昭和44年11月15日第三種郵便物認可　昭和56年12月号　昭和56年11月20日発行　第26巻第10号（毎月1回20日発行）

PORTS and HARBORS

December, 1981 Vol. 26, No. 12

Port of Douala

Cameroon

The Publisher: The International Association of Ports and Harbors

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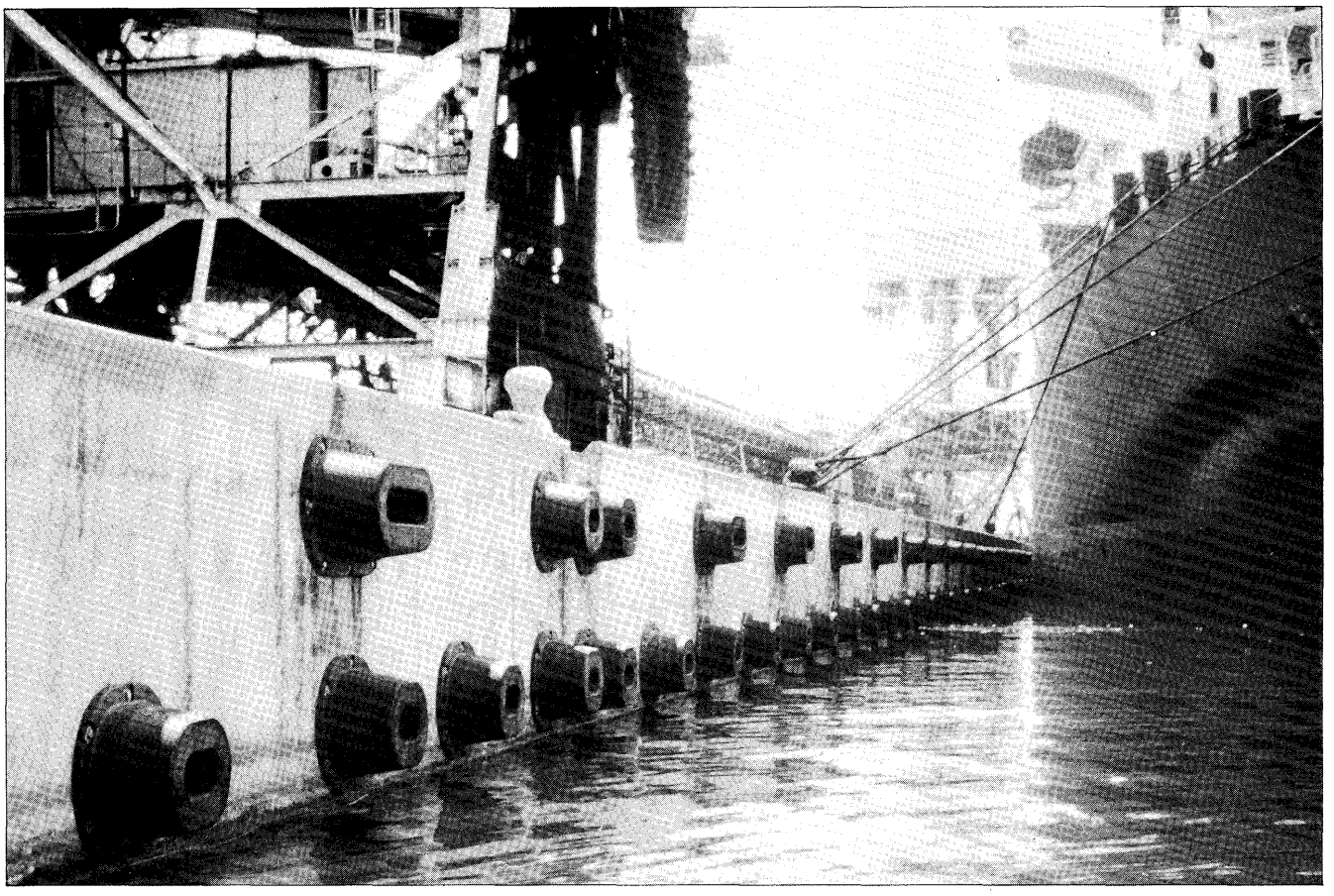

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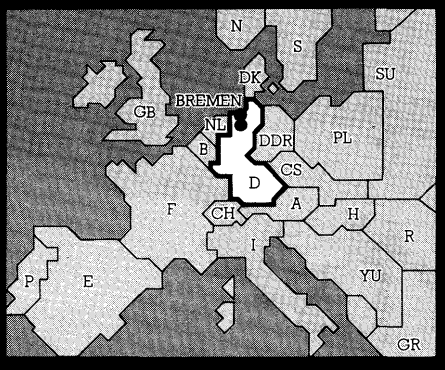

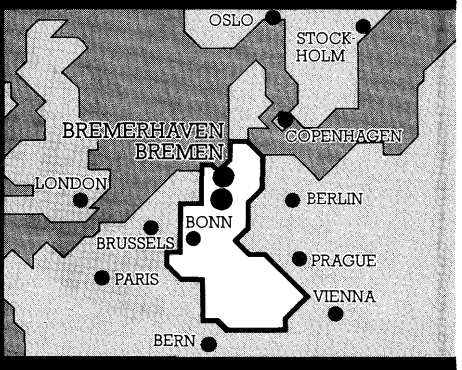

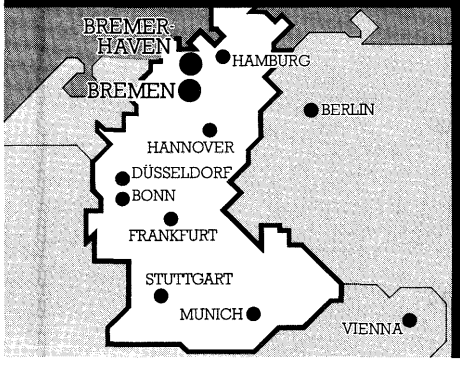

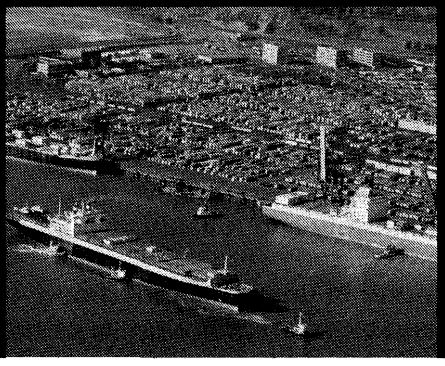

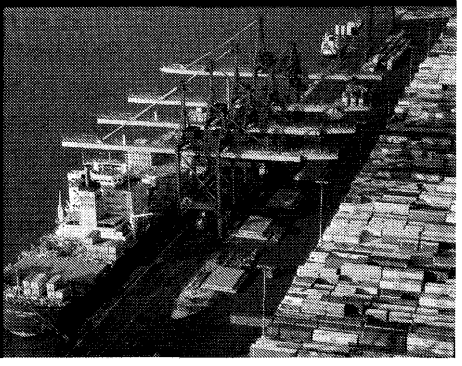

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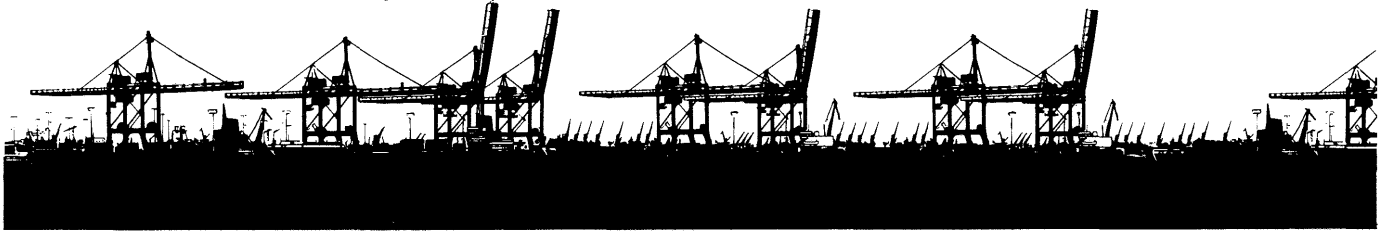

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PORTS and HARBORS

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The International Association of Ports and Harbors

N.G.O. Consultative Status, United Nations (ECOSOC, UNCTAD, IMCO)

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December, 1981 Vol. 26, No. 12

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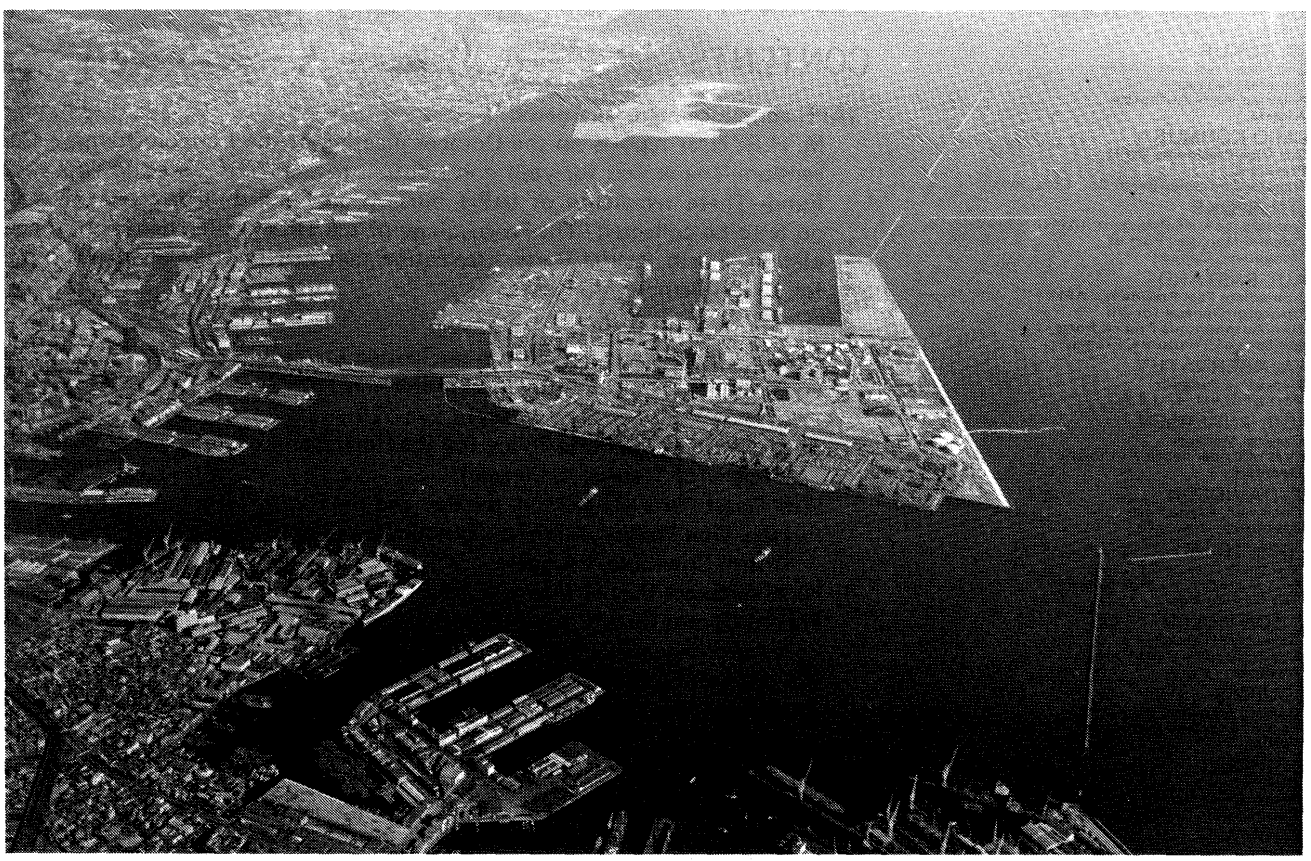

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IAPH announcements and news

Mr. H.R. Haar reports on the October meeting of the London Dumping Convention

(Received at the Tokyo Head Office by telex on Nov. 6, 1981 from New Orleans)

I attended the 6th IMCO meeting of the London Dumping Convention which was held on October 5-9, 1981, with Mr. Alex Smith of the British Ports Association, Mr. Joseph Leblanc, our environmental counsel from New Orleans and Dr. Willis Pequegnat, our oceanographer consultant from Texas A & M University. I was pleased with the results that we obtained by our participation at the meeting. They included the following:

(1) The first involved the presentation made by the IAPH to the Ad Hoc Scientific Group on the use of 'special care' measures in the dumping of dredged material contaminated with Annex I substances. In its report to the Sixth meeting, the Scientific Group expressed the view that such measures could be considered as falling within existing regulations relating to 'trace contaminants' and 'rapidly rendered harmless' and recommended that these techniques be utilized by national authorities as field research studies in order to gain experience with their effectiveness. The contracting parties unanimously supported the use of these special care measures.

(2) Secondly, the IAPH invited contracting parties to consider whether dredged material contaminated with Annex I substances might properly be dumped at sea under the emergency provisions of Article V (2) of the Convention, where an unacceptable risk to human health was presented and there were no feasible alternative means of disposal. The contracting parties who expressed views on this subject did not feel that the emergency provisions should be applied to dredged material contaminated by routine operations. A number of delegations felt that such a construction of the emergency provisions might create a "loophole' in the convention which could establish a dangerous precedent for other situations. Several delegations felt that under such circumstances it would be more logical and appropriate to examine the posibility of using the special care measures recommended by the IAPH and the Scientific Group. The delegation from Denmark expressed the further view that if ports should still experience problems even with the use of special care measures, the matter could be raised again before contracting parties through the suggestion of a need for amendment of the Convention or its Annexes.

(3) The Sixth meeting extended an invitation to the IAPH to attend the Seventh Consultative meeting, which is tentatively scheduled to be held in February of 1983. The 'special care' matters raised by the IAPH have also been included as a special item on the agenda of the Ad Hoc Scientific Group at its next September 1982 intersessional meeting in France. The IAPH will be expected to make a further presentation on this issue.

Herber R. Haar, Jr.
Assistant Executive Port Director
Port of New Orleand
(Chairman of Dredging Task Force, IAPH)

Thank you for your contribution to the IAPH Dredging Task Force Fund

In response to the requests for contributions to the above Fund, expressed by the Secretary-General on September 10, 1981, the following members have contributed to the Fund, as of October 31, 1981. Listed in chronological order of receipt.

Hawke's Bay Harbour Board, New Zealand	$ 100
Port of Melbourne Authority, Australia	750
Port of Gothenburg, Sweden	500
Kuching Port Authority, Malaysia	100
Port of Singapore Authority, Singapore	500
Cyprus Ports Authority, Cyprus	300
Port of Aalborg Authority, Denmark	200

In addition to the above, a pledge to in the amount of $300 has been given by Japan Dredging and Reclamation Engineering Association.

Three recipients of IAPH bursary announced

Mr. J.K. Stuart, Deputy Chairman & Managing Director, British Transport Docks Board and Chairman of the IAPH Committee on International Port Development recently approved 3 bursaries for the following applicants.

Mr. A.A. Jezan, Refrigeration Superintendent and Mr. Baxari Osauya, Mechanical Handling Inspector, Kenya Ports Authority and Mr. G.K.A. Gbewonyo, Assistant Superintendent, Ghana Ports Authority.

Mr. Jezan's training consists of:

Attachment to B.T.D.B. Ports of Cardiff, Barry and New Port for inspection of fruit handling facilities.

Attachment to International Cold Storage Co., Ltd. for site training in maintenance of engine room equipment.

Attachment to Union Cold Storage Head Office Engineering Dept.

Attachment to UK Manufacturers of cold store equipment.

Duration 10/12 weeks commencing October 25, 1981.

Mr. Osauya will be commencing on November 8, 1981, the course will be a 2-week attachment at B.T.D.B. Port of Hull with emphasis on crane maintenance. He will also be visiting several UK crane manufacturers during the remainder of his stay in UK totalling 10 weeks.

Mr. G.K.A. Gbewonyo, Ghana Ports Authority to attend a 4 week seminar on port administration and operation at the World Trade Institute, The Port Authority of New York and New Jersey in March/April, 1982.

Their reports after the courses will be published in this journal when received by the Secretary General.

The crests of world ports to be collected

Ports and Harbors plans to introduce the crests, arms, emblems or symbols of the world ports from time to time in its future issues, and now request the Association members' special cooperation in sending such symbols with the appropriate description to the Head Office. The material should be clear enough for printing in black and white and large enough for reproduction.

The purpose of the collection is to increase our mutual understandings about other ports by learning the historical background or specialities the respective ports elaborated in their port crests.

Members' positive participation in this project is highly anticipated by the editor.

The Proceedings of the 12th Conference are near completion

The Proceedings of the 12th Conference combined with the Silver Jubilee of IAPH held in Nagoya, Japan, May 23-30, 1981 are about to be completed and are scheduled to be sent to all members of the Association and the relevant organizations from the Tokyo Head Office within November.

The publication comprises all sessions of the conference, plenary sessions, working sessions, open symposia on the technical committees, paper presentations, and secretary general's report on financial affairs, bills and resolutions, and ceremonies as well as social events.

Secretary General Sato in his introductory words to the Proceedings comments that one of the significant results of the 12th conference was the total reviewing and restructuring of the technical committees which, he believes, ensures the Association will continue to function as a truly international forum of experts whose expertise is accessible to all people.

He also mentions the agreement with the British Ports Association for representation of IAPH in order to tighten the links and communication with other international bodies. "This new arrangement" he says "means that we have set up a kind of antenna of the Association in Europe in order to coordinate and cooperate better with other associations in the port, trade and transportation fields."

The Secretary General hopes that the publication will make all members, both those who participated in Nagoya Conference and those who did not, realize the ever increasing important role our Association should play in contributing to human prosperity.

Additional copies will be available by writing to the Tokyo Head Office at US$40 excluding mailing charge.

South Pacific Ports Association met in Noumea

Mr. Loh Heng-Kee, Director-General, Ports Authority of Fiji, in his recent communication to the Head Office, informed that the 8th annual conference of South Pacific Ports Authority* was held from 7 to 10 October, 1981, hosted by Port Autonome de Noumea, New Caledonia, and being attended by representatives of the 12 South Pacific islands and territories, namely, American Samoa, Cook Islands, Fiji, Kiribati, New Caledonia, Papua New Guinea, Ponape, Solomon Islands, Tahiti, Vanuatu, Western Samoa and Walling & Futuna. SPPA member ports in Australia and New Zealand also sent their delegates to the Conference.

He further informed that SPPA's next conference will be held in Auckland, in November 1982, to be hosted by Auckland Harbour Board, under the theme of "Human Prosperity through Port Co-operation", as suggested by Mr. R.T. Lorimer, General Manager of the Board. Mr. Loh is serving SPPA as secretary.

(*See the referential article on page 47)

Membership dues for 1982

Members will be asked to remit their 1982 annual dues by February 1, 1982, as provided in Sec. 25 of the By-Laws, in response to the invoice to be sent to Members from the Head Office toward the middle part of December as usual.

As the result of the decision made by the Association at its 12th Conference in Nagoya this May, the annual membership dues for 1982 are as follows:–

Regular Member: SDR 800 per unit

Associate Member:

Class	Categories	Grades	Annual due per Unit (SDR*)
A	One/	1st	670
	Two/	2nd	450
	Three	3rd	230
B & C			670
D			110
E			90

*SDR shall mean Special Drawing Rights as established and employed within the monetary system by the International Monetary Fund.

As the exchange rate between SDR and US$ is subject to daily fluctuation, it is advisable to quote the rate existing on the day of your remittance to the Head Office. Usually, the exchange rate is published through the monetary authorities and bankers.

To save commissions payable to bankers, which amounts to as much as US$6 per check, it is highly appreciated that members should remit by means of bank transfer to the IAPH accounts as follows:–

- The Bank of Tokyo, Uchisaiwaicho Branch, Tokyo, Japan No. 0526541
- The Fuji Bank, Marunouchi Branch, Tokyo, Japan No. 3098

In this connection, it should be noted that costs of remittance shall be paid by each member.

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(More announcements on page 18)

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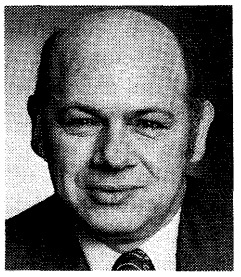
Federal Port Waterway Policy in the United States—A Time of Transition



Anthony J. Tozzoli
Director, Port Department, The Port Authority of New York and New Jersey

Since 1824, port waterways in the United States have been constructed, operated and maintained by the U.S. Army Corps of Engineers, with dredging financed out of general treasury funds under the concept that the Federal Government has constitutional jurisdiction over interstate and foreign commerce, and port waterways benefit the entire nation. In an effort to balance the Federal Budget, the current Administration and Congress have proposed sweeping changes in this traditional concept. These proposals have given rise to a host of new port legislation that addresses how waterways will be financed, who will be responsible for their construction and what procedures will be followed in providing for and maintaining them.

As early as the late sixties, preceding Administrations have sought to curb the growth of Federal waterway dredging costs by seeking local contributions of funds. A fuel tax was finally established for inland watetways to help offset such Federal expenditures. A major effort to eliminate, or at least reduce, the Federal investment in port waterways, began in 1981. The strength of the Federal effort quickly dissipated the traditional opposition that had long been voiced by U.S. public port agencies.

The Administration's proposal has officially been to seek legislation that would require complete local payment of port waterway construction and maintenance dredging to, in turn, be financed by port charges collected locally at levels set to meet individual port expenses. The Congress would continue as now to authorize and to allocate advance funds for Corps studies, construction and maintenance. Most bills introduced in Congress, however, have taken another approach by seeking some level of Federal cost-sharing between non-Federal and Federal interests that generally ranges in percentage from 50-50 to 60-40 for construction, and 25-75 to 75-25 for maintenance. Certain legislation provides an option to choose either an accelerated and simplified Corps study process to be completed within a specified time, or approval of non-Federal dredging under Corps permit, with the entity that undertakes actual construction dredging in either case to be partially reimbursed by the other. In virtually all bills, however, maintenance dredging would continue to be undertaken by the Corps, with local cost-sharing to be financed out of port charges. In some of the proposed bills, however, the present system (100% Federal cost responsibility) would be retained for shallower waterway depths. A few ports continue to press for retention of the status quo, while others, if unavoidable, would be prepared to accept elimination of both Federal control and financing of waterway improvements in the interest of acceleration and take on total project construction and financing responsibility themselves. Few bills have been introduced, however, that reflect these views.

Such a situation has obviously generated various reactions among the nation's public port agencies. All agree that the average of 24 years from the time Congress authorizes a Corps project study until the Corps completes its construction of a waterway project must be drastically shortened. The remaining issues are thus concentrated on what is an acceptable level of cost-sharing, whether port charges should be port specific simply to meet local costs, or uniform nationally regardless of varied local costs, and to what waterway depths the new procedures should be applied. Each port views these issues in the context of anticipated need for future waterway improvements, and the ability to pay and remain cost-competitive with other ports.

Underlying these pragmatic economic questions is also a philosophical one. Under full Federal financing of port waterways, Federal construction and maintenance control is maximized. As the Federal financing role is diminished, it follows that should Federal control. The Administration proposal ignores this question and offers little in the way of an accelerated and simplified Corps procedure. Also unsettled is the question of matching a cost-sharing formula that will accurately reflect a distribution of local, regional, and national waterway benefits. There are also questions as to how charges would best be allocated among different ports and how waterways that serve competitive groups of ports will be equitably assessed.

The United States port system has always been somewhat unique in that all port agencies are creatures of non-Federal governments, and as such, ports compete among each other for commerce This competition, however, at least from a cost standpoint, has been largely focused on tributary land transportation and port services and facilities. In contrast, port navigational access has been a Federal responsibility. Ship traffic imposed relatively uniform demands on port navigational access that were generally met to the satisfaction of all by the Federal

(Continued on next page bottom)

The New Canadian Ports Policy

by the Hon. Jean-Luc Pepin, Minister of Transport, Canada

(Speech delivered at the 23rd Annual Canadian Port and Harbour Association meeting, Nanaimo, B.C., September 14, 1981)

From information previously provided by my Department, you all know a great deal, I'm sure, about the ports policy soon to be incorporated in legislation. I have no wish to be repetitive. I do, however, want to elaborate on the policy's two main areas of emphasis.

The first concerns which I might term "accountable autonomy."

I am referring of course to the greater delegation of authority to local port bodies to operate and manage ports now in the National Harbours Board group. The law will provide for such greater autonomy in the spirit of the Harbour Commission system.

The second area concerns the greater participation of other public entities than the federal government in the on-going planning and development of all of the port facilities within a region—the National Harbours Board ports, the Commission Harbours and the Public Harbours.

Let me expand a little on the philosophy behind each of these two concepts.

On the first, the authority delegated to the port must be meaningful. And it will be. Simply stated, the local Port Corporation will have the responsibility for running and maintaining a viable port. It will be responsible for all personnel matters, including appointing the Port General Manager. The port will also have the authority to enter into leases, to tender, to contract and to set commercial rates.

Inevitably, the degree of delegation will depend to a certain extent on the performance of the ports themselves. Those enjoying good financial health and having bright long-term prospects will surely be in line for the greatest degree of autonomy.

However, in delegating authority, appropriate accountability has to be established and assured; my accountability to Parliament, the Canada Ports Corporation accountability to me, the Local Port Corporation's accountability to the Parent Corporation. The principles of this step by step accountability will be expressed in the legislation.

