total of 2.004.232 tons in 1978 as against 1.690.187 tons in 1977, thus an increase of 314.045 tons (+18%).

On the contrary, we notice a stagnancy in exports. These increased only by 9.925 tons (+1%) in passing from 798.052 tons in 1977 to 807.977 tons in 1978.

#### Forecasts for 1979

The traffic forecasts for 1979 given by the main product groups in the preceding text could be recapitulated as follows:

- Imports : 2.160.000 tons + 155.768 tons thus +7,7%
- Exports : 807.000 tons thus 0%
- Total : 2.967.000 tons + 155.000 tons thus + 5%.

tion of a general cargo berth, No. 3 Darling Harbour, is well under way. At Balmain a contract has been awarded for the demolition of No. 2 Berth to allow for No. 1 Berth to be extended and so permit the existing coal loading facilities to be significantly upgraded.

The construction of No. 3 Berth White Bay continued throughout the year and will be in operation early in 1979.

A highlight of the year was the completion of the \$55 million contract for the initial dredging and reclamation associated with the Port Botany development. In addition, the contract for the construction of 2 km of container wharfage which includes a further 115 ha of reclamation and dredging of the port basin is proceeding very satisfactorily. Storage and tank farm facilities being provided by the lessees in the bulk liquid chemicals and petro-chemicals storage area are well advanced.

Another highlight was the \$70 million contract awarded to West Ham Dredging Company Pty. Ltd. during 1977 for the deepening of the entrance approaches and the main channels of Newcastle Harbour. On completion of the contract in 1981 the port will be capable of accommodating 120,000 D.W.T. vessels.

For Port Kembla, the period under reveiw has been a significant one. In March, the new Pilot and Signal Station was officially opened, and on 1 April responsibility for all planning, construction and maintenance at the Port passed to the Board from the Department of Public Works.

**Planning** – For some years the Board has pursued a policy of forward port development planning at Sydney, Newcastle and Botany Bay. Following its recently acquired additional responsibilities at Port Kembla, together with the decision of the State Government to construct a second coal loader at the port, the Board is currently engaged in a detailed investigation into the future development of this port.

Legislative Changes – During the year the Maritime Services (Amendment) Act, 1978 was promulgated. In pursuance of the Government's policy objective that the Board control all the State's trading ports, the Act made provision for:-

- (i) the vesting in the Board of Port Kembla (title to which was vested in the Board on 1 April 1978);
- (ii) the future vesting in the Board of commercial port areas; and
- (iii) the Board to be responsible for all planning, construction and maintenance of existing and future ports.

The legislation also affected relatively minor amendments to the principal Act in respect of the Constitution and powers of the Board.

**Finance** – Revenue reached the record level of \$77.6 million, the Board's operations resulting in a surplus of \$98,597 for the year. Included in this figure is \$11.2 million collected as a special Newcastle harbour rate levy of \$1.00 per tonne on overseas exports of coal and interstate imports of iron ore. This sum which goes towards funding the deepening of the approaches and channels of that port was carried to a special reserve and is therefore included in the total expenditure for the year.

Substantial wage increases and spiralling costs generally, together with a slight downturn in the number of ships entering the ports and an associated decline in the volume

20 PORTS and HARBORS - DECEMBER 1979

of general cargo handled, necessitated an increase in charges for port users for the second successive year. Every effort is being made to keep these increases to a minimum.

#### J.M. WALLACE President

#### 1. Balance Sheet

as at 30 June 1978

LIABILITIES	1977-78 \$000	1976-77 \$000
Capital:	142.089	123.873
Funds other than capital		
used for Acquiring Assets:	57.864	38,437
Reserves:	55.129	51.137
Current Liabilities and Provisio	ns:	, /
Creditors	6.149	5.686
Provisions	4,699	4.089
	10.848	9 7 7 6
Trust Accounts:	61	49
Trust Hoodants.	265 002	
	203,993	223,213
ASSETS	1977-78	1976-77
	\$000	\$000
Fixed Assets		
Wharves and letties	73 365	57 522
Shore Buildings	14 715	14 405
Deepening of Ports	37 243	31 736
Port Roadways	4,971	4.652
Coal Loading Works	13 397	13 295
Floating Plant, Workshops,		
Depots, etc.	79,786	65,385
	223 479	186 998
	223,419	100,770
Current Assets:	4,046	3,125
Securities:		
Cash in Transit:	1,096	785
Cash at Treasury:		
The Maritime Services		
Board Fund	19,101	14,518
The Maritime Services		
Board Renewals Fund	472	7,335
	19,573	21,853
Newcostle Harbour Deepening		
Cash	1 494	304
Investments	16 303	10.204
	17 707	10,200
	11,191	10,511
	265,993	223,273

#### 2. Statement of Income and Expenditure for the year ended 30 June 1978

INCOME	1977-78	1976-77
	\$000	\$000
Harbour Rates:		
Inward Oversea	15,126	14,033
Inward Interstate	10,632	10,907
Inward State	2,016	1,762
	27,774	26.703
Transhipment Rates:	98	63
Harbour Rates:		
Outward Oversea	15.865	14.361
Outward Interstate	315	334
Outward State	20	16
outhaid State	16 201	14 712
Tonnago Batas	10,201	14,/12
Porthing Charges	4,338	3,691
Dertining Charges:	45	40
License Fees:	1,660	1,379
Storage Charges:	505	826
Interest on Deposits		
with Ireasurer:	1,051	925
Compensation received		
for Land:	1,527	—
Miscellaneous Recoveries:	696	649
Miscellaneous Services:	19,724	13,963
Rents:	3,895	3,846
Bond Charges:	137	127
	77,657	66,930
EXPENDITURE		
Administrative Expenses	4.599	
General Charges:	6 804	
Collection of Harbor and	0,001	
Tonnage Rates:	432	
Control of Ports:	3 915	
Survey of Ports:	797	
Maintenance of Property:	10 659	
Sundry Services:	2 927	
Dredging:	475	
Demolition of Wharves	775	
and Buildings:	12	
Coal Loading Eacilities:	11 860	
Ponded and Free Warehouses	11,000	
Working Expanses:	222	
Transfer to Neurostle Herbour	222	
Despening Assount:	11 270	
Deepenning Account.	11,219	
Kenewais rund Transfer:	11,/00	
Net Revenue Account:	11 0 20	
Thet Revenue Account.	11,939	
	11,657	

#### 3. Trade and Shipping Summary

	IMPORTS		EXPO	EXPORTS		TOTAL TRADE (tonnes)	
	1977-78	1976-77	1977-78	1976-77	1977-78	1976-77	
SYDNEY PORTS	20 672 251	19 967 167	12 852 559	12 890 053	33 524 810	32 857 220	
NEWCASTLE	5 595 522	5 683 905	13 362 794	11 378 170	18 958 316	17 062 075	
PORT KEMBLA	8 246 554	8 182 943	9 369 242	8 488 544	17 615 796	16 671 487	
OTHER PORTS	364 519	347 279	1 501 078	1 412 288	1 865 597	1 759 567	
	34 878 846	34 181 294	37 085 673	34 169 055	71 964 519	68 350 349	

PORTS and HARBORS - DECEMBER 1979 21

## Annual Report 1978 : Ports Authority of Fiji (Extracts)

#### **Chairman's Review (Extracts)**

The Port Authority of Fiji (PAF) has completed another successful year. Considerable progress in labour relationship and in the operation and administration of port services in Fiji was achieved during the year under review.

The total tonnage handled through the Ports in Fiji showed an increase of 3.5% over the 1977 figures. Imports increased by 2.7% whilst exports went up by 4.4%. The latter is an encouraging sign insofar as our national economy is concerned.

There were greater demands for specialised shore facilities and services by an increasing number of container ships and ro/ro vessels calling at Fiji ports. From an insignificant number of containers handled in 1975, some 1,000 container movements are being serviced every month in the Port of Suva alone. As a result, the main road area of the port being used as a container handling and storage yard, poses many problems.

The acute shortage of back-up space in the port which is essential for mechanised handling is a major obstacle threatening the efficiency and safety of the port operations particularly in Suva which is Fiji's largest gateway.

With the co-operation and understanding of the various Government Ministeries and bodies concerned it is hoped that the acquisition of some land adjacent to Suva Kings Wharf to overcome this serious problem could be finalised without further delay.

The land problem is compounded by the deteriorated condition of the existing wharf structures particularly in Suva and Levuka. The need for general rehabilitation and upgrading of the present facilities including the creation of a new tanker mooring is an urgent consideration.

Engineering studies reveal that a number of wharf piles and beams in Suva have fractured and large cracks are visible. Certain stretches of roads are subsiding causing floods at high tide. Rehabilitation of the superstructure is estimated at \$2.5 million. Other port improvements in Suva will cost an additional \$7 million.

The wooden sections of the Levuka wharves have to be completely rebuilt. Construction work costing \$500,000 is in progress.

In Lautoka, reclamation works should be undertaken to improve the operational efficiency of the port particularly in relation to mechanisation and container handling and storage.

A tender for the construction of the Ports Authority new Head Office Complex at Flagstaff was awarded in November 1978. The completion of the million dollar building in early 1980 would provide the Ports Authority with modern office accommodation including staff canteen and other amenities as well as excellent training and conference facilities.

Our relationship with the dockworkers has been greatly enhanced by the conclusion of a two-year wage agreement effective from 1st January 1979 with the Fiji Waterfront Workers & Seamen's Union. With industrial stability we are confident that our port services will continue to improve and expand for the benefit not only of our own employees but also the people of Fiji including the private sector. Pleasant and conducive work environment at the wharves is another important consideration. PAF is continuing with its port beautification programme and the provision of better canteen and rest-room facilities. Cold water drinking fountains for the workers and port users have been installed at the wharves in Suva and Lautoka.

The formal take-over of pilotage as provided for in the PAF Act is long overdue. It is envisaged that this important function of the Ports Authority of Fiji would be finalised in the near future.

Fiji is strategically located in the South Pacific. It planning and development of port and harbour facilities would have much to contribute to both international and regional shipping and trade.

Annual port conferences are being held in the South Pacific. To date such conferences with a view to sharing experiences in port administration and operation have been held in Papua New Guinea, Fiji and Western Samoa.

The South Pacific Ports Association, which is a regional body has recently been formed to promote and streamline shipping, transportation and cargo-handling operations in the South Pacific. It is also our desire to co-operate and work in collaboration with other world ports and organisations in the promotion and advancement of port and shipping services.

Hon. Tomasi R Vakatora CHAIRMAN

#### STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 1978

	1978	1977
The Funds Employed were:	\$	\$
Capital fund	2,968,750	2,968,750
Government Grant	100,000	100,000
Development Reserve	2,000,000	1,500,000
General Reserve	900,000	500,000
Unappropriated Surplus	9,332	119,982
	5,978,082	5,188,732
These funds were represented Fixed Assets less	by:	
depreciation	3,727,820	3,654,091
Current Assets:	4,135,819	3,110,006
Less current liabilities:	1,885,557	1,575,365
	2,250,262	1,534,641
Total Net Assets	\$5,978,082	\$5,188,732

#### **REVENUE AND APPROPRIATION ACCOUNT FOR THE YEAR ENDING 31ST DECEMBER, 1978**

	1978	1977
REVENUE:	\$	\$
Wharfage	492,347	519,220
Dockage and Berthing	586,331	591,519

Port Dues	484,236	440,432
Wharf Services and Storage	163,663	175,100
Cargo Handling Services	3,565,454	3,629,146
IFS Services and Storage	136,835	81,797
Equipment	853,542	873,066
Sundry Revenue	353,586	183,446
Total Revenue	6,635,994	6,493,726
EXPENDITURE:		
Expenditure except		
Depreciation	3,834,887	3,753,133
Depreciation	628,686	443,891
Total expenditure	4,463,573	4,197,024
Operating surplus	2,172,421	2,296,702
OTHER REVENUE:	236,911	323,280
	2,409,332	2,619,982
LESS APPROPRIATION		
Government of Fiji		
Consolidated Fund	1,500,000	1,250,000
Development Reserve	500,000	1,000,000
General Reserve	400,000	250,000
	2,400,000	2,500,000
Unappropriated surplus		
carried forward	\$9,332	<u>\$119,982</u>

#### Cargo Handled in Fiji Ports 1977-1978 (Tonnes) IMPORT/EXPORT

PORT		1977	1978
	IMPORT	454,066	477,931
Suva	EXPORT	75,577	92,236
	TOTAL	529,643	570,167
	IMPORT	104,533	93,998
Lautoka	EXPORT	330,533	348,093
	TOTAL	435,066	442,091
	IMPORT	21,926	18,150
Levuka	EXPORT	2,124	5,374
	TOTAL	24,050	23,524
	IMPORT	180,792	188,349
Vuda	EXPORT	40,207	35,373
	TOTAL	220,999	223,722
	IMPORT	18,691	15,724
Vatia	EXPORT		_
	TOTAL	18,691	15,724
	IMPORT	_	
Ellington	EXPORT	1,059	—
	TOTAL	1,059	-
	IMPORT	9,710	16,900
Malau	EXPORT	79,698	72,668
	TOTAL	89,418	89,568
TOTAL	IMPORT	789,728	811,052
	EXPORT	529,198	553,744
GRAND	TOTAL	1,318,926	1,364,796



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#### CAORF -

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Proceedings 3rd Annual CAORF Symposium October 15-16, 1979

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## International maritime information: World port news:

## Review of Maritime Transport, 1978 by UNCTAD secretariat (Extracts)

THE DEVELOPMENT OF INTERNATIONAL SEABORNE TRADE

In 1977 the tonnage of international seaborne trade rose by only 2.5 per cent and preliminary figures indicate that the increase in 1978 may have been as low as 0.5 per cent. The low rate of growth is mainly attributable to the general state of the world economy, but a number of other factors also influenced the trend.

