



Dalhousie University

International Ocean
Institute



I.O.I. - Malta

PLAN FOR PUBLICATION OF THREE TEXTBOOKS ON
THE IMPLEMENTATION AND PROGRESSIVE DEVELOPMENT
OF THE LAW OF THE SEA

1. During 1985, 1987, and 1988, the International Ocean Institute organised three major international conferences, Pacem in Maribus XIV, XV, and XVI, in the USSR, in Malta, and in Canada, respectively. Due to the rapid expansion of IOI activities, which resulted in a shortage of staff, the proceedings of the conferences have not yet been edited for publication. We are now ready to undertake this work which will result in three rich volumes of about 500-600 pages each, consisting of papers written by world authorities in their respective field.

2. The market for the books would be:

- (a) libraries; worldwide
- (b) Government departments, worldwide
- (c) Schools, technical institutions where the books could be used as texts
- (d) United Nations institutions
- (e) interested individuals

a sale of about 3,000 copies would seem assured.

3. The over-all structure of the books will be as follows:

General Title: THE IMPLEMENTATION AND PROGRESSIVE DEVELOPMENT OF THE
LAW OF THE SEA

Volume 1: SHIPPING AND NAVIGATION
Technological, Economic, Environmental,
and Legal Aspects

Contents INTRODUCTION

Chapter 1: Maritime Transport in the Present World Economic
Development

Chapter 2: The Significance of the U.N. Convention on the
Law of the Sea, 1982, for international shipping
in the interest of strengthening peace and
cooperation

Chapter 3: International Organisations and Shipping

Chapter 4: Future trends

Chapter 5: Economic Aspects of Shipping

Chapter 6: Protection and Preservation of the Marine
Environment in Relation to Shipping

Chapter 7: The Convention on a Code of Conduct for Liner
Conferences

Chapter 8: Flags of Convenience and the U.N. Conference on
Open Registry

Chapter 9: International Law Aspects of Shipping

Chapter 10: Civil Law Aspects of Shipping

Chapter 11: Multimodal Systems and their Impact on Developing
Countries

Chapter 12: Containerisation in sea-borne Trade. Introduction

of Progressive Freight Handling and Transporting
Systems and the Impact on Developing Countries.

Chapter 13: Safety at Sea and the Protection of Human Lives.
Rescue and Rendering Assistance at Sea

CONCLUSIONS AND RECOMMENDATIONS OF THE XIV INTERNATIONAL
CONFERENCE "PACEM IN MARIBUS", USSR, May 27 = June 5, 1985.

Editor: Mr. Thomas Busha, IMO, Rt.

Volume II: THE U.N. CONVENTION ON THE LAW OF THE SEA IN PERSPECTIVE
AND DEVELOPMENT

Contents

INTRODUCTION

Chapter 1: The U.N. Convention on the Law of the Sea in
Perspective and Development

Chapter 2: The Impact of the New Law of the Sea on National
Legislation, Institutions, Policy, and Economic
Development

Chapter 3: The New Law of the Sea and International
Institutions

Chapter 4: The impact of the Convention on Regional
Cooperation and Development

Chapter 5: The Impact of the Convention on
Scientific/Industrial Cooperation

Chapter 6: Reservation for Peaceful Purposes

Chapter 7: The Common Heritage of Mankind: Shrinking or
Expanding?

Chapter 8: The Future of Antarctica

CONCLUSIONS AND RECOMMENDATIONS

EDITOR: Dr. Aldo Chircop

A list of available papers is attached.

Volume 3: TECHNOLOGY DEVELOPMENT, TRANSFER, AND TRAINING

Contents;

INTRODUCTION

Chapter 1: MARINE TECHNOLOGY

Fisheries and Aquaculture Technology
The exploration and exploitation of
nonliving resources
Transportation & communication technology
Information and Data Handling Technology

Chapter 2: QUESTIONS FOR THE FUTURE

Chapter 3: TRANSFER OF TECHNOLOGY

Private Sector
Public Sector
Co-development of Technology: Emerging Patterns
Co-development of Technology: Future Patterns

Chapter 4: THE DEVELOPMENT OF HUMAN RESOURCES

Substantive Aspects
Organisational Aspects

CONCLUSIONS AND RECOMMENDATIONS

A list of all available papers is attached

Editor: Norton S. Ginsburg

4. Marketing:

The IOI would be ready to purchase a certain number of copies for distribution in developing countries. This would guarantee publication costs.