Accountability will be expressed in part through the criteria and manner of appointment of the Directors of the Canada Ports Corporation and the local corporate bodies charged with managing these ports.

Ports are a highly specialized form of business—sensitive to technology, international and national trading, resource development—and yet at the same time are very much a part of the local social and political environment.

To reflect both these dimensions of accountability, the ports policy legislation will require that the Directors of the Local Port Corporation and of the Parent Board have expertise and knowledge appropriate to the management and development of ports, and that they truly represent local and regional interests in the ports.

They will be appointed by Governor-in-Council upon my recommendation.

This feature of the coming legislation recognizes the jurisdiction and accountability of the federal government for ports to the people of Canada—locally, regionally, and nationally. If one wants to question this approach, let he or she consider who gets the flak if something goes wrong!

Now for the second area of emphasis—the regional concern.

The legislation will highlight the importance of regional participation in the planning and development of all the ports within a region. I place significant importance on the role of Regional Advisory Councils to review and coordinate the port-related plans and developments of a region. These Councils, which could include representatives of port administrations, of provincial departments and agencies and of other interest groups, will ensure a fruitful dialogue. These bodies will elect a chairman from among their members and organize their affairs so that all regional port interests, even those not formally represented in its membership, may participate as required. The findings and recommendations of the Regional Advisory Councils will be provided to me annually on a formal basis, possibly more often on an informal basis, and of course there will be easy dialogue with port administrators on particular port matters.

The drafting of the legislation is well advanced, and it is my intention to introduce the bill into the House this season. This is one of my legislation priorities, and it is my hope that we will have the approval of Parliament by next summer.

To conclude on this part, you and the federal government have travelled the ports policy route many times over the past several years. Three bills have died in Parliament.

The ports business is a complicated one involving many different viewpoints and circumstances. I expect there will be considerable amount of debate over the proposed legislation.

But . . . if we don't succeed this time, if we keep striving for the last ounce of perfection or that last item of self-interest, we may have lost the opportunity for many years to come.

I said I would ask for your help. I hope that you and all those involved in ports, from one coast to the other, will provide the assistance and the support I need to carry the bill.

(Continued from page 9)

Government, thus making port access not a competitive issue. The opportunity offered by coal exports, however, and its associated need to quickly deepen ports to accommodate large colliers, set in motion and intense rivalry among existing and potential "coal ports." That, when combined with recent Federal objectives to curb expenditures wherever possible, has established port navigational access as a competitive factor which has had a fallout on virtually all United States port relationships, and on the basic Federal-local port waterway policy and procedures.

West Coast Ports
—The Good, the Bad and the Future—

by the Hon. Don Phillips, Minister of Industry and Small Business, British Columbia, Canada

(Speech delivered at the 23rd Annual Canadian Port and Harbour Association meeting, Nanaimo, B.C., September 15, 1981)

I am sincerely honoured to be invited to speak here today. The subject of ports, as many of you know, lies very close to my heart–both of interest personally, and of particular concern to me as minister primarily responsible for economic development in British Columbia.

Any discussion of ports should start with the basic question–why do we have them? This question may sound a little silly and self-evident, yet I wonder. The history of too much of our port activity on the West Coast would lead me to believe that too many people responsible for our ports have lost sight of the basic reason for ports.

Ports are **not** ends in and of themselves, although they sometimes appear to be treated that way. Ports serve to facilitate the ebb and flow of commerce in our country with emphasis on the word serve! In a country like Canada, that is so dependent on international trade for its economic livelihood, the importance of an adequate, responsive ports system cannot be over-emphasized.

Nowhere is this more true than on the West Coast. During the next 10 years we will see an unparalleled growth in traffic–general cargo, grain, coal, forest products, potash, sulphur, as well as an increase in manufactured goods. The challenges to provide the necessary port capacities and new facilities to meet these demands are large indeed. Unfortunately, we have a history of coming perilously close to not being able to provide the necessary and timely capacity to meet our export and import needs. How are we going to meet these challenges in the future?

The answer lies in cooperation. The mutual working together to achieve common goals. We have a situation in Canada where historically and jurisdictionally, responsibility for ports rests largely with the Federal Government. The responsibility for directing the economic development in the regions served by those ports rests largely with the provincial governments. For ports to be responsive to economic development needs, both levels of government **must** work cooperatively and closely together.

I took as a theme for this talk–"West Coast ports–the good, the bad and the future." Yesterday, with the official opening of the Duke Point Harbour facility, we witnessed a classic example of what I consider to be "the good." The port expansion here allows for major expansion of economic activity on Vancouver Island and the Mid-Coast region of British Columbia. It was made possible by close cooperation between the Nanaimo Harbour Commission; the British Columbia Development Corporation; the City of Nanaimo and the Nanaimo Regional District; the Federal Ministries of Transport and Regional Economic Expansion and the Provincial Ministries of Industry & Small Business Development and Lands, Parks & Housing.

The fact that industrial land has been created, a port has been constructed and industry is already locating, is clear evidence that major achievements can be brought about if all parties accept a common goal and work diligently toward achieving it. I would like to pay sincere tribute to all those who had a part in making this development a reality. I might add that generally speaking, our experience with the harbour commissions on the West Coast tends to mirror our experience here in Nanaimo.

Now "the bad." Other harbours; major harbours and harbours which in many ways are more important both provincially and nationally here on the West Coast, are not run by harbour commissions but are run by the National Harbours Board. Here the track record is not so good. Regretfully it reflects a history of confrontation and sluggishness rather than cooperation and responsiveness. I would submit that this is neither in the interests of Canada nor the Western Provinces.

A few examples will underline my point. The coal port at Roberts Bank got built only after the East Kootenay Coal Companies threatened to ship their coal to port in Seattle over the famous Kootenay and Elk Railway and the Burlington Northern and after the province created the British Columbia Harbours Board for the purpose of building the port itself. Then and only then did the National Harbours Board agree to fulfill its mandate and provide the port. Needless to say the economic prosperity in the East Kootenays and the positive effect on Canada's balance of payments, bears testimony to the value of this development.

A second example of too little too late is the loss of container trade from Vancouver to Seattle. The National Harbours Board simply didn't move to provide container cranes and shore-based facilities when the container trade was establishing itself. Seattle did. The result was and is the loss of a substantial amount of Canadian desitined container trade to Seattle and we are all losers in revenues and jobs.

Unfortunately, history seems to have a habit of repeating itself. In 1973 the province of British Columbia transferred substantial lands and water lots in Prince Rupert to the Federal Government at no cost, to be used in developing a second national harbour on the West Coast. This harbour was viewed as necessary to serve the growing resource export needs of the Western Provinces for lumber, coal, grain, sulphur, potash, etc.

You will be aware that in January of this year Denison Mines Ltd. and Teck Corporation signed the largest coal export contact ever witnessed in Canada. The contracts call for coal from northeastern British Columbia to be shipped to Japan via Prince Rupert.

These contracts were over four years in the making. During that period and enormous effort by all parties was spent planning how to get the coal to market once a contract was signed. Everyone was planning, that is, except the

National Harbours Board who, in spite of long and repeated promptings, were caught completely flat footed in January when contracts were achieved.

Then what did they do? They hastily called for proposals to construct a coal terminal. Selected an operator who has nothing to do with the coal business in western Canada. Ignored the reality of the terms of the coal contracts and ignored the coal companies who are to be the shippers of coal. The result is that we now have a situation where an operator has been selected who apparently can't come to terms with the shippers; the whole coal deal is in jeopardy because the port matter remains unresolved; the shippers are frantically trying to find another alternate port in which they can have a say in the operation and control their costs; and a coal port may be built by the National Harbours Board in Prince Rupert—with no traffic. I ask—is this a reasonable way to go about economic development in this country? Is this cooperation and coordination?

I have given examples of what I consider to be the good and bad in terms of port administration and planning on the West Coast. The differences are acute and clearly cannot be found in government policy as both the harbour commissions and the National Harbours Board are creations of the Federal Government. I would sumbit that the differences are found in the attitudes of those who are responsible for our ports systems and I would further submit that the positiveness of these attitudes varies inversely with the distance that decision-making is removed from the port itself.

I have a vivid recollection of a comment made by an official in the Port of Rotterdam when I visited the port last year. When asked whether the national government had any role to play in the port, the answer was:

"No, our capital city is too far from Rotterdam to know what is happening in the port, and to respond."

For those of you who don't recall the geography of the Netherlands, the capital, The Hague, is 50 miles from Rotterdam.

That brings me to "the future."

I am encouraged that the Federal Minister of Transport has commenced a most needed and important process of improving the administration of port planning, development and management. We are all aware of the many attempts to restructure the ports systems over the last decade. For many and varied reasons these attempts have not been successfull. The problems that led to proposed changes 10 years ago have not gone away, they have intensified. As we look ahead at the unprecedented needs for port expansion, and we consider this against past difficulties, we realize how important it is that administrative changes take place.

It is with hopeful expectation that we consider the Canadian ports policy proposed earlier this year by the Honourable Jean-Luc Pepin.

The approach described by the Minister relies on incremental legislative changes, modifying and building on the strengths of the present systems. After all, the present National Harbours Board Act, Government Harbours and Piers Acts, Canada Shipping Act, Commission Harbours Acts—have been in place for many years—so they have some tested and proven strengths.

The stated aim of the proposed changes is to achieve a ports system that:

- is an effective instrument for economic development
- is efficient
- provides accessibility and equitable treatment to users
- provides a high degree of local autonomy in the management of ports
- is coordinated with the connecting transportation system

These are fine statements of principle and worthy of our support.

It is to be hoped that the enabling legislation will provide the basis for operating freedom necessary to achieve these objectives. However, I am from the Peace River. That's the Canadian equivalent of coming from Missouri. Show me that the by-laws, the regulations and the process of selection of directors will indeed result in greater operating freedom under the subsidiary corporation concept. These are the elements that really define the degree of autonomy permitted the port.

Another point, a Schedule C Crown Corporation cannot delegate to its subsidiaries any more authority than it itself has. I needn't remind those in this room that a Schedule C Crown Corporation is still subject to the provisions of the Financial Administration Act. Show me that the reviewing, the analysis, the scrutinizing, the second guessing of the port's capital and operating budgets will ease. Tell me that the port will be free to act without the weight of the Central Corporation, the Ministry of Transport, the Treasury Board, the Department of Finance, the Ministry of State for Economic Development, the PCO, and the Comptroller General on its back.

I think we all recognize that there must be a balance between the freedom to act, to meet a regional or national requirement, and the proper control of public monies. We recognize that ultimately the port management must be held accountable for their stewardship. It would be regrettable, indeed tragic, if that balance continues to weigh towards imposed central controls and constraints.

I made the point earlier that achievements are made when the parties responsible share common goals and work cooperatively toward achieving those goals. I made the point that this has worked quite well with the commission harbours who have a relatively high degree of local autonomy.

I am concerned that the changes proposed for National Harbours Board ports will not bring this about. Speaking for British Columbia, the proposed discretionary role of the province through the Regional Advisory Committees is not adequate. Ports and harbour development in British Columbia is so vital to the economic health of the province that we cannot risk being excluded from the act of planning and capital decision-making and we all know that advisory committees are more often ignored than listened to.

I would request that the Minister of Transport consider again the role of RAC's. Give them some real legislated authority; permit them to responsibly reflect the conditions and opportunities in the different parts of Canada. Share with the provinces the responsibility for development of systems that best serve the needs of Canada.

The financing of port development is another vital area of concern. Over the long run, I believe that the major ports should pay their own way. In individual developments, governments must be prepared to take the initiative with "front end" money, particularly where a facility will be used by several parties and where it improves the overall transportation system or provides other economic benefits

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Panel discusses Harbor Maintenance Proposals

(Reproduced from 'Georgia Anchorage' Sept./Oct. 1981)

The potential impact of proposed harbor maintenance funding was discussed by a maritime panel at a recent meeting in Savannah. Sponsored by the Savannah Area Chamber of Commerce, the session was convened to apprise Savannah and Brunswick interests of the nature of proposed changes to existing funding mechanisms.

Walton K. Nussbaum, President of the Savannah Port Authority discussed the "Economic Impact of the Port and the History of Port Funding." He described Savannah's 25 state hinterland, and identified 16,000 local maritime and industrial port user jobs resulting from port activity. Nussbaum also pointed out the disparity between federal expenditures for harbor work and customs revenues generated by the port, placing 1980 collections at $116 million as compared to 10 year federal harbor improvement expenditures of only $95 million. He reviewed local terminal investments placing 10 year expenditures at over $300 million. He concluded by stressing the basic assumption underlying the undertaking of such improvements stating. "These investments have been made with the expectation of the continued federal maintenance of seaports."

J. Ron Brinson, Executive Vice President of the American Association of Port Authorities was the next panelist. He offered a "Briefing on Proposed Ports Legislation." Brinson emphasized the United States' dependence on international trade. Despite this relation, he sees an alarming trend observing, "Slowly but surely, the government has been withdrawing from its traditional partnership role in harbor maintenance." He characterized the U.S. navigational system as "at the threshhold of obsolescence."

Brinson indicated that the proposals currently being backed by the administration involve recovery of all dredging costs from local assurors based on a system of user fees. He indicated such a program would be completely inconsistent with the realities of seaport development and would place undue hardship on smaller ports and those with particularly bothersome channel maintenance problems. "This program would set up an instant de facto federal interference with the competitive position of the ports."

Brinson further stated that the larger ports, which would benefit from lower per ton user charges are obviously in favor of the proposition. On the other hand, he felt that it would have a devastating effect on smaller ports and " . . . would place tremendous state and private investments in jeopardy." He called upon local maritime interests to unite to make their wishes known characterizing the proposed changes as " . . . the most important issue ever confronted by our industry."

He emphasized the need to consider the navigation network as a system, not unlike the interstate system. He cited the example of a nationwide flat rate gas tax for interstate construction despite the fact that construction costs vary widely from state to state. He called for the same philosophy to be applied to maintenance of the navigation system.

Brinson observed that everyone involved agreed that changes to the harbor development and maintenance processes were in order, but emphasized that the problems of all ports should be considered. He particularly emphasized the need for streamlining the authorization of harbor projects to eliminate the 20-25 year delay now being experienced. He opted for the term "sensible tracking" in lieu of the more widely circulated "fast tracking" in describing the needed improvements.

George J. Nichols, Executive Director of the Georgia Ports Authority discussed the "Impact of Proposed Ports Legislation." He offered some unsettling numbers to dramatize the disparate impact of straight user fees. Based upon 1980 tonnages, a charge of 80¢ per ton would have to be assessed in the port of Savannah to defray the cost of harbor work during the year. The figure for Brunswick would be $1.20. He compared these with 7¢ per ton for New York and Baltimore and pointed to predictable consequences if the current proposals were approved.

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that would not otherwise be realized. The "seed" investments made by the Federal and British Columbia Governments to build and develop Duke Point is a good case in point.

There is a need to refine our perception of money spent in ports. Traditionally government expenditures have been seen as just that, an outflow of funds. The concept of investment for direct returns is a well developed and worthy accounting practice. To this we must add another idea—that of public investment for broader economic and social returns. It was a concept on which our predecessors built this country.

The idea of financially self-sufficient ports is fine. But this criterion should not be so rigidly held as to restrain the investment for broader, and longer-term economic benefits. National Harbour Board's narrow attitude toward the coal port in Prince Rupert has put in jeopardy an economic development initiative that has direct benefits to Canada of over $2.5 billion.

Furthermore, a port that operates in a profit position should not be required to cross-subsidize its less viable sister ports, nor should the ports be used as a tax source for general government revenue. I must therefore disagree with the proposal that leaves an open door for the parent corporation of the Federal Treasury to appropriate surplus funds from a port.

These thoughts are not new to any of you. These and many other concerns are being discussed here at this conference. This is a healthy and timely process. So much of our history as a nation is based on our ability to discuss problems, to understand other points of view, accommodate other's concerns, to compromise to reach agreement, and to act.

There is still time before the legislation is introduced to modify and strengthen the proposals and thus make the quoted aims a reality. It must be done. The economic future of our country depends on it.

Port of Corpus Christi

(Extracts from the Annual Report 1980)

1. Port Director's report (extract)

Overall Port activity during 1980 was affected by world economic conditions, disruptions in the grain market and problems caused by Hurricane Allen. Total tonnage was 53.5 million compared to 60.8 million tons in 1979. Crude oil imports decreased substantially, reflecting a national policy of reducing dependence on foreign oil. Petroleum shipments overall were down 11 per cent. The Bulk Materials Dock moved 1.1 million tons, a mark first reached in 1979 and nearly double any previous year.

The Corpus Christi Public Elevator continues to play a vital role in serving the export marketing needs of both South Texas and Great Plains grain producers. Elevator modernization projects started in 1978 were finished in 1980 with reconstruction of the railcar dumping system, replacement of electrical controls, addition of a ship breasting structure and replacement of dust control equipment—all measures aimed at assuring maximum efficiency, safety and environmental protection.

In 1980 the Public Elevator unloaded 44.2 million bushels of grain from 8,573 railcars and 17, 680 trucks. It loaded out 37.5 million bushels into 62 ocean-going vessels and 3.3 million into railcars carrying export grain overland into Mexico. Another 2.25 million bushels were bagged and exported across Port cargo docks.

In an effort to meet the harvest-period storage needs of South Texas cotton producers, the Port expanded the Corpus Christi Public Compress in 1980. Commissioners sold $1.7 million in revenue bonds to finance two cotton warehouses that and 90,000 square feet of covered space. Cotton moving across the Port's docks in 1980 totaled 160,000 bales, matching the pace set in 1979.

The Port of Corpus Christi staff took the lead in an effort by 56 major U.S. seaports to win changes in national rail deregulation legislation which went into effect October 1, 1980. The Staggers Rail Act originally had no rail rate relief options for ports. The final bill, however, gives ports the authority to challenge contract rates and surcharges on joint-line rail rates before the Interstate Commerce Commission on the basis of discrimination and cost.

Work continues toward obtaining a construction permit for Deeport—the proposed 72-foot project at Harbor Island. Many additional studies were done in 1980 to further evaluate the impact the project would have on the environ-

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Nichols discussed the Savannah/Brunswick hinterland and cargo mix and singled out several prominent commodities which would be hard hit by a program of user assessments. Grain, forest products, and clay all carry a low value per unit weight, with successful world trade often hinging on differences of fractions of a cent. He indicated that disparate user charges would effectively eliminate their producers from competition.

Nichols characterized the Sun Belt as the growth center of the nation and outlined the critical role of the port system in that development. He predicted that disruption of the port competitive balance could be disastrous stating, "Growth within our region as a whole would be seriously threatened." He indicated that many firms' success upon relocation to the South hinged on the viability of their export business. He described the network of ports as a critical factor in the financial rationalization of their investments.

Frank Peeples, President of Southeastern Maritime Company discussed "Bridges/Harbor Handicaps" and presented a list of problems and his proposed solutions. He pointed to the lack of a sheltered anchorage and called for provision of one. He urged enlargement of several turning basins and widening of the channel to facilitate unrestricted, two-way vessel movement.

Peeples discussed the need to develop more spoil areas for future dredging. He called for removal of the Talmadge Bridge and replacement with a tunnel which would permit deepening to a minimum of 55 feet. Peeples underscored the need for regular overdredging to the 2 foot allowable limit to permit constant maintenance of the channel at the 38 foot project depth.

Peeples cited the lack of riverfront land available and proposed a two part solution. First, he stated that no more port land should be taken out of inventory for other purposes. Secondly, he espoused elimination of the Houlihan Bridge to permit development of the upper reaches of the harbor. Peeples concluded with a call for strong, port informed and oriented leadership in local government to back maritime interests in their pursuit of port development.

The final speaker, 1st District House Representative Ronald "Bo" Ginn, predicted that "The 97th Congress will not buy this abrupt change in the way we fund port projects in their country." He stated his belief that there is no need to fix something that's not broken, and that, " . . . our port funding system *is not* broken." He gave another reason for his opposition to wholesale changes stating, "The time is not right in view of our economic circumstances to add an additional cost to our ability to do business with the other nations of the world."

Ginn revealed his intention to personally appeal to the President to modify his stance. He predicted that legislation of some form, particularly in the area of "fast tracking" the permitting process, would probably be forthcoming, particularly in view of the fact, " . . . that no water resources bill has been passed in 5 or 6 years." He affirmed his intention to take a stance against the current proposals and called on those present to apply their resources to buttress his efforts whenever possible.

The speakers agreed that the proposals being bandied about constitute a monumental threat to the U.S. port way of life. A consensus existed that such legislation would have a disparate and disastrous effect on the smaller ports and the extensive hinterlands they serve. The closing question and answer session reflected the concern of those in attendance. Later discussions among the audience seemed to predict that the session served, as the Chamber of Commerce had hoped, as the impetus for the development of a unified effort to promulgate the definitive position of the Port of Savannah with regard to the legislative proposals under consideration.

ment. The Army Corps of Engineers will make a permit decision after the final environmental impact statement has been finished.

The Port has broadened its industrial development effort and is working closely with the Corpus Christi Industrial Commission in marketing the region to prospects who would bring new jobs here. The Port Commission has encouraged prospects to use industrial revenue bond financing available through the Industrial Development Authority created by the Port.

Focusing on the Eighties

New patterns are surfacing in trade, energy demand and the product mix coming out of the Port's industrial complex. The huge Corpus Christi Petrochemical Co. olefins plant has come on stream and other processors continue upgrading the sophistication of their operations. This suggests that in the '80s there will be a gradual shifting toward production of higher-value petrochemicals with less emphasis on simple refinery cracking to produce lowgrade fuels.

Coal is becoming an increasingly important American export. In the years ahead the nation must establish additional coal terminals and Corpus Christi with its deep port is in a favorable position to handle Western coal as it becomes competitive in world markets.

We see the growing opportunity to serve Mexico as a bright frontier for the Port. Strengthening trade ties are drawing the regions on both sides of the Rio Grande into a closer economic partnership. Building such trade bridges is the high calling of a world port.

2. Balance Sheet for the year ended December 31, 1980 and December 31, 1979

ASSETS	1980	1979
	(in thousands)	
Current Assets		
Total Unrestricted Cash and Temporary Investments	$ 8,859	$ 10,818
Total Accounts and Note Receivable and Accrued Revenue	3,767	3,184
Inventory	412	232
Prepaid Insurance	176	182
Total Current Assets	13,217	14,418
Fixed Assets		
Construction in progress	5,041	4,062
Plant, property and equipment at cost estimated historical cost	39,964	35,296
Less: Accumulated depreciation	(17,355)	(16,527)
Net Fixed Assets	27,650	22,830
Other Assets		
Total Other Assets	67	194
Restricted Cash and Temporary Investments		
Total Restricted Cash and Temporary Investments	647	4,534
Installment Sales Receivable		
Sun Oil Company	4,560	4,560
Central Power and Light Company	9,825	9,825
Champlin Petroleum Company	18,900	18,900
Corpus Christi Petrochemical Company	32,000	32,000
Total Installment Sales Receivable	65,285	65,285
Total Assets	$106,866	$107,263

LIABILITIES AND RETAINED EARNINGS

	1980	1979
	(in thousands)	
Current Liabilities		
Accounts payable and accrued expenses	$ 927	$ 1,098
Notes payable United States of America	2,405	2,405
Accrued Interest Payable		
Total Accrued Interest Payable	1,199	1,199
Current Maturities of Long-Term Debt General Revenue Bonds, Series 1965	110	105
Total Current Liabilities	4,641	4,807
Restricted Funds Payable		
Total Restricted Funds Payable	148	4,016
Long-Term Liabilities		
Environmental Improvement and Pollution Control Revenue Bonds		
Sun Oil Company	4,560	4,560
Central Power and Light Company	9,825	9,825
Champlin Petroleum Company	18,900	18,900
Corpus Christi Petrochemical Company	32,000	32,000
General Revenue Bonds, Series 1965	1,255	1,360
Less: Bonds currently due	(110)	(105)
Total Long-Term Liabilities	66,430	66,540
Total Liabilities	71,219	75,363
Retained Earnings		
Allowance for grain shrinkage	225	225
Operating surplus	35,422	31,674
Total Retained Earnings	35,647	31,899
Total Liabilities and Retained Earnings	$106,866	$107,263

3. Statement of Income for the year ended December 31, 1980 and December 31, 1979

Operating Income	1980	1979
	(in thousands)	
Wharfage		
Petroleum	$2,560	$2,232
Dry cargo	938	862
Dockage		
Petroleum	1,064	1,123
Dry cargo	943	810
Standby	302	175
Freight handling	2,712	3,707
Grain storage	909	241
Sacking	372	325

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Port Autonome de Dunkerque 1980

(Extracts from "PORT AUTONOME DE DUNKERQUE ANNUAIRE 1981 ACTIVITE 1980")

Built in the 19th Century for fishing, the Port of Dunkerque was first extented in modern times on the instigation of Mr. de Freycinet, then Minister of Public Works, in 1978.

Almost completely destroyed during World War II, Dunkerque was quickly reconstructed and from then on continued to develop, stimulated by the industrial stamina of its hinterland which aims more and more at foreign markets.

In order to better cope with the competition of other major E.E.C. ports and therefore boost up French Foreign Trade, the French Government reformed port administration by passing an act in Parliament on June 29, 1965 creating self-run public port authorities. On November 6, 1965 a decree was passed that created the Durnkerque Port Authority which took over from the Dunkerque Chamber of Commerce and Industry on April 1, 1966.

This has brought new solutions in two areas: on the adminstrative side there is a Board of Directors including representatives of the Government and of the regional and national economy; on the financial side there is a greater possibility for investment due to Government participation.