Table 1 gives the tonnages of different categories of cargo shipped from 1965 to 1977. In 1978, preliminary figures indicate that tanker cargoes decreased by 1.7 per cent, while dry cargo increased by 3 per cent.

The overall decline in the growth rate of seaborne cargoes is mainly a result of the general decline of the growth rates of the economies of the developed marketeconomy countries, as evidenced by the growth rate of real GNP in the OECD countries, which declined from 5.2 per cent in 1976 to 3.7 per cent in 1977 and to 3.5 per cent in 1978. Industrial production growth in OECD countries changed from 8.9 per cent in 1976 to 3.7 per cent in 1977, and to 4 per cent in 1978.

The low growth rate for dry cargo was largely a result of a decrease in iron ore shipments, which was in turn attributable to the continued depression in the steelconsuming sectors of industry, including shipbuilding. In 1979 the real GNP of the OECD countries is expected to grow by only 3 per cent and their industrial production by 3.8 per cent. In developing countries Gross Domestic Product is expected to grow at 6 per cent. With expected increases in indigenous oil production in Western Europe and the United States of America, seaborne trade in oil cannot be expected to rise by more than 3 per cent. At the same time, record grain harvests in Europe in 1978 are expected to lead to a decline in grain cargoes in 1979, and the continuing depression in the steel-consuming industries is likely to limit any increase in iron ore and coal shipments. Consequently the major bulk trades cannot be expected to show any significant growth, while the remaining dry cargoes are expected to increase by not more than about 4 per cent.

Table 2 summarizes the distribution of seaborne cargoes according to countries of loading and unloading.

#### <u>Table 1</u> Development of international seaborne trade, 1970 and 1975-1977 (goods loaded)

				Dry					
Tanker cargo			Total		Of w main bulk c	/hich: ommodities*	Total (all goods)		
Year	Millions of tons	Percentage increase/ decrease over previous year							
1970	1 440	13	1 165	13	488	16	2 605	13	
1975	1 644	-10	1 428	-3	635	-5	3 072	4	
1976	1 803	9	1 588	11	646	2	3 391	9	
1977	1 818	0.8	1 657	4.3	645	-0.2	3 475	2.5	

\*Iron ore, grain, coal, buaxite/alumina and phosphate.

#### PORT DEVELOPMENTS

#### Demand for port services

In 1977 total seaborne trade marginally increased (+2.5 per cent). It is noteworthy that the total tanker cargoes went up by a mere 0.8 per cent, while the main bulk commodities even decreased by 0.2 per cent. Thus, the overall increase in seaborne trade is mainly attributable to the increase in the remaining dry cargo, including general cargo, which increased in tonnage by 69 million tons (+4.3 per cent). Because general cargoes generate the highest employment potential in ports and also place the heaviest demands on a port's facilities, the growth in this sector has been a particularly welcome element for many ports which, during 1977, faced a depressed demand in the bulk sector.

A significant factor which greatly influenced the demand for port services has been the continuous addition throughout 1977 and 1978 of cellular container and roll-on/roll-off vessels to the world fleet.

The world container fleet has been expanding at a greater rate than most other sectors of the world fleet, while both cellular ships and roll-on/roll-off vessels accounted for a substantial percentage of the world order book in September 1978.

One result of this unequalled commissioning of container and roll-on/roll-off vessels has been the accelerated introduction of these systems on developing country trade routes and as a consequence developing country ports have witnessed a very rapid growth of their container and roll-on/ roll-off traffic, in particular the ports of the Far East, the Middle East, West Africa and the Caribbean. Table 3 summarizes information on container traffic in selected developing country ports and compares the 1976 and 1977 levels where feasible.

#### Table 2

#### World seaborne trade in 1975, 1976, and 1977 by types of cargo and shares of groups of countries (Millions of tons and percentages of world total)

			Goods	loaded		Goods unloaded			
Country group	Voor	Petro	oleum	Dry	Total	Petr	oleum	Dry	Total
Country group	I Cal	Crude	Products	cargo	all goods	Crude	Products	cargo	all goods
				(]	rade in mill	ions of to	ons)		
World total	1975 1976 1977	1 364 1 544 ←──1	$\begin{array}{c} 280\\ 277\\ 818 \longrightarrow \end{array}$	1 428 1 554 1 657	3 072 3 375 3 475	1 373 1 534 ←── 1	$\begin{array}{c} 287\\ 294\\ 881 \longrightarrow \end{array}$	1 395 1 425 1 490	3 055 3 253 3 371
			(Perc	entage sha	are of each c	ategory of	of goods in t	otal)	
World total	1975 1976 1977	44.4 45.8 ←── 5	$9.1 \\ 8.2 \\ 2.3 \longrightarrow$	46.5 46.0 47.7	100.0 100.0 100.0	45.0 47.2 ← 5	$5.8 \xrightarrow{9.4}{9.0}$	45.6 43.8 44.2	100.0 100.0 100.0
			(Per	centage sl	hare of trade	by grou	ps of countr	ies)	
Developed market- economy countries	1975 1976	4.2 3.9	30.3 31.8	62.6 63.2	33.7 33.5	81.2 80.9	79.2 78.2	74.0 75.2	77.6 78.2
Socialist countries of Eastern Europe and Asia	1975 1976	3.7 3.6	12.3 12.9	7.3 7.2	6.1 6.1	1.9 2.2	2.1 2.1	6.5 6.5	4.1 4.1
Developing countries	1975 1976	92.1 92.5	57.4 55.3	30.1 29.6	60.2 60.4	16.9 16.9	18.7 19.7	19.5 18.3	18.3 17.7

#### Table 3

Container	<sup>,</sup> traffic i	n selected	ports of	f developing	countries,	1977
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Country or territory	Port	Container traffic 1977 in TEU	Container traffic 1976 in TEU	Per cent change 1977 over 1976
Hong Kong	Hong Kong	1 258 782	1 029 059	+ 22
Singapore	Singapore	373 510	311 772	+ 20
Saudi Arabia	Jeddah	219 128	87 406	+ 150
Philippines	Manila	169 174	133 694	+ 27
Nigeria	Lagos/Apapa	86 672	60 098	+ 44
Jamaica	Kingston	82 933	47 486	+ 75
Malaysia	Port Kelang	82 273	68 726	+ 20
Thailand	Bangkok	72 873	58 878	+ 24
United Arab Emirates	Dubai (Port Rashid)	55 438	4 530	+1 124
Honduras	Puerto Cortes	47 545	28 591	+ 66
Brazil	Santos	45 566	42 874	+ 6
United Arab Emirates	Sharjah (Port Khalid)	35 665	_	_
Indonesia	Tanjung Priok	29 003	20 011	+ 45
Trinidad and Tobago	Port of Spain	28 112	-	—
Malaysia	Penang	18 037	14 192	+ 27
United Republic of Cameroon	Douala	17 173	10 979	+ 56
India	Bombay	8 027	8 032	- 1
Bahamas	Freeport	7 720	7 030	+ 10
Jordan	Aqaba	7 066	_	_
Barbados	Bridgetown	5 834	3 139	+ 86
Panama	Bahia Las Minas	5 302	5 508	- 4
Chile	Valparaiso	5 274	4 185	+ 26
Total		2 661 107	1 946 190	+ 37

#### Supply of port services

Table 4 shows the geographical distribution of 185 port development projects in 177 ports of developing countries, classified according to their phase of development during 1978: i.e. either planning, or decision, or design and construction. Approximately 28 per cent of the project were in the stage of planning, 3 per cent in the decision stage and the rest – 69 per cent, were in the stage of design or implementation.

Of the total of 185 port development projects which were examined individually, 44 per cent were projects being carried out under a co-ordinated national master plan, often including several ports, whilst 56 per cent were projects involving the development of specific ports, under the control of a port authority.

Table 5 summarizes the projects per type of facility.

#### Table 4

#### Distribution of port development projects, 1978

#### PORTS INVOLVED, STAGE OF DEVELOPMENT OF PROJECTS AND INVESTMENT

		_			
	No. of projects	In planning stage	In decision stage	In design or construction stage	
		P	D	C	8.1 NORTHERN AFRICA (No. of ports - 15)
ALGERIA	2	1	-	1	Arzew (C - off-shore); New Skikda Harbour (P - US\$ 190m.)
EGYPT	6	5	-	1	Alexandria (P - US\$ 151m.); Port Said (P); Marza Matrouk (C); Port Suez (P); Dekheila (P - US\$ 350m.) Danietta (P - US\$ 155m.) Master plan considers 23 berths in 3 stages
LIBYA	6	1	-	5	Zuara (P); Derna (C); Brega (C - US\$ 116m.); Misurata (C - US\$ 100m.); Benghazi (C - Mp); Tripoli (C - 1st phase US\$ 100m., 2nd phase US\$ 98m.)
MOROCCO	1	1	-	- 1	Casablanca (P - US\$ 88m. modernization in 5 years)
					8.2 WESTERN AFRICA (No. of ports - 16)
BENIN	2	-	1	2	Cotonou (C - US\$ 46m.); Fishing port extension (C - US\$ 5.8m.)
CONGO	1	1	-	ì	Pointe Noire (C - Fishing port, new berths - US\$ 20.7m.,
GABON	2	-	-	2	Port Gentil (C); Port Owendo (C); both projects US\$ 105.8m.
IVORY COAST	3	1	-	2	Locodjoro (P - Modernization US\$ 9.6m., expansion US\$ 96m.); San Pedro (C - US\$ 58m.); Abidjan (C - US\$ 28.9: container terminal)
NIGERIA	5	2	-	3	Warri and Koko, (P - US\$ 240m.); Harcourt (C - US\$ 42.5m.); Lagos (C - 3rd stage of port complex, US\$ 125m.); Calabar (C - US\$ 144m.)
SENEGAL	2	-	-	2	Dakar (C - US\$ 24m.: container and Ro/Ro terminal); Fishing port (C - US\$ 33.6m.)
CAMEROON	2	-	-	2	Douala (C); Cape Limboh; both projects at a cost of US\$ 120.3m.
					8.3 EASTERN AFRICA (No. of ports - 3)
DJIBOUTI	1	-	1	-	Djibouti (D - US\$ 7.5m.)
ETHIOPIA	1	1	-	-	Assab (P)
SUDAN	1	-	-	1	Port Sudan (C - US\$ 50m.)
					9.1 CARIBBEAN AND N. AMERICA (No. of ports - 15)
BARBADOS	1	-	1	1	Bridgetown (C)
WEST INDIES	1	-	-	1	Cayman Islands: new 10m. barrel terminal for crude oil transshipment
CUBA	4	4	-	-	Container and Ro/Ro terminal for Havana (P); Santiago (P); Cienfuegos (P); Neuritas (P); Fruit export terminals in other ports, mechanization of roading system; sugar, US\$ 550m. (1978-90)
GUADELOUPE	2	1	-	1	Guadeloupe (P) - industrial port; Fointe-à-Fitre (C)
HAITI	1	-	-	1	Port-au-Prince (C), IDB loan US\$ 27m., land reclamation, improve handling capacity
JAMA ICA	2	2	-	-	Puerto Bustamante (P), expansion industrial area, freetrade zone and storage area
MONTSERRAT	1	1	-	-	New Plymouth (P), expansion of Ro/Ro terminal
ST. KITTS	2	-	-	2	Baseterre (C) - berths for cruising ships, and Caribbean Development Bank loan for expansion US\$ 3.3m.
ST. LUCIA	2	-	-	2	Cul de Sac Bay (P - transshipment and free trade zone); Banana berths, storage sheds and refrigeration capacity with a loan from the Caribbean Development Bank of US\$ 4.5m. Cost of project US\$ 6m.
DOWDITCON	2	-	-	2	Castries (c) = vieux fort (C)
REPUBLIC		-	-	1	Port Santo Domingo (C - US\$ 35m.)

