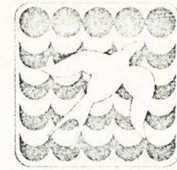


The Secretary-General

Box 4068  
Santa Barbara, California 93103



*Pacem in Maribus*

## ARCTIC BASIN STUDY PROJECT

The International Ocean Institute is carrying out a series of regional study projects, designed as a contribution toward determining the economic/ecological infrastructures on which a legal ocean regime must be built. The results of these studies will be made available to the Law of the Sea Conference in 1974.

The first of these studies, on Mediterranean Development, was initiated with a grant from the Ford Foundation. It is being continued as a UNDP project at the International Ocean Institute.

The second study deals with Caribbean Development. It was initiated with grants from three Canadian banks and the General Service Foundation. A secretariat, under the direction of Ambassador Sir Egerton Richardson, has been established in Jamaica to continue the project and lay the foundation for a cooperative exploration of the mineral resources in the Caribbean.

The present study, the third in this series, will be carried out jointly by the International Ocean Institute and the Arctic Institute of North America.

A joint planning session was held in Montreal on February 5th and 6th, 1973. The list of participants is attached (Appendix 1). Elisabeth Mann Borgese acted as chairman of the session.

The session opened with a general discussion, clarifying the general context and the scope of the project.

It was noted that, to make the project meaningful, the collaboration of all Arctic nations should be obtained. The Soviet Union has been participating in a number of arctic studies; it should be kept in mind, however, that as far as international cooperation in the Arctic region is concerned, the Soviet Union has indicated its preference for bilateral and sectorial agreements. An attempt to enlist her full

cooperation in an interdisciplinary and international project may present some difficulties. More limited cooperation in the technical and scientific aspects of the project would be easier to obtain. The project must be structured accordingly.

There are two Soviet members on the Planning Council of the International Ocean Institute (Dr. Boris I. Imerekov, Oceanographic Committee, Moscow, and Dr. Anatoly Kolodkin, Chief, Research Institute of Marine Transport, Moscow), and the relations between the Arctic Institute of North America and the Arctic and Antarctic Institute in Leningrad are excellent.

It was further noted that a wide range of problems, from meteorology to ecology and engineering technology, are already being dealt with at the intergovernmental level, and the present study should avoid duplicating these efforts.

Lastly, it was emphasized that the technical information on the Arctic, presently available, is rather overwhelming. Abstracts of studies and papers dealing with technical subjects have been collected by the Arctic Institute of North America. The abstracts alone fill fifteen thick volumes. It is not intended that the present study should contribute new technical information to this store.

The theme of the present study, it was agreed, should be "how man's activities, present and foreseen, are determined by and will affect the environment of the Arctic Basin, and what decisions might be taken to maximize the benefits to man and to harmonize the various interests in the uses of Arctic ocean space."

Some participants stressed the importance of considering climate and climatic changes, whether intentional or unintentional, man-made or natural, in this context. A change of temperature of only a few degrees, e.g., might affect the ecology and economy of the entire northern hemisphere or even the entire globe. This consideration quite naturally led to an attempt at analyzing the complex interaction between local, regional, and global responsibilities, between the unique and the universal, and it is in this problematique, it was felt, that the project could make a useful contribution to the work of the Law of the Sea Conference.

The Arctic Basin, more than most enclosed or semi-enclosed seas, has the characteristics of an inland sea. The surrounding countries have a unique relationship and the responsibility for maintaining the integrity of the region, while balancing and reconciling global and regional interests in a system which, conceivably, could delegate administrative responsibilities to coastal states while determining standards and principles on a global basis.

The regional integrity of the Arctic Basin, it was observed, may be in a process of erosion, due both to man-made and natural causes. A diminution of the ice masses might open up what is now closed to outside penetration. The economic penetration of the Arctic region, based on rapidly developing new technologies, is apt profoundly to affect the region, its developed and undeveloped populations, and its interaction with the rest of the world. Even disregarding the possibility of climatic changes, traffic patterns in the Arctic are changing. Air and submarine traffic has begun to intensify connections within the region and between the region and outside. And areas of modified climate, encapsuled in geodesic domes, may alter habitats and habits.