Economic Situation and Prospects

The decrease in business activity which had started in the U.S.A. at the end of 1979 became widespread throughout all countries from the second half of 1980.

The successive increases in the cost of oil which hit most countries brought about a decrease in World trade and an acceleration in inflation, which resulted in a decrease in both International and National demand, and this had a direct bearing on the level of industrial production.

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	1980	1979
	(in thousands)	
Fumigation	104	148
Screening	43	72
Other services	99	123
Property and building rental	454	377
Other income	200	92
Total Operation Income	10,706	10,291
Operating Expenses		
Total Operating Expenses	6,978	6,094
Net Operating Income	3,727	4,196
Non-Operating Income		
Investment income-unrestricted	880	800
Investment income-restricted	41	48
Total Non-Operating Income	922	848
Non-Operating Expenses		
Total Non-Operating Expenses	47	51
Net Income Before Depreciation Expense	4,602	4,994
Depreciation Expense	854	787
Net Income	$ 3,748	$ 4,206

In France, the stagnation occured mainly during the second half because at the beginning of the year, families resorted to their economies, and the business world in making reserves, postponed the depression. Investment despite a fall in the second half of the year, supported trading whilst our exports, on the contrary, were unable to reduce our commercial deficit. The penetration of foreign markets, especially in Industrial countries, was difficult and an inflation rate of 13,6% does not enhance the competitivity of our products.

In the different sectors of industry, activity was mediocre, apart from perhaps the construction industry and aeronautics.

The steel industry suffered from a decrease in orders from the car and building insdustry, and abroad competition and protectionist policies made any penetration difficult.

In the textile trade, paper trade and tyre trade, the economic problems have led to restructuation. In the chemical trade and especially in the fertilisers, results have not been good and a reduction in production will be forthcoming.

In this discouraging picture, only agriculture shows an increase in production and a surplus in the trading balance. The production of sugar and cereals has increased and also international demand has remained constant. These goods have an increasing importance in the Port of Dunkirk.

At the beginning of the year, it is usual to examine the prospects for the coming twelve months, and for 1981, these are very uncertain. Most experts believe that the first half of the year will be slow followed by a possible improvement. In this respect the steel industry will function on policy decided at Brussels, will reduce the imports of iron ore and of coal, but there remains uncertainty in this branch from July until December.

The Energy sector will undoubtedly import more and more coal to replace oil but it is possible that the fall in the consuming of hydrocarbons, very substantial in 1980, slows down considerably in 1981.

The chemical industry, the paper industry and the mechanical industry with the "important contracts" with OPEC, should improve their results, whilst there is concern for the non-iron metals, textile and agricultural machine. In the building and construction industries, no improvement is foreseen apart from the construction of the New Bulk Quay in Dunkirk.

Despite fears of drops in production, the Agricultural profession should have a maintained level of exports in 1981, even through the European Economic Community has become capable of supplying entirely its own needs.

As far as Port Activity is concerned, the prospects illustrate a tendency to decrease slightly depending largely on the Steel industry whereas other sectors should remain constant.

Overall Traffic Figures

The gain in activity of 1979 has not been retained. In 1980, the traffic only progressed by 1% against 14% the previous year. This stagnation was foreseen at the beginning

of the year in the general economic situation but could have been thought to be otherwise after a good first half. The second part of the year and a disastrous month of November (1.9MT) is responsible for retaining the traffic within the original trend.

This situation corresponds to a decrease of 11% in the hydrocarbons sector and is compensated for by additional tonnages in iron ore and coal (+8.6%) whilst other non-bulk goods increase by nearly 4.5%.

One notices, more precisely that the drop in hydrocarbons is, in fact, a return to the 1978 situation, following an exceptional 1979 with, however, two variables, one being the drop in refining because of the fall in requirements and on the other hand, an incredible increase in the receiving of refined products, meeting the requirements of the petro-chemical plant.

As far as bulk material is concerned, only the coal supported by the requirements of the coal industry and the Electricity Board continue their spectacular expansion (+17.6%) the iron ore being slightly ahead (+3.6%) because of a good start to the year.

In other sectors, imported sand and phosphates, metallurgical products, cereals, sugar, and fertilisers as far as exports are concerned, showed an increase and also generally speaking, tramping cargoes. Regular shipping lines remain constant. Lastly, the cross-channel traffic and deep sea container traffic hope for a new lease of life—perhaps in 1981!

Traffic — Eastern Port/Western Port

Since 1978, the proportion of traffic appertaining to the Western Port has moved from 28% to 22%. This is explained by the large increase in bulk material handled at the Eastern Port, but also in 1980, by the relative drop in crude oil handled in this area.

The difficulties of supply of crude oil following the Iraq/Iran unrest, have meant a need for crude oil from the North Sea and from Russia, transported by smaller ships discharging in the Eastern Port.

One must also note the remarkable progression in the development of the traffic in the rapid-transit Port (+21%) despite its small overall proportion in tonnage (cross-Channel excluded).

(000 T)

	1978	1979	1980
Petroleum products			
TOTAL DUNKERQUE	11 928	13 381	12 001
Eastern Port	3 665	4 601	4 717
Western Port	8 263	8 780	7 284
Ore + Coal			
TOTAL DUNKERQUE	15 800	19 865	21 237
Eastern Port	15 800	19 865	21 237
Western Port	–	–	–
Cross-Channel			
TOTAL DUNKERQUE	1 300	1 417	1 320
Eastern Port	–	–	–
Western Port	1 300	1 417	1 320
Others			
TOTAL DUNKERQUE	6 616	6 097	6 659
Eastern Port	6 346	5 833	6 339
Western Port	270	264	320
Total			
TOTAL DUNKEQUE	35 644	40 760	41 217
Eastern Port	25 811	30 299	32 293
Western Port	9 833	10 461	8 924

Projected Development Works

The slowing down of economic activity and the lack in investment and business creation have reduced new port work to a minimum in 1980.

The Port equipment has been completed by a purchase of a new hydrographic launch and by the lighting up of the jetties at the Western Port which will give more flexibility for the movement of large vessels.

The bulk material increase has led to the creation of an additional stocking area of 60 500 m^2 behind the n° 2 bulk quay, the extension of the loading facilities and improvements in the handling equipment on this quay. The buying of grabs and mobile conveyors has also contributed to improving this trade in iron ore and coal, whilst awaiting the construction of the new bulk quay at the Western Port, announced by the President of France during his visit to Dunkirk on 9th October 1980. The work started in 1981 and will be completed at the end of 1982 when the quay will come into service with a water depth—20 m, being equipped with two Ganty cranes and this quay will be able to receive vessels having a draught of 18.5 meters.

The general cargo trade has benefited with the fitting out of new areas and additional equipment in the Eastern Port as well as the new loading ramp for ferry-boats situated in the "Atlantic" area of the Western Port with the new working areas which catered for a constant activity during the summer.

In the same area, the rapid transit Port has improved its railway installations with the extension of the S.N.C.F. (French National Railways) network at Loon-Plage and the road access to the crossroads at the "Port à Roseaux" on the R.N.I.

For 1981, the creation of a body known as "Nord France Terminal" for the container terminal at the Western Port should lead to the fitting out of the area, in order to allow more intensive use of the installations.

The changes and development in some traffic have also led the P.A.D. to adapt two of the phosphate silos for the stocking of agricultural products and to construct an additional hangar with a capacity of 5980 sq. metres.

Also, the expansion of the sugar terminal has been decided upon to cope with the spectacular increase in this trade. These projects should be operational during 1981.

As far as industrial installations are concerned, the only one to be noted is the BONNA-SIF, specialists in the concrete covering of pipes used at sea. As for the existing industries 1980 saw the starting up of the Nuclear reactors, the construction of a catalytic cracker at the C.F.R., for which the starting up is planned for the middle of 1982, the repairs of the number 3 blast furnace and the automatising of the heavy plate unit at USINOR.

In the energy sector, two new spheres of 3 500 m^3 for the stocking of propane were built, they should be in use during 1981.

Large areas remain available and investors should be favorised by the ease in exporting and the supply of raw materials that a site such as Dunkirk offers which is further favorised by the economic crisis.

U.S. Port and Intermodal Development

(Extracts from The Annual Report of the Maritime Administration for Fiscal Year 1980)

During fiscal year 1980, the Maritime Administration continued its support of national, regional, State, and local efforts to assist the American port industry and foster the development of intermodal transportation. Such efforts stimulate the economies of the municipalities and States involved, and ensure capability adequate to support national priorities in times of emergency.

The port development program continued to provide other Federal agencies, geographic regions, and individual ports with assessments of present and future port needs. The intermodal program carried out investigations and demonstrations which produced cost data and benefit measurements for new areas of port technology and contributed to major national port objectives.

As the industrial nations of the world began shifting to increased reliance upon coal, MarAd became a major participant in national bulk transport and port capability assessments, including the work of the president's Interagency Coal Export Task Force.

Technical assistance on port-related programs and projects provided to other Federal organizations during FY 1980 included: public port applications to the Economic Development Administration for Federal grants and loans; individual State plans for coastal zone management to the National Oceanic and Atmospheric Administration; and contributions to the navigational improvement studies of the U.S. Army Corps of Engineers and to the river basin studies of the Water Resources Council.

The Agency also continued its advocacy role with those Federal agencies whose regulations and programs affect port development, operations, and the flow of commerce. These included other Dpartment of Commerce agencies, the Environmental Protection Agency, the U.S. Coast Guard, the U.S. Army Corps of Engineers, and the Departments of Interior, Energy, Transportation, Housing and Urban Development, and Treasury.

In addition, MarAd played key sponsorship or support roles in "Coastal Zone 80," the Urban Waterfront Action Group, the Commerce Cities Program, port and shipping meetings, technical seminars, and port economic impact workshops.

MarAd was a major sponsor of the Pacific Basin Development Conference, held in Hawaii. Other participants were the Departments of the Interior and Energy; other Commerce agencies; the State of Hawaii; the island governments of American Samoa, Guam, and the Northern Marianas; and the private sector. The meeting produced a long-range development plan dealing with fisheries, coastal zone management, ports, transportation, telecommunications, trade, tourism, municipal services, and energy. The plan calls for the implementation of 150 programs over a 5-year period at a cost of approximately $1.3 billion.

Port Planning Program

In FY 1980 the Maritime Administration continued its program of sharing the costs and actively cooperating in master planning studies with local and State agencies and regional port associations. During the year, 19 projects were contracted, underway or completed.

These studies included:

- *National Port Assessment*–an analysis of the capability of the Nation's ports and marine terminals to meet requirements of U.S. foreign and domestic waterborne commerce over the next 10 years.

(Continued from page 8)

The poster advertising IAPH Award Scheme is now available in English, French and Spanish

In order to draw more attention to the IAPH Award Scheme from the applicants in non-English speaking countries, the poster advertising the scheme was printed by the Association in French and Spanish in addition to its English version and was sent to the relevant people including the Association members in the regions.

Mr. J.K. Stuart, Chairman of the Committee on International Port Development commented in his report to the recent conference that the entry papers in French and Spanish were almost zero while the conditions allow the presentation in these languages and he suggested the Secretary General to publicize the 1982 scheme also in these languages.

Posters in any language (English, French and Spanish) are available from the Tokyo Head Office at request.

Visitors

– Under the theme of "LA Port Moves Towards Being an Energy Port" and in commemoration of Mayor Tom Bradley's visit to Japan, a reception was held on the evening of October 13 at Hotel Okura, Tokyo. Mayor Bradley, in his address to the invitees, proclaimed LA Port's readiness and capableness of playing a major role as coal exporting port on the US West Coast. On the LA Port Mission were Mr. Jun Mori, President, Mr. F.A. Heim, of Harbour Commissioners, Dr. E.L. Perry, Executive Director and Mr. Masami Ono, Trade Development General Sales Manager, Far East.

(R to L) Hon. Tom Bradley, Mayor of Los Angeles; Mr. J. Mori, President, Harbor Commissioners; Councilwoman Joan M. Flores, Los Angeles; Dr. E.L. Perry, General Manager; Mr. M. Ono, A/Director, Trade Development Far East; Mr. K. Yokoyama, Far East Representative.

- *Port Handbook for Estimating Marine Terminal Cargo Handling Capability*–a publication which provides a simple, reliable method for estimating the annual cargo throughput of U.S. ports.
- *Moving U.S. Coal to Export Markets*–an assessment of the U.S. transportation system's present and planned capabilities for moving coal to foreign markets; produced with the Departments of Energy, Transportation, and Defense.
- *Detroit Port Development Study*–an exploration of port planning assistance applied to local communities through the Department of Commerce Cities Program, specifically assessing long-range facility requirements of the Port of Detroit.
- *Port Public Liability Insurance/Risk Management Study*–an examination of U.S. public ports liability insurance problems and alternatives to traditional solutions; prepared under joint sponsorship with the Pacific Coast Association of Port Authorities.

(Continued on next page bottom)

Research and Development Contract awarded–Fiscal Year 1980

Project	Task	Vendor	Amount
	Port and Intermodal Development		
Equipment and Facilities:			
Marine Terminal Automated Management Control System*	To conduct a pilot demonstration of a computer-generated, automated management system is a public marine terminal.	ARINC Research, Inc. Annapolis, Md.	$ 230,355
Tanker Berthing Evaluation	To develop a simulation device to assist MarAd's Computer-Aided Operations Research Facility develop tugboat berthing procedures.	Hydronautics, Inc. Laurel, Md.	212,000
Bulk Commodity Simulation Model	To provide increased capability for analysis of grain shipment, port congestion, scheduling, and interchange between the inland modes.	Martin Thomas & Co. Washington, D.C.	12,180
Port Planning:			
Appropriate Tariff Rates for Ports	To develop a ratemaking formula for individual port authorities and conferences to enable the development of compensatory tariff rates on marine services.	Applied Systems Institute, Inc. Washington, D.C.	145,556
National Planning Data Symposium	To plan and manage a national data planning conference to analyze management data problems submitted by organizations in the maritime and port industry.	International Services and Technology Washington, D.C.	32,171
Update Port System Study of Washington State and Portland, Oregon, Ports	To update existing data to provide an economic framework of cargo and transportation data enabling ports of the region to develop a port planning system.	Washington State Public Ports Association Olympia, Wash.	48,435
New England Ports and Harbors Study	To conduct a study of the impact of port traffic on the transportation networks of the region and develop a Transportation Management System to assist in port planning.	New England River Basin Commission Boston, Mass.	75,000
Delaware Regional River Study	To analyze the impact of port traffic on the transportation network in the region, identify potential port sites, and estimate future demands for terminal facilities.	Delaware River Authority Camden, N.J	102,500
City of Hartford Feasibility Study	To assess the feasibility of commercial port operations as an alternative plan for the city riverfront.	City of Hartford Planning Development Office Hartford, Conn.	30,000

*Cost-Shared

Analysis of Maritime Activity: Cameroon National Ports Authority

Foreword

With the coming into full operation of the new equipment of Douala Port, it has become evident that maritime transports in our country have benefitted from very favourable condition for their development, and that the port of Douala remains, for the time being, the main maritime outlet of the country.

The extension of the Douala port, at the time it had reached its full capacity–2,488,239 tons in 1977 for an estimated annual capacity of 2,500,000 tons–therefore appeared to be an important step towards preventing an eventual blockage of the country's economy.

As a matter of fact, the growth rate of the traffic at Douala port which was 7.65% from 1960 to 1979 (9.76% for imports and 4.96% for exports) is an indication of the tendency of the growth of our economy, as this port handles more than 90% of our foreign exchange. The relatively high growth rate of imports is connectd with the increased demand for consumer goods by a growing population whose conditions of life are improving and also with the needs for equipment goods by a country which is developing. The improvement of operating conditions of the Douala port, due to its physical development and to the steps taken to modernize the management system created numerous advantages to port users. These advantages are:

– The improvement of ships' average output which increased by 43% from 1977 to 1980 passing from 556 tons to 797 tons;
– The decrease by 13% of ships' average berthing time from 1977 to 1979 and yet a substantial increase of cargo traffic by 25%;
– The decrease of ship's waiting time at the base buoy: 32 hours in 1978 as against 18 hours in 1980;
– The decrease in the global berths occupancy rate: from 81% to 63.39% between 1977 and 1980.

The current deepening of the channel (to reach–7 m in the very near future, as against–5,8 m initially) will certainly help reduce ships waiting times at the base–buoy, and hence greatly reduce their berthing-times in the port.

General Introduction

As in past years, the consolidated traffic of our ports has increased notably, as our different ports during the year 1980 handled a global traffic of 3,608,673 tons. These figures represent a 7.86% increase (+263,022 tons) on the figures of last year when the traffic was 3,345,651 tons.

Foreign trade imports went up from 2,231,786 tons in 1979 to 2,393,228 tons in 1980, thus an increase of 161,442 tons (+7.23%).

As for exports, they increased by 111,895 tons (+10.32%) as they rose to 1,196,831 tons this year, as against 1,084,936 tons last year.

Home trade registered an important fall of 10,315 tons

(Continued from page 19)

- *Commercial Port Development and Urban Waterfront Development: An Analysis of the Interrelations*–this report develops a comprehensive method to examine opportunities for compatible commercial and recreational uses of port waterfronts.
- *Great Lakes Cooperative Port Planning Study*–a new data base for Great Lakes commodity flow and origin/destination analysis. The study defines market regions for selected Great Lakes ports.
- *Delaware River Regional Port Study*–an analysis of regional long-range port development requirements in the Delaware River estuary. The study, under the management of the Delaware River Port Authority, involves four major cities and two counties.
- *New England Port and Harbor Study*–a report which identifies future regional port development strategies. It was conducted in cooperation with the New England River Basin Commission and 10 ports in five States.
- *Oregon Ports Study*–an assessment of the need to develop additional commodities to counteract the leveling off of timber production and product shipments.
- *Texas Port Study*–an analysis of Texas waterborne commerce and the demand it places on waterfront, wetland, and submerged land resources. Techniques to assess the impact of commerce on the State's economy are emphasized.

Equipment and Facilities Program

As in port planning, MarAd shares program costs with industry or other Federal or State agencies when assisting American port and terminal operators in increasing their competitiveness through improved equipment and expanded facilities.

During this reporting period MarAd:

- Completed the functional system and hardware for a 3-month, full-scale demonstration of a computer-based management control system at the Port of Oakland. (The system is designed to expedite the movement of containers through a public multi-user marine terminal.)
- Revised Chapter 19, Title 32A of the Code of Federal Regulations, concerning control and utilization of ports during periods of national emergency.
- Joined the Military Traffic Management Command in designating ports for control and utilization procedures during a national emergency.
- Completed planning and procurement of instrumentation for a full-scale test of tanker berthing in Puget Sound. (The test will evaluate the ability of one or more tugs to bring a large tanker safely to a stop under a simulated rudder and power failure. The U.S. Coast Guard and the American Institute of Merchant Shipping are funding the project with MarAd.)
- Completed acceptance tests for a lightweight firefighting module–developed under joint funding with the National Aeronautics and Space Administration and the U.S. Coast Guard–for demonstration and evaluation by U.S. ports. (The unit was demonstrated in St. Louis, Mo., as part of a 1-year test and evaluation program.)
- Conducted a seminar at the National Maritime Research Center, operated by the Agency at Kings Point, N.Y., on problems associated with marine firefighting.

(-35.65%) as it went from 28,929 tons down to 18,614 tons from one year to the other.

In 1980, 1,359 ship flying more than forty flags called at our port. In 1979, there were 1,306 ships, which shows an increase of 53 ships, (+4.05%). Ships which called at our ports especially Douala, could be classified as follows:

Type of ships

- General cargo ships 64%
- Container ships 7.8%
- Oil tankers 8%
- Mineral carriers 7.8%
- Banana carriers 4.4%
- Roll on/Roll off 5.6%
- Miscellaneous 2.7%

Countries of origin

- France 21.77%
- Cameroon 12.44%
- Libéria 7.73%
- Greece 6.85%
- United Kingdom 6.09%
- Yugoslavia 5.48%
- Panama 4.84%
- Denmark 3.69%
- Russia 3.38%

The following analysis would help us further appreciate the distribution of traffic per port.

Douala/Bonaberi Port

During the year 1980, Douala /Bonabéri port alone handled 93% of the seaborne traffic of Cameroon.

General traffic (foreign, coastal and home trade and fishing) of this port was 3, 366,745 tons in 1980 as against 3,140,120 tons in 1979 marking in increase 226,625 tons for an expansion rate 7.21%.

The total gross tonnage reached 9,946,397 tons, increasing by 401,864 tons (+4.21%) as compared to last year when it was 9,544,533 tons.

Foreign trade traffic went from 3,111,191 tons in 1979 to 3,348,131 tons in 1980, an increase of 236,940 tons (+7.6%).

Coastal home trade and fishing traffic went from 28,929 tons to 18,614 tons, a decrease of 10,315 tons (-35.65%).

The sectorial analysis which follows will alow us understand the evolution of traffic at Douala port.

A–1. Exports

Right away we note that the progression rate of exports is higher than that of imports (8.02% as against 7.45%).

It is the first time this phenomenon occurs since 1960. As a matter of fact, from 1960 to 1979, the annual average progression of traffic was 7.65%. This progression rate remained largely influenced by imports, which increased by 4.99%.

From 893,191 tons in 1979 to 964,861 tons in 1980, exports registered an increase of 71,670 tons (+8.02%). The chapter "Export traffic" explains the evolution of the different products, the most important of which are shown below:

A–1–a. Timber

The exports of logs increased by 6.37% as they went from 362,284 tons in 1979 up to 384,388 tons in 1980. Processed wood and sawn timbers recorded a more important expansion +29,855 tons (+32.62%) for they reached 121,377 tons this year as against the 91,522 tons of last year. The exports of logs without being stagnant, mark a moderate progression at the profit of sawn and processed timber. This tendency should be confirmed in the future because of the measures advocated by the decision makers who aim at exporting more and more elaborated products in consideration of the advantages incurred: added export value, use of national manpower.

One of the reasons for the limitation of timber exports in rough wood is the difficulty of transfer from areas of production to Douala port. The amelioration of the national railway network would be an incentive to forestry economy.

A–1–b. Coffee

In spite of efforts made to promote the export of coffee (various subsidies an increase in prices) this product registered a fall of 4.55%: 109,559 tons in 1979 as against 104,538 tons in 1980.

Rural exodus and the lost of interest by certain coffee farmers who prefer foodcrop cultivation are the principal causes of this fall.

A–1–c. Cocoa

Total cocoa export in 1980 was 64,465 tons as against 49,193 tons in 1979, thus an increase of 15,272 tons (+31.04%). It goes without saying that the amelioration of world market prices have played an important role in these results. Besides, the reorganization of world market towards stabilizing the prices of agricultural products, remain the base of export development.

A–1–d. Cotton

Cotton export rose by 5,966 tons (+16.3%) as they went from 54,070 tons in 1979 to 60,036 tons in 1980.

We are nevertheless far from the forecasts which were 125,000 tons cotton exports for 1981. Indeed, for more than five years, cotton exports have remained stagnant, because of low world market prices. The increase of purchase prices for producers concluded at the beginning of the last compaign, was due more to a social policy than to a favourable world market conjuncture.

It must also be noted that 83.5% of cotton is destined for exportation whereas the rest is stocked and used in the local textile industry (CICAM).

World market forecasts are not very encouraging and if this situation persists, producers' income would fall. Another factor we must take note of is the competition from synthetic fibres which are cheaper especially in the U.S.A, and the middle East. This means in the future cotton exports would become uncertain.

A–1–e. Aluminium

Aluminium production remained the same as last year whereas demand by local industries increased. Its exportation thus fell by 54.45% as it went from 28,153 tons in 1979 down to 11,697 tons in 1980.

Presently Alucam is undertaking modification works in order to increase its production, which brings about a rise of aluminium exports in 1981.

A–1–f. Banana

Banana exports fell remarkably as they went from 84,488 tons in 1979 to 63,823 tons in 1980. Many factors contributed to this:

- Convenient production areas are volcanic and porous

consequently they demand much water; but the irrigation campaigns launched several years ago are not yet fruitful, with effects in the quality and quantity of the production.

– The transportation by railway of this sensible product from areas of production to Douala port constitutes a real handicap: loaded wagons remain stationed for one or two days. It is hoped that the underway measures of the Railway Cooperation to improve the situation would be an incentive to banana productions. Moreover, the recent mission of the Port of Le Havre, coupled with actions proposed by the port of Rouen give way to better solution for the transportation of our banana.

A–2. Imports

At the end of 1980, imports through Douala/Bonaberi port show an increase as compared to last year results: 2,218,000 tons in 1979 and 2,388,270 tons in 1980, thus a progress of 165,270 tons for an expansion rate of 7.45%. Here follows an analysis of the evolution of the most important of them.

This year we have introduced a new classification of products, by redistributing the products within the families for 1978 and 1979 to facilitate any comparative analysis.

A–2–a. Hydrocarbon and gaz

These products represented 29.10% of imports at Douala port in 1980. They went up from 627,333 tons in 1979 to 693,573 tons in 1980, thus an increase of 66,240 tons (+10.55%). As in previous years, this increase is due to the various projects and the continuous increase in the number of cars.

A–2–b. Food products and drinks

Contrary to 1979, these products increased by 21,447 tons, as they went up from 300,010 tons in 1979 to 321,457 tons in 1980 (+7.15%).

The commodities which contributed to this increase are.