#### Table 4 (continued)

r	T	1	<u> </u>	1	
	No. of projects	In planning stage	In decision stage	In design or construction stage	
		P	D	с	9.2 CENTRAL AMERICA (No. of ports - 17)
COSTA RICA	3	2	-	1	Puerto Limón (P - Federal Republic of Germany loan US\$ 24.5m.); Puerto Caldera (P); Puerto Moin (P - US\$ 14m.)
EL SALVADOR	1	1	-	_	Acajutla (P - US\$ 27m.), container terminal
GUATEMALA	1	1	-	-	Pacific Coast terminal (P - US\$ 80m.)
HONDURAS	2	1	-	1	Puerto Cortes (C - US\$ 8m.) grain terminal; Puerto Castilla (P - US\$ 18.7m.)
MEXICO	6	1	2	3	Coatzacoalcos - Salina Cruz (P - US\$ 12m.) miniland bridge; Salina Cruz (D), Lazaro Cardenas (D) oil terminal; Pajaritos (C); Topolobampo (C); Rosarito (C) - oil terminals
NICARAGUA	2	2	-	-	Puerto Corinto (P - US\$ 2.6m.) - container crane; Atlantic coast terminal
PANAMA	1	-	-	1	Puerto Vacamonte - fishing port (C - US\$ 30m.)
					9.3 SOUTH AMERICA NORTH SEABOARD (No. of ports - 10)
TRINIDAD AND TOBAGO	1	-	-	1	Port of Spain (C) - new container terminal
VENEZUELA	9	1	-	8	Port Carenero (P - US\$ 145m.); Puerto Cabello (C - US\$ 138m.); La Guardia (C - US\$ 99m.); Guanta (C - US\$ 41m.); Maracaibo (C - US\$ 37m.); Guaranao (C - US\$ 17m.); Puerto del Estado de Nueva Esparta (C - US\$ 5.6m.); Puerto del Oriente (C - US\$ 5.2m.); Puertos Los Totumos (C - Airdomes)
					9.4 SOUTH AMERICA WESTERN SEABOARD (No. of ports - 19)
CHILE	3	2	-	1	Isla Rocuant (P - Industrial and fishing port); San Vicente (P - US\$ 4m.); Valparaiso (C - container depot)
ECUADOR	5	-	-	5	Guayaquil (C); Puerto Bolivar (C); Esmeraldas (C); Manta (C - fishing port); Posorja (C - fishing port) - Total for all ports US\$ 375m.
PERU	11	1	-	10	Bayouar (P); Malarani (C); Callao (C); Teo (C); Salaverry (C), Iquitos (C); Pucallapar (C); Yusimaguas (C); Talara (C); General San Martin (C); Chinilote (C): Total all ports US\$ 9.0m.
					9.5 SOUTH AMERICA EASTERN SEABOARD (No. of ports - 26)
ARCENTINA	8	3	-	5	Punta Medanos tentatively deep water port (P - US\$ 700m.); Bahia Blanca (integral study of ports up to 30 ft. for long term 1995 - Cost US\$ 1m.); Bahia Blanca (feasibility study widening and deepening access channel, cost US\$ 3m. loan - World Bank); Punta Colorado, Patagonia (C - first variable orientation off-shore bulk terminal); Six ports (C - expansion of 7 grain elevators, IDB loan); San Pedro and Rosario (C - construction canal to connect Rio de la Plata - Buenos Aires and ports of Paraná river (IDB loan); Punta Quilla (C); Puerto Barranqueras, largest river terminal in Paraná (C - US\$ 470m.); Buenos Aires (first of 2 Liebber cranes 300t. capacity)
BRAZIL	15	8	1 -	6	Sao Francisco do Sul (C - US\$ 1.5m. and US\$ 1.6m two extensions); Manaus (P - US\$ 6.5m.); Tebig (P - largest oil terminal in Latin America 600,000 b/d); Aracaju (P - US\$ 8.4m.) - feasibility study; <u>Sepetiba</u> (P); <u>Santos</u> (D); <u>Recife</u> (C); <u>Rio Grande</u> (P); <u>Capuaba</u> (P); Paraguana (P); those underlined specific projects consider an investment around US\$ 350m. Punta da Madeira (P) port of integrated project costing US\$ 1,800m. extraction of iron ore from Carajas mountains; Suape (C - US\$ 229m.); Tubarao (P - US\$ 45m.) - Special bulk terminal for coal; Praia Mole (P - US\$ 250m.) - special bulk terminal for iron ore; Barra do Riacho (C - US\$ 50m.) - special terminal for cellulose; Santos (C - US\$ 125m.) - modernization on railway access and sugar terminal.
ORUCUAY	3	1	-	2	Port Montevideo (C - US\$ 5m. silos); Port Montevideo (P - fishing port); Port Montevideo (C - IDB loan)

	No. of projects	In planning stage	In decision stage	In design or construction stage	
		P	D	С	10.1 WESTERN ASIA (No. of ports - 26)
BAHRAIN	1	-	-	1	Mina Sulman (C - US\$ 66m.)
CYPRUS	2	-	-	2	Limassol and Larnaca (C - US\$ 29.5m., World Bank loan of US\$ 8.5m.)
DEMOCRATIC YEMEN	2	-	-	2	Hodeidah (C), Mokha (C)
IRAN	1	-	-	1	Chahbahar (C)
IRAQ	2	-	-	2	Basrah (C); Umm Qasr (C); both ports expansion for container terminal
JORDAN	1	-	1	1	Aqaba (C) - temporary floating jetties
KUWAIT	2	-	1	2	Shuwaikh (C); Shaiba (C)
LEBANON	2	1	-	1	Beirut (P - Master plan underway)
OMAN	2	-	-	2	Mina Qaboos, Mina Raysut
QATAR	. 2	1	-	1	Doha (C); Jarzirat Alyah (P - under study)
SAUDI ARABIA	4	1	-	3	Jubail (P - US\$ 1,000m.), industrial and commercial harbour, phase II of 5 year plan. Dammam (C), Jeddah (C) and Yanbu (C)
UNITED ARAB EMIRATES	6	-	1	5	Mina Jebel Ali, massive new harbour for industrial development (D - US\$ 1,670m.); Mina Zayed (C - US\$ 36m.); Mina Sagr (C - US\$ 52m.); Port Khalid (C - US\$ 28m.); Khor Fakkan (C - US\$ 52m.); Port Rashid (C) ;
					10.2 SOUTHERN AND EASTERN ASIA (No. of ports - 26)
BANGLADESH	1	-	-	1	Chalna (C)
INDIA	6	1	-	5	Bombay (C - US\$ 4.6m.); Haldia (C); Mormugoa (P - deepening and reclaimed); New Tuticorin (C); Madras (C - outer harbour ore and oil berths, 8,000 t/m); Mangalore (C)
INDONESIA	3	-	-	3	Belawan, Phase I (C - US\$ 100m.); Surabaya, Phase I (C); Jakarta (C - US\$ 79m.)
MALAYSIA	4	-	1	3	Kuantun (C - new port); Master plan review of all ports - Kota, Kinabalu, Sandakan, Tawau (C - US\$ 26m.) - World Bank loan US\$ 13m.; Port Kelang (C - US\$ 4m. conversion general cargo to container terminal); Bintulu (D - US\$ 179m. financed by Islamic Development Bank to handle LNG)
PAKISTAN	1	-	-	1	Kasim (C - US\$ 220m., ADB supported by a loan of US\$ 48.6m.) iron ore and coal terminal phase I
PHILIPPINES	2	-	-	2	Gayazan de Oro (C); General Santos (C) cost of both projects US\$ 20m.
REPUBLIC OF KOREA	2	1	-	1	Incheon (P); Pusan (C) - Total mumber of births will be increased from 93 to 150 berths
SINGAPORE	3	-	-	3	Changi (C); Jurong (C, harbour extension); Keppel Wharfs (C - US\$ 8.8m. re equipment for container terminal)
SRI LANKA	1	1	-	-	Colombo (P - second container berth)
					CODE 7: See Annex I, Classification of countries and territories (No. of ports - 7)
CHINA	7	2	-	5	Lien Yun Kang (P - new deep sea harbour - cost US\$ lbn., operative 1986); River Yangtzee - deepening is planned at cost of over US\$ lbn.; Shanghai (C); Hsinkang (C); Whampoa (C); Chang Chian (C); Mawei (C)

#### Table 4 (continued)

	No. of projects	In planning stage	In decision stage	In design or construction stage	
		P	D	C	CODE 12: See Annex I, Classification of countries and territories (No. of ports - 3)
SOLOMON ISLANDS	1	-	-	1	Honiara (C - US\$ 2.7m. expand capacity)
PAPUA NEW GUINEA	2	-	-	2	Port Moresby (C); Samurai (C); both projects at cost of US\$ 10.5m., World Bank loan of US\$ 3.5m.
Total:	185	52	6	127	

#### Table 5

Summary of projects by type of facility

Provision or extension and/or modernization	Extension	Modernisation	Total
Conventional berths for general cargo	24	1	25
Container terminals	30	3	33
Roll-on/Roll-off terminals	15	1	16
Multi-purpose terminal	1	_	1
Oil terminal	10		10
Product terminal	2	_	2
Specialized terminal for gas	2	-	2
Mineral terminal	9	2	11
Grain terminal	6	1	7
Specialized terminal for dry bulk cargo	2	-	2
Specialized terminal for sugar	2	-	2
Extensive dredging	7	-	7
Extensive land reclamation	5	-	5
Extensive improvement of storage	_	6	6
Improvement on equipment			
(floating and cargo handling)	_	11	11
Passenger terminal		1	1

#### Table 6

## World Bank loans or credit for port development granted in 1977/78

Country	Type and date	Amount of loan/credit (million \$)	Total pro- ject cost (million \$)							
Benin	IDA									
	June, 1978	11.0	46.1							
Extension of the port of Cotonou, improvement of cargo-handling, training of port staff.										
Maturities:	1988-2028									
Service charge:	3/4%									

Cyprus	IBRD March, 1978	8.5	29.5								
Extension of the ports of Limassol and Larnaca to re- duce congestion and meet traffic increases up to 1983.											
Maturities:	1981-1993										
Interest rate:	7.45%	1	1								
Malaysia	IBRD	12.0	260								
-	May, 1978	13.0	26.0								
To provide the	e Sabah ports o	f Kota Kinabalı	i, Sandakah								
and Tawau wit	and Tawau with cargo-handling equipment, to construct										
new berths and sheds in the port of Tawau.											
Maturities:	1983-1995										
Interest rate:	7.5%										

Topics

Papua New Guinea	IBRD April, 1978	3.5	10.5		
Construction of a container terminal at Port Moresby, a coastal wharf at Samarai and training of port staff.					
Maturities: 1984-1998					
Interest rate: 7.5%					
Sudan	IDA				
	March, 1978	22.0	50.7		
To develop in Port Sudan physical capacity, operational					
productivity and management capabilities.					
Maturities: 1988-2028					
Service charge: 3/4%					

Table 6 presents the World Bank loans granted during 1977-78. A total of \$58 million for a total project cost of \$162.8 million will be financed by the World Bank in 5 port projects. This is considerably less than the total loans granted by the World Bank in the previous year. However, no general conclusions should be drawn from this fact since the World Bank is currently discussing 3 projects for the lending programme of 1979, 9 for the 1980 programme, with another 8 stand-by projects for 1980. This would indicate that the World Bank is still very active in financing port development.

#### Adequacy of port services

The adequacy of port services can best be considered in terms of port congestion.

An indicator of port congestion used in earlier Reviews is the average of waiting times before berthing for general cargo ships, as reported for a number of ports intermittently subject to congestion. Figures for the first four months of each year since 1973 show the following progression:

Year	1973	1974	1975	1976	1977	1978
Average of waiting days per ship	4.0	4.8	14.3	39.5	22.0	6.8

These figures are not representative of world-wide conditions, but they show how conditions in regions most severely affected by port congestion have developed. An improvement registered between 1976 and 1977 was reinforced in 1978 and the crisis period which started late in 1974 would appear to be over.