Yet nobody knows the consequences of oil spills in the arctic climate, nor the implications, for the region and the world, of massive engineering projects, such as sea dams and river diversions as have been proposed and, in some cases, prudently postponed.

An Arctic Basin Council, one participant suggested, might be an appropriate organ to deal with problems of this kind and provide a link between local interests and a global ocean regime.

Flexible interaction between unique and global, as well as between short-range and longer range considerations, between continuity and change, must be built into the law of the sea that is to emerge from the Law of the Sea Conference. The Arctic case study, in this perspective, may be a useful contribution.

The project will be divided into seven major studies or groups of studies, which are outlined in appendix 2.

The background paper, synthesizing the Arctic Institute's recent publication Arctic Environment and Resources in the light of the particular requirements of this project, will be written by Lord Ritchie-Calder.

The study on Climate and Oceanography will be the responsibility of Professor Svenn Orvig, who will enlist at least one collaborator for the oceanographic aspect of the study.

The names of Edwin T. Haebele (Resources for the Future), Dr. Douglas Jones (formerly U.S. Government, Alaska Field Committee), Dr. Terence Armstrong (Scott Polar Research Institute) were suggested for the economic sector of the project.

The Arctic Institute of North America, in February of this year, conducted a workshop on Technological Advances, the results of which will be reworked, in suitable form, for inclusion in the present project.

The names of Dr. M. E. Britton and Dr. M. J. Dunbar were suggested were suggested in connection with the ecological aspects of the project.

A study on the Implications of Economic Development of the Arctic by the Coastal States for the Law of the Sea will be commissioned from each of the Arctic nations. A comparative analysis of these studies will be made for the conclusion of the project.

The study on legal implications and institutional frameworks will be directed by Elisabeth Mann Borgese and Ambassador Arvid Pardo.

Appendix 3 contains short biographical notes on the team leaders for the research. Appendix 4 proposes a time table for the development and conclusion of the project; and appendix 5 presents the budget.

Finally, the members of the Planning Session established a working party, consisting of E.M.Borgese, Lord Ritchie-Calder, Brigadier H. W. Love, and Mr. Andreas Ronhovde, with Ambassador Pardo as consultant.

Appendix 1

List of Participants at Planning Session

Montreal, February 5, 6, 1973

Elisabeth Mann BORGESSE  
Center for the Study of Democratic Institutions  
Santa Barbara, California

Jean BRAIN  
The Arctic Institute of North America  
Ottawa, Canada

Professor Silviu BRUCAN  
Department of Sociology  
University of Bucharest  
Bucharest, Romania

Mr. Maxwell BRUCE  
Commerce Court West  
Toronto, Canada

Mr. Maxwell COHEN  
Faculty of Law  
McGill University  
Montreal, Canada

Dr. Peter DOHRN  
Zoological Station  
Naples, Italy

Professor King GORDON  
Ottawa University  
Ottawa, Canada

Dr. Sidney HOLT  
International Ocean Institute  
Royal University of Malta  
Msida, Malta

Dr. David KRIEGER  
Center for the Study of Democratic Institutions  
Santa Barbara, California

Brigadier H. W. LOVE  
The Arctic Institute of North America  
Ottawa, Canada

Mrs. Frances B. McALLISTER  
Flagstaff, Arizona, U.S.A.

Appendix 1  
(continued)

Jean MULLER  
Center for the Study of Democratic Institutions  
Santa Barbara, California

Professor Svenn ORVIG  
Arctic Institute of North America  
Ottawa, Canada

Dr. N. K. PANIKKAR  
Oceanographic Institute  
Goa, India

Ambassador Arvid PARDO  
Woodrow Wilson International Center for Scholars  
Smithsonian Institution  
Washington, D.C.

Lord RITCHIE-CALDER  
Center for the Study of Democratic Institutions  
Santa Barbara, California

Mr. Andreas RONHOVDE  
Arctic Institute of North America  
Washington, D.C.