- Beers and mineral waters: 11,234 tons in 1979 and 15,075 tons in 1980, thus an increase of +3,841 tons (+34.19%);
- Preserved foods: 22,393 tons in 1979 and 33,124 in 1980 (+47.92%);
- Wines: 33,726 tons in 1979 and 43,856 tons in 1980 (+29.23%);
- Frozen fish: 17,232 tons in 1979 and 23,664 tons in 1980 (+37.32%).;

Some products fell, like corn (-20.35%), granulated sugar (-24.31%) semolina of barley or corn (-60.29%). This fall is normal, as they are more and more produced locally.

A–2–c. Metallurgical products building material and machine

This item experienced a slight fall of 7,846 tons (-2.85%) as they went down from 274,613 tons in 1979 to 266,760 tons in 1980.

The imports of transportation material (vehicles and machines) again recorded a fall of 9,897 tons (-26.64%) as they went down from 37,130 tons in 1979 to 27,241 tons in 1980. This is explained by the decreased importation of locomotives as well as traction material. Nevertheless the importation of cars increased.

Importation of spare parts increased by 32,918 tons (+214.70%). They went up from 15,332 tons in 1979 to 48,250 tons.

The imports of iron and iron sheets decreased by 29,186 tons (-17.11%) as they went down from 170,561 tons in 1979 to 141,375 tons in 1980. This is due to increased production by local industries.

Imports of bitumin increased by 1,582 tons (+13.85%) as they went up from 11,442 tons in 1979 to 13,004 tons in 1980. The repair and building of roads between and in urban centres explain this increase.

Imports of special cement fell by 3,263 tons (-8.12%) since they declined to 36,897 tons in 1980 as against 40,140 tons in 1979.

A–2–d. Minerals, raw and semi-finished material

These went up from 556,922 tons in 1979 to 592,523 tons in 1980, thus an increase of 35,606 tons for an expansion rate of 6.39%.

The imports of aluminium only increased by 1,521 tons (+1.81%) as they rose to 85,211 tons in 1980 as against 83.69 tons in 1979. This stagnancy was due to the limited production capacity of Alucam which would only be improved when the Song Lou-Lou dam, now under construction, is completed.

Cryolite, tar, florine fell by 19,407 tons (-63.97%) from 30,339 tons in 1979, they decreased to 10,932 tons in 1980. On the contrary, we note an increase in the imports of petroleum coke.

Clinker imports equally increased by 6.01% as they went up to 415,323 tons in 1980 as against 391,763 tons in 1979. Nevertheless the rate of the present increase is less than that registered between 1978 and 1979 (18.83%).

Imports of gypsuim increased by 6,201 tons (+25.15%) as they reached 30,848 tons this year as against 24,647 tons last year.

Imports of barium oxide equally increased remarkably by 9,508 tons (+35.96%) as they went up from 26,483 tons in 1979 to 35,991 tons in 1980.

All products in this family recorded an increase, except cryolite, tar and florine.

A–2–e. Chemical and pharmaceutical products

These slightly decreased in 1980. From 274,613 tons in 1979, they went down to 266,767 tons 1980, -7,846 tons (-2.85%).

With the recovery of SOCAME activities, the national fertilizer factory, there has been a fall in fertilizer imports whereas industrial chemical products used for fertilizers production, increases.

The introduction of pharmaceutical products in this family has considerably increased its tonnage.

A–3. Container Traffic

25,097 boxes were handled at our terminal last year as against 35,365 this year, this an increase of 10,266 boxes (+40.90%). 19,496 boxes fall under imports while 15,896 boxes fall under exports. Total tonnage (import-export) reached 411,007 tons in 1980 as against 279,814 tons in 1979 (+46.88%). This tonnage represents 12.27% of the total traffic. If we exclude timber, liquid and solid bulk, we obtain a general cargo tonnage of 1,507,036 tons. Containerization rate as compared to this tonnage is therefore 27.35% for 1980.

Imports reached 215,449 tons in 1980 as against 142,977 tons in 1979, thus an increase of 72,472 tons (+50.68%).

During the year 1980, 94 container ships carried 177,861 tons of cargo as against 171,686 tons last year.

Average berthing time of ship at the terminal was 24 hours, average gross output was 96 tons per hour, thus 9 containers/hour/ship. This output is far below the fixed

objective, which was 12 to 16 containsers/hour/ship. The average cargo tonnage for full container ships is 1,892 tons.

Apart from full container ships, this terminal has received 67 RO/RO ships, whose average berthing time was 24 hours for an average cargo tonnage of 1,213 tons.

A–4. An Analysis of Port Operation

This would be carried out with the aim of showing the impact of the new installations on the operating conditions of the port.

A–4–a. Berth occupancy rate

The average berth occupancy rate went down from 66.5% in 1979 to 63.39% in 1980, while that of general cargo arose from 67.39% to 74.71%. The repairs of certain berths within the commercial port, and the fact that the timber dock is still unused, by lenghtening the berthing time of ships, have increased the occupancy rate of the container terminal, adjount to the timber port and where many log-carriers were loaded. The situation was made worse as timbers were transfered from the timber dock to the container terminal or the old port by old and worn-out barges which caused many delays in loading.

A–4–b. Daily output

The daily output per ship went down by 4 tons (-0.50%), as it dicreased from 797 tons to 793 tons. So is the case of the tonnage handled per day and per berth which also decreased by 4 tons, from 801 tons in 1979 to 797 tons in 1980.

This is due to the loading rate of log carriers, as timber traffic represents 52% of the total exports figures. Hence, it is but normal that this traffic be of a great influence on the general daily output of ships.

A–4–c. Ships berthing and waiting times

The average berthing time of foreign trade vessels arose from 3.4 days to 3.5 days. The fact is that cargo handling rate slightly fell, meanwhile cargo traffic increased.

In spite of a sensible increase in the number of vessels from 1,144 in 1979 to 1,190 in 1980 (+4.02%) the waiting time of ships remained the same as in 1979 = 18 hours due to cargo handling rates imposed on ships, notwithstanding the many problems provoked by the traffic of timber as earlier pointed.

In any case, steps were taken to improve all conditions of cargo handling, such as the prohibition of, apart from containers and cars, any cargo handling in the container terminal; the berthing of ships at berths adjacent to sheds into which cargo is to be unloaded or containing cargo to be loaded.

Finally the repair of general cargo berths has greatly facilitated the movements of mobile equipment.

Kribi Port

The total throughput of this port shows a tremendous rate of growth this year as compared to 1978 and 1979. From 173,725 tons in 1979, it went up to 214,680 tons in 1980. Then an increase of 19.07%. Both imports and exports are affected by this growth: it is observed that the imports increased over last year by 935 tonnes (+14.17%), i-e 7,530 tons in 1980 as against 6,595 tons in 1979; this trend is the same for exports which also increased by 40,020 tons (+23.94%) over the previous year, the tonnages are 207,100 in 1980 and 167,130 in 1979.

The major commodity exported in this port is timber as it represents 87.4% of the whole traffic and 90.59% of export traffic. Thus 148,640 tons of timber were exported in 1979 and 187,669 tons in 1980, showing a growth rate of 26.25% (+39,029 tons). The number of ships increased by 3.90%, as it was 133 this year and 128 last year. It is also worthwhile noting that the activities of the three roadsteads of Kribi, Campo and Lokoundje are sustained. Following certain problems earlier pointed out in our report of last year, works aimed at deepening the pass and the channel were carried out from April to June 1980. Yet, in early August sand was noted in the channel and the pass, with confirmation in September 80. Dredging along the wharf has not started as yet. In any case, the problems of this port are so complex that mere dredging does not appear to be the most adequate solution.

Victoria Port

The global traffic of this port registered an increase in 1980. From 23,255 tons in 1979, it went to 26,998 tons in 1980, thus an increase of 3,743 tons (+16.09%).

Imports this year again represent only a minor part in the global traffic of Victoria/Tiko port. In 1979 imports were 2,170 tons as against 2,178 this year, thus an increase of 8 tons (10.36%).

As for exports, they went from 23,255 tons in 1979 to 26,998 tons in 1980, thus an increase of 3,743 tons (+16.09%).

All export commodities fell, except palm produce which increased by 6,247 tons (+80.49%) as they went from 7,761 tons in 1979 to 14,008 tons in 1980.

The crucial problem in Victoria port is the fall of cargo handling rate due to worn-out equipment. To solve this problem, the Ports Authority has taken measures to improve the handling rates and to bring back confidence to ship owners. The results of these measures would be appreciated during the year 1981.

Garoua Port

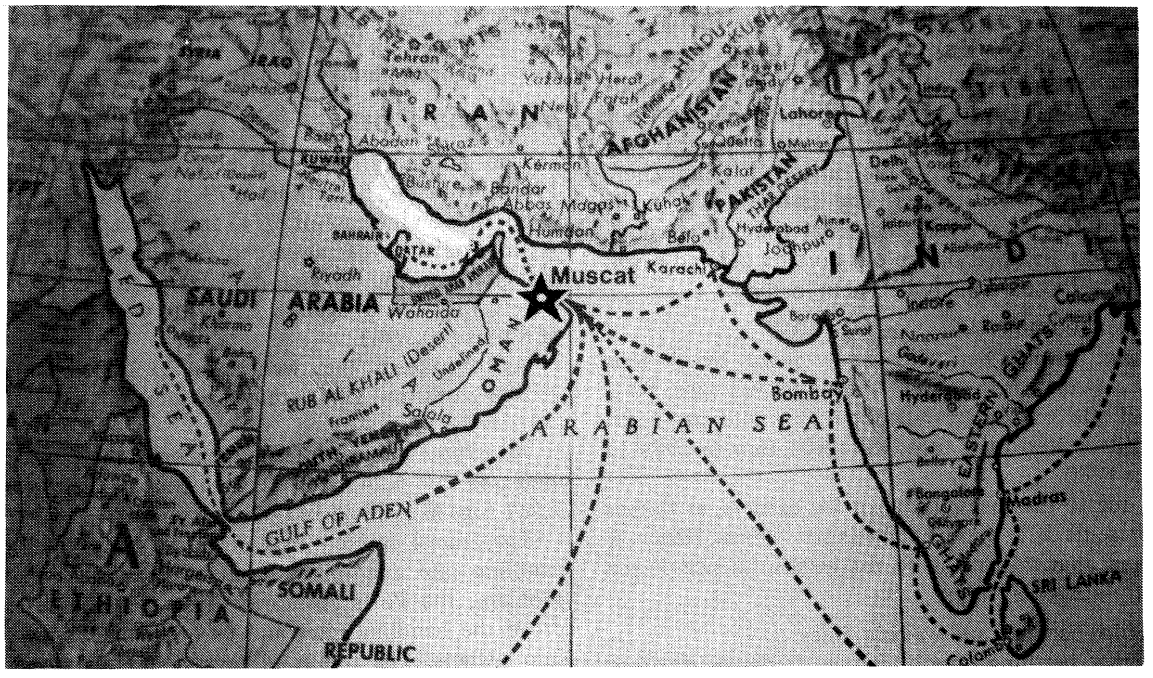
The catastrophic fall of traffic at this port in 1979 was a prelude to a recession in her activities. This year it registered 250 tons as against 8,551 tons of last year, showing a decrease of 97%. This tonnage represents imports only, as no product was exported through this port.

Contrary to last year, rainfall was not one of the causes of the decrease. In fact rainfall was high especially in August when the highest rainfall was registered. This made it possible to maintain an average water level of about 5.8 metres from August to September. The great fall of traffic was because SODECOTON and COTONTCHAD prefered exporting their cotton through Douala port. The Chad hostilities have also aggravated the situation. The Benue campaign started on August 7th 1980 with the arrival of the only convoy and ended two days later.

The improvement of Garoua Port operating conditions depends not only on the amelioration of the hydrographic flow of the River Benue foreseen with the construction of the Lagdo dam, but also on a recrudescence of activities of regions served by this port.

GATEWAY TO THE GULF

AND AT THE CROSSROADS BETWEEN EAST AND WEST



PORT QABOOS - MUSCAT

Port Qaboos, with nine deep water berths and three coaster berths, is your natural gateway to the Gulf.

Fast and efficient service, with round-the-clock berthing/unberthing and stevedore operations, provides a quick turn around for your vessels.

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IMCO/UNEP Guidelines on Oil Spill Chemical Application and Environmental Considerations (A Draft)

(Reproduced from IMCO Document: MEPC XVI/13/3, 25 September 1981)

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Foreword

At the first meeting of UNEP's Environmental Consultative Committee on the Petroleum Industry (UNEP 1979) held in September 1978 at Paris, one of the topics discussed was Oil Spill Combat Measures. The participants decided that a specific workshop dealing with oil spill chemicals and other combat measures should be held.

This workshop (UNEP 1980) was held in November 1979 in Brest, France. The workshop participants reported on some early problems, notably with dispersants. The first generation of dispersants was toxic to many marine species at normal dosage rate. Often poor application resulted in even higher dosage, worsening toxic effect. Sometimes, decisions have been taken to apply dispersants under circumstances where they should not have been used.

The workshop generally agreed that both the dispersants themselves and application techniques had improved considerably over the past few years and that under certain circumstances there is a useful role for dispersants and for other oil spill chemicals. As oil spill chemical application techniques are under rapid development, it was confirmed that a review of present day knowledge and experience, and the preparation of guidelines, with the emphasis on environmental considerations would be timely and useful for Governments, in particular those of developing countries.

UNEP undertook to do this and IMCO agreed to participate in the preparation of the document, which was considered useful pending the revision of Section IV of their Manual on Oil Pollution (IMCO 1980).

The document was discussed at the Second Meeting of UNEP's Environmental Consultative Committee Meeting held in Paris in June 1981 as well as at the IMCO's MEPC meeting in December 1981 in London.

Acknowledgements

The comments received during the preparation of these Guidelines, from the following are gratefully acknowledged.

(In alphabetical order, by name, with title and affiliation)

The guidelines were drafted for UNEP and IMCO by Mr. Thys Risselada.

1 INTRODUCTION

The purpose of these guidelines is to provide present day knowledge and experience in the field of oil spill chemicals and their application and to give some guidance on their proper use, with emphasis on environmental considerations. It deals with all of the more important oil spill chemicals. Of these, dispersants are the most widely used and this document systematically deals with all aspects of their use (Chapter 3 to Chapter 9). Other oil spill chemicals are dealt with in Chapter 10. Chapter 11 considers ecological factors for different circumstances in oil spill combat.

When oil is spilt on the sea possible responses are:

- contain and remove the oil from the marine environment
- monitor its behaviour but temporarily leave it alone
- chemically disperse the oil into the water column
- some combination of the above.

Techniques are still being developed for these operations, such as:

- for containment of an oil slick: physical and chemical barriers, sorbents, gelling agents
- for removal of the oil: skimmers, burning, bulldozers, shovels
- for transfer to a different compartment: dispersants and sinking agents; for environmental reasons, the latter are now seldom applied.

The method(s) to be used depend on many factors, not least the objectives of those responsible for the clean-up, which usually will be the government. These objectives will be governed by environmental and non-economic factors. The way to achieve these depends on the means available and feasible.

These guidelines do not cover contingency planning, nor alternatives to the use of chemicals except where necessary to understand their use.

These subjects are treated in IMCO's Manual on Oil Pollution:

Section II - Contingency Planning, 1978 (IMCO 1978) and

Section IV - Practical Information on Means of Dealing with Oil Spillages, (IMCO 1980).

The guidelines presented here should be read in conjunction with Section IV which includes information on dispersants.

2 THE FATE OF A DRIFTING MARINE OIL SPILL

The fate of a marine oil spill when left alone is determined by:

- the characteristics of the oil;
- the way the oil is introduced into the water; and
- the natural processes to which the oil is subjected after the spill.

IMCO Manual on Oil Pollution, Section IV (IMCO 1980) Chapter 2 discusses the main characteristics of crude oils and products. Chapter 3 discusses the natural processes, such as spreading, drift, sedimentation, evaporation, dissolutions, emulsification (water in oil and oil in water), oxidation and biological action.

An understanding of the above is necessary for the discussion of what happens when dispersants are applied.

A more recent and slightly more elaborate discussion of these oil spill processes is given in "Oil and Dispersants in Canadian Seas" Environment Canada, 1981 (Sprague 1981) and presented in Figure 1.

3 DISPERSANTS

3.1 Principles

Dispersants are surfactant mixtures, which reduce the interfacial tension between oil and sea water. This helps a compact oil film to break into small droplets of about 10 to 100 microns in diameter (Lee et al, 1981). See Figure 2. These very fine droplets are rapidly distributed throughout the water volume by natural diffusion and turbulence. The total oil concentration in the water column will thereby decrease rapidly towards background level. The droplets rise very slowly and will only reach the surface again in absolutely still water (Stoke's law). Special agents in the dispersant inhibit reagglomeration (coalescence). Spontaneous distribution of dispersed oil is slow. It is always enhanced by mixing energy derived from wave action, propeller wash, etc.

While the physical distribution takes place, light ends are lost to the atmosphere by evaporation, although some dissolution also occurs. (McAuliffe, et al, 1980).

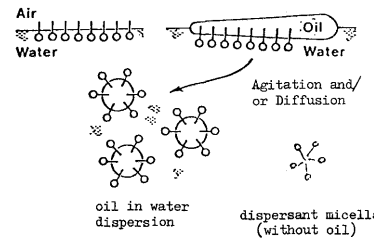


FIGURE 2.

Behaviour of surface-active agents. In aqueous solution, the molecules align themselves at the surface so that the hydrophilic "head" remains in the water but the hydrophobic (lipophilic) "tail" emerges (top left). These "tails" seek floating oil and enhance its spreading by reducing the interfacial tension (top right). By agitation and/or diffusion, the oil breaks up into droplets which are prevented from re-coalescing by their "skin" of hydrophilic "heads". (adapted from Nelson Smith 1972)

3.2 How dispersants change the fate of oil

Chapter 2 describes the natural processes that affect an oil spill which is left untreated in the open sea. The changes in the fate of oil caused by dispersants may be described as follows:

(a) Penetration of oil into the water column is greatly enhanced by the dispersant action. Diffusion will lower the concentrations.

(b) Evaporation of the lower molecular weight hydrocarbons (McAuliffe, et al, 1980 and 1981) will take place, thereby lowering the concentrations.

(c) Removal from the water surface results in removal from the direct influence of the wind, no water-in-oil emulsion formation and less photo-oxidation.

(d) Adherence of dispersed oil droplets to inorganic matter will not occur. They may however adhere to organic matter.

(e) Sedimentation of the oil itself will only take place with heavy crudes or products whose droplets would upon the loss of the light ends become denser than the surrounding water.

(f) Biodegradation is according to some evidence (UNEP 1980, GESAMP 1977) enhanced by the much larger surface to volume ratio, provided there are no other limiting factors such as nutrient availability (nitrogen and phosphorus). This applies more to the rate than to the degree of biodegradation.

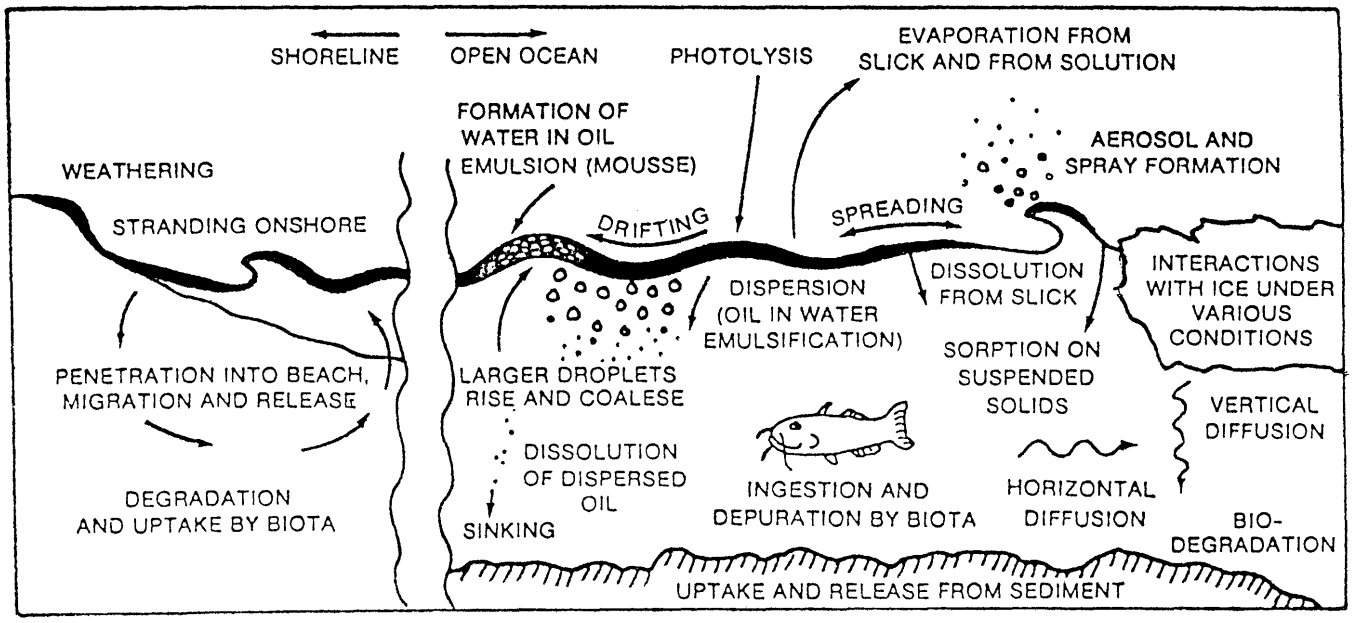


FIGURE 1: OIL SPILL PROCESSES

3.3 Effectiveness of oil spill dispersion

Dispersants, under ideal conditions, can disperse all of the oil on the surface, converting it into very small droplets in the water column, in some cases to a depth of as much as 10 metres, which will dilute rapidly towards background concentrations.

In practice, conditions will rarely be ideal. Slick area coverage will not be perfect, there will be windrows, and oil layer thickness will not be the same throughout the area covered with oil. Consequently, there will most likely be over and under dosage in certain places. Also some of the dispersed oil droplets will return to the surface during calm seas.

Laboratory tests have shown that conventional or diluted concentrate dispersants will disperse from 1 to 3 times their own volume of oil. Concentrate dispersants will disperse from 10 to 30 times their own volume. Better ratios have been reported, as high as 10:1 for thin films (e.g. 0.1 mm) of light oils, using conventional dispersant or diluted concentrate, and 75:1 using concentrate. However, because of the inhomogeneous nature of oil slicks, these ratios are most unlikely to be achieved in practice.

Dispersability of oil depends very much on its viscosity and pour-point. Therefore, weathering and emulsification of oil quickly cause increased resistance to dispersal. Sea state, temperature and salinity also play a role. As a rough guide, present day dispersants can treat reasonably well oils with viscosities up to about 1000 centistokes. In general the efficiency of these dispersants falls rapidly with viscosities exceeding 400 centistokes.

Information on effectiveness and efficiency of particular dispersants for different oils, circumstances and application methods should be available from the suppliers. Own experience and laboratory testing, and experience obtained from research spills and spills of opportunity should add to the knowledge necessary for a good appraisal of what dispersants can do under the given circumstances.

Few quantitative data are available on the performance of dispersants on accidental oil spills. However, considerable information has been generated recently from a series of research oil spills, such as off the eastern and western coasts of the United States, and in the Mediterranean. Some of the data obtained from these spills are presented in Tables 1 and 2 to give an idea of the effect of dispersant application and of resulting concentrations of the oil in the water column as a function of time. Some older data on chemical and natural dispersions are also given: in Tables 3, 4 and 5.

TABLE 1

1978 USA EAST COAST (McAULIFFE et al, 1980)

API/EPA DISPERSED OIL TESTING PROGRAM (NOVEMBER, 1978)

10 Barrel Murban Crude Oil
Immediately Dispersed by Corexit 9527

Extractable Organics by Infrared Spectrophotometry
at Station 8 (Center of Slick)
(Concentration Indicated in PPM)

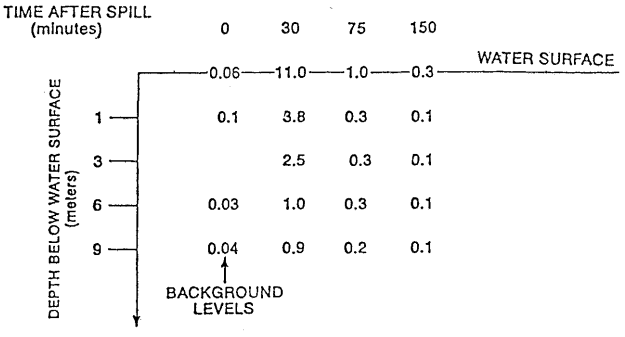


TABLE 2

PROTECMAR TEST RESULTS

TABLE 3

Ekofisk crude oil - natural dispersion
Sea state 3-4 on the Beaufort Scale
Wind speed 12.7 knots

Oil concentrations beneath the main slick with time

Time after spill hours	Depth metres	Oil Concentration under edge of main stick ppm	Oil Concentration under edge of Main stick ppm
½	2	2.49	2.03
1½	2	2.22	0.85
3	2	1.15	0.79
4	2	0.94	3.95
8	2	1.88	1.63
8	5	0.17	0.19
8	10	0.10	0.07
8	15	0.08	0.07
11	5	0.02	0.04
11	10	0.02	0.02
11	15	0.02	0.03
21	2	0.59	1.49

(Cormack et al, 1977)

TABLE 4

Kuwait crude oil - chemical dispersion
Sea state 2-3 on the Beaufort Scale
Wind speed 10 knots

Concentrations of Kuwait crude oil in water with time

Time after spill minutes	Concentration of Kuwait crude oil in ppm in the upper metore of water		
	Run 1	Run 2	Run 3
0	34.4	24.2	0.85
1		15.8	
2	47.8		8.7
2.5		12.2	
5		9.4	
7	17.8		3.5
10		5.2	
15			1.7
18	1.9		
25		4.2	
40	0.8		1.36
50		1.9	
80			1.5
100	2.2	0.8	

(Cormack et al, 1977)

TABLE 5

Source: (Blackman et al, 1977)

Concentrations of dispersed oil in the water column resulting from chemical dispersion and natural dispersion at sea

SITUATION	FINDINGS	SOURCE
Experimental chemical dispersion of slick of Kuwait crude	Max. 48 parts/10^6 in first two minutes reducing to 1-2 parts/10^6 after 100 minutes	Warren Spring Laboratory trials (Cormack, 1977)
Chemical dispersion of ½ ton slick of Ekofisk oil	18 parts/10^6 in top 30 cm of water column	"
Natural dispersion of Light Arabian crude after oil spill in Tarut Bay, Saudi Arabia	50 parts/10^6 initially present	Spooner, 1970
Heavy gas oil, physically dispersed	1.5 to 0.5 parts/10^6 over the first 90 min	Nichols, 1973

3.4 Types of dispersants

Two types of oil dispersant are generally available and these are commonly termed "Conventional" and "Concentrate" dispersants respectively. (UNEP 1980, CONCAWE 1981):

(i) Conventional dispersants

These are usually hydrocarbon-solvent based and contain a mixture of emulsifiers. They are almost always applied as such in the neat undiluted form (as supplied by the manufacturer).