Another indication of the existence of congestion is the levy of congestion surcharges. During 1978, the attention of the UNCTAD secretariat was drawn to the levy of congestion surcharges in 50 ports, compared with 79 in 1977. The information is by no means exhaustive, but once again the trend is clearly indicative of an improving situation.

The easing of congestion at ports which have experienced congestion is due partly to a lessening in the rate of increase of traffic, partly to new port facilities and partly to increased efficiency. An element in the improved efficiency has been a concerted effort by port authorities and ship operators to modify shipping practices: for instance, unitization of cargoes is being demanded by the ports, which are also insisting on advance documentation of cargoes, modern ships and uniform hatch distributions.

#### Seminar & Conference

1. "Port Administration and Operation" – With Workshops in Identification and Solution of Specific Port Problems. New York, March 31-May 9, 1980, The World Trade Institute.

Details from:

Mr. Robert Keller, Director, Export Development and Trade Promotion, The World Trade Institute, One World Trade Center, 55W, New York, NY10048, U.S.A.

(The World Trade Institute is a service of the Port Authority of New York and New Jersey.)

2. "African Trade & Shipping" Seatrade Conference sponsored by the President of the Republic of Liberia and Chairman of the Organization of African Unity: Monrovia, 22-24 January, 1980 Details from:

Seatrade, Fairfax House, Colchster, Essex C01 1RJ, U.K.

#### Publications

1. "ADMINISTRATION ET EXPLOITATION PORTU-AIRES" by Jaan-Georges BAUDELAIRE, Ingénieur Général Honaraire de Ponts et Chaussées; Préface de Paul BASTARD, Ingénieur Général des Ponts et Chaussées. (French, 377 pages)

ÉDITONS EYROLLES, 61 boulevard Saint-Germain-75005, Paris, France

- 2. "Liner Shipping and General Cargo Transport" by Christopher von Schirach-Szmigiel. 339 pages, US\$22.00 EFI, Box 6501, S-11383 Stockholm, Sweden
- 3. "Swedish Seaports-Economics and Policy" by Jan Owen Jansson – Inger Rydén. 180 pages, SwCr. 65.00 EFI, Box 6501, S-11383 Stockholm, Sweden
- 4. "Dredging: A Handbook for Engineers" by R.N. Bray, BA, MICE

This book is for port engineers, consultants and contractors in all countries, working on both inland waters and docks and harbors, who need a practical handbook to provide them with adequate knowledge of dredging work, the type of problems which may be encountered and how they might be overcome. 276 pages, £25.00 net Boards

Edward Arnold (Publishers) Ltd., 41 Bedford Square, London, WC1B 3DQ, U.K.

## Towards an International Development Strategy for the 1980s

(UNCTAD: Monthly Bulletin No. 155) In 1980, the international community will meet in a special session of the UN General Assembly to adopt an International Development Strategy (IDS) for the 1980s. Like other UN bodies and agencies, UNCTAD is currently engaged in determining its contribution to that Strategy.

In drawing up a new Strategy it must be recognized that the Development Strategy for the 1970s has largely failed. The international community is thus faced with the task of formulating a more effective outline of international co-operation for development for the decade ahead.

#### **Conceptual Framework**

In the view of the UNCTAD secretariat, an essential first step in this process is to evolve an appropriate conceptual framework for the new Strategy to determine its principal policy components as well as their order of priority.

The main element in the conceptual framework would be the recognition that a fundamental reform of the existing international economic system is necessary if it is to be more supportive of the development process. This follows from a recognition that the development of the poorer countries can neither be achieved as a mere by-product of an eventual recovery of the industrialized countries, nor be brought about by financial resource transfers alone from developed to developing countries – two lines of thought that had strongly influenced the conceptual framework of the Strategy for the 1970s.

Such fundamental reform of the international system would have to follow two lines of action. First, it would have to undertake basic reforms to restructure the economic relations between developing and developed countries in the spirit of the New International Economic Order. Specific aspects of such change have been under intensive consideration in recent years, and some have reached the stage of concrete negotiations within UNCTAD. This is the case with the negotiations on an Integrated Programme for Commodities and a Common Fund, a Code of Conduct for the Transfer of Technology, equitable principles and rules for the control of restrictive business practices, and the alleviation of the external debt burden of developing countries. Now negotiations have to focus specifically on issues where little progress has been achieved so far. Second, a new Strategy would need to evolve a comprehensive system of economic co-operation among developing countries based on the principle of collective self-reliance. The latter should be recognized as an integral and vital part of a new global Strategy, as a fundamental restructuring of international economic relations would not be feasible without closer economic co-operation among developing countries. There are a number of reasons for this.

Complementing these two major elements of a new Strategy would be the recognition that the development process would be greatly accelerated by an expansion of financial and technical assistance to developing countries.

The conceptual basis of a new Strategy would thus differ substantially from that of the Strategy of the 1970s which envisaged no significant change in the existing institutional framework governing economic relations between developing and developed countries, and relied instead essentially on quantitative improvements in the flows of trade, aid and modern technology as the principal external stimuli for the development process. A new and effective Strategy for the coming decade will need to be firmly based on the twin elements of structural change and institutional reform to reshape thoroughly the relations between developed and developing countries, as well as among developing countries themselves.

#### Implementation of the Strategy

An effective implementation of a new Strategy needs to consider the ways in which its policy proposals are formulated. A number of issues arise in this connection.

One relates to the nature of policy targets. A central feature of the new Strategy should be the elaboration of priorities for detailed and specific negotiations over the coming decade, which implies a definite commitment by governments of both developed and developing countries to enter into such negotiations. A second issue relates to the nature of these commitments. Though the Strategy cannot be expected to take the form of a fully operational plan, some degree of commitment by governments regarding the implementation of specific measures would greatly contribute to its effectiveness. Third, it follows that policy measures in the new Strategy should be stated unambiguously and in specific terms, and that the responsibility for implementation should be clearly identified. This would not only improve the coherence of the Strategy as a package of mutually supporting measures, but would also facilitate the task of periodic review and appraisal of its implementation.

### Rules and Principles Governing International Economic Relations

There is another aspect which needs particular attention in the context of evolving an equitable and efficient international economic system. This concerns the evolution of the rules and principles governing international economic relations.

Until recently, the latter evolved on the basis of principles and rules which had their origin in the Bretton Woods Agreement and in the General Agreement on Tariffs and Trade (GATT). Both were drawn up in the immediate post-war period by the main developed market-economy countries, at a time when in international economic negotiations the political presence of developing countries was almost non-existent, while the socialist countries of Eastern Europe were also non-participants.

While these principles and rules were successful in attaining their basic objectives, namely the safeguarding of high levels of employment in the industrialized countries and the expansion of world trade and output, they were not

#### (Continued on next page bottom)

Topics

## The Netherlands submits Note on World Maritime Day to IMCO

Under Agenda item 33 of the tenth regular session of the Assembly document A X/33 was introduced containing the proposal to establish an Annual Day to be called World Maritime Day and to be celebrated for the first time on 17 March 1978 on the occasion of the twentieth anniversary of the coming into force of the IMCO Convention. This proposal was unanimously accepted by the Assembly and, apart from IMCO itself, a number of Member countries have organized certain maritime manifestations on 17 March in 1978 and in 1979. A report thereon is contained in document A XI/33.

The Netherlands Government fully endorses the idea of an annual World Maritime Day as an occasion not only to focus attention to IMCO and its valuable work, but more generally to call the widest possible attention to the maritime scene and to demonstrate the various aspects of maritime shipping and its related activities especially to those not professionally or otherwise connected with these activities. In short: World Maritime Day should primarily provide an occasion for educational and propagating purposes.

In this conception the celebration of World Maritime Day should not be confined to the sending of telegrams to seafarers, press conferences and the like. Valuable as they may be, these activities barely reach outside the circle of the already interested. To promote interest in maritime

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adequately responsive to the needs of developing countries. While some *ad hoc* measures have later been formulated in their favour, these are still external to the main body of rules themselves.

The essential question therefore is whether the time has not come for an attempt on the part of the international community to recast these rules so as to provide adequate support for the development process as well as a more flexible and efficient world economy. This seems particularly appropriate now that the post-war institutional framework is in disarray and the developed countries themselves are finding it increasingly difficult to solve their trade and payments problems within the existing rules and procedures. Hence the reform of the existing institutional framework would be in the interest of both developed and developing countries. In order to be effective, such a reformulated set of rules would need to be supported and complemented by internationally agreed principles relating to the impact of domestic economic policies of developed countries on trade in general, and on the trade of developing countries in particular.

In the context of formulating a Strategy for the decade ahead, a major issue for consideration is therefore the desirability of negotiating, on a universal basis, a new international economic convention which would embody mutually consistent principles and rules covering all the various policy aspects of a New International Economic Order. In the view of UNCTAD, such a convention could be perceived as an end result of an International Conference on the subject sometime during the 1980s. matters on a really large scale it is necessary to bring the people into direct contact with ships in the ports and to provide information by physically showing the instruments of maritime shipping.

The Netherlands Government has been active in this direction but has been hampered by the fact tht 17 March, how appropriate in connexion with IMCO, is climatologically a most inappropriate date for the Netherlands and for many other countries of the Northern Hemisphere to draw people to ships and ports. Furthermore a fixed date will only occasionally coincide with a non-working day and thus usually not attract sufficient people.

The Netherlands Government therefore proposes to change the celebration of World Maritime Day to another time of the year and to a certain day instead of a fixed date. After full consideration of the possibilities it is proposed that World Maritime Day should be observed on a Saturday in September for the following reasons:

- 1. The latter part of summer is the most appropriate time for outdoor-manifestations in the Northern Hemisphere; on the other hand the winters are generally much milder in the countries of the Southern Hemisphere and September therefore need not be a hindrance to these countries to the extent 17 March is for the Northern countries.
- 2. Apart from exceptions, Saturday is the traditional day wholly or partly devoted to recreational activities and therefore the most appropriate day to attract attention to the showing of the maritime scene.
- 3. With the ongoing proliferation of maritime events of various kinds a certain co-ordination becomes inevitable. In this connexion it should be mentioned that the International Association of Port Authorities is planning the annual observance of a World Port Day on a Saturday in September each year.

In view of the foregoing it is suggested that World Maritime Day be celebrated in September on a Saturday in conjunction with World Port Day. Apart from the close connexion between ports and maritime shipping a coordinated celebration can only be of advantage to all concerned.

The assembly is invited to give attention to this proposal. In case it would be in favour the Secretary-General of IMCO could be requested to enter into contact with his counterpart of the International Association of Port Authorities to explore the possible extent and form of co-operation between the two Organizations in celebrating their annual events.

## **Port of Montreal Day Panel Sessions**

#### • Containerization and the Port of Montreal in the 80's

The Moderator of this panel was Walter Mueller, Manager Transportation and Distribution, Celanese Canada Inc. The panelists were men who are deeply involved in the transport and handling of containers, viz: Robert L. Kelly, General Manager Manchester Liners Limited, Thomas D. Lord, President Cast North America Limited and William J. Ryan, Assistant General Manager, North American Region, Container Services, CP Ships.

Mr. Kelly commented on the remarkable growth from 11,800 containers handled at the Port of Montreal in 1968 to an expected volume of 250,000 TEU's in 1979. He expressed his confidence that the container business at this port will continue to expand rapidly.

One big reason for this is its ideal location 1,000 miles inland from the Atlantic Ocean. Situated at the entrance to the Seaway, it serves the Canadian and American Great Lakes regions by means of feeder ships which are increasing in size and capacity.

Another reason given is Montreal's favourable location for the eastern terminus of transcontinental container trains as well as trains which serve the industrial heartland of Ontario. He predicted a steady growth in the land bridge concept similar to developments in the United States, because of demands for greater speed and some apprehension over the future of the Panama Canal. Centres such as Winnipeg, Calgary and Edmonton now have container depots and efficient container handling equipment. The location is also well suited for distribution by truck to Eastern Ontario, all parts of Quebec and into New England.

The speaker stated that one of the major challenges for container operators everywhere will be to match inward and outward cargoes to avoid costly deadheading of empty containers.

He concluded that container marketing in the 80's will continue to require modernization of services and equipment at the port and streamlining of inland transportation to accelerate the turnaround of containers from inland points which will improve overall efficiency and lead to more economical through pricing.

Like the previous speaker, Mr. Ryan also predicted a steady expansion in container business at Montreal. He based this forecast on a number of facts, one of which was Montreal's five excellent container terminals, which exceeds the number in any other Canadian port. Three of the terminals are common user facilities.