Dr. Warren WOOSTER  
Scripps Institution of Oceanography  
La Jolla, California

Appendix 2

I. Theme.

How man's activities, present and foreseen, are determined by and will affect the environment of the Arctic Basin, and what decisions might be taken to maximize the benefits to man, and to harmonize the various interests in the uses of Arctic Ocean space.

II. Papers.

A. Background. Basic data.

B. Climate and Oceanography.

1. Characteristics of possible natural change.
2. Effects of increased activity in terms of man-induced change, whether accidental or deliberate (e.g., major water diversions).
3. Water mass movement.

C. Technological Advances (to the year 2000).

1. Offshore oil and mineral exploration and exploitation.
2. Transportation in all forms.
3. Sea dams, river diversions and other types of massive engineering projects.
4. Habitats.

D. Character and Projected Scale of Economic Activities (to the year 2000).

E. Ecological Consequences.

F. The Implications of Economic Development of the Arctic by the Coastal States, for the Law of the Sea.

1. Regional and global impact of local activity.
2. Interaction between local, regional, and global activity.

G. Preferred Institutional Frameworks, including Scientific Cooperation, Technical Services, etc.

Appendix 3

Biographical Notes on Research Team Leaders

Dr. Terence ARMSTRONG is Professor of Geography at Scott Polar Institute, Cambridge, England, and a member of the Editorial Committee for The Polar Record. His area of special attention is the Soviet Arctic on which he has written extensively. He has also been a Visiting Professor at the University of Alaska.

Elisabeth Mann BORGESE is a Senior Fellow at the Center for the Study of Democratic Institutions at Santa Barbara, California and Chairman of the Planning Council of the International Ocean Institute in Malta. She is the author of "The Ocean Regime, a Suggested Statute for the Peaceful Uses of the High Seas and the Sea-Bed Beyond the Limits of National Jurisdiction," and other essays which have appeared in The Center Magazine, Vista, and Saturday Review. She is editor of Pacem in Maribus, recently published by Dodd, Mead, New York.

Dr. M. E. BRITTON was for 15 years a member of the Northwestern University faculty with a special interest in plant sciences. He conducted research in northern Alaska out of the Arctic Research Laboratory, the Point Barrow installation of the U.S. Office of Naval Research. From 1954 to 1970 he was the ONR Washington Office Director of its arctic research and recently has been Program Director and staff ecologist of the new Arctic Development and Environment Program at the Arctic Institute

Dr. M. J. DUNBAR of the Marine Sciences Directorate, Atlantic Oceanographic Laboratory, Bedford Institute of Oceanography in Dartmouth, Nova Scotia, was formerly Chairman of the Marine Sciences Centre at McGill University in Montreal. He was Scientist-in-Charge and Director of the Eastern Arctic Investigations of the Fisheries Research Board of Canada from 1947 to 1955. He is a Fellow of the Royal Society of Canada, the American Association for the Advancement of Science, the Arctic Institute of North America, and the Royal Geographical Society. Arctic expeditions include West Greenland, Alaska, Baffin Island, Ungava Bay, Hudson Bay. He has published numerous articles on arctic marine biology and oceanography.

Edwin T. HAEFELE is Senior Research Associate for Resources for the Future, Inc., Washington, D.C. He was formerly Director of the Transportation Center Program at Northwestern University and Senior Staff of the Brookings Institution Transport Research Program in Washington, D.C. His recent publications related to transportation include



Appendix 3  
(continued)

"The Feasibility of User Charges in Northern Transport," in Proceedings, 1970 Arctic Transportation Conference, Yellowknife, NWT, 1971, and "Environmental Quality as a Problem of Social Choice," in Environmental Quality Analysis: Studies in the Social Sciences published by Johns Hopkins Press, 1972.

Dr. Douglas H. JONES is an economist at the Arctic Institute of North America for the Arctic Marine Commerce Project. He was an Associate Professor of Economics for the U.S. Air Force Academy from 1960 to 1965 and Chief Economist and Research Director for the Federal Field Committee for Development Planning in Alaska from 1965 to 1968. He was a Special Assistant to the Secretary of Commerce for Regional Economic Coordination and Economist and Legislative Assistant to U.S. Senator Mike Gravel (Alaska) before joining the Arctic Institute in Washington.