(ii) Concentrate dispersants

These are mixtures of emulsifiers, wetting agents and oxygenated solvents. They contain more active ingredients than conventional dispersants and give generally better and more rapid dispersion of the oil.

They are applied:

(a) Neat for aerial application and for spraying from surface vessels;
(b) Diluted with sea water from surface vessels.

4 DECIDING ON HOW TO DEAL WITH AN OIL SLICK AT SEA

4.1 General

Before going into more detail as to application of dispersants and their effect, it is appropriate now to discuss the decision-making process in dealing with oil spills. The following chapters can then be read bearing in mind the perspective of the possible actions from which one can choose, or which can be combined [in larger oil spill situations], and the factors that influence the decisions. The decision-making does not start when the oil is on the sea. It is already a part of the pre-planning process and of the preparation of the contingency plan.

It will be clear that for effective oil spill management, a proper organization in place, with well assigned tasks and responsibilities is essential but not enough. Logistics have to be prepared, availability, movement and application of equipment and materials have to be organized so that rapid action is possible. Plans should foresee the need for rapidly obtaining sea state and meteorological data and oil characteristics (present day dispersants are not effective on waxy, heavy and weathered oil and on water-in-oil emulsions). The hydrography and geomorpholgical data on the sea, the ecological characeristics of the sea and of the coastal area should be known and detailed information on the socio-economic importance of the various compartments of the area (such as fisheries, shellfish beds, amenity beaches) must be available in case trade-off decisions have to be made.

Although it is true that each oil spill is unique, it is important to visualize beforehand a number of the most likely oil spill situations that may occur and how they may develop, and thus to determine the probable best course of action.

It is necessary to define the objectives of oil spill combat. These will usually be national objectives. Apart from life and limb considerations they can be "to minimize ecological impact at all costs", "to minimize ecological damage", but they can also include considerations such as cost-benefit, cost effectiveness and socio-economic aspects. Differences in objectives may require different decision-making processes or different decision time and may result in different ways of combating a particular oil spill.

In principle there are three main possible ways of dealing with an oil spill at sea. Combinations of these are often necessary:

1. Mechanical removal

Physical removal of spilt oil is always preferred. Considerable effort has been and is still being devoted to the development and improvement of floating booms to confine a spill and of means to recover oil from the surface of the water. The latter procedure involves skimming the oil or absorbing it. The devices presently available are limited to use in rather low sea states.

2. Monitor, but temporarily leave it alone

Given time, nature will dispose of oil without help. The "leave it alone" decision can apply if there is no time to act, if the slick will move out to sea and be dispersed naturally without ecological threat, if it will be dispersed naturally before reaching sensitive resources near or on shore, or if on balance no action will result in less damage than taking other possible actions. Continuous monitoring is vital, in case a change of circumstances demands a new decision. Neighbouring countries should be advised and consulted where appropriate.

Under appropriate circumstances it is the most cost effective approach, although it should be realized that the cost of monitoring the movement of the slick will be incurred and possibly also standby cost for mechanical and/or chemical clean-up.

3. Chemical dispersion

Where mechanical removal is not effective and "leaving it alone" would cause impact or damage, chemical dispersion can be considered. Dispersion alters the fate of the oil and may thereby mitigate the ecological and/or socio-economic damage.

4.2 Dispersant-Usage decision tree for offshore spills

An example of a procedure for logically deciding which option to take to mitigate an oil spill is indicated schematically in Figure 3. This is a slightly modified version of the decision tree proposed by Castle and Schrier, Oil Spill Conference Proceedings, p.171 ff. "Decision Criteria for the Chemical Dispersion of Oil Spills", Los Angeles, March 1979. (Castle et al, 1979).

It applies particularly to the situation in which the objectives are:

(i) When no resources, amenities, etc., at risk, monitor the behaviour of the spill but temporarily "leave it alone"; and

(ii) adverse impacts should be minimized.

The main questions are as follows - (refer Figure 3):

Question 1: Is the slick moving towards the shore or is there a chance that it may beach in view of unstable, changing winds?

Answer: NO : Continue observing and predicting, but leave spill temporarily alone. If, however, resources, etc., at risk, proceed to Question 3.

Answer: YES: Proceed to Question 2.

Question 2: Are resources, etc., at risk?

Answer: YES: Proceed to Question 3.

Question 3: Is mechanical control and collection feasible and effective?

Answer: YES: Proceed to action.

Answer: NO : Proceed to Question 4.

Question 4: Can oil type under prevailing conditions be chemically dispersed?

Answer: YES: Proceed to Question 5.

Question 5: Will adverse impacts, associated with chemical dispersion be less than those resulting without chemical dispersion?

Answer: YES: ONLY IN THIS CASE - CHEMICAL DISPERSION ACCEPTABLE.

When dealing with larger slicks, especially when they are getting closer to or are occurring near the coast, it may be necessary to use all available means in combination, if an effective response is to be achieved.

During the incident, the behaviour of the spill has continuously to be monitored and predicted. Response may have to be altered, according to the findings.

5 APPLICATION OF DISPERSANTS

5.1 General

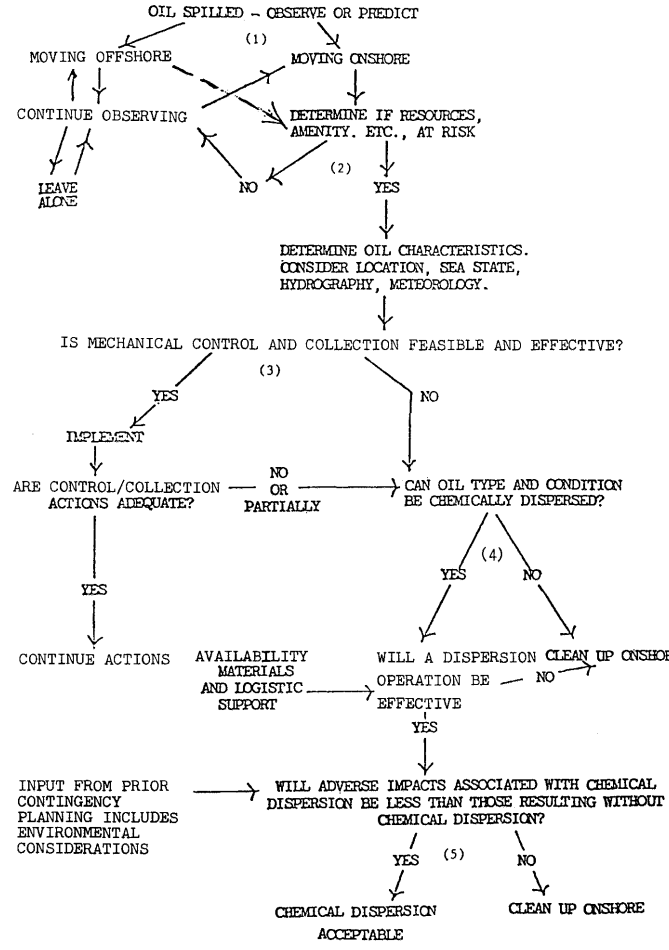
Once the decision has been made to apply dispersants, the best combination of dispersant and application method has to be selected for the specific situation.

Dispersants have been discussed in Chapter 3. For the open sea they can be applied from surface vessels (Chapter 5.2) and from aircraft (Chapter 5.3). Onshore, backpacks or vehicle mounted spray equipment are used (Chapter 5.4). It is very important to use proven equipment and to follow the instructions of the suppliers of equipment and chemicals.

Spraying operations should be started as soon as possible. Many oils will form stable water-in-oil emulsions (chocolate mousse) depending on sea state. Also their viscosity increases due to evaporation of the lower molecular weight hydrocarbons. Both processes may be advanced within a couple of hours after the spill, and will reduce dispersant effectiveness. Stable mousse cannot be dispersed by dispersants. Treatment with dispersants should therefore start before the mousse formation.

The fear that early treatment could result in higher concentration of low molecular weight toxic compounds in the water column for longer periods does not seem justified in the light of results from research spills (McAuliffe et al, 1980, 1981). In any case, it seems highly unlikely that in case of an actual spill a treatment operation could be mounted and spraying started too soon, for logistic reasons.

FIGURE 3. DISPERSANT USAGE DECISION TREE (an example)



5.1.1 Safety aspects of dispersant application operations

When dispersants are applied soon after a spill (sometimes on purpose, to minimize fire and explosion hazards) it should be realized, that hydrocarbons are usually already present in the atmosphere, due to evaporation of light ends. Safety precautions must be taken in the dispersant application operations accordingly. (The same holds for mechanical removal.) Cases have occurred where vessels operating in a high hydrocarbon vapour situation have been lost through vapour feeding of on-board machinery.

5.1.2 Industrial hygiene aspects

Handling chemicals requires safety precautions according to the nature of the chemical product. The supplier of the dispersant should supply the necessary information. Dispersants will affect the skin on prolonged contact. Protective clothing including gloves, face masks and goggles should always be worn.

5.2 Application from surface vessels

The dispersants are sprayed on top of the oil slick via booms with nozzles fitted to the ship's pumps and storage.

When using conventional dispersants or diluted concentrates effective mixing energy has to be supplied with "breaker-boards" towed behind the spray booms, which are often mounted aft of midships, or with the ship's propellers. For proper breaker-board performance the speed of the vessel should be between 5 and 10 knots. The concentrate is diluted, usually 10 times its volume, by using a mixing pump or by pumping it into the suction of the sea water pump. Typical pumping capacity is in the order of 5 tons per hour for conventional dispersants and 0.5 t.p.h. for concentrates, with an effective width of the spray path of 20 metres. A boat could cover 300,000 m^2/h (encounter rate) at a speed of 8 knots (15 km/h). At an average slick thickness of 0.1 mm of oil, 20 tons of oil would be treated per hour assuming a ratio of about 1:4 for conventional dispersants and of 1 : 40 for concentrates. The speed of the vessel can be adjusted within limits according to the nature of the oil and the thickness of the slick.

Concentrates can also be applied neat, but in this case spraying booms are mounted at the bow so that bow-wave and wake assist mixing. Additional mechanical mixing energy, such as supplied by breaker-boards is not necessary, and a wide range of speeds is allowed. Pump capacity is usually higher than for dilute concentrate application in order to take advantage of the possibility of higher encounter rates.

A logistic advantage of diluted concentrates over conventional dispersants is that a vessel will have a 10 times longer sortie for a given payload and encounter rate.

When appropriate, bow spraying neat concentrate can be done at high speeds so shortening total operations time.

Alternatively, it can also permit much lower speeds, making it possible to treat with high dispersant to oil ratio, where in the other cases the vessels would have to make multiple paths.

When it is necessary to disperse a large slick at sea, dispersants should be sprayed continuously along its outer edge, working towards the centre to avoid fragmenting the slick. However, oil spilled at sea is often fragmented naturally into "windrows" in which case they should be sprayed up (and down) working into the wind. If the oil is near land, spray along its landward side and parallel to the land.

If two or more vessels are on the scene, their operations must be adequately controlled. Ideally, their spray paths should be contiguous, but with a slight overlap, so that no oil escapes treatment.

In some instances, concentrate dispersant has been inducted into hosed water in an attempt to obtain simultaneous application and agitation. However, the dispersant concentration is generally too low to be effective. Hydrocarbon solvent dispersant must never be used in this way. Hosing with water, however, has proved valuable for agitating small treated spills in otherwise inaccessible locations in port and harbours.

In oil ports or around production platforms the various service craft which are always on hand, can usefully be permanently fitted for spraying operations.

5.3 Aerial application

Spraying from aircraft is proving to be a valuable recent development and has been tested in a number of experiments in several countries and during the IXTOC I spill.

Aircraft fitted with spray booms, nozzles, pumps and tanks provide opportunity for rapid slick treatment over a large area and at a greater distance from a base than would be practical with surface vessels. Specially developed concentrates are available, but it appears that most of the existing concentrate dispersants lend themselves to aerial application. The effective swath width is about 2.5 times the length of the spray boom where flights are made into wind at an altitude of 30 to 50 feet. The method is closely similar to conventional crop-spraying. A variety of aircraft can be considered for spraying. Helicopters can be provided either with integral spray units or with "slung-buckets" equipped with pumps and spray booms. In principle any fixed wing aircraft with stable low flight characteristics can be equipped with pumps and spray booms. Nozzles and pumping pressures must be carefully selected to provide optimum droplet size, generally considered to be about 0.1 mm diameter.

As an example, with aircraft speed of 200 km/h and a swath width of 25 m, an area of 5 km^2 is covered per hour. An oil thickness of 0.2 mm and a concentrate to oil ratio of 1:50 would require 5.5 litre/second of concentrate.

When considering aerial spraying, logistics must receive careful attention, since actual spraying time is only a small fraction of the time per sortie, because of payload limitations, flying time to and from the base, refuelling and reloading time. The proper guidance of the aircraft is also very important. Details of experience with aerial spraying can be found in the following references: (Lindblom 1979, Lindblom et al, 1981), (Cormack et al, 1979), (McAuliffe et al, 1980, 1981) and (Smedley, 1981).

5.4 Application on the shore

Where application of dispersants on the shore is justified (UNEP, 1980), the most appropriate method to use will depend on the type of shore, the type of oil and the degree of clean-up required. The substrates may consist of rock, boulders, shingle, sand of varying grade, muds and many combinations of these. Man-made structures such as sea walls and promenades, as well as boats at anchor, may also become badly oiled and treatment must be adapted to these varying surfaces. Oil may arrive onshore in semi-liquid form (immediately after a spill), as a viscous emulsion, or in the form of small pellets or larger tarry lumps.

Dispersants may be considered for secondary treatment after the removal of gross pollution by mechanical collection or water-flushing. The shore is usually ecologically very sensitive, and marine biologists or ecologists should be consulted, as dispersant application constitutes a potential for damage.

Dispersants used on beaches are essentially the same as those used at sea, but some countries impose more severe toxicological requirements on dispersants used on shore.

Both hydrocarbon solvent dispersant and water-dilutable concentrate may be used for beach cleaning. As with dispersal at sea, dispersants may not be effective on certain types of oil or mousse. The diluted concentrate may be used for spills of light and medium crude and light and medium fuel oils, but it is important to ensure that means are available for controlled dilution of the concentrate during application. Where a heavy oil or mousse is to be treated, it should first be tested with the dispersant to ensure that dispersal takes place. Only the hydrocarbon solvent type is likely to be effective for this treatment since the solvent is more able to penetrate the spillage, especially if a short period of soaking is possible.

Two methods are generally used:

- Spraying of conventional dispersant directly ahead of the rising tide to minimize possible penetration of oil into substrate, or exposure of biota. When seas are calm or tidal movements small, or at other states of the tide, hosing with sea water is necessary.
- Applying concentrate injected into a hot water lance. This method may result in the formation of recoalesced oil, which must be contained and skimmed or absorbed.

A rough indication of the rate of application of dispersants to oil on beaches is 2 litres of dispersant per square metre of beach on a 5 mm thickness of oil. Spraying can be carried out with equipment ranging from individually carried kits to specialized beach spraying vehicles. The spraying rate of the larger units is 2 to 3 tons of dispersant per hour. If the beach is accessible, vehicles can be used, spraying of small areas in less accessible places is done by men with "backpacks".

Care must be taken not to use oil spill chemicals too close to sea water intakes for domestic or industrial uses.

Ecological considerations concerning the possible use of oil spill chemicals in the clean-up of oil pollution on shores are given in Chapter 11.

5.5 The cost of oil spill clean-up

It follows from the dispersant usage decision tree, that dispersant application in the open sea can be an alternative to "leaving the oil alone", when mechanical control is not practical. Some indication of the cost of dispersant application and of clean-up of the oil on the beach has been given by IPIECA. (IPIECA, 1980.) It is interesting to note that the cost per ton of oil, chemically treated at sea (dispersant concentrate/oil ratio is 1:25) remains rather constant, irrespective of the quantity to be treated from 1,500 to 100,000 tons of oil, and is about the same for work boat and aircraft, viz. U.S. $140-240 per ton. The lower figure applies to the case of dispersant transportation of 400 km overland, whereas the higher figure has an additional air transportation

charge of 5,000 km. A United Kingdom governmental source published in 1979 somewhat lower cost figure for air application and surface application (Cormack et al, 1979).

IPIECA's cost estimate for beach cleaning ranges from $4,300 to $19,000 per ton of oil collected (United States conditions).

6 PHYSICAL EFFECTS

In Chapter 3 "Action of a dispersant", notably in 3.3 "How it changes the fate of oil", a description is given, of what happens to the oil slick after dispersion.

In the discussion that now follows, it is assumed that the treatment with dispersants has been 100% effective. As in actual practice this is rarely the case, due allowance has to be made:

1. Oil is removed from the surface of the water. Oiling of birds, resting on the water will not take place. There will be no fouling of obstacles or coastline due to floating oil slicks. However, the concentration of oil in the water column is usually much higher at first than would be the case for non-dispersed oil, and may cause tainting of fish, shellfish and crustacea.
2. "Chocolate mousse" (water in the oil emulsions) is not formed, when dispersants are properly applied. The coastline will not be fouled thereby.
3. If dispersants are applied directly after the spillage or during a continuing spill such as a blow-out in offshore operations, the concentration of light hydrocarbons in the air may be lowered, thereby decreasing explosion and fire hazards. In this case some light ends will dissolve from the oil droplets into the continuous water phase of the sea water and dilute rapidly to very low levels (below 1 ppb. for benzene and toluene). (McAuliffe, 1980.)
4. The droplets and the dissolved oil in the water column will move with tidal and residual currents, main and tidal, and with the mixing circulations in the water. The droplets will undergo physical, chemical and biological changes, but will not reagglomerate to contaminate solid structures or shore lines.
5. It has not been established whether or not chemically dispersed droplets attach themselves to sedimenting particles or detritus, but it is most likely that they will not adhere to inorganic matter, such as sand. Sedimentation is known to take place, however, when the weathering process results in droplets denser than the surrounding water and sometimes occurs in shallow water.

It should be borne in mind that, depending on the sea state, an untreated oil slick will also partially disperse in the water column but will not so rapidly dilute as in the case of a chemical dispersion. Reagglomeration and resurfacing will compete with redispersion for a considerable time. Sedimentation will also occur even when dispersant has not been used.

For a better appreciation of possible effects some indication of oil concentrations in the water column, both for chemically dispersed and for non-treated oil slicks has been given at the end of Chapter 3.3.

(To be concluded in the next issue)

Implementation is the theme of World Maritime Day 1981

Effective global implementation of IMCO's technical standards for safer shipping and cleaner oceans is the theme of this year's World Maritime Day.

Its importance was emphasized by the Secretary-General, Mr. C.P. Srivastava, in his annual World Maritime Day message. Extracts from the message are given below.

'In the exercise of its global mandate as the world's premier agency dedicated solely to maritime matters, IMCO has with the full collaboration of its Member Governments and cooperating organizations, developed a comprehensive body of technical and related standards relating to the design, construction, equipment, manning and operation of ships for safety, the handling of ships and cargoes to prevent pollution and the procedures and arrangements for dealing with incidents which involve or threaten to cause pollution of the sea.

These international standards and regulations, embodied in IMCO's Conventions and other treaty instruments or in various Recommendations, Codes and Guidelines, are designed for international application because it is universally accepted that they can have the maximum necessary effect if they are implemented and enforced on a global basis.

Necessity

In recognition of the vital necessity of global implementation, the Assembly and Council of IMCO have decided that, for the present, the major emphasis on the work of IMCO should be placed on the effective implementation of the standards and regulations already adopted, rather than on the development or adoption of new Conventions. Pursuant to this decision, IMCO is devoting sustained attention to the measures necessary for the effective application of the various technical and related standards in all appropriate contexts. By means of contacts with Governments and other interested bodies and organizations, through technical seminars, symposia, workshops and training courses, and through the advisory services provided by the regional, interregional and sectoral experts and consultants participating in its Technical Co-operation Programme. IMCO seeks to promote the fullest measure of co-operation between the parties involved and to provide assistance to those requiring such assistance.

Activity

The purpose of these activities is to ensure that all those who are engaged in maritime activity in every part of the world are able and willing to do so in accordance with the standards and regulations so carefully developed in IMCO to promote the highest practicable levels of safety in maritime activity and the most effective prevention and control of pollution from shipping operations. In advising and assisting countries to establish and improve their maritime administrations and in promoting maritime training all over the world in accordance with internationally-adopted standards embodied in the 1978 Convention on Standards of Training, Certification and Watchkeeping of Seafarers, IMCO aims to emphasize the over-riding importance of the human element in maritime safety and, in particular, the role of the seafarers as the most crucial element for ensuring the safety of the world's shipping and the protection of the marine environment from vessel-source pollution.

Shoulders

The responsibilities on the shoulders of seafarers are tremendous. They have to make major decisions on the spot in a large variety of situations. They have to face the fury of the oceans and many of them sometimes make the supreme sacrifice in the course of their duties. As we recognize their tremendous contribution to the commerce of the world and pay well-deserved tribute to their dedication and unequalled bravery, it behoves us all also to make ever greater efforts to provide the facilities which will prepare and assist them in the efficient and safe discharge of their vital and sometimes awesome responsibilities. This can only be done if we all ensure that the technical and related standards for maritime safety are fully and universally implemented.

It is IMCO's global responsibility to develop international standards and adopt conventions and this responsibility has been discharged through the adoption of over thirty treaty instruments and an even greater number of Codes, Recommendations, Guidelines, etc, on many aspects of maritime operations. Moreover IMCO is devoting considerable efforts not only to encourage and assist Governments to take the measures necessary to implement the standards but also to promote the fullest international co-operation among all the parties concerned with the effective implementation of the standards internationally.

For success in the effective implementation of IMCO's technical standards on a global basis requires the wholehearted commitment and continuing co-operation of many parties, including Governments and non-governmental bodies in various aspects of maritime activity. Governments have the responsibility to consider and accept the Conventions and other instruments and enact the necessary legislation to implement the regulations and standards in them. Maritime administrations have to be able and ready to utilize the necessary administrative, survey and inspectorate personnel to enforce the enacted standards. Shipbuilders and ship-repairers are responsible for ensuring that the applicable standards are duly complied with. Boards of Directors and management of shipowning companies have the obligation to implement the applicable instruments in relation to the ships they operate, the personnel they engage and the procedures they employ to control and direct the running of their ships. Classification societies and insurance companies have an equally important role to play in ensuring that ships and shipowners make the necessary efforts to meet the requirements established in international instruments and regulations.

Co-operation

It is IMCO's responsibility and mandate to promote the most active and willing co-operation possible among these various parties and interests in the achievement of our common objective of ensuring safer shipping for cleaner oceans. The considered view of IMCO, as accepted by its Assembly and Council, is that the effective and global implementation of the technical standards adopted by the Organization is an indispensable prerequisite for the achievement of this major goal.

Introducing INMARSAT

—a new global system for maritime communications

(Reproduced from "Ocean Voice" October 1981)

The International Maritime Satellite Organization (INMARSAT) came into being on 16 July 1979, with the signing of its Convention and Operating Agreement by 26 member states from all over the world. Today the total membership has risen to 36 states.

The initiative had begun in 1973 when the Assembly of the Inter-Governmental Maritime Consultative Organization (IMCO), decided to convene an "International Conference on the Establishment of an International Maritime Satellite System" which took place in 1975, thus setting in motion the chain of events which were to culminate in the birth of INMARSAT.

The purpose of INMARSAT is to make provision for the space segment necessary for improving maritime communications, thereby assisting in improving communications for distress and safety of life at sea, efficiency and management of ships, maritime public correspondence services and radio determination capabilities. INMARSAT's role is to serve, exclusively for peaceful purposes, all areas where there is a need for maritime communications.

Communications via INMARSAT will be largely automatic and unaffected by weather and ionospheric disturbances. Ships will be able to dial telephone, telex or data calls almost anywhere. The INMARSAT system will also provide priority distress services, allowing a substantial improvement in safety of life at sea, as well as search and rescue communications worldwide.