Unlike major East Coast American ports, Montreal provides rail service right to the terminals. This is impossible in densely populated American port areas and cargo must be transferred from trains to trucks some distance from the port for the final leg of the trip to dock-side.

Montreal's location is an important factor, for cargo can be carried up river by ship much more cheaply than by rail from East Coast Canadian ports. Also, being situated in a region which generates more than 70% of Canadian trade with western Europe, it is a logical centre for handling containers originating in or destined for that area. This will likewise apply to Africa and the Middle East as container traffic develops in these regions.

Mr. Ryan pointed out that Montreal is competitive with

East Coast American ports in cost and service and that it is an alternative gateway for import-export trade between Western Europe and the American mid west.

It was stated that a greater volume of traffic will enable the shipping lines to build larger ships to carry a greater number of containers more economically. He urged shippers and receivers to select Montreal as their container port in order to share in these economies.

Thomas Lord predicted an annual 7% increase in container volume at the Port of Montreal. In the next ten years the business will practically double to almost 500,000 TEU's. He drew attention to the fact that each of the five existing terminals is capable of expansion laterally or in depth or both to a sufficient extent to handle this steady increase in business until the end of the 80's.

Mr. Lord forecast a trend in the 80's to much larger capacity ships of both the cellular and combination container and bulk cargo types. He looks for the phasing out of mobile cranes for combination vessels and their replacement with overhead gantry cranes. There will be a trend in the 80's toward increasing automation of gantry cranes.

Due to the anticipated premium on space at the terminals, Mr. Lord anticipates a move to replace straddle carriers and lift trucks with terminal container gantry cranes to permit higher stacking.

He also foresees changes in the containers. The trend in the 80's will be to greater weight limits, reduced new purchases of specialized boxes and the almost exclusive use of steel in their construction.

#### • Breakbulk cargo prospects in the next decade

Norman Wolfe, President Wolfe Stevedores Limited and President Interprovincial Association of Stevedoring Contractors, acted as Moderator of this panel. The panelists were Roy K. Eustace, Vice President Marketing, Saguenay Shipping Limited, Herbert Colley, Chairman Colley Motorships Limited and Chairman Atlantic Container Lines (Canada) Limited and James L. Thom, President Montreal Shipping Company Limited.

Mr. Eustace referred to the fact that the container business gains more attention these days than conventional shipping. He stated that there are sound reasons why the breakbulk market warrants more attention than it is presently receiving.

Despite the fact that more container ships are being built than general cargo ships, the latter still represent 90% of the total, which is a big market.

While containerization is continuing to expand, he suggested that the growth will moderate in future. In the case of poorer countries, investment is a problem. Diverting scarce borrowing capacity into port and other infrastructures for container handling, which will increase the number of unemployed and reduce the rate of industrialization, is not in the direct interest of those countries. It is particularly true that conventional shipping is more economic in cases such as the European trade with Guyana where the backhaul is bulk sugar or bauxite. Also, many of these countries have cargo reservation legislation in effect

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### WHAT IS THE BEST WAY TO USE THE LANDS EFFECTIVELY ?

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which is designed to nurture their own merchant marines.

He pointed out that Montreal handles over 40% of all breakbulk cargo which moves through St. Lawrence and East Coast Canadian ports. It has a market position worth protecting. He urged that positive efforts be made to continue domination of the breakbulk market in conjunction with the expansion of the container trade.

Mr. Colley traced the development of the Roll on/Roll off concept of ocean shipping which became more viable as the cost of transporting cargo in conventional Lift on/Lift off ships increased.

He described the three types of RoRo traffic, viz:

(1) The trailer unit which moves on its own wheels from point of origin to place of rest aboard ship and, after the ocean crossing, to its destination.

(2) The use of ships equipment bearing the name ((Roll Trailer)). It is designed to handle over weight or outsize cargo items and high cube cargo which do not fit economically into a standard trailer unit. This equipment is a low flat bed trailer capable of carrying up to 60 tons. The cargo is loaded on to this trailer at dock-side and it is rolled aboard ship. At the port of destination the trailer is rolled from the ship to the wharf and the cargo is unloaded.

(3) Blockstow cargo is the third type of RoRo traffic. Cargo is moved by forklift or truck from the pier directly to the place of stowage aboard ship and the cargo items are stowed in their natural state and not on wheels. At destination the process is reversed.

There has been a proliferation of different types of vessels in this trade, some of which are full RoRo and others are a combination of RoRo and containers or RoRo and bulk cargo, each adapted to a particular trade pattern or cargo flow.

RoRo and containerships are, for the most part, not in direct competition. Each has its distinct features and advantages.

About five years ago many experts predicted little future for RoRo traffic in the face of the success of the container business. The predictions were proven to be incorrect. RoRo tonnage has increased at a dramatic rate and Mr. Colley looked for a healthy growth in this business at the Port of Montreal.

In reviewing the cargo pattern at the Port of Montreal during the past decade, Mr. Thom noted that in 1970, 75% of the general cargo was breakbulk and 25% was containerized.

In 1978 only one third was breakbulk and two thirds was container traffic.

Due to the high increment of cargo handling and shore costs to conventional vessels, he was not optimistic for any increase in the volume of general cargo carried by such ships but urged that every effort be made to at least maintain the present tonnage. He shared the views of previous panelists that the principal growth in the next decade will be in container and RoRo traffic.

He stated that the shipping operations of developing countries often go beyond commercial maritime practices into the area of trade policy. Many of these countries have nationally identified lines calling at Montreal for commercial and/or aid cargoes. He predicted some growth for the port in this market sector, supported by Canada's aid programs. Mr. Thom pointed out that much has been done in recent years to ready the port for the next decade. He referred particularly to the improvement in labourmanagement relations, the dramatic reduction in theft and pilferage, improvement to port facilities, the steady growth of winter navigation and an active port marketing program. He stressed the fact that to further the expansion of its maritime trade the Port of Montreal must continue to be competitive, industrious and aggressive in the pursuit of new business.

#### Ports and Waterways in brief: Brazil

- The first terminal in Brazil to be used only by containers shall start operation up to the end of this year, in the Port of Santos, and shall coincide with the arrival of the railway connection.
- In 1978 the Brazilian ports handled 812,000 tons of containerized cargo, which corresponds to 35% more than the previous year.
- Companhia Docas do Rio de Janeiro completed a project for the installation of a modern telecommunication system in the Port of Rio, having in view a better planning and performing of port operations.
- The works of the wheat and soja terminal of the Port of Rio Grande, considered of priority by the policy of construction of the Exportation Corridors, shall be finished this year.
- After breaking all cargo handling records since its foundation in 1892 (19,695,283 tons), the Port of Santos had a high financial deficit in 1978, because of the low port duties which did not follow the inflation indexes of Brazil's currency.

## Port of Nanaimo—International connection

Canadian ports are moving more and more tonnage by water. The ports are proving their efficiency and as a result ports such as Nanaimo are putting more into the local economy each year.

Port Days 1979, on September 28 and 29, celebrated the Canadian Port and Harbour Association theme: Canada's Ports, the International Connection.

Following is background information on the Port of Nanaimo, how it developed, future plans for expansion at Duke Point, and what it means to the community of Nanaimo.

Recently the federal government and the British Columbia provincial government signed an agreement committing a total of \$40 million to the development of the shipping terminal at Duke Point expanding, eventually, the Port of Nanaimo from three to six deep sea berths.

At the signing, officials unveiled a plaque which read in part: "This facility is being constructed to enhance the economic viability of Central Vancouver Island and the Mid-coast of British Columbia."

The Nanaimo Harbour Commission was formed in 1961 and is largely an autonomous body charged with keeping the harbour financially independent. It is, however, subject to the general requirements of the Federal Department of Transport.

It is estimated that one out of every ten jobs in the Greater Nanaimo area is related in one way or another to port activities. That is, about 4,000 jobs and since each job

supports 1.8 dependents, some 11,000 people in the area depend on the port.

In dollars, through salaries, wages, services, operating and maintenance costs the Port of Nanaimo puts nearly \$3,000,000 into the local economy each year.

Building of the port extension at Duke Point will mean a major capital investment of some \$50 million, much of that money finding its way back into the economy of Nanaimo over the construction period.

When the new expansion at Duke Point is in full operation about 1,900 direct and indirect jobs will be created. That will boost the total annual payroll of the area by nearly \$28 million.

#### West coast ports gaining

West coast ports are increasing their volume of international trade, taking away business from Gulf and East Coast ports.

A basic reason for the shift is the political uncertainty surrounding the Panama Canal, escalating canal tolls, higher fuel costs in shipping and the containerization of cargoes.

Up to a few years ago, even goods going from Chicago to Tokyo went through New York ports. That's changing.

"Half the movement that once went through the canal now goes overland", says Frank Schwarz, senior transportation analyst at the U.S. Federal Maritime Commission. "Because more of the U.S. imports come from the Far East, an overland transportation system means a diversion of cargo normally sent through the Panama Canal to Gulf and Eastern ports. It now comes to West Coast ports for shipment by rail."

It is estimated that \$2.1 billion annually can be saved from the balance-of-payments deficit by the use of American railroads rather than foreign ships. Port expenditures and modernization costs have increased dramatically at Pacific ports, in particular the ports of Long Beach, Los Angeles and Seattle.

#### Slogan competition

The Nanaimo Harbour Commission has asked senior students in the area to submit slogans which can be used by the Canadian Port and Harbour Association for future port days. Theme for this year's Port Days was "Canada's Ports—the International Connection." Previous slogans included: "The community we serve"; Canada's Ports— Lifeline to Prosperity" and "Canada's Ports—Gateways to the World." There will be prizes for the three best slogans submitted.

#### Panama Canal tolls increase 29.3%

President Jimmy Carter approved a 29.3 percent increase in Panama Canal tolls.

The new rates, which went into effect October 1, are \$1.67 a Panama Canal ton for vessels carrying passengers or cargo and \$1.33 a ton for vessels in ballast, without passengers or cargo. A Panama Canal ton is equivalent to 100 cubic feet of actual earning capacity.

The new toll rate for warships, colliers, hospital ships, and supply ships, which pay on a displacement ton basis, is 93 cents a ton.

Previous Panama Canal toll rates were \$1.29 a ton for laden vessels, \$1.03 for vessels in ballast and 72 cents a ton for those which pay on a displacement basis.

#### 38 PORTS and HARBORS - DECEMBER 1979

#### Second best tonnage year: St. Lawrence Seaway

The Seaway in 1978 achieved its second best tonnage year in history. This was accomplished despite a prolonged iron ore strike in Northeastern Canada, the adverse effect of the Federal Government's new trigger price mechanism on steel imports into the Great Lakes, and an increase in toll levels.

Total tonnage moved through the Montreal-Lake Ontario section on these commercial vessels in 1978 reached 56.9 million metric tons (or 62.8 million net tons) – just 0.9 percent shy of the all-time record set the previous year. Cumulative tonnage transported via the Seaway, since its 1959 opening to deep-draft navigation, increased to 792 million metric tons (873 million net tons).

In the process of attaining this second highest tonnage total in 1978, Seaway tonnage records, which are now reported on a metric ton basis, were set in four cargo categories: bulk -52.3 million; total grains-27.7 million; wheat-14.1 million; and corn-6.4 million.

The single, most influential factor in the Seaway's exceptional overall 1978 performance was the surge in grain movements. The new total grains record surpassed by 36 percent the previous high posted in 1977. Grains also helped boost bulk cargo totals to their best yearly volume ever.

## More cargo records: South Carolina State Ports Authority

The SPA's overall cargo volume for the 12 months ending last June 30 was 4,365,145 tons. That tops the previous mark of 4,223,515 set in fiscal 1977 and exceeds last year's total by 591,762 tons (15.7 percent).

Containerized cargoes continued to soar, reaching 1,895,498 tons, compared with 1977's former record of 1,388,788. Container traffic, all at Charleston, dropped slightly the following year because of a lengthy ILA strike. The increase over fiscal 1978 was an impressive 41.6 percent on a tonnage gain of 556,806.

Additionally, break-bulk (conventional) shipments established an all-time high of 1,468,735 tons, exceeding last year's record figure by 91,457 tons. Of the break-bulk total, only 22,116 tons were handled outside Charleston, being moved through State Pier 31 in Georgetown.

A noteworthy factor is that conventional cargo has grown substantially in the last three years despite Charleston's containerization boom. Likewise, the overall SPA tonnage figure climbed to the highest level ever, although bulk commodities as a whole declined 56,501 tons.

The balance of trade through South Carolina ports continues to be favorable, with exports exceeding imports by a substantial margin. The ratio for all cargoes, including bulk, is 56.8/43.2 percent.