PANEL 9: CO-DEVELOPMENT OF TECHNOLOGY
FUTURE PATTERNS

The Principle of Joint Development	Elisabeth Mann Borgese, Canada
The Colombian Proposal	Alphonso Lopez-Reina, Colombia
An Introduction to the Feasibility Study on the Mediterranean Centre for R&D in Marine Industrial Technology	K. Saigal, India

PANELS 10&11: THE DEVELOPMENT OF HUMAN RESOURCES

The Future of Education	Denis Stair, Canada
The world Maritime University	Günther Zade, WMU
The International Ocean Institute	S.P. Jagota, India C.F. Vanderbilt, IOI The Participants, Class B88
The China Experience	John Vandermeulen, Canada
Training in Ocean Engineering	C.S. Mason, ECOR, Canada

CONCLUDING REMARKS

Alexander King, President, CI
of Rome
Layachi Yaker, Algeria,
President, IOI

CLOSING OF CONFERENCE

MoniqueM Landry, Minister for
External Relations & Inter
national Development, Cana

CONFERENCE AGENDA

LIST OF PARTICIPANTS



International Ocean Institute

P.O. Box 524
VALLETTA, MALTA

Telephone: 226596
Cables: INTEROCEAN
Telex: 1946 OCEANS MW

Vol. 1:

Message from the Council of Ministers of the USSR to the Participants of PIM XIV

Message from the Secretary-General of the UN to PIM XIV

Greetings to the Convocation by the Secretary General of the International Maritime Organization (IMO), MR. C.P. Srivastava

Statement of Mr. H. Mattos de Lemos, Deputy Assistant Executive Director, Office of the Environment Programme, United Nations Environment Programme (UNEP)

Address of Greeting by Dr. Tunay Akoglu, Representative of the Secretariat of the United Nations Economic Commission for Western Asia

Statement by Mr. R. Vogel, Officer-in-Charge, Shipping Division, United Nations Conference on Trade and Development (UNCTAD)

Greetings to the Convocation by Mr. M. Fielder, Chief, Shipping Policy Main Department, Ministry of Transport, United Kingdom

Greetings to the Convocation by Professor William E. Butler, University College, London

Greetings to the Convocation by Mrs. Maivân Lâm, Assistant Director, The Law of the Sea Institute, Hawaii, USA

V.I. Tikhonov, First Deputy Minister of Merchant Marine, USSR, "For Peace and Cooperation on Seas and Oceans"

TOPIC 1

MARITIME TRANSPORT IN THE PRESENT WORLD ECONOMIC DEVELOPMENT

I.M. Averin, "Maritime Transport at the Present Stage of the World Economy"

T. Busha, "The IMO Conventions: a Standard-Setting Process"

I.M. Moguilevkin, "Superproblems of Modern Shipping: Practical and Theoretical Approaches"

TOPIC 2

THE SIGNIFICANCE OF THE UN CONVENTION ON THE LAW OF THE SEA, 1982, FOR INTERNATIONAL SHIPPING IN THE INTEREST OF STRENGTHENING PEACE AND FRUITFUL COOPERATION

E. Gold, "Ocean Shipping and the New Law of the Sea: Towards a More Regulatory Regime"

D. Mazilu, "Peaceful Uses of the Sea and Modern Maritime Transport"

S.V. Molodtsov, "Exclusive Economic Zone: Legal Status and Regime of Navigation"

R. Platzöder, "Innocent Passage Regime Development: Analytical Study of the Geneva Convention on the Territorial Sea and Contiguous Zone, 1958, and the Provisions Concerned of the UN Convention on the Law of the Sea, 1982"

TOPIC 3

INTERNATIONAL ORGANISATIONS AND SHIPPING

G. Zade, "International Organisations and Shipping"

Yu.S. Asterov, "INMARSAT and the COSPAS-SARSAT Systems"

A.A. Kovalev, "The United Nations Economic Commission for Africa's Activity in the Field of Shipping"

W.D. von Noorden, "INMARSAT: In the Service of Peaceful Communications at Sea"

V.V. Serebryakov, and L.A. Vtorygin, "The Activities of the International Organisations in Merchant Shipping"

TOPIC 4

HISTORY AND TRENDS IN INTERNATIONAL SHIPPING

T.P. Grevtsova, "Commercial Problems Drawn from the History of the Law of the Sea Unification (Commercial Problems)"

A.A. Kort and A.A. Lebedinskas, "Trends and Development Prospects of Seaborne Trade and International shipping"

A.D. Couper, "Future International Maritime Transport Developments and the Law of the