The INMARSAT space segment will consist of a number of satellites, both operational and spare, in geostationary orbit 36,000 km above the equator over the world's three main ocean regions—together with the tracking, telemetry, command, monitoring and related facilities and equipment needed to support them. Three types of satellites will be used in the first-generation space segment.

Marecs and Intelsat V-MCS are higher capacity systems than Marisat in order to meet expected continued growth in demand.

Frequency bands will be 6 GHz from shore to satellite and 1.5 GHz back down to the ship. From ship to shore, the uplink will be at 1.6 GHz and the downlink at 4 GHz.

Besides the space segment, there are two other elements in the INMARSAT system. Ground facilities including coast earth stations and ship earth stations are necessary for the origination and completion of INMARSAT's communications.

The coast earth stations are owned and operated by INMARSAT's members around the world, while the ship earth stations on board vessels are owned and operated by shipowners.

Some twelve coast earth stations are expected to be operating within the INMARSAT system by 1982, providing access to the satellite space segment in the Atlantic, Pacific and Indian Ocean regions. Another dozen stations are under study for the period 1983-84.

The combination of INMARSAT's space segment and telecommunication administrations' coast earth stations and vessel owners' ship earth stations comprise the integrated global maritime satellite communications network, which interfaces with the international public switched networks at these coast earth stations. This network will be controlled from the Operational Control Centre based at INMARSAT's headquarters in London, which will operate 24 hours a day, seven days a week.

The INMARSAT system will take over from the American MARISAT system which has provided a similar service since 1976. No modification of existing MARISAT equipment on ships will be needed for it to work with the INMARSAT system exactly as before.

Maritime communications by satellite are already contributing substantially to the improved efficiency and economic operation of cargo, passenger and fishing vessels as well as oil and gas exploration rigs. By September 1981 some 870 ships were equipped to use the MARISAT system and the number is expected to reach about 1,000 by the time INMARSAT services start. Since the INMARSAT

system is designed to be compatible with MARISAT, the transition will entail no technical or operational difficulties for established users, or any joining the system during this period.

Three satellite systems

Marisat

Capacity has been leased from COMSAT General on three satellites already in orbit, one over each of the three main ocean regions. These spacecraft, which were launched in 1976, have already long proven their reliability and demonstrated the value of maritime satellite communications on a global scale. Each spacecraft, which weighed 655 kg at launch, consists of a solar-cell-covered drum, plus a "despun" antenna assembly on top, giving an overall height of 3.65 m. Communications capacity is ten channels.

Marecs

Capacity has been leased from the European Space Agency on two specially built spacecraft for service in the Atlantic and Pacific ocean regions. Each spacecraft will be launched by the new ESA launch vehicle Ariane, the first scheduled for late 1981 and the second for early 1982. The Marecs satellites are box-shaped craft, surmounted by a 2 m-diameter dish aerial and carrying two solar-cell-covered "wings". Each weighs 960 kg at launch and contains repeaters for up to 40 voice channels.

Intelsat V

A purpose-built maritime communications system will be carried aboard some of the next generation Intelsat V satellites used for land-based services. Three MCS units will be leased from INTELSAT with an option on a fourth. The first is planned for launch in April or May 1982, to be deployed over the Indian Ocean. The second will go over the Atlantic and the third over the Indian Ocean as a spare. The fourth, if ordered, will go over the Pacific. Each MCS unit will provide up to 30 voice channels.

Assistance in cargo handling techniques for third world countries: ICHCA

The International Cargo Handling Co-ordination Association (ICHCA) plans to expand its involvement in world transport and establish programmes to assist developing nations.

The plans were announced at a news conference at the conclusion of a meeting of ICHCA's Executive Board.

Mr. McFarlane, ICHCA president, said he hopes to develop closer liaison with the United Nations in solving world transport problems. He also said ICHCA intends to broaden its membership and become more actively involved in all modes of transport.

Policy Chairman Ray Holubowics pointed out that a Sustaining Membership category has been created to ensure the funding necessary for new ICHCA programmes in developing nations. These programmes will provide technical and managerial assistance, through ICHCA national secretariats, to developing nations.

Pilot training program milestone in fulfillment of treaty obligations: Panama Canal Commission

A new and unprecedented pilot training program was recently approved by the Panama Canal Commission Administrator. The three-year program is designed to ensure a gradual increase in the number of Panamanians in the Canal pilot force in the years ahead. It is also a significant milestone toward meeting the Commission's treaty obligation to train Panamanians for participation at all levels of the organization.

The program, developed by the Marine Bureau and the Human Resources Development Staff in coordination with recognized labor organizations, is expected to be in operation by 1982.

Prerequisites for selection for the Pilot Training Program are:

- Panamanian or U.S. citizenship
- Graduation from a recognized nautical school
- Two years of experience aboard a seagoing vessel while licensed as a third mate or higher
- A working knowledge of English

Toronto's Port chief heads Canadian ports group

Ian C.R. Brown, general manager of the Toronto Harbour Commission, is the new president of the Canadian Port and Harbour Association.

Mr. Brown was elected at the association's annual meeting held recently (Sept. 13–16, 1981) in Nanaimo, British Columbia.

Dominic Taddeo of Montreal is first vice-president and Ray Beck of Halifax is second vice-president. Past president is Donald Rawlins of Nanaimo.

Vancouver to host 1982 International Symposium on the Transportation of Dangerous Goods by Sea and Inland Waterways

Vancouver will be the venue of the 7th International Symposium on the Transportation of Dangerous Goods by Sea and Inland Waterways, being offered through its Canadian committee by the International Cargo Handling Association (ICHCA) September 26–October 1, 1982.

The Governments of Canada and British Columbia are co-hosts of the event.

Previous symposia were in Rotterdam (1968), York (1971), Stavanger (1973), Jacksonville (1975), Hamburg (1978) and Tokyo (1980).

Likely subjects for the symposium are: Dangerous Goods in Ports; Containerized Dangerous Goods-Are the Present Standards Adequate?; Total Inter-Modality–A Viable Concept; Barging and Ferry Systems–A Separate Approach; Bulk Carriage of Dangerous Goods; Dangerous Goods Carriage in Special Marine Systems and Remote Areas; Emergency Response and Associated Training; Pollution Control of Oil and Chemical products.

Port of Vancouver statistics 1980

The Port of Vancouver, in its year-end review, reports that total tonnage through the Port in 1980 was 49,204,000 metric tonnes, a 9.4 per cent increase over the

1979 tonnage.

This new Port record was achieved despite the disruptions caused by the accident to the Second Narrows railway bridge, a railway strike, and a work stoppage at the mine site of a principal coal supplier.

A review of some of the major components of the Port's tonnage and a 1980/1979 comparison is as follows:

EXPORTS

Coal–This commodity continued to dominate the Port's tonnage with an 8.5 per cent increase in throughput to 15,002,000 tonnes in 1980, from 13,832,000 tonnes in 1979.

Grain–Recorded a 5 per cent gain over the previous year rising to 7,924,000 tonnes from 7,550,000 tonnes.

Sulphur–With an impressive gain of 25.6 per cent, sulphur tonnage rose to 5,112,000 tonnes from the 1979 figure of 4,069,000 tonnes and was clearly the largest individual growth commodity.

Potash–While less spectacular in its increase than the previous year, potash increased 8.6 per cent from 3,175,000 tonnes to 3,448,000 tonnes, reflecting the continuing potential for this commodity.

Lumber–After the record year of 1979, this commodity reflected the down turn in sales with a modest decline of 2.2 per cent from 2,907,000 tonnes to 2,844,000 tonnes.

Pulp–The levelling trend pulp shipments was apparent with a 3 per cent increase recorded in 1980 to 1,211,000 tonnes from 1,176,000 tonnes in 1979.

IMPORTS

Phosphate Rock–The 1980 imports of 952,000 tonnes was equal to the 1979 tonnage imported.

Other Cargoes–Some interesting comparisons of other import cargoes are as follows:

Salt–401,000 tonnes in 1980, up from 348,000 tonnes in 1979.

Iron & Steel Products–110,000 tonnes in 1980, a decrease over the 1979 tonnage of 165,000 tonnes.

Sugar–Imports increased from 102,000 tonnes in 1979 to 126,000 tonnes in 1980.

General Cargoes

General cargoes increased slightly in 1980, despite Canada's unfavourable exchange rate and import restrictions, to 3,790,000 tonnes versus 3,500,000 tonnes in 1979, an increase of 8.3 per cent.

Containers

The total number of containers handled in the Port increased 12.7 per cent in 1980 to 124,644 TEU's from 110,599 TEU's in 1979, with an overall increase in tonnage of 12.2 per cent to 1,095,000 tonnes from 976,000 tonnes in 1979. Foreign container movements were as follows:

1979–101,125 TEU's containing 887,000 metric tonnes compared with 1980 totals of 114,016 TEU's containing 989,000 metric tonnes, an increase of 12.8 per cent and 11.5 per cent respectively.

After the deduction of container tonnage from the overall general cargo figures, breakbulk cargoes accounted for 2,695,000 tonnes of cargo, which figure represents a 6.8 per cent gain over the 1979 tonnage of 2,524,000 tonnes.

Determining the economic impact of ports on local communities

The U.S. Maritime Administration will conduct its third annual Port Economic Seminar, November 12, 1981, at the Port of Miami. The seminar is part of a continuing MarAd effort to assist the port industry in assessing the economic benefits of U.S. ports to their local economies. In conducting the one-day seminar, MarAd will utilize its **Port Economic Impact Kit**, a step-by-step instruction manual designed for use by small and medium-sized ports. *(AAPA ADVISORY)*

U.S. coal port development: AAPA ADVISORY

The Reagan Administration's position on full cost recovery for port dredging projects remains unchanged "as for today." That was what William Morris, assistant secretary of Commerce and chairman of the Administration's Coal Interagency Working Group, told a meeting of the Congressional Coal Group last Wednesday, October 7. The Coal Group is made up of Congressmen from major coal-producing states. The Administration's rationale, according to Morris, is based first on the practical fact that there is simply no money in the Treasury for dredging. Equally important, he said, is that the traditional process of authorizing and funding channel maintenance and improvements is cumbersome and unduly time consuming. The U.S. cannot afford to wait the 12 to 20 years it normally takes to make the needed improvements. Turning the initiative and financial responsibility over to the local ports, Morris argued, is the most plausible way of speeding up the process, and ensuring that harbor improvements are completed in a timely way. The Administration will encourage port expansion by removing regulatory impediments and encouraging investment, both foreign and domestic. Moreover, it is working hard to convince buyers that the U.S. is a reliable supplier. He noted that despite the mine workers strike, coal exports are still ahead of last year's record pace. In July, a record 10.4 million tons of export coal was loaded at U.S. ports. Morris predicted that by mid-1983 there would be ample loading capacity at U.S. coal ports, meaning an end to the long vessel delays.

During the discussion period that followed Secretary Morris' remarks, several Congressmen expressed reservations as to the impact of users fees on the competitiveness of U.S. coal overseas. Morris replied by saying that fees amounting to 50 cents a ton would not be a problem, and stressed that supply reliability and diversification and not merely price were prime considerations to foreign buyers.

Rep. Gene Snyder (KY) let it be known that the Biaggi Port Development Bill (H.R. 4627), now scheduled for markup on October 20, is undergoing close scrutiny. He stated frankly that there were members who do not want to see total elimination of the Section 404 requirements, and indicated, as did several others present, that they were looking to something less than full cost-recovery user fees, and were opposed to putting the full financial burden on the ports. Among the problems cited by Rep. Snyder was concern of the impact of user fees on users who do not require deeper channels, the cost of moving utility lines, and a belief that Congress should retain some jurisdiction in the area of port development and not leave it entirely to

the Administration to decide, in effect, which ports will be built. He also spoke strongly in favor of greater American-flag participation in the coal and other bulk ocean trades. Indeed, it is altogether possible that a cargo-sharing amendment of some sort may be attached to the Biaggi bill.

U.S. Customs automation

Coping with a veritable avalanche of paperwork is a continuing headache for importers, shippers, carriers and government agencies alike. Not only is it time consuming, it's expensive. Each year, the U.S. Customs Service processes about $250 billion worth of imported cargo entering the country. That cargo is delivered by some 80 million carriers. To speed up its processing of this cargo and at the same time, fulfill its statutory responsibility to collect and protect the revenue, the Customs Service is working with the carriers to reduce the paperwork burden and to streamline its procedures to the extent possible, through a National Cargo Control System.

One aspect of the program is inventory (or manifest) control using the electronic transfer of cargo information from the carriers' to Customs' computer system. This program is now being tested at selected ports and airports around the country. The ocean cargo phase is being tested in cooperation with American President Lines at San Francisco, Seattle and Los Angeles and will soon be expanded to include Sea-Land Corporation at Los Angeles. By accelerating its reporting and recording requirements, Customs reports the system has reduced the processing time of containers at West Coast ports from two hours to 22 minutes. To cope with the considerable documentation and time consumed in exercising its control of cargo movements from port of entry to ultimate destination, Customs is revising its bonding requirement procedures. For master in-bond procedures, Customs estimates it has eliminated 98 percent of the previously required documentation and cut the transit time for land bridge containers moving from the West to the East coast by 24 hours, with resulting carrier savings of $3.5 million.

To improve its surveillance and enforcement responsibilities, Customs has developed the Automated Cargo Clearance and Enforcement Processing Technique (ACCEPT), an automated system on which selective cargo examination is based. The system used basic data (history, commodity, country or origin and other factors) which is consulted to determine whether cargo should be examined intensely or allowed to enter, subject only to follow-up audits. ACCEPT is being tested in Baltimore, Miami, Houston and New Orleans. Preliminary results reported by Customs indicate that between 75 and 80 percent of all cargo clears immediately, considerably accelerating the entry of that merchandise into the United States. It also speeds up clearance time considerably. Under the old system, for example, it might take from 11 to 12 hours to processs cargo through Customs. With ACCEPT, Customs reports, in one test port at least 70 percent of the oceanships are being cleared in four hours or less. Thus far, Customs has invested an estimated $10 million in its move towards computerization, with the overall goal of making better use of available manpower. *(AAPA ADVISORY)*

"Port of Baltimore Day" to be celebrated

(News from MPA, September)

Free tours of the U.S.S. Steinaker, Baltimore's own Naval Destroyer, are among the activities to be offered during "Port of Baltimore Day" festivities on Sunday, October 4.

"Port of Baltimore Day", sponsored by the Maryland Port Administration in conjunction with National Port Week, is recognized in Baltimore with an Annual Open House at the port's largest facility, Dundalk Marine Terminal. Open to the public on this day only from noon until 5:00 p.m. Admission to Open House is free.

In addition to tours of the Steinaker, the Maryland State Police Special Tactical Assault Team Element, also known as STATE, will enact a rescue mission during the festivities utilizing a large barge, helicopter and fireboat. Members of the team will be on hand to answer questions pertaining to its missions immediately following the demonstrations.

Other demonstrations by the Maryland State Police include a K-9 handling exhibition and one on the use of emergency communications vehicles including another helicopter and the Emergency DOT Communications Van.

Open House visitors will also be treated to guided bus tours of the 580-acre, 13 berth facility and will be able to witness cargo handling demonstrations by those who actually move the cargo.

Inside the Passenger Terminal will be audio-visual displays by the Seafare's Center, the U.S. Custom's Service, who also perform a K-9 demonstration, the Military Traffic Management Command and the Industrial Sales Company.

MPA endorses plan to locate Foreign Trade Zone near terminal site

The Maryland Port Administration has endorsed a city plan to establish a foreign trade zone near the port of Baltimore.

The plan was introduced at a foreign trade zone seminar held recently at the World Trade Center Baltimore.

A foreign trade zone is a controlled area into which foreign and domestic merchandise may be brought for storage, repackaging, display, assembly, manufacturing or export. The zone remains separate from the U.S. market, thereby exempting the merchandise from formal Customs entry requirements.

Addressing 100 representatives of local steel processing companies, clothing manufacturers, developers, and financial investors, Maryland Port Administrator W. Gregory Halpin said a foreign trade zone would be advantageous to the maritime economy of Baltimore.

"The proposal of such a zone at this time is very important to the economic growth of the port," Halpin said. "There is more general cargo being exported through Baltimore than ever before. Right now, I see our only real competition as being Canada and the West Coast.

"But the port of Baltimore needs every competitive edge to keep our current lead, and a foreign trade zone in our city would be an ideal weapon," he said.

The proposed area for Baltimore's foreign trade zone is a

22-acre tract in the extreme northwest section of the 170-acre Holabird Industrial Park. The site is located less than one mile from the port's Dundalk Marine Terminal.

The Holabird trade zone is scheduled to be in operation by the end of this year pending regulatory approval. It is expected to create 600 new jobs and yield between $250–300,000 in real property tax dividends.

Maryland's first foreign trade zone, the Prince George's International Commerce Center, was established earlier this year near Bowie. It is expected to create 1,700 new jobs and yield about $500,000 in annual property taxes or payment in lieu of tax revenues.

Plans to establish a second foreign trade zone at Baltimore-Washington International Airport went before the U.S. Department of Commerce in June. At about the same time, Baltimore Mayor William Donald Schaefer applied for permission for a foreign trade zone at the Holabird site.

Foreign trade zones have been part of U.S. Customs laws since 1934, but only within the last decade have they become widely available throughout the country.

Prior to 1970, foreign trade zones existed in fewer than 10 cities–all of them ocean or Great Lakes ports.

Today, there are approximately 65 designated foreign trade zones in the United States, with a number of the newer projects located at inland ports of entry.

Since 1970, shipments received in U.S. foreign trade zones increased from $105 million in value to approximately $2 billion in 1979. More than $4 billion in merchandise was processed through American foreign trade zones in 1980, according to the National Association of Foreign Trade Zones.

New container terminal for Port of Boston

The Port of Boston's newest maritime facility was dedicated in an event highlighting Massport's Port Week activities. Massport's Executive Director David W. Davis, and Port Director Martin C. Pilsch, Jr., officiating at the ceremony, announced the start of a new era of Port revitalization and cited the container terminal as a key development in the process.

The two crane container facility expands the service at Massport's Paul W. Conley Marine Terminal, (formerly the Castle Island Terminal), in South Boston. The 105-acre Conley Terminal is major terminal for the discharge of general cargo–specifically lumber, automobiles, and steel.

The new facility at Berth 11 within the Conley Terminal, includes two forty-long ton, low profile, Paceco cranes; a 1,000 foot marginal wharf; and an initial ten acres (potential development of thirty acres) of support area for wheeled storage. It will handle 20,000 boxes annually and increase the Port's handling capacity by fifty percent.

Executive Director Davis noted that this was the first major maritime facility to be built in Boston in nearly a decade.

"The development of new service facilities is critical to the Port's continuing economic growth," said Davis. "Massport believes in the future of the working seaport, and, therefore, is making a substantial investment in both new and existing facilities."

The $18 billion container facility is the first development in Massport's $114 million seaport expansion program to be ready for service. The program includes the $16 million renovation of the Boston Fish Pier, the construction of the $80 million multi-purpose Massport Marine Terminal, and the re-use of non-operational port properties such as Hoosac Pier and the East Boston Piers.

The Conley Terminal container facility will be operated by a private terminal operator.

MASSPORT renames marine terminal

Massport Executive Director David W. Davis, and Port Director Martin C. Pilsch, Jr. recently announced the renaming of the Castle Island Terminal. The terminal is now the Paul W. Conley Marine Terminal.

Paul W. Conley, a lifelong resident of South Boston, worked for thirty-seven years on the Boston waterfront. He was very active in both union efforts to better working conditions on the waterfront, and in community affairs, especially in youth-oriented programs.

Port Director Pilsch said, "This renaming event is symbolic of the changes in the Port of Boston–a working seaport that through the efforts of Massport and many other harbor interests, is being revitalized."

Executive Director Davis emphasized the strong continuing ties between Massport and the South Boston community. He noted cooperative efforts such as the East First Street decongestion project, the Seaport Access project, and the Runway 22 Right Noise Abatement program as examples of the community/Massport relationship.

The renaming ceremony was the first of Massport activities celebrating Port Week. Others included Port Day Open House at all the marine terminals, a mid-week maritime dinner dance, and the dedication of the new container facility at Conley Terminal.

SCP signs two lease agreements with guaranteed tonnage

Two agreements currently before the Federal Maritime Commission will significantly increase container tonnage through South Carolina State Ports Authority facilities in Charleston.

Sea-Land Services, Inc., and Trans Freight Lines, Inc., have signed separate agreements with the SPA enlarging their leased container parking areas and guaranteeing to ship set tonnages through the Port of Charleston.

Sea-Land, which calls weekly at the SPA's Columbus Street Terminal, enlarged its acreage from approximately 9½ to 11 acres. For the next two years, Sea-Land will guarantee shipment of 225,000 tons of container cargo through the port, up from its present guarantee of 150,000 tons. The third year, the guaranteed tonnage will increase to 250,000 tons. The agreement includes the option for Sea-Land to transfer its operations from Columbus Street Terminal to the Wando Terminal.

Trans Freight Lines, which calls North Charleston Terminal twice a week, has signed a lease for 24¼ acres with a guarantee for three years of 175,000 tons of container cargo per year and 200,000 tons annually thereafter.

Seal-Land and Trans Freight Lines each get a preferential berth at their respective terminal as a part of their agreement.

The agreements are now before the Federal Maritime Commission for approval, which is expected within 60 days.

National Port Week: South Carolina Ports

(News from SCP, October 6, 1981)

South Carolina will celebrate National Port Week with festivities at the ports of Charleston and Georgetown.

Official resolutions proclaiming October 12–18 as Port Week in South Carolina for the ports of Charleston, Georgetown and North Charleston will be issued by Governor Riley, Mayor J.P. Riley, Jr., of Charleston, Mayor Douglas Hinds of Georgetown and Mayor John Bourne of North Charleston.

Festivities begin with School Days October 13 and 14 in Charleston. All the elementary and middle schools of South Carolina were invited to make reservations, and a full house of 4,700 students has been scheduled to come for movies and free boat tours of the harbor and port facilities. The tours leave from the SPA's Passenger Terminal.

Poster contests are sponsored in Georgetown and Charleston by the SPA through the public schools. The maritime posters will be displayed in the banks and savings and loan associations of Georgetown and in the Passenger Terminal in Charleston. Five winners are named in each area and the students win cash awards. Their teachers receive money for art supplies for the schools.

Two children's fishing tournaments will be held at the Passenger Terminal in Charleston Friday, October 16, and Saturday, October 17. On Friday, the children of the Charles Webb Rehabilitation Center will be the guests of the SPA for fishing and a picnic lunch. 11 a.m.–1 p.m. Children must be accompanied by an adult. Awards will be made at 1:30 p.m. for the largest and the most fish. Certificates will be given to each child who catches a fish.

The grand finale for Port Week will be Open Houses held in Georgetown and Charleston on Sunday, October 18. In Georgetown, free harbor tours will leave from the Gulf Auto Marine dock from 1 p.m.–5 p.m. and the WAL-ROW, a tugboat owned by Marine Industries, Inc., will be open for tour during the same hours at its dock on Front Street. Also, the Coast Guard station at Belle Isle will bring its 41-foot vessel to the Gulf Auto Marine Station for visitors.

In Charleston, the Open House will be in the Passenger Terminal from 1 p.m.–4 p.m., with a jazz band, movies, free harbor cruises, and a number of displays. A Coast Guard vessel, a White Stack Towing and Transportation Co., Inc., tug, the ROBERT B. TURECAMO, and a shrimp boat will be at the dock open for tour.

Activities are sponsored by the South Carolina State Ports Authority, with the support of various waterfront associations. The public is invited.

"The New Era in Intermodalism— The Houston Conference"

The 1981 Fall Conference of the Containerization and Intermodal Institute, co-sponsored by the Port of Houston Authority, will be held October 20-21 at the Meridien Hotel in downtwon Houston.

The theme, "The New Era in Intermodalism–The Houston Conference," focuses on new developments and trends in the transportation of containers by land and sea. C.A. Rousser, director of trade development for the Port Authority, is general chairman of the event.

Panel presentations and discussion will center on such topics as "The Effect of the Changing Regulatory Climate on Intermodalism;" and "What the Shipper Looks for in the Coming New Era."

Prominent speakers from transportation, industrial traffic management and labor will be featured as panelists. Their presentations will be followed by question-answer-discussion sessions. Panel moderators include Wilton B. Jackson, DuPont Company, and Leo Holyszko of Dow International U.S.A., Inc. and Jim Amoss, Brothers Steamship, Inc.

The Port of Houston Authority will hold a reception in connection with the conference that will include a 90 minute tour of the Houston Ship Channel aboard the port's inspection vessel, the M/V SAM HOUSTON.

Port of Houston announces next step in expansion

The Port of Houston Authority has announced the next step in its continuing expansion program will be the construction of new facilities for the handling of breakbulk, container and dry bulk cargoes.

The Port Commission voted at its July meeting to take bids for steel sheet piling to be used in the construction of a new general cargo dock in the Turning Basin area and of a new container wharf at Barbours Cut Terminal.

Construction of the two docks and improvements to the Bulk Materials Handling Plant will be financed in part with $25 million received by the Port Authority during June from the sale of general obligation bonds. The bonds were the remaining half of a $50 million issue authorized by Harris County voters during 1979.

Most of the first $25 milion of the bond issue were invested at Barbours Cut, the modern intermodal terminal near La Porte which has been the site of the majority of the Authority's capital improvements since the first construction was started there in 1970.