The export/import percentage for containerized goods, 69.6/30.4, easily offsets the slightly import-heavy 49.7/ 50.3 for break-bulk.



Continuing expansion of the Port of Charleston's Union Pier, indicated by the dotted lines, includes a recently completed 90,000-square-foot warehouse and an area earmarked for a \$4-million pier extension and back-up area. The 388-foot extension will lengthen the linear berth to 2,740 feet. The back-up area will have 81,453 square feet of piled-and-decked open storage, a truck access ramp and bridge, and a 510-foot rail track extension. The extension will help accommodate increasing LASH barge traffic as well as provide storage for increased steel, lumber and heavy equipment business. The project is targeted for completion around October of 1980.

#### Authority budget hits record level: South Carolina State Ports

A record fiscal year budget totalling \$22,779,325 was adopted by the State Ports Authority's governing board. The figure exceeds that of the previous year by \$3,633,149.

Since the SPA receives no annual appropriation from the state legislature, projections are based solely on estimated port-generated revenues.

The net gain from operations and other sources is projected to be \$2,124,789 for the fiscal year ending June 30, 1980. This compares with \$997,238 which was forecast for the previous 12-months' period.

In fiscal year 1979, the dollar volume of business far exceeded budget predictions. Operating revenues and other income were estimated at \$19,146,176 but totalled \$23,370,590. The budgeted net income of \$997,238 actually amounted to \$4,145,057.

A decline in break-bulk and an increase in container traffic is anticipated by the SPA for the fiscal year. Total combined tonnage for the two categories is expected to remain virtually the same, however, as in fiscal 1979.

Operating expenses in the new budget are projected at \$20,500,336, while in the previous year the figure was \$17,984,163. A planned increase in tariffs-charges against ships and cargoes-to offset, partially, rising payroll and maintenance costs, was not budgeted.

All but \$148,734 of the estimated net gain will be reserved primarily for present and long-range capital improvements, an annual SPA policy.

#### **U.S. Customs collections up**

Collections for the Third Quarter of Fiscal Year 1979 by the U.S. Customs Service increased 6.9 percent over the Third Quarter of 1978. The totals were \$2,166,654,092 for the quarter, as compared with \$2,026,658,242 for the same quarter last year. The Customs Service returns an average of \$19.50 to the U.S. Treasury for every budget dollar it expends in carrying out its responsibilities in the Nation's 300 ports of entry.

#### Long Beach Harbor claims `action port' title by handling record 40 million tons of cargo

Fiscal 1978-79 was a record year for the Port of Long Beach in virtually every way. Nearly 40 million tons of cargo were handled; over one dozen new ship lines were added; 128 acres of undeveloped land was acquired; and 3,789 vessels arrived to register an all-time high in ship calls.

According to the year-end figures contained in the port's annual review, titled "The Action Port", the 12-month period ending June 30 saw 39,440,072 revenue short tons move across Long Beach Harbor's 66 deep water berths, up more than six million tons from the previous fiscal year.

Led by crude petroleum imports, liquid bulk tonnage totaled 21,787,888 tons, while dry bulk accounted for 6,904,374 tons and general cargo reached a record 10,747,810 tons. Long Beach has for many years been both the general cargo and foreign tonnage leader among U.S. West Coast ports.

Harbor Commission president James H. Gray, in releasing the Port's fiscal review, noted that due to today's stringent environmental constraints on creating new land in the sea, the Port has acquired 128 acres of backland from private owners at a cost of \$8.4 million.

This land, when combined with other Port property, will permit early construction of a new 150 acre automobile terminal, to be one of the world's largest. Other new projects planned include major lumber terminals, a seventh container terminal and a Foreign Trade Zone just outside the Harbor District. Long Beach was recently approved for a FTZ Granteeship by Secretary of Commerce Juanita A. Kreps. This will be the first facility of its kind in Southern California.

Other landmarks achieved during the period were completion of the first phase of a new \$20 million omniterminal—with two container cranes and three Roll On/Roll Off ramps—for California United Terminals.

An extensive redesign of the Port's roadway system is now in its final stages and is expected to improve traffic patterns within the harbor district, at the same time increasing cargo handling capability by 33 acres.

## Dredging: Fears of fouling the ocean prove unfounded after exhaustive Research Program by the Army Corps of Engineers

Contrary to the beliefs of some environmentalists, scientific research has shown that dredged materials may be deposited at sea with little or no effect.

A five year \$32.8 million program conducted by the U.S. Army Corps of Engineers, and called the Dredged Material Research Program (DMRP), was concluded in March of last year. Although the complete wrap-up will not be published for several months, a final summary was issued recently that indicates a number of definitive conclusions.

At the beginning of this decade, according to the summary, the concern over the environmental impacts of dredging to maintain navigable waterways and harbors and the disposal of the dredged material reached the state where Federal legislation was necessary. However, it was recognized that the technical information on which the legislation was based was inadequate—existing information was limited to inferences that open water disposal of polluted dredged sediments presumably must be harmful to the environment.

To bolster the knowledge in this field, the Corps of Engineers embarked on an extensive project through the Waterways Experiment Station in Vicksburg, Mississippi. Mostly contracted to private investigators (70 per cent of the funds), the project included 250 individual studies, a mixture of conceptual, laboratory and field work.

One of the main findings of the research is that all means of disposal are suitable, but not all means are suitable for all projects. This includes open water disposal, confined upland disposal, habitat development or any other alternative.

The second basic conclusion is that environmental considerations are being considered far more than any other factor in making long range plans on a regional basis for disposal of dredged materials. Regional disposal management, the report added, offers greater opportunity for environmental protection and it can probably be done at less cost and meet with greater public acceptance.

Considering the specific findings with regards to the effects of open water disposal, the logical and easily predicted physical effects are, with few exceptions, more important than chemical or biological effects.

Physical effects could include the smothering of a clam bed, the disruption of a flow pattern, a change in salinity or similar effects. However, these effects are noticed infrequently and can be avoided with the judicious application of evaluative procedures, according to the summary. The Dredged Material Research Program has developed mathematical models that can be used for certain predicitions of physical impact.

The summary pointed out that contrary to much public, scientific and governmental opinion the deep ocean, when analyzed in a detailed objective fashion, is not everwhere a biologically fragile environment totally unacceptable for deposit of dredged material.

A significant contract study concluded that, should the economic and technological aspects be favorable, extensive

deep ocean areas are more environmentally acceptable for disposal than are some highly productive continental shelf areas, especially for contaminated materials.

As a matter of fact, many harbor entrances are being maintained by hopper dredges—including the seven major port entrances in Texas. Throughout the United States an estimated 350 million cubic yards of material are dredged each year. In Texas alone the total is 50 million cubic yards.

The Corps of Engineers, Galveston District, dredges from 1.5 to 2 million cubic yards from the Houston Ship Channel entrance to Bolivar Roads. All of this dredged material is dumped at sea about three or four miles from shore in an area 2.3 miles wide and 3.4 miles long.

For many, many years the dredges have discharged in the same area and topographical charts reveal that the material has been dispersed and the bottom is very much like the surrounding area.

"There are no known scientific studies that show that open water disposal has any effect on shrimp or fish migration," said Dolan Dunn, who is a graduate in oceanography and serves the Corps as a physical scientist in Galveston District office.

"We comply with all E.P.A. regulations and have a substantial sampling program to monitor adequately the water and dredged material," Mr. Dunn added.

The U.S. Hopper Dredge GERIG, presently on station at Galveston, looks very much like a cargo ship and it has a length of 351 feet and a beam of 60 feet. She can hold 3060 cubic yards of material and dredge to a depth of 62 feet.

The GERIG vacuums the bottom by the use of drag pipes on either side as it moves along at a speed of two to three miles per hour. The dredged material is discharged into the hoppers amidship until the tanks are full. The ship then lifts its pipes and proceeds at about 13 miles per hour to the disposal site, where doors on the bottom are opened to release the material.

Information gained in the open water disposal of dredged matter at Galveston was included in the summary. In addition, the Galveston office also participated in the research project by building in 1974 an 18-acre marsh using dredged material.

The Intracoastal Waterway provided the dredged material which was deposited near shore at Bolivar, on the East side of the Houston Ship Channel. Mr. Dunn said the area was planted with typical marsh grasses as well as upland grasses, shrubs and trees surrounded with sand bags to minimize wave action.

Very quickly the marsh area grasses took root and the area began to be utilized by small shrimp, oysters, fish and birds, proving that the dredged material is not harmful to aquatic life. In fact, in other experiments the dredged material was placed so it would form islands.

Many islands have been formed along the Texas coast as a result of past maintenance dredging jobs. These islands



RO, RO, RO YOUR BOAT GENTLY DOWN TO PIER C: A first for the recently completed \$20 million omniterminal operated by California United Terminals in the Port of Long Beach was the presence of no fewer than three Roll On/Roll Off vessels on berth at the same time.

now provide nesting habitat for 60 to 75 per cent of all colonial water birds along the Texas seashore. In some sections this figure increases to 95 per cent.

The Summary also takes into consideration the use of upland disposal where the dredged material is confined within dikes, such as those used by the Port of Houston for the major portion of the Houston Ship Channel. Conclusions were that confining contaminated material on land or in shallow water next to land can be an environmentally sound and preferred alternative, but not inherently better than open water disposal for several reasons.

In some cases it is possible to have a change in the geochemical environment that could lead to an enhanced release of contaminants and difficulty in retaining the finer grained particles where it is possible for them to have a greater impact when released. Also, it should not be overlooked that confined facilities are expensive, of finite life and result in a permanent change in the landscape.

The complete report will have information on how upland disposal areas should be constructed and maintained to get maximum storage capacity.

The summary concludes that the research has contributed much new information that is being used in all aspects of dredging project design and implementation. In other instances, it only affirmed the beliefs that have been held by many, but it has done so in such a way as to reduce the remaining doubt and enhance more widespread acceptance.

"In both cases, the result has been greatly increased opportunity for economically necessary waterways and harbors maintenance and development to proceed in harmony with appropriate levels of environmental protection and even enhancement in some cases," the report said.



EXPORT CAMPAIGN-Impressive billboards like this have recently gone up all over Los Angeles County-drawing attention to the Port of Los Angeles' \$128,000 "export experts" advertising campaign. The export campaign is the biggest special advertising campaign in the Port's history. The campaign is aimed at encouraging more American businesses to export their products.

## Inland waterway traffic to double by 2000

Nearly \$4 billion of the \$9.5 billion estimated cost of new port facilities to handle increased cargoes by the year 2000 would be spent in Louisiana, with the state leading 16 other Mid-American states in that category, according to The Mid-America Ports Study released in New Orleans in July.

The report also predicted that the volume of cargo carried on 15,000 miles of the nation's inland waterways system will double by the turn of the century, requiring construction of 1,000 new cargo-handling facilities. Findings of the study, presented to the Maritime Administration of the U.S. Department of Commerce and the 17 states, include specific recommendations for the federal government, the states, and the local port authorities to promote logical development to meet future demands of waterborne commerce.

The study also provides a detailed inventory of some 1,200 existing public and private cargo-handling facilities on the Mid-American waterways, which include the Mississippi River system, Gulf Coast waterways, and rivers of Alabama. The effects of waterway user charges and constraints imposed by locks and dams which will reach



capacity before the year 2000 also are addressed.

"In this period of scarce and high-cost energy, it is important to note that water transportation is the most fuel-efficient of all modes of transportation," Samuel B. Nemirow, Assistant Secretary of Commerce for Maritime Affairs, said. "The Mid-America Ports Study will be a valuable tool in promoting economic growth while conserving precious fuel resources."

The study, jointly funded by MarAd and the 17 states, was conducted by the consulting firm of Tippetts-Abbett-McCarthy-Stratton, with the assistance of Temple, Barker & Sloane, Inc.; Chase Econometric Associates, Inc.; and the Institute of Public Administration. The U.S. Army Corps of Engineers, U.S. Department of Transportation, and the Ozarks Regional Commission cooperated in the effort.

Study findings relating to the growth of river and Gulf Intracoastal Waterway traffic include:

• Total waterborne traffic on the system will double by the year 2000, increasing from the 1976 volume of 440 million short tons to more than 900 million-a 2.9 percent average annual increase.

• The carriage of grains, coal, petroleum products, fertilizers, and chemicals will experience especially high growth.

• The waterway user charge and traffic-flow constraints imposed by 13 locks and dams are forecast to reduce waterborne traffic by as much as 16 percent by the end of the century, unless additional lock capacity is provided.

enterprise.

increases in traffic.

the largest absolute increase.