Dr. Svenn ORVIG is Professor of Meteorology at McGill University in Montreal. He was a glacial meteorologist on the Baffin Island Expeditions of the Arctic Institute of North America and involved in the administration of McGill University's Sub-Arctic Research Laboratory at Knob Lake. He is in charge of arctic meteorological research in the Department of Meteorology at McGill and was Adviser to the McGill-Jacobsen Expedition to Axel Heiberg Island from 1960 to 1964. He is the author of several articles on polar meteorology and editor of the book, The Climate of the Polar Regions.

Dr. Arvid PARDO, Ambassador for Ocean Affairs to the United Nations for the Government of Malta, is Coordinator of the Ocean Studies Programs at the Woodrow Wilson International Center for Scholars in Washington, D.C. He is responsible for raising the question of an ocean regime in the United Nations in 1967 and is the author of the Malta Draft Ocean Space Treaty currently under consideration at the United Nations.

Lord RITCHIE-CALDER is a Senior Fellow at the Center for the Study of Democratic Institutions in Santa Barbara. Formerly Professor of International Relations at the University of Edinburgh, he holds the Kalinga Prize for the promotion of common understanding of science and the Victor Gollancz Award for services to humanity. He has headed special U.N. missions to see how science and technology can be used in the interests of developing countries and is a consultant to the U.N. on science and technology. His books include Men Against the Frozen North, After the Seventh Day, Man and the Cosmos.

Appendix 4

I. Procedure.

- A. Paper 1 . . . . . Required earliest for information of all concerned.
- B. Papers 2 & 3 . . . . . Also required as soon as possible.
- C. Papers 4 & 5 . . . . . Necessarily follow Papers 1, 2, & 3 but initial drafting need not wait final edited versions of Papers 1, 2, and 3.
- D. Paper(s) 6 . . . . . To develop from Papers 4 & 5 but initial drafting probably can start before Papers 4 & 5 are completed.
- E. Paper(s) 7 . . . . . To develop from Paper 6.

II. Time Schedule.

- A. Prior to summer 1973: Working Party to meet.  
Papers 1, 2 & 3 commissioned.  
Trip of two members of Working party to Soviet Union
- B. Autumn of 1973: Papers 1, 2, and 3 completed.  
Papers 4 & 5 in preparation.
- C. January, 1974: Conference - Technology, economic, ecological.
- D. Summer, 1974: Pacem in Maribus V. Legal implications; institutional frameworks.

Appendix 5

Budget

I.	<u>Research.</u>	
	A. Background paper . . . . .	\$ 2,000.00
	B. 12 technical studies @ \$500 . . . . .	6,000.00
II.	<u>Planning Conference.</u>	
	A. IOI	
	1. Travel . . . . .	2,416.52
	2. Accommodations . . . . .	1,450.00
	B. AINA	
	1. Travel . . . . .	125.00
	2. Accommodations . . . . .	180.00
III.	<u>Three Meetings of Working Party in Santa Barbara, Washington and Montreal.</u>	
	A. Travel . . . . .	2,800.00
	B. Accommodations . . . . .	550.00
IV.	<u>Trip to Soviet Union, two members of Working Party.</u> . . . . .	3,000.00
V.	<u>Conference, January, 1974.</u> 40 participants, place to be determined	
	A. Travel . . . . .	24,000.00
	B. Accommodations . . . . .	6,000.00
	C. Conference expenses . . . . .	1,000.00
VI.	<u>Participation of Leaders of Research Team in Pacem in Maribus V, Malta, 1974.</u> . . . . .	5,000.00
VII.	<u>Clerical and Editorial Assistance.</u> . . . . .	4,000.00
VIII.	<u>Printing and Publication.</u> . . . . .	<u>6,000.00</u>
	TOTAL	\$64,521.52
	OVERHEAD @ 15%	<u>9,678.23</u>
	GRAND TOTAL	\$74,199.75

(Total grant to be divided in equal parts to be administered by the Arctic Institute of North America and the International Ocean Institute respectively.)