The Turning Basin dock will be the first new one to be built in the area since 1969. It will also be the first Port Authority break-bulk dock downstream of the Loop 610 bridge. Officials of the Port Authority say this new facility is needed because berth occupancy in the Turning Basin area is running at 80 percent, about twice the rate of the average port.

The new dock will be 800 feet long. Port officials said they are considering equipping it with a ramp to handle roll-on/roll-off cargo.

The new container wharf at Barbours Cut will be 1,000 feet in length and will be backed by more than 36 acres which will be developed later for the marshaling of containerized cargo.

Plans also call for the expansion of the terminal entry building and the maintenance garage at Barbours Cut.

Port Authority Executive Director Richard P. Leach said part of the remaining $25 million will be used to purchase a new loader for the Bulk Materials Handling Plant at the mouth of Greens Bayou where it flows into the Houston Ship Channel. The loader will increase capacity from 1,000 to 1,500 tons per hour. The Bulk Plant handles such cargoes as dry chemicals and ores.

Completion of the wharf projects is expected to take about two years.

Mr. Leach said further financing will be needed for such supporting facilities as paving, railroad tracks and possibly sheds. He said the financing for these facilities will be arranged while the wharves are under construction.

Dollar impact of U.S.—flag fleet detailed

An updated, input-output, economic analysis of America's maritime industries just released by the Commerce Department's Maritime Administration indicates that each dollar in sales by the U.S. merchant marine adds another $3.81 to the national economy.

The study, "Economic Impact of the Maritime Industries on the U.S. Economy 1971-78 (An Interindustry Analysis)," was prepared by H.C. Chung, professor of economics at the University of Bridgeport, Bridgeport, Conn. It reports that the chain of purchases begun by the maritime activities of the U.S.-flag merchant fleet has a cumulative "multiplier effect" of 4.811 throughout the economy. This means that each dollar in merchant fleet sales ultimately generates a total of $4.81 in sales and other business activity.

It should be noted that the dollar amounts used in the study were expressed in terms of 1972 dollars. In 1979 dollars (adjusted for inflation) the figures would be 50 percent higher.

Applying the 4.811 multiplier to the U.S. shipping industry, Professor Chung found that the $1.5 billion in merchant fleet sales reported in 1972 induced nearly $7.5 billion worth of business activity in the nation's economy Similar multiplier effects increased the American shipping industry's contribution to the Gross National Product of the same year to $3.5 billion.

The multiplier for the American shipbuilding industry in 1972 was 4.701, thus the $2.8 billion government and business invested in shipbuilding services in 1972 had a $13.3 billion impact on the entire economy. *(Port of Houston Magazine)*

British waterways head visits Port of New Orleans to gain insights on barge transport

As a result of the British government's renewed interest in inland waterways transport spurred by rising fuel costs and the need to conserve petroleum, Sir Frank Price, chairman of the British Waterways Board and members of his staff paid a three-day visit to New Orleans to learn more about barge transport in the U.S. Discussions were held with Port of New Orleans officials, pilot associations, Coast Guard and Army Corps of Engineers representatives, and city and state officials.

Sir Frank reported that there is a major effort underway by his Board to convince the government of the necessity to improve the nation's waterway system. In Britain, there are about 2,000 miles of inland waterways, but only about 350 miles are suited to commercial traffic, and 300 miles require improvements to bring them up to standard. Normally the only way the waterways board can obtain funds for that purpose is to borrow money at the current interest rate and collect tolls to pay back the loan.

Recently, however, the board was granted a subsidy to help pay the cost of improving 12 miles of canal in the industrial area of England. This grant was the first government subsidy for the waterways industry since 1905.

The British Waterways Board lists the following incentives for public investment in waterways: waterways are energy efficient; studies reveal a barge can move a ton of freight at one-fifth the fuel consumption of overland transportation. A British steel industry report stated a savings of £4 a ton is realized by shipping steel over water. Waterway transport causes less environmental harm, and waterways encourage the creation of industry.

The tendency of industries to locate along improved waterways was a major factor in obtaining assistance from the local government in the area of the 12-mile canal improvement project in England, Sir Frank observed. Local officials said the economically depressed area would benefit from improved water transportation.

Tolls collected from waterway users will help pay back some of the government assistance the waterways board is requesting, according to Sir Frank. He added that these tolls, which have traditionally been levied on barge operators, do not cause the controversy in England that the recently instituted waterway user fees in the United States have caused.

The waterways board negotiates with barge operators to determine a level of tolls that can be met without resulting in diversion of cargo, he said, and the waterway industry, therefore, does not balk at toll increases.

Proponents are increasing, both among members of Parliament and the public at large for increased support of the inland waterway industry.

The British Waterways Board has already received support from the Common Market, which has agreed to a three-year grant for England—the first waterway improvement grant the commission has made.

The British visitor expressed hope that by gaining information on the U.S. inland waterway system, he will have additional evidence to present to his government about the importance of a healthy inland waterway industry to industrial development.

$5.85 per ton cargo assessment for dockworker benefits to continue unchanged: Port of New York & New Jersey

The NYSA-ILA Contract Board recently announced the existing $5.85 per ton assessment on cargo that is used to fund ALL fringe benefits for union longshore workers in the Port of New York and New Jersey will continue unchanged into the next year.

The $5.85 per ton assessment finances cost of the total range of fringe benefits provided for in the contract between the International Longshoremen's Association, AFL-CIO and New York Shipping Association, Inc.

It includes pensions for some 13,000 retired workers as well as hospital, health clinic welfare services for union members and their dependents who total upwards of 50,000 individuals. In addition, the fringe benefits include holidays, vacations and guaranteed annual income among others.

Reported jointly by Contract Board co-chairmen

Thomas W. Gleason and James J. Dickman, the action maintains an unprecedented record of stability in labor contract assessment in the bi-state harbor that has now held firm for 57 consecutive months. The record will reach five full years on January 1, 1982.

The assessment on cargo is presently unique to the Port of New York and New Jersey. Other ports ranging from Canada to Mexico use a basic system of assessments that are keyed to manhours of longshoremen's work. In contrast to the record of stability here, manhour assessments in other ports have increased annually during the same five year period that the tonnage assessment was held steady in the NY-NJ port.

Paid entirely by employers, the tonnage assessment provides the bulk of funding required for the fringes benefit program in the bi-state harbor. A relatively small portion of fringe benefit revenue is also raised by an assessment of $4.29 per manhour on specified items of cargo. They include sugar, newsprint, metals moving in large volume and lumber among other items.

Port of Oakland develops a practical computer application for control of cargo and equipment at public marine terminals

The Port of Oakland recently formally adopted a sophisticated computer system designed to improve the efficiency of cargo handling in marine terminal facilities.

Known as the Marine Terminal Automated Management System (MTAMS), the system will be employed at the Port's Seventh Street Public Container Terminal, operated by Marine Terminals Corporation.

The system was jointly developed by ARINC Research of Annapolis, Maryland, and Marine Terminals Corporation staff under the sponsorship of the Maritime Administration, U.S. Department of Transportation, and the Port of Oakland. Computer application software and documentation, including a cost benefit analysis, were supplied by the Maritime Administration at a cost of approximately $325,000. Additional costs of approximately $500,000 for purchase and installation of computer hardware and software development were borne by the Port and Marine Terminals.

The objective of the MTAMS project was to develop a practical computer application for control of cargo and equipment inventories at public marine terminals—that is, facilities that are used by several steamship lines rather than by one line exclusively. A related concern was to obtain a system which was generic in character, capable of low-cost adaptation by public terminals at ports throughout the U.S.

Four kinds of inventory data are maintained by the system: container, chassis, cargo and storage space location. Each inventory is affected by transactions of three types that occur within the terminal: gate transactions, denoting the arrival or departure of shipment by truck; yard transactions, such as the loading and unloading of containers, and equipment cleaning or repair; and ship transactions, denoting the loading of a shipment aboard a vessel, or its discharge. The sequence of these transactions follows the two basic cycles of cargo and equipment flow in the terminal: import and export.

The primary benefits of the system are the increased quantity and accuracy of inventory data, the consequent savings in time consumed by record-keeping functions at the facility, and improved coordination of activity within the terminal. The terminal covers an area of 58 acres, and encompasses four berths. The regularly scheduled services of eight lines—Blue Star, D'Amico, Hapag-Lloyd Transpacific, Johnson ScanStar, Pacific Australia Direct, Philippine, Micronesia & Orient and Euro-Pacific—are served by the facility. Over 100,000 TEUs are handled at the terminal each year.

In conjunction with development of MTAMS software, the Maritime Administration is evaluating the system's performance. The evaluation will include such measurements as number of containers loaded or discharged per hour, average time spent by truckers at the terminal, reduced import/export planning time, reduced processing time of loss/damage claims, and reduced container rehandling. The application software and documentation developed by the Maritime Administration will be made exclusively available to the U.S. port industry, with adaptation costs borne by the user.

U.S. vessel locator system development plan funded: Marine Exchange of the San Francisco Bay Region

A $98,000 award by the Maritime Administration, U.S. Department of Transportation, will assure the development and demonstration of a management information system in support of a nationwide ship in-port locator system, it has been announced.

The Exchange—founded in 1849 to herald the arrival of sailing ships to the Gold Rush—is the nation's oldest maritime service agency. Under a previous contract with the Maritime Administration, it assessed the need for a national, industry-sponsored network to gather and exchange information on anticipated and actual ship traffic at U.S. ports—more than 50,000 arrivals each year. Currently, there is no common program nor compatibility in the formats, statistics and methods used in reporting and recording such information.

By surveying the information requirements and present procedures used at ten major U.S. ports, a common management information system (MIS) will be designed and a prototype operated by the San Francisco Exchange for evaluation. Results will be available to the nine other participating areas (New York, New Orleans, Baltimore, Hampton Roads, Portland, Oregon, Houston, Seattle, Philadelphia and Los Angeles).

It is anticipated that final product—a computer-based information management system—will be adopted by the membership of the National Association of Maritime Exchanges (NAME), which was formed in February, 1980, after the initial San Francisco Marine Exchange MARAD contract's completion.

The undertaking parallels similar efforts by major West European ports to develop a data exchange network through the European Harbour Informatics Association. A comparable U.S. network—dissimilar only in that it would be industry-sponsored, rather than by government—is deemed important for ultimate interfacing on a probable world-wide system for tracking ships and providing current, accurate information on their locations and anticipated arrivals and departures.

Georgia Ports Authority Chairman named

L.P. Greer, Jr. of Toccoa, Georgia has been named Chairman of the Georgia Ports Authority for the current term. He succeeds P.E. Clifton, Sr. of Savannah who will assume the post of Assistant Secretary-Treasurer. Greer has been a member of the Authority since 1975 and has served one previous term as Chairman. In addition he has held the positions of Vice-Chairman and Secretary-Treasurer. Greer is the Assistant Vice-President, Manufacturing Division of Coats and Clark, Inc., having been associated with the firm in a number of different capacities since 1948. He has held directoral positions in numerous civic, professional, and academic organizations.

Tacoma celebrates opening new intermodal rail yard

Port of Tacoma officials recently celebrated the grand opening of its new intermodal rail yard facility, the first of its kind on the West Coast. On hand to commemorate the occasion were prominent steamship and railroad executives. The guests viewed with interest the Port's demonstration of rail car loading/unloading operations. The intermodal rail yard is now in full operation serving the shipping community with fast, more efficient service.

The new $720,000 facility consists of new ladder rail tracks aggregating 3,740 lineal feet completely paved for operational equipment, it is an integral part of Tacoma's container Terminals 7 and 4, and has an adjacent 10-acre container storage area.

With the opening of this facility, Tacoma has the capability of loading/unloading 25 rail cars at a time and make up to 50-car unit trains. Container vessels berth at two terminals adjacent to the intermodal rail yard where on the same day their TOFC/COFC cargo is loaded, using specially designed triple-high straddle carriers, to and from trains connecting with inland destinations. Port of Tacoma is served by two transcontinental railroads, Burlington Northern and Union Pacific, which have access to any part of the United States as well as Canadian points.

This unique feature of loading and receiving unit trains at a marine terminal will minimize delays experienced at other ports which will result in substantial savings for steamship operators and their customers. In addition, it permits fast dispatch of containers and provides carriers with substantial control over their traffic. With the latest handling equipment and trained personnel to move the cargo, Tacoma offers the exporter and importer a high productivity service in container loading or unloading.

Valorization of the Left Scheldt Bank: Port of Antwerp

Up to 1980 some 12,270 million BF have been invested in the left Scheldt bank development scheme for construction works. A breakdown reveals 2,500 million BF for the lock; 2,130 for the rough construction of the tunnel under the first dock; 4,430 for already completed docks; 900 for access roads and railway installations and 160 million BF for sundries.

The «Intercommunale Maatschappij» which plays an active role in the industrial development of the left bank also largely pays attention to the employment factor with the companies which settle down on the left bank. In this regard it was mentioned that since the development of the left bank area started off 12 new sites were arranged by foreign companies. Most of these companies, i.e. 8, are involved in chemical and petrochemical processing. Besides there are also companies the activities of which very from hydraulics over storage of oil and oil products to energy. From an inquiry with these companies it was pointed out that together they employ 4,345 people, mainly male labour forces.

For the near future the «Intercommunale» stresses the availability of 130 ha of industrial grounds north of the canal dock as well as 80 ha of port sites and 75 ha of land-bound sites south of the canal dock.

Investments involved to complete the further development are estimated to be 13,800 million BF.

New ro-ro facility at Goole: BTDB

A new ro-ro ramp is to be constructed in the Ouse Dock at the British Transport Docks Board's Humberside port of Goole for use by the Central Electricity Generating Board.

The ramp, which will be built by the C.E.G.B., will facilitate the movement of pieces of heavy equipment to be used in the major power stations close to Goole and even further afield.

Agreement between the two authorities not only provides for use of the ramp by the C.E.G.B. as required, but also creates for the port an additional ro-ro terminal for general use for the handling of exceptional and heavy load cargoes.

New quay boosts capacity at Ayr: BTDB

A new quay, costing £500,000, has now been brought into operation at the Scottish port of Ayr, owned and run by the British Transport Docks Board.

The quay, situated on the east side of Ayr's tidal dock, was recently shown to an invited party of port users and reporters. Ships up to 310 ft. (95 metres) length can be accommodated at the new quay, which provides an additional 4,000 sq. ft. storage space. This will boost the port's cargo-handling capacity by some 25 per cent.

The new quay is the latest stage in a £3 m. rolling development programme at the two ports of Ayr and Troon initiated by the BTDB in 1976. This has already provided new cranage and plant, new workshops for plant mainte-

nance, resurfaced berths and improved road access.

This investment is already paying dividends: Ayr and Troon moved a record 863,000 tonnes of cargo in 1980 and handled a greater variety of bulk materials, both solid and liquid, than ever before. These included coal, scrap metal, timber, minerals, fertilisers, seaweed, liquid chemicals and–a recent addition–flux ore (dunite).

Mr. Tom Kenny, The Docks Manager is delighted with the success of the new developments: "Given these new facilities," he said, "we can offer our customers a service second to none. We have the potential to expand our activities, and I intend to see that we exploit every opportunity for growth."

"High productivity, outstanding equipment and competitiveness are the Dunkerque Port's main assets" : Prime Minister

French Prime Minister Pierre Mauroy chose Dunkerque on his first visit to a French port on 11th September 1981. He summed up the assets of the natural outlet of the Nord/Pas-de-Calais region owing to its geographical location, outstanding nautical conditions, first rate equipment and a communication network linking the port with the hinterland.

M. Mauroy reaffirmed the government's commitment to finance the construction of the western harbour bulk terminal, presently in progress, by including a credit of 35,2 MFF in the 1982 budget destined to finance most of the dredging operations. The terminal is likely to strengthen Dunkerque's position as France's leading port for the reception of coal and ore cargoes. "The new energy policy should also enable Dunkerque to benefit from various possibilities of coal processing (gasification, methanol, synthetic fuel) for which extensive studies have been initiated by the Government".

Work on the western harbour–eastern harbour link up will start in 1982 as well as the western harbour–wide gauge canal link-up.

With the Prime Minister were MM. Louis LE PENSEC, Minister of the Sea and Michel Jobert Minister of Foreign Trade. The Prime Minister attended the christening of an oil rig built by C.F.E.M. for Scandinavian trading company. The ceremony was performed by HRH Princess Christina of Sweden.

"Our desire to develop our exports and performances abroad implies that we must accept in return the presence of foreign companies".

In this respect, Dunkerque west's port complex which has been developed since 1971, represents a major asset.

Over 180 scheduled services from Le Havre

A number of factors need to be taken into account when sizing up the importance of a port, but one of the most significant is undoubtedly the number of scheduled services calling there. So far as Le Havre is concerned, the figure is reckoned to be 165, considering that about a dozen new services were inaugurated in 1980 and a few suspended. However, as some lines, to places like the Caribbean, the Arabian Gulf and the Far East, are operated by pools of two, four or five different companies, the real number of scheduled services operating out of Le Havre can be said to work out at over 180.

There are, of course, more frequent sailings to some destinations than to others, Britain comes first, with 6 sailings a day (mainly car ferries and containerships). Then come the United States and Canada (14 sailings a week), Ireland (10 a week), West Africa (9 a week), the Far East (6 a week), the West Indies (5 a week), South America and the Middle East (4 a week), South Africa and India/Pakistan (two a week), the Pacific Islands and the Indian Ocean (one a week).

The list brings out both the variety of ports called at by vessels from Le Havre and the frequency of sailings–two points of basic importance to shippers everywhere.

Oil-pollution-alarm-plan for the German coast

One of the most important realizations won from nearly all oil-pollution incidents was that no protection measures were taken which would have held the ecological and economic damages to a minimum. Furthermore: that oil accidents are international problems which have to be solved internationally. This is the opinion held by Messrs. LEO Consult GmbH, Bremen, whose field of operations covers scientific advice and practical assistance in the incidents of oil-pollution and of their prevention– in which they embarked in July 1981 in a joint-venture with the leading American company RPI (Research Planning Institute Inc., Columbia/South Carolina) with the aim of concentrated application of all the research and expertise experience of two continents. A premier example of this excellent co-operation was demonstrated in the "Afran Zenith" incident in Hamburg.

In the prevention and the minimising of oil-pollution damages the Bremen experts suggest that a special, comprehensive chart be produced of the whole German coast, marked with all the important regional data concerning oil incidents, also on individual charts, plus a manual for the commanders, with precise documentation for each specific region covering possible protection and defence measures– for special charts with manual, are the prerequisites for speedy application and successful action.

The charts, each relative to one section of the coast, should depict–in addition to precise topography–the infrastructure and the specific biological situation off, as well as on, the coastline, evaluated in a priority scale of from 1 to 10 as being the basis for determining the priority of importance of the steps to be taken. The manual, which similarly is divided into coastal sections, shows all relevant data, in text and illustrations, for the regional defence possibilities and those beyond–starting with traffic accessibility to the coast by water (tide), land and air (landing possibilities) continuing with the wind and tidal conditions and a listing of the locally stored, read-for-use, material and equipment–as well as the nearest decont-amination possibilities; through to mobilisation possibilities of the respectively suitable, specialised, craft, vehicles, heavy equipment, specially-trained squads, plus the availability of assistance from neighbouring states in accordance with bi-lateral agreements, together with all the locations, routeings, starting-times and availability of earliest-possible application being therein indicated.

Having this wide information immediately at a glance to hand, precise answers to hydraulic, biological, geological

and chemical aspects etc enable prepared calculations to be made of the spread of oil in the coming 2, 3 or 4 hours and, from the helicopter-prepared video-film of the incident-area indicating the extent and drift of the oil-spread the commander can institute the necessary measures immediately – instead of only after hours of time-consuming, laborious collecting, of, in haste, incomplete and partly amateurishly-unreliable information.

Such an 'oil-pollution-alarm-plan' – the costs of which are only a fraction of the damage-figure of just one oil-pollution incident– has also long moved away from being mere theory. Such a respective charting arrangement for the US coastline–right up to Alaska–is, for instance, as good as already completed. In this, the Research Planning Institute, the LEO Consult partners, were highly involved. The people in Columbia have a wide scientific basis plus extensive practice.

Counted among the Bremen people are leading researchers at German universities and academies, particularly at the Bremen University, who for years have been attending all the important conferences and have been present at all the major disasters around the world. They have a basis of rich experience of advisory and practical application in Germany, France, England, Bahrein, Mexico, Greece and Canada.

LEO Consult are currently working at two orders from the West German Ministry of Research and Technology. The first is a study into the 'Removal and conversion, respectively disposal, of oil slicks from haulage and transportation pollution incidents in the shallows and on the beaches on the German coast', whilst the second is a study into the 'Utilization of oil-bearing waste materials from the Mexican oil-drilling and processing industry from the economic and ecological viewpoint'.
This second study is concerned with ascertaining how the Mexican state oil company PEMEX can operate profitably with its enormous (and constantly increasing) oil deposits– possibly with the introduction of new technology for re-winning energy from this valuable waste material.

Above-average expansion in German container tonnage

Over the last 2 years international container tonnage has increased 8.5% from 1,144,861 TEU (Jan. 1979) to 1,242,239 (Jan. 1981) i.e., by 97,378 TEU, whereas the Federal Republic of Germany's container-tonnage grew by 17.9%.

Shipping nations with over 100,000 TEU under own flag, shows the West German merchant marine in second place behind the USA and ahead of Great Britain. At the beginning of this year the West-German container capacity was 130,584 TEU–19,853 more than at the start of 1979, states a report in the German Institute of Shipping Economies, Bremen, publication 'Statistik der Schiffahrt'.

During this same period the number of containers on US freighters, flying their own flag, increased by only 4,038 TEU, or 2.4% to 166,844 TEU, whilst there was even a considerable reduction for the British Merchant Marine from, totally, 150,942 to 126,981 = minus 23,961 units, or 15.8%.

Japan takes 4th place, with 90,912 TEU, behind the USA, FRG and BG–having increased its container-number in this 2-year period by 10,726 TEU in her merchant ships, i.e, by 13.3%. The Soviet Union has accounted for nearly half the quote-expansion with its total number of containers increasing by 2,219 (or 6.5%) to 36,061–thereby ranking in 10th position.

However, by far the largest increase has been recorded in the Hongkong-registered merchant vessels, the increase being 67%; from 10,555 to 16,887 TEU. Further increases in container capacity during these past two years (relative to the number of TEU) were recorded for Liberia, Denmark, Sweden, the Netherlands, Taiwan, Italy, Poland, South Africa and India. Reductions in container stocks were, in contrast, reported by France, Norway, Singapore, Panama, South Korea and Greece.

16.7 million tonnes of transit goods handled in 1980; Increse by almost a fifth: Port of Hamburg

Despite the overall stagnating rate of transshipment in the Port of Hamburg in 1980, transit traffic from and to the neighbouring countries in north, east and central Europe rose to 16.7 million tonnes, which is equivalent to a 17.6 per cent increase. This once more underlines the fact that Hamburg is an ideal base for transit trade.

The port's most significant transit partner was, as in the past, the GDR which in 1980, at 5.6 million tonnes, exceeded the preceding year's result by 48 per cent. At a port reception on the occasion of the Leipzing Spring Fair, Hamburg Mayor Hans-Ulrich Klose and the Senator of Economics Jürgen Steinert pointed out that in 1980 the GDR accounted for about 30 per cent of the port's total transit cargo.

Holding second place in the order of transit partners in 1980 was still Czechoslovakia, whose through traffic admittedly was slightly less and amounted to 3.1 million tonnes.

Among the port's West European transit partners, Austria with 2.3 million tonnes still held first place unchanged. This confirmed once more that among the circle of competitors for Austrian cargo, the Port of Hamburg is best able to meet the requirements of the universal cargo potential of Austria.

Following this with a total of 1.8 million tonnes (plus 18 per cent) of transit goods were the North European countries of Denmark, Norway, Sweden and Finland. With a growth of just under 10 per cent, Switzerland raised its transit volume via Hamburg to 160,000 tonnes.

Among the eastern, or southeastern transit partners, the Soviet Union doubled its transit cargo on account of increased grain imports to 630,000 tonnes, while Hungary stepped up its transit total by just under 7 per cent to 760,000 tonnes.

In general the Hamburg port economy is viewing developments in the current year without excessive expectations, but at the same time not with pessimism. As far as transit traffic is concerned, Hamburg can point to three very important location advantages: its traffic geographic situation, the excellent transport connections and its efficient port facilities. Taken all together they form–even in perhaps ever tougher competition of the port centres for cargo–a major plus point for Hamburg. *(Port of Hamburg Topics)*

Port of Rotterdam soon to be accessible to 350,000-tonne oil and ore tankers

Rotterdam has decided to deepen the Euro Channel. This wide, trench" in the North Sea bed, which makes the port of Rotterdam accessible to very deep-drawing vessels, will be dredged sufficiently to make the new bulk terminals in the westernmost ports accessible to vessels drawing up to 72 feet. This will guarantee 100-per cent accessibility for these vessels at high tide. As a result it will be possible for oil tankers, ore and coal carriers measuring up to 350,000 tonnes to enter the port of Rotterdam fully laden.

To date, access to the port of Rotterdam is limited to ships drawing 68 feet (meaning 75% accessibility when the tide is high). This is the measure required for fully-laden tankers of some 275,000 tonnes to enter port.

After the Netherlands government had given the green light a few weeks previously, the Rotterdam city council approved the plan by 27 votes to 6, swallowing its disappointment about the fact that a healthy cost sharing between the state and the city, which would have done justice to the importance of the project for the national economy, had proved impossible. Rotterdam has to foot the full bill, estimated at 130,274,000 guilders.