#### NY-NJ Port Authority announces sites for 6 Industrial Park locations

Wisconsin, and Minnesota will have the largest percentage

• Louisiana, Alabama, Illinois, and Missouri will have

The cargo volume projected for the year 2000 would

exceed present cargo-handling capacity by nearly 700 million tons (the loading and unloading of 350 million tons

of cargo) a year. The study says 1,000 new terminals

occupying over 100 miles of waterfront and involving

capital expenditures of nearly \$9.5 billion will be needed. It

suggests that in a given port new facilities be clustered to

regional, and federal levels, and the involvement of private

Recommendations emphasize the needs for thorough planning and continuing cooperation at the local, state,

conserve waterfront land and minimize costs.

Six potential sites for the development of urban industrial parks in the New York-New Jersey metropolitan area have been designated in a master plan recently adopted by the commissioners of The Port Authority of New York and New Jersey. The six sites were selected from a total of 17 that had been reviewed after consultation with more

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than 300 elected officials, community groups and other public and private interests within the Port District. The site locations selected are: Charleston area, Staten Island; Doremus Avenue, Newark; Greenville Yards/Claremont Terminal, Jersey City; Hunts Point/Oak Point Yards area, The Bronx; North Avenue, Elizabeth; and Spring Creek, in the Borough of Brooklyn.

Commenting on the site selection, Port Authority Chairman Alan Sagner described the selection as an important step in the joint cooperative program of New York and New Jersey, affected municipalities and the Port Authority, to reattract manufacturing jobs to the older, economically-depressed cities of the Port District.

The Master Plan is, in effect, a statement of where Port Authority industrial parks may be located and an assessment of their effects upon the municipality in which they may be located. It does not constitute a commitment by either the Port Authority or any municipality to proceed with any development, and may be amended by the Port Authority in the manner in which it is adopted.

Before the construction can start on any site, the Port Authority and the municipality in which a site is located must enter into an agreement covering the full terms and conditions of development, applicability of municipal codes and ordinances; provision by the municipality of municipal solid waste if a resource recovery facility is included in the development; off-site improvements, if any, necessary in connection with the development; and sharing of net revenues with the municipality.

The proposed Port Authority program to develop sites for manufacturing plants in the hard-pressed central cities will require an investment of more than \$1 billion in public and private funds over the next ten years, of which the Port Authority will invest from \$300 to \$400 million on a self-supporting basis.

## Portland undertakes major land development project

Creating new jobs and strengthening the tri-county Port district economy are goals of the Port's new land development project, approved by Port of Portland Commissioners.

Authorization allows the Port to plan for acquisition and development of a parcel in the tri-county area of 100 acres or more for a new industrial park. In the new project, the Port intends to break away from the core area and the waterfront where present Port industrial developments lie, and develop a site in a suburban community in the district.

"The new land development project gives us the opportunity to expand the local property tax base in the surrounding hinterland," says Morton Michelson, Port economic development and real estate manager. "We have a vast amount of expertise to share with outlying communities. This is a prime opportunity to make the Port more accessible to these jurisdictions."

Already a major force in community industrial growth, the commission's approval enables the Port to actively fulfill its statutory role of fostering economic growth in the tri-county area. Port developments at Rivergate and Swan Island in North Portland, with over 75 businesses at present, have created more than 8,500 jobs for area residents since the 1950s.

Diversification of the area's economy is still another goal

#### Port of Richmond's new terminal



The Port of Richmond's new cargo terminal, introducing a unique overhead container handling system, developed by Matson Terminals, Inc., was recentrly.

The terminal in its first phase comprises 16 acres, with a shoreside gantry crane, a 336 foot yard gantry crane and a patented automatic conveyor which transfers containers between the yard crane and the shipside crane.

The City of Richmond has authorized expansion to a second phase which will include an additional crane assemblage, another 1000 feet of berth, and increase the terminal area to a total of 23 acres in late 1980.

The overhead system improves space utilization and increases operating efficiency in addition to providing a cleaner, quieter and safer working environment.

of the Port's new land plan. The Port will work to attract new or expanding industry to the new site, rather than simply relocate firms.

"In our efforts to boost the economy, the Port will complement rather than compete with private developers. We will be filling a market void," Michelson said. He explained the Port will concentrate in areas where the private sector has experienced difficulty—in development, or in serving a particular market. As has been Port policy in the past, commissions will be paid to private real estate sales agents who sell Port property.

Michelson explained that numerous discussion over the past two years with community and business leaders revealed there was a clear need for the Port to become involved in a land acquisition program that would result in development of a large parcel-more than 100 acres-for industrial development.

## New Directions for a National Maritime Policy: Proposed bill aims at Revitalization of the American Merchant Marine

#### (by Karl E. Bakke)

On July 11 of this year, Chairman John Murphy of the House Merchant Marine and Fisheries Committee unveiled the "Omnibus Maritime Regulatory Reform, Revitalization, and Reorganization Act of 1979", H.R. 4769. In contrast to H.R. 11422 of the last Congress, which addressed regulatory reform only, the new Omnibus Bill also deals with far-reaching proposals to restructure promotional programs for the U.S. merchant fleet.

In evaluating this legislation, it is important to bear two things in mind. First, it is truly a bipartisan effort; Chairman Murphy was joined in sponsoring the bill by Congressmen Pete McCloskey and Gene Snyder (the ranking Republican on the full Committee and on the Merchant Marine Subcommittee-which Mr. Murphy also chairs-respectively). Second, as Mr. Murphy stressed at the time of introduction, and a week later in a speech at Bal Harbour, "That bill is not locked in concrete. We expect to develop the bill as we go along."

Odds are, therefore, that substantial changes will be made before the bill is reported out of Subcommittee. In the meantime, Mr. Murphy's objective of "Getting a dialogue started" is being admirably served by the Omnibus Bill. Battle lines are already forming across a broad front.

The one feature of the bill about which there appears to be little distress to date is Title I, the findings and purposes against which the specifics of Titles II-VI are to be measured:

#### FINDINGS

SEC 101.-The Congress of the United States finds that-

(1) the foreign commerce of the United States requires an efficient and economical ocean transportation system;

(2) the interests of the foreign commerce of the United States are best served by a coherent, consistent, and continuing national maritime policy;

(3) the foreign commerce of the United States can best be served by the mutual accommodation of the laws and practices of the United States with those of its trading partners;

(4) the international environment in which our ocean transportation system operates is subject to national, economic and political forces which distort traditional competitive practices;

(5) the growth and balance of the foreign commerce of the United States is the maintenance of our economic well-being;

(6) the United States requires the development and maintenance of an ocean transportation system capable of serving in time of war or national emergency;

(7) in order to promote the foreign commerce of the United States it is necessary to develop a competitive and efficient U.S.-flag merchant marine which carries a fair share of our imports and exports;

(8) a competitive and efficient ocean transportation

system is best achieved primarily through commercial relationships with minimum government regulation; and

(9) a single governmental agency is required to assist the commercial development of a competitive and efficient ocean transportation system.

#### PURPOSE

SEC. 102.—The Congress therefore declares that the purposes of this Act are to—

(1) promote the foreign commerce of the United States;

(2) develop and maintain an efficient and competitive ocean transportation system capable of carrying a fair share of our imports and exports;

(3) provide for the national security of the United States; and

(4) ensure a unified and consistent national maritime policy.

#### A Breath Of Fresh Air

The cordial reception ends at that point and bickering has set in over the mechanisms proposed to achieve those laudable objectives.

Mr. Murphy's proposals are, however, akin to a breath of fresh air in a stale room, and deserve careful thought from a national interest, rather than parochial, point of view.

To facilitate understanding of new ideas, it is often helpful to summarize them in explanatory terms, free of analytical or editorial comment. That seems particularly true in this case, because the Omnibus Bill is complex and provocative. Special-interest groups in both government and the private sector will analyze to death the provisions they are either for or against, but the interested public deserves a neutral overview, free of the technicalities of legislative draftsmanship.

It is the purpose of this article to do precisely that, and no more, and the format of the bill lends itself to classification into two parts: Regulation of international liner shipping, and promotion of the United States merchant marine.

#### **Sweeping Regulatory Changes**

As to the first, the Omnibus Bill would introduce sweeping changes in both administration and scope of this nation's regulatory focus.

Title V of the bill would create a new post of Deputy Special Representative for Maritime Affairs, with rank of Ambassador, in the White House Office of the Special Representative for Trade Negotiations. The DSRMA would assume all of the authority now held by the Federal Maritime Commission concerning formulation of international liner shipping policy. Although the Commission would continue to perform administrative functions in regulating foreign ocean commerce, the DSRMA would exercise policy direction over the Commission, including the standards and procedures to be used in "evaluating" conference and other concerted-action agreements required to be filed

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under Title II of the bill. The DSRMA would also have authority to review, on motion of any aggrieved party, Commission action with respect to suspension, disapproval, cancellation or modification of agreements filed for "evaluation," determination whether rates of a controlled carrier are unjust or unreasonable, and suspension of a carrier's tariff for failure to comply with discovery demands in adjudicatory proceedings.

Title II of the Omnibus Bill is the "Big Bang" on the regulatory side, providing four major departures from conventional thinking to date. First, shippers' councils are authorized; second, intermodal service agreements between ocean conferences and inland rate bureaus and between carriers of different modes are encouraged; third, restrictedmembership conferences are sanctioned, with only reciprocal national carriers entitled to entry as a matter of right; and fourth, absolute exemption from the anti-trust laws is provided for concerted activity covered by the bill (including acquisitions and mergers between ocean common carriers), the only applicable sanctions for unauthorized action being civil penalties imposed by the Commission and treble damage actions before the Commission by a complainant claiming injury.

#### Validation Of Agreements

Another salutory feature of Title II is a requirement that agreements submitted to the Commission for "evaluation" shall become effective 30 days after filing unless suspended pending the outcome of the proceeding, but such suspension cannot exceed 180 days. It should also be noted that the burden of proof in any "evaluation" proceeding would be on opponents of the agreement to demonstrate that the proposal is not a reasonable means of achieving the objectives of the parties or is inconsistent with the policy objectives or other provisions of the bill.

Other important, but less momentous, structural reforms are also proposed, such as a general format for dual rate contracts that would not require case-by-case approval, and would open the way for a three-tier structure of rates if a shipper and consignee both agree to be bound by the same loyalty commitments.

#### "Bill-within-a-bill"

In a very real sense, Titles II and V together constitute a major "bill-within-a-bill" and deserve to be heard clearly on their merits, free of background static generated by the promotional features of the Omnibus Bill, which likewise deserve careful attention on their own merits. Chairman Murphy is a wily legislative tactician, and he may well have this very approach in mind when the time comes for reporting out of the full Committee for floor action. But in the meantime, it is important to keep in mind the distinction between regulation and promotion, particularly in assessing the wisdom of involving the Executive Branch in the former as is proposed in Title V.

#### A new London bridge in Antwerp

In September 1979 the new London bridge opened to road traffic in the port of Antwerp.

The London bridge is part of one of the most important road traffic axes in the central port area.

The old London bridge, built in 1913, was a swivelbridge with a rather narrow traffic lane (5,20 metres) and was still actuated hydraulically. It was put out of use at the end of 1977 and already in December 1977 the works for a new bridge could be put out to contract.

The choice fell on an electromechanically driven drawbridge. The new bridge has a carriage-way 12 metres in width, i.e. four traffic lanes of each three metres, with on both sides a cycle-path and a pathway. The total width amounts to 17 metres and the bridge-flap is about 20 metres in length.

#### **BTDB Board changes**

The Minister of Transport, The Rt. Hon. Norman Fowler, MP, has announced the re-appointment of Sir Humphrey Browne, C.B.E. as Chairman of the British Transport Docks Board for the period until 30 April 1981, and the appointment of Mr. J.K. Stuart, BTDB's Managing Director, as Vice-Chairman from 1 January 1980.

Although Mr. Stuart's statutory position under the 1962 Transport Act will be 'Vice-Chairman', he will be known as Deputy Chairman and Managing Director.

Mr. Raymond Cory, who has been Vice-Chairman of the BTDB for the last ten years and a Member almost since its inception, will relinquish his place on the Board when his term of office expires on 31 December 1979.

## Full Inland Clearance Depot status given to Port of Southampton

The British Transport Docks Board have received authorisation from H.M. Customs and Excise for their bonded container depot at Berth 105 in the Port of Southampton to be operated with Inland Clearance Depot status for import traffic.

This authorisation, which is effective immediately, extends the range of groupage work undertaken by the BTDB at Southampton, and means that the depot can now receive containers under Customs seal, from any UK port of entry, for unpacking and distribution in central southern England.

The BTDB, who have two large Container Depots already in operation at Southampton, with a third soon to be opened, see this new development as an important step in their aim to provide a full and comprehensive service to importers, exporters and freight forwarders.

#### Garston pleased with timber boom

The Merseyside port of Garston, traditionally one of Britain's leading timber ports, has been experiencing a particularly large influx of Russian timber recently, according to British Transport Docks Board figures.

Over the past six weeks Garston has dealt with more than 20 per cent of an average year's total timber throughput.

Mr. Tony Winfield, BTDB's Garston docks manager, is particularly pleased with the productivity achieved. "We have recorded an average daily discharge over the working of these nine vessels of 1,278 cubic metres of timber, mostly for immediate delivery to receivers' premises. That's a steady out-turn of about 700 tonnes a day-our peak was 1,171 tonnes-and I'm sure it is the sort of service our customers are looking for," he said.

#### Vocational training at Port of Marseilles

For many years, and well before the Vocational Training Law of 16th July 1971, the P.M.A. has pursued a policy of internal professional training for its own personnel. Each year about 300 of the P.M.A.'s employees, including over 100 executives and supervisors (out of a total of 1900 personnel) participate in training programmes organized by the Port's training staff, in collaboration with the regional vocational training organizations.

But some of the P.M.A.'s most remarkable achievements in this field are the technical and vocational training programmes it carries out for ((external)) students sent to us by the port authorities of the other countries. It is these programmes, carried out within the scope of the Port's long-established policy of technical co-operation with developing countries, that are presented in the following article.

Three years stand out as highlights of the Port's foreign student training programmes:

In 1976, the Democratic Republic of Algeria commissioned a study from the P.M.A. to evaluate the training requirements of the 2000 employees of the Algerian National Ports Office and to establish a training plan, covering several years, to fulfil these requirements.

• In 1978, the World Bank commissioned a similar study from the P.M.A. to evaluate the training requirements of the 10,000 employees of the Port of Alexandria and to establish the corresponding training plan, also covering several years.

• In 1979, the European Development Fund commissioned a study from the P.M.A. to evaluate the training requirements of the 350 employees of the Gabon Ports and Harbours Office and of another 1500 port employees throughout the country, and to establish the corresponding long-term training plan.

At the same time, over 200 foreign students from many different countries attended a wide variety of professional training courses at the P.M.A. designed to improve their knowledge of port engineering and management techniques.

Training courses of this kind have given the P.M.A. the opportunity to of co-operating with the majority of Mediterranean and African countries and particularly with the following organizations:

- The Algerian National Ports Office,
- The Gabon Ports and Harbours Office,
- The Togo Ports Office,
- The Cameroon National Ports Office,
- The Zaire Transport Training Centre,
- The Port Authority of Abidjan and San Pedro in the Ivory Coast,
- The Secondary Ports Department of Morocco.

## Leading position in container traffic further expanded: Port of Hamburg

Last year in the Port of Hamburg alone 600,084 containers (20-ft. basis) were transshipped. Compared to some 471,000 containers in 1977 this was a growth of 129,000 big boxes or a plus of over 27 per cent. With regard to weight (only loaded containers), there was also an increase compared to the previous year, namely a rise of 28 per cent to 5.2 million tons. In 1978 the Port of Hamburg was thus able to expand its position further among the German seaports in container traffic.

There was no further increase last year in Hamburg in the proportion of loaded containers compared to empty containers. 80.6 per cent of all handled containers were loaded (1977 = 81.7 per cent), and 19.4 per cent empty (1977 = 19.3 percent).

The number of loaded 20-ft. containers slightly increased in the past year, now accounting for 71.9 per cent (1977 = 71.7 per cent) of all containers shipped via the Port of Hamburg. The average container weight rose from 13.6 tons in 1977 to 13.8 tons (plus 1.5 per cent) last year.

#### Containerisation degree passes 30 per cent mark

The progressive development in container traffic has also had an effect on the containerisation degree (share of container handling in general cargo transshipment). It increased in the Port of Hamburg to 30.7 per cent in 1978(1977 = 25.7 per cent).

The trend also continued towards the door-to-door container which, as the "ideal container", runs through the transport chain from shipper to recipient without any kind of repacking. This type of container accounted for 72.3 per cent (1977 = 72.5 per cent) in overall container handling via Hamburg.

Last year, however, no negative effect upon the employment situation was noticed. The negative effects emanating from this development were more than made up for by increased engagement by port companies in secondary services (container repairs and container maintenance, utilisation of services of distribution depots etc.), as well as the major growth rates in container handling as a whole.

As already noticeable in 1977, last year too traffic growth (on a weight basis) was greater in the outgoing sector (plus 31.4 per cent) than incoming (plus 25.4 per cent). Thus, for the first time since 1974, outgoing traffic again had a slight lead (50.8 per cent).

This means that more than a third of this traffic sector is accounted for by the Far Eastern sailing area. Container traffic from and to the U.S. east coast in 1978 exceeded the 75,000 unit mark, thus joining in the upward trend which marked the early 1970's. Another favourable aspect was the growth in Africa container traffic to over 50,000 boxes, as well as of Central American container traffic to over 20,000 units.

## Container traffic via the Port of Hamburg according to sailing areas

(Number of containers [20-ft. unit basis])

<u></u>				
Sailing area	1970	1973	1976	1978
Finland	912	6,339	8,382	8,808

Great Britain/Ireland	6,719	24,782	38,503	43,391
U.S. East Coast	52,690	55,836	65,076	75,453
U.S. West Coast	6,906	15,433	17,738	21,436
Australia/New Zealand	3,172	22,952	27,601	31,483
East Asia	3,662	119,949	192,462	203,213
Central America	175	821	3,272	21,701
South America	219	1,164	3,959	4,486
Africa	115	1,862	14,479	52,416
		14- 14		

There are several reasons for this upward trend in container traffic in the biggest German seaport. Some 300 liner services provide over 600 departures per month; the Port of Hamburg offers shippers over 100 container services—more than half of them being full container services. Hamburg is the first port of discharge and the last port of loading for container giants of the third generation operated in Far Eastern traffic; this means that incoming as well as outgoing container cargo reaches the recipient by the shortest route.

Over and above this, the Port of Hamburg to the maximum degree adapted itself to container developments by constructing efficient and future-orientated container facilities. Graphic evidence of this is the Container Centre Waltershof, which covers 2 million square metres. Further handling possibilities for containers exist at practically all the general cargo terminals of the Port of Hamburg. The port's favourable traffic connections with its hinterland in Europe, and deepening of the Lower Elbe Fairway to 13.50 metres at mean low tide are also of advantage to container traffic via Hamburg.

## Le Havre Port Authority studies the financial plan for 1980–`84

The Board of Directors of the Port of Le Havre Authority has recently studied the financial plan drawn up for the 1980-1984 period, under the chairmanship of Mr. F. Le Chevalier, assisted by Mr. Jacques Dubois, general manager. This plan is based on the following traffic expectations:

- petroleum products: steadiness
- coal: slight decrease from 1983 onwards

- general cargo: traffic of 7,850,000 t in 1980 reaching 10,200,000 t in 1984.

The whole traffic, which should reach 80,900,000 t in 1980, might reach 83,600,000 t in 1984.

Regarding these 5 years, all investments should amount to 1,869 MF in current francs.

This financial survey showed that the port of Le Havre Authority has kept its budget in balance. Needs for investments are still important and self-financing should be improved so as to reduce the recourse to borrowing.

The Board adopted the principle of an increase by 11% of port dues for the coming year and it decided to subject this proposal of increase to a regulation inquiry.

## ADB to provide financial and technical assistance for Manila Port project

The Philippines recently obtained approval from the Asian Development Bank of a \$27.0 million loan and a

technical assistance grant of \$150,000 for the Manila Port Project.

Proceeds of the loan and technical assistance grant will be used to finance the foreign exchange requirements of the Project, which relates to the two-phased development of the International Container Terminal (ICT) and project preparations for the development of a Domestic Container Terminal (DCT).

The Port of Manila, the most important international and domestic port in the Philippines, consists of three distinct parts, namely: (1) North Harbor for domestic traffic; (2) South Harbor for international traffic; and (3) the International Port which is being developed to handle international container traffic.

The main objective of the Project is to enable the International Port to satisfactorily handle increasing container traffic by developing a separate ICT.

Estimated total cost of the Project, including technical assistance but excluding interest and other charges during construction in the amount of \$4.17 million to be financed by the Bank, is \$79.60 million. Of the total cost of the Project, \$35.23 million is to be co-financed by the Bank (\$22.98 million) and the Kreditanstalt fur Wiederaufbau (KfW) of the Federal Republic of Germany (\$12.25 million). The local currency costs will be met by the Government.

The Philippine Ports Authority (PPA), which is responsible for overall planning and development of all public ports in the Philippines, will be the Executing Agency for the Project.

With the Republic of the Philippines as the borrower, the Bank loan is for 24 years, including a grace period of 4 years, with an interest rate of 7.6 per cent per annum.

#### New managing Director for Sharjah Port Authority

The Sharjah Port Authority has appointed Mr. Philip Forrest as its new Managing Director, replacing Mr. Robin Crawshaw who is taking up a new appointment.

Mr. Philip Forrest has been in the United Arab Emirates with the Sharjah Port Authority for over two and a half years, and previously held a board position as Director of Business Development.

## Solar powered navigational beacon pilot scheme successful

The Marine Department of the Hong Kong Government has commenced a pilot scheme using solar energy to operate a navigational light beacon located at Kei Yan Shek, west of High Island on Sai Kung Peninsula.

The light beacon is installed with a ML-300 Max Lumina 5 mile marine lantern, 0.77 amp, 12 volt prefocus lamps and a syncrostat flasher. The whole system is powered by a Sola Viva Power Station manufactured by Tideland Signal Corporation of America.

The solar power station incorporates two arrays of modules consisting of 16 solar cells each that are connected in series arrangement to produce 2.5 A-h per day for 12 volt operation to charge two-six volt correctly matched charge-retaining deep-discharge storage batteries, without the use of a power-consuming regulator, to power the light.

The pilot installation of this solar powered light beacon

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has proven highly successful; the two banks of solar cells generating sufficient power to obviate the necessity to otherwise recharge the 12 volt battery that operates the light.

Primary cells of conventionally powered light beacons have to be changed annually.

At current prices, the capital cost of the solar generator is less than the cost of two years' supply of primary cells required to operate a conventionally powered light, and a cost analysis study has shown that an annual recurrent saving of H.K. \$7,000 can be achieved by utilising the solar module. Accordingly, the Marine Department intends to convert a further seven of its conventional lights to solar power within the next two years.

#### Northland Harbour Board's news

#### • Upgrading gives wharf vast potential

The Northland Harbour Board has recently made the Opua wharf ready to function again as an export port.

Vessels with a maximum length of 214 metres and a maximum draft of 8.5 metres will be able to berth there and shippers take advantage of the full rail and back-up facilities.

Recent trade trends justify the board's decision in December 1978 to authorise an expenditure of up to \$300,000 on the wharf.

A substantial fall-off in the export tonnage at Whangarei and Opua followed the introduction of large container vessels servicing traditional markets in the United Kingdom, Europe and America. These required producer boards and other exporters to aggregate cargoes at the main container terminals.

The Northland Harbour Board makes no charges for primary produce passing over its wharves and money saved on the cost of internal transport is obviously money in the farmers' pockets. The fullest use of Opua and Whangarei is obviously important to the economy of Northland.

#### • Refinery unrest contributes to NHB downturn in trade

A double loss of tonnage was one of the major reasons for the Northland Harbour Board's downturn in trade for the last financial year.

The chairman, Mr. Jim Carney, told the Board industrial unrest at the Marsden Point refinery caused a shut-down to be postponed at short notice. As a result, shipping was not available to deliver crude oil to the refinery. The shutdown was carried out in April and was of a considerably longer period than those previously.

Mr. Carney said the downturn in trade was more than 1.2 million tonnes for the financial year which ended in September.

Total trade for the year was 6.89 million tonnes, the lowest since 1970.

Revenue for the year was \$5,192,385 and total expenditure \$5,577,203.

"Trade in coal, gypsum, sand and manure also declined and this can be attributed to the current state of the economy, the reduced demand for these commodities and the intrusion of road transport operators in this trade." Mr. Carney said.

However, he added that the increased Harbour Improvement Rate should be reflected in the Board's income during the current year.

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南京王王にかて、月二十日、た コミ



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