The city council decided by a large majority to accept this proviso because of the defensive aspects of the investment, and convinced as it was that not only oil tankers will profit from a deepening of Euro Channel. In the ore-carrying business too, the advantages of size are becoming increasingly clear so that the deeper channel will very probably have an effect on the ore flows to western Europe. Maybe this will become true for the coal flows likewise in the long run.

The project will be carried out for the Municpality of Rotterdam and start this autumn. Confident of a favourable outcome of the city council debate, engineers of the various government departments which are involved in the project, had their first planning session in the head office of the Rotterdam Municipal Port Administration a few days previously. Their aim is to bring this very big job to a good end fast. The morning after the (nocturnal) city council decision, the Municipal Port Administration put out the flags.

Sandy ridges

The present Euro Channel is over 41 kilometers' long, and under the expansion plan it will be extended by an additional 16-odd kilometres.

It is not so that the project involves dredging an extra four feet over the entire length and width of the alignment. What is needed is cutting through a large number of sandy ridges running more or less in the same direction, almost at right angles across the channel.

Probably some wrecks will have to be cleared as well and it may be necessary to carry out some dredging in the southern part of the North Sea too.

Tests carried out in the Delft Hydraulics Laboratory show that the deeper channel will not cause any changes in the hydraulic situation at the mouth of the river Rhine. Under normal conditions there will not be any salination problems either, but it may be useful to build a number of groynes at the end of the New Waterway to prevent an excessive inflow of salt water whenever the Rhine water level drops to extreme lows. Further research is needed to answer the question whether the groynes are desirable.

Deepening the access channel in the North Sea must be accompanied moreover by measures to improve nautical shipping management.

Pay-it-yourself job

Protracted negotiations failed to budge the government from its standpoint that Rotterdam must pay for the job itself. When the channel is ready, the government will look after its administration and upkeep. The government also agreed a scheme limiting the financial risks for the city of Rotterdam. Should the investment prove unprofitable after a number of years, the state will share in the losses.

The government has declared itself in favour of the principle of deepening the channel further at a later stage to make it fit for ships drawing 75 feet, with the proviso that it must be quite certain at that time that there will be enough users and that such big ships will be able to enter and leave in safety.

The Rotterdam city administration has not made any commitment on this point, although some highly responsible experts at the Municipal Port Administration are convinced that a further deepening to 75 feet is inevitable.

Is expansion a good sign for every port?: Seaports Structure Plan, a product of the three Netherlands ministries

"Promoting a healthy development of the country's seaports in the interest of the desired national and regional economic development in such a manner as will make the greatest possible contribution to the general prosperity"—that is the chief goal of Netherlands seaports policy as stated in the introduction of a Seaports Structure Plan, which was submitted to parliament by the ministries of transport and waterways, economic affairs, and housing and physical planning in May. It has once more brought the entire Dutch ports situation into the limelight.

The Dutch government's judgement of the development of some of our seaports has often been criticised—and rightly so in many cases, we feel—but no one has a right to say the state has not done its best to guide and stimulate seaports development.

The Structure Plan is a bulky paper, which surveys what seaport facilities are available now or will be in the near future, and analyses policies on various parts of the Netherlands' seaport resources.

The government still sees the Eemshaven port in the north as a part of the Dutch port potential which has become a stepchild due to economic circumstances. As Eemshaven has failed to get the amount of traffic it was expected to attract, and as employment problems in the depressed north of the country weigh heavily, The Hague has tried again and again to get more ships to this port.

A case in point is the government's decision to designate Eemshaven as the port where Dutch imports of liquefied natural gas (LNG) will be landed. But when this will happen is far from clear, because a contract for the procurement of Algerian LNG, which had been counted on in the first instance, will not now be carried out.

Besides, the government's policy is an example of its endeavour to direct traffic and transport to places which are supposed to need it most. This endeavour is more or less artificial, however, and may therefore clash with economic and other interests.

Transport and Waterways, Minister Daniel Tuijnman stated in a memorandum accompanying the plan that the government intends to promote what it considers a fair and equitable distribution of traffic and transport volumes over the availabe Dutch seaports.

A praiseworthy effort as everyone will agree, while wondering in how far it is feasible. It has happened in the past that the authorities referred prospective investors to ports other than those in which they wanted to set up their plants. The prospective investor's response was usually that, if he could not invest where he wanted, he was not interested in the offered alternative. This does not mean, naturally, that a spreading régime is all wrong. After all, it is the government's duty to prevent one area from being crammed as it were with ports and plants, to the detriment of the environment and livability, while other regions are starved of jobs.

The Structure Plan finally kills a few old port projects, some of which had been almost forgotten anyway. So there were at some time a Reimerswaal plan and an Ossenisse project. But for the Rijnmond region, the plan resuscitates the half-forgotten name of Rijnpoort.

This plan, for the building of a port on the north bank of the New Waterway between the Hook of Holland and Maassluis, dates from the days of former Rotterdam mayor W. Thomassen and the great port managing director, F. Posthuma. It was the product of a policy of expansion, felt at the time to be required to uphold the status of the port of Rotterdam.

There were also proposals to extend Maasvlakte by an overhanging tongue of land along the village of Oostvoorne. There were detailed plans for new harbour basins in Voorne and even in Hoeksewaard. The Moerdijk port and industrial region was conceived in those days . . . and was the only project to be actually carried out.

As a result of changing ideas about the need for port and industrial areas, but especially under the impact of strong environmentalist sentiment, and finally under the influence of closely connected ideas about town and country planning, these plans were finally shelved and have since been gathering dust.

Resistance

Rijnpoort in particular ran into fierce resistance some fifteen years ago. Mainly among the population and market gardeners of the Westland region, who would have to give up a big chunk of their land if the port were built. In the end it was decided to "postpone" execution of the plan, providing for a port specialising in container, ro/ro and ferry transport. But the land remained reserved for possible future port construction.

The Structure Plan of the three ministries emphatically confirms this reservation as being in Rotterdam's interest. It finds that opportunities for future expansion of the port of Rotterdam are strictly limited, since the government rejects a (major) expansion of Maasvlakte and ports in Hoeksewaard'.

"Then the Rijnpoort port remains as the only possibility for further expansion," says the plan which adds that, in the government's view, potential possibilities available to the port of Rotterdam for further expansion of commodity transhipment should be utilised as well as possible.

This in fact confirms the reservation decision taken in 1975, but one may well wonder why this should be stated so explicitly now, considering the uncertainty it will cause among the people concerned about the ultimate fate of their land.

If we are correct in our understanding of the tenor of the government's paper, it assumes that a port must expand if it is to flourish. To my mind, though, we have now entered a period in which this conclusion is only partially valid. Experts believe that the opposite of expansion is not contraction, but stabilisation.

This means that there is a greater contradiction involved in the transition of a port from expansion to a situation in which things remain more or less as they are, than in the transition from an expanding port to one in which the existing facilities and equipment are bunched, as it were (rationalised, optimised) in order to achieve better performance.

Concentration

The government in its Structure Plan still assumes that all the ports in the Netherlands must expand or, if you like, that expansion is a sign that all is well. But in a period in which we have learned how good it is to cooperate, it is surely not a strange thing to say that a concentration rather than a fractionalisation of port activities, may have quite satisfactory results.

Things will certainly move that way if we just assume that the geographic space covered by a port like Rotterdam's, will be exposed to major changes as the older ports closer to the city centre sooner or later cease to exist as such, without this entailing any extra load for the new ports seawards of Rotterdam.

I am not saying that all thought of port expansion should be abandoned, because it is obvious that a port must adjust in good time to future tasks. But it is also true that the trend towards either expansion or contraction may create a picture of the future which needs many more signs and indications before we can clearly see some shape in it.

The above may make clear that the development of a big port is much more than merely a matter of economic/commercial significance. Concern for the environment, which plays a role in this, has opened our eyes to the many social aspects involved in this development. Whether more land must be sacrificed or not is a factor of physical planning.

It is a good thing therefore that the Seaports Structure Plan is a product of the three Netherlands ministries most concerned with these problems. *(Rotterdam Europoort Delta)*

Standardised export documents for Australia

How to cut costs and save time in preparing export documents

Have you considered that your competitor overseas may be gaining advantages by using the aligned system of preparing his export documents?

This simple method of producing documents is already in use by many exporters in Australia and overseas. It is based on what is known, and promoted internationally, as the United Nations Layout Key.

The National Trade Facilitation Committee (NTFC) has, over the past two years, been working to design and promote a simple, reliable and inexpensive method of producing a complete set of the commercial and official documents required for an export transaction. These include in-house documents, such as works and factory release orders, and commercial documents such as invoices and shippers' letters of instruction.

The NTFC, in association with the Department of Trade and Resources and the Australian Institute of Export, conducted a series of twenty seminars and workshops throughout Australia in the July 1980 to June 1981 period to demonstrate to exporters the direct cost savings and the many other indirect cost saving benefits of the system.

An important feature of the system is that it is very flexible in its application and is suited to small offices having an ordinary photocopying machine, as well as offices of larger organisations with sophisticated office machines and the technical knowledge to know how best to use them.

THE ALIGNED SYSTEM–

The technical details of the system of documentation are described in the handbook "Standardised Export Documents for Australia" available from all Regional Offices of the Department of Trade and Resources. An audio visual and a 16 mm film on the system are also available for viewing at these offices and can be made available to firms for in-house courses.

For those not concerned with the actual mechanics of export documentation, it is only necessary to know that the basic principle underlying an aligned series of forms is that when, as in the case of an export consignment, a number of forms with particulars largely common to all is required, it is better to consider and design each form in relation to the others.

In an aligned series, as many forms as possible are printed on the same size of paper and common items of information occupy the same relative position on each form. For example, the exporters name and address, telex number, etc., always appears in the top left hand corner of all forms.

If forms are designed in this way it becomes practicable to record on a single "Master" document most of the information required on all the forms to be included in the aligned series. Any details recorded on the Master which are not required on a particular form in the series can, by use of "masks" or overlays, be omitted when that form is "run off" on office reproduction machines. This approach to the problem of completing forms offers the obvious advantage that only one single document needs to be typed and, once its particulars have been checked, the accuracy of all other forms derived from it by mechanical means is assured. Information can be amended on or added to the Master document at any time. The production of a series of aligned forms from a single Master in this way has become known as the "aligned system"

COST SAVINGS–

In order to compare the in-office costs of producing export documents in aligned as against non-aligned systems, the National Trade Facilitation Committee circulated a questionnaire to sixty-five companies, widely spread in terms of location, industry, size of company and size of export documentation/shipping office.

Slightly more than a quarter of the companies replied effectively to the questionnaire. Apparently such cost data is not normally available to management; in particular the cost of errors in export documents.

Nevertheless, the relatively small smaple exhibited features which strongly suggested that the use of an aligned system can achieve cost savings of the order of 70%.

Similar surveys carried out in the US and Canada produced similar results. A UK survey concluded that companies using aligned systems almost halve their documentation costs and small firms reduce costs by more than half.

The actual results of the NTFC survey were as folows:

COST OF PRODUCING SET OF SELECTED EXPORT DOCUMENTS

Name of Document	Produced by Aligned System	Non-Aligned System
	$	$
Master Document	3.18	–
Bill of Lading	1.07	3.37
Certificate of Origin	0.58	2.07
Commercial Invoice	0.54	4.82
EFIC Insurance Declaration	0.35	0.96
Insurance Certificate	0.74	1.84
Letter to Customer	0.39	1.90
Shippers Letter of Instruction	0.28	1.31
Interim Receipt	0.62	4.01
Confirmation of Order	0.19	4.85
Packing List/Slip	0.65	3.37
Instruction to Bank	0.15	1.93
	*8.74	*30.43

*Saving of about 70%

COMPARISON OF COSTS OF PRODUCING SOME OTHER DOCUMENTS

Name of Document	Aligned System	Non-Aligned System
	$	
AMLC Form 4	1.10	3.35
Specification/Analysis Certificate	0.61	5.62

Invoice and Combined Certificate of Value and Origin	0.55	7.20
Weight Certificate	1.02	3.12
Export Permit	(Form is not aligned)	1.95
Bank Draft	(Form is not aligned)	1.59
Health/Condition Certificate	(Form is not aligned)	4.65

In non-aligned systems, the monotonous, error prone, repetitive work in preparing export documents is done by skilled typists. Under the "aligned system", once the Master has been typed and checked, the actual production of the documents is carried out on the photocopier. This also leads to easier training of new staff.

Exporters stress the need for absolute accuracy of entries on export documents and, in the past, this has led to a high degree of checking. In the aligned system, once the Master has been checked and found correct, all forms prepared from it must also be correct. When an error is found on the Master at the checking stage one document only has to be corrected and this is much less time-consuming than amending all copies of separately typed forms.

It sometimes happens that overseas customers require a large number of copies of a particular form. Where more than, say, six copies are required from an electric typewriter or more than four from a standard machine, a second typing is usually necessary. Where a Master is used, however, the additional copies can be produced with ease on the photocopier.

The preparation of forms is speeded up because the same item of information is always placed in the same relative position. This also makes checking of information very much easier in the office of both the exporter and the customer and at all other check points, such as at the bank and the insurance company.

The standard position of the addressee particulars has been chosen expressly to allow the use of window envelopes, which saves further typing time.

In some offices it is practice for consignment information to move around from desk to desk to allow a particular form to be completed at each. With the aligned system, all consignment details can be concentrated at one point for entry on the Master and at another for all the necessary forms to be run off. This makes for better control of processing, less paper movement and simplifies the task of finding papers quickly in the event of queries.

The alignment of forms on A4 paper simplifies filing, and storage of papers. *(South Australian Ports & Shipping Journal, The Port of Adelaide)*

Port of Brisbane to establish coal export installations on Fisherman Islands

The Port of Brisbane Authority has begun negotiations with Queensland Bulk Handling Pty. Ltd. to establish common user coal export installations on the Fisherman Islands.

The decision in favour of Q.B.H. was announced by the Premier (the Hon. J. Bjelk-Petersen) following a meeting of State Cabinet on September 10.

Prior to that an expert committee—working through the Co-ordinator General's Department and comprising representatives from Treasury, Railways, Harbours and Marine and Mines departments—had considered proposals from interested parties and the evaluation prepared by the Port Authority.

Other submissions studied were from:

- Bulk Handling and General Services Pty. Ltd. and Mayne Nickless Ltd.
- Moreton Coal Services Ltd.

Up until now, experimental coal shipments have been leaving the port via river facilities in the Pinkenba area.

This outlet, and proposals to stockpile coal in the nearby Hamilton area, were seen as unacceptable as a long-term measure.

Thus, it was decided that the interim plans to export coal through the Fisherman Islands, should be adopted.

In anticipation of the "crash" construction programme, the Authority has carried out a great deal of preliminary work, including dredging of a swing basin, extensive surveys, reclamation and wharf/terminal designs.

Q.B.H. is a joint venture company. Equity is shared between Surrey Properties Pty. Ltd. and Bulkships Ltd.

The company proposes to invest $13 million in the islands' venture i.e., on the ship loader and the mechanical handling equipment.

The Authority's share will provide an additional $8 million.

The installation will be located just upstream of the Ampol crude oil wharf, and is due to be operational by October 1982.

The Q.B.H. plan is to receive and load up to five million tonnes per year.

The Port Authority's General Manager (Mr. F.M. Wilson) said more intense construction work at the islands site would begin "very quickly".

Mr. Wilson said the export of coal was a great opportunity, not only for the port but would be a timely boost to the West Moreton (Ipswich) fields.

"And—of course, we are very much aware of those massive untouched coal deposits up on the Darling Downs", he said.

"When the 'Downs deposits are opened up, it is logical to expect that considerable quantities of coal from the region will be channelled through Brisbane".

Mr. Wilson said the Authority—as a matter of policy—was conscious of the environmental aspects associated with coal handling. Strict safeguards would be built into the Fisherman Islands undertaking to ensure protection of the environment.

Port of Brisbane looking forward to a big year

Total trade through the Port of Brisbane for the 1980/81 financial year was 9,520,000 tonnes.

Imports were up 12% to 6,394,000 tonnes and exports were down 23% to 3,126,000 tonnes.

The port's record trade total, achieved in 1979/80 was 9,742,000 tonnes.

Most of the export loss in the year under review was in the grain trade where the throughput (becauses of drought) was down almost 1.3 million tonnes to 477,000 tonnes.

Considering this and other factors, the port's overall trading result is regarded as satisfactory.

The predications are that the 1981/82 financial year will see the port's trade volumes break the 10 million tonne mark for the first time.

Outline of South Pacific Ports Association

Brief History

The idea of a South Pacific Ports Association (SPPA) was originally mooted during the Fourth South Pacific Ports Conference hosted by the Ports Authority of Fiji (PAF) in 1977 in Suva, Fiji.

The delegates unanimously acknowledged the need for the formation of an association of the South Pacific Ports.

In September, 1978, a draft Constitution was prepared by PAF with the assistance of the South Pacific Bureau For Economic Cooperation (SPEC) and circulated to the various South Pacific ports organisations including Australia and New Zealand for perusal and comment.

The Fifth South Pacific Ports Conference in Apia, Western Samoa, in November, 1978, adopted the Constitution with minor amendments.

The Conference also agreed to proposals of the Australian and New Zealand ports and port/marine organisations that they be considered as Associate Members.

In the following year, approved copies of the Constitution were sent to member ports, SPEC, New Zealand Port Authority and the Association of Australian Ports and Marine Authorities and the International Association of Ports and Harbours.

The South Pacific Ports Association through the close support and cooperation of its members and well-wishers, looks to a more active and meaningful role in the promotion of efficient management and operation of ports and harbours in the South Pacific.

The membership to date stands at twenty (20) comprising the following:

A. Regular Members

1. Department of Port Administration–American Samoa
2. Ministry of Tourism, Government of Western Samoa
3. Nauru Phosphate Corporation, Republic of Nauru
4. Papua New Guinea Harbours Board
5. Ports Authority of Fiji, Fiji
6. Port Autonome de Noumea
7. Shipping Corporation of Kiribati, Kiribati
8. Solomon Islands Ports Authority, Solomon Is
9. Tuvalu Government, Office of the Prime Minister, Tuvalu

B. Associate Members

1. Auckland Harbour Board, New Zealand
2. Harbours Association of New Zealand
3. Hawkes Bay Harbour Board, New Zealand
4. New Zealand Ports Authority
5. Northern Territory Ports Authority, Australia
6. Northland Harbour Board, New Zealand
7. Pacific Forum Line
8. Portland Harbour Trust Commissioners, Australia
9. Union Steamship Company Limited
10. Shipping Corporation of New Zealand, New Zealand
11. South Pacific Shipowners Association

Seven new members joined the Association during the year and one (Cook Islands) withdrew its membership in 1981.

Membership Fee

A membership fee of Fiji $50 per annum from 1 January applies to both Regular and Associate members.

Secretariat

The Ports Authority of Fiji continued to serve as the Secretariat of the Association.

In this capacity PAF was involved in the publication and distribution of the Report of the Seventh South Pacific Ports Conference held in Pago Pago, American Samoa.

It has further continued to co-ordinate and disseminate port news and information as well as other matters of interest to member ports and organisations.

Venues of Past South Pacific Ports Conferences Since 1975

YEAR	DATES	VENUE	HOSTED BY
1975	17-19 March	Port Moresby	Papua New Guinea Harbours Board
1976	15-18 August	Kieta	Papua New Guinea Harbours Board
1977	30 November–2 December	Suva	Ports Authority of Fiji
1978	27-28 November	Apia	Marine Department, Government of Western Samoa
1979	17-19 October	Rarotonga	Cook Islands Government
1980	27-29 August	Pago Pago	Department of Port Administration, American Samoa Government
1981	7-10 October	Noumea	Port Autonome de Noumea

Vizag Port's record traffic (80-81)

Visakhapatnam Port has kept up the tempo of increasing traffic and has created an all time record during 80-81 by handling a total cargo of 11.75 million tonnes as against 11.70 million tonnes handled during the previous year.

During 80-81 6.20 (6.16) million tonnes of the exports, 4.06 (4.07) million tonnes of imports and 1.49 (1.47) million tonnes of transhipment cargo passed through this port. The leading item among the exports was 5.66 (5.43) million tonnes of iron ore. The impact of the excellent facilities created at the Fishing Harbour has lead to a boost in the exports of shrimps, 5,729 (4,665) tonnes of which were exported.

On the import side, despite the temporary lull in the arrival of fertiliser ships, the port was able to import 3.98 lakh tonnes of finished fertilisers as against 3.92 lakh tonnes in the previous year. There was no import of foodgrains during the year, while rice, tobacco and wheat were exported. About 11,600 tonnes of C.F. Coke, 15,300 tonnes of sponge iron and 1,710 tonnes lead concentrates are new itemes that did not figure in the previous year's import list. The import of cement went up to 3.28 lakhs (2.79 lakhs) tonnes in the current year; import of edible oils too went up to 82,970 (63,073) tonnes.

During 80-81 563 ships accounting for 10.89 million GRT called at Visakhapatnam port as against 564 ships with 10.38 million GRT in 79-80. (Figures given in brackets denote quantity in the previous year).

Port of Napier celebrates World Maritime Week

"Guests inspect the information kiosk for seamen at the Port of Napier, New Zealand, during the opening ceremony".

World Maritime week was celebrated at the Port of Napier, New Zealand, with the unveiling of an information kiosk for visiting seamen.

Designed as a memorial to Mr. A.W. (Bill) Apperley, the information booth provides a valuable amenity to the crews of visiting ships, and gives details of shop trading hours, local tours, restaurants and eating houses. The multi language facility is also updated regularly with details on current entertainment, cultural, sporting and hobby group meetings in the local area. The centre-piece of the kiosk is a large map of Napier.

A ceremony was held on 25 September, to open the facility, and a plaque was unveiled as a memorial to Bill Apperley, who had spent a lifetime in service to the local Maritime Industry. As well as being President of the Hawke's Bay Merchant Navy Club at the time of his death in 1979, he was also a member of the Hawke's Bay Harbour Board, and Past Chairman of the Port Employers Association.

Annual account format changes: Northland Harbour Board

Horbour Board annual account format have been reviewed and Northland Harbour Board is among the first to make the change.

The annual report to Parliament of the New Zealand Ports Authority states: "After almost a decade of discussions and deliberations involving many people and organisations, including the Authority, the Harbours Association of New Zealand has approved the final recommendations developed by their accounting committee on the uniformity of presentation of harbour board accounts.

"The association has recommended to each member board to adopt the methods specified and the majority have decided to comply. It is expected that the remaining boards will follow suit in the near future.

"Amendments to the financial provisions of the Harbours Act 1950 have also been taken into consideration in the preparation of the new format.

"The aim of the format is to portray the financial position of the boards clearly and succinctly, and by standardising the presentation of accounts to enable comparison of costs as between ports to be made."

The accounting committee has been under the chairmanship of the general manager of the Northland Harour Board, Mr. A.G. McHugh.

New techniques in oil spillage control turns liquid to mat: Northland Harbour Board

With the main New Zealand oil port as a major factor in its activity, the Northland Harbour Board keeps a constant eye on new developments in dealing with oil spill pollution—a constant hazard in handling oil cargo.

In fact, the Board's experts have been pioneers in some methods of spillage handling. The utilisation of helicopters in such work was an NHB innovation.

The experts are now watching with close interest a new method of dealing with oil pollution on water by turning the oil into rubber, devised by scientists at British Petroleum.

The solidifying technique involves treating the oil with liquid rubber, waiting until it hardens and then scooping it up. The oil slick can be transformed into a hard, dry mat, losing its ability to contaminate water and harm animal life.

Small scale experiments have proved that all kinds of oil, from light crude to heavy fuel, can be successfully dealt with.

Laboratory work at BP's research centre near London is to be followed by outdoor trials late this year, the result of which will be awaited with interest by the NHB staff.

Karachi Port handles 14.6 million tons cargo during the 1980- 81 fiscal year

The port of Karachi has handled a total of 14,653,827 metric tons cargo during the financial year from 1st July, 1980 to 30th June, 1981. This includes 11,037,213 metric tons of total imports cargo and 3,616,614 metric tons of total export cargo as compared to the previous year's (1979-80) figures there is slight increase in exports and decrease in imports has been recorded in the current year's figures. While the imports cargo handled during the year from 1st July 1979 to 30th June 1980, was 11,258,810 metric tons and the export cargo was 3,398,475 metric tons. The total cargo handled during the year ended on 30th June, 1980 was 14,657,285 metric tons.

It would be recalled here that the ever highest tonnage handled during the year 1978-79, which touched the target of 15 million metric tons. The figure recorded during that year was 15,025,557 metric tons which included a total of 11,987,380 metric tons imports cargo and 3,038,177 metric tons exports cargo.

The Port of New York and New Jersey's newest container terminal- Red Hook, Brooklyn, New York

Through 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 is now nearing completion on the new 1,000,000-ton capacity Red Hook Container Terminal in Brooklyn, New York, which has been leased to Universal Maritime Service Corp. This new container terminal, capable of handling Ro/Ro, as well as container and breakbulk vessels, is being completed at a cost of $20,000,000. It will have a 1,000-foot-long container berth supported by two cranes and 40 acres of upland area. Approximately 30,000 containers are expected to move via Red Hook each year and the facility will have the capability of handling trucks on a 100 percent appointment system. The site enjoys exceptional navigational advantages since it is located along Buttermilk Channel where the Corps of Engineers maintains a depth of 40 feet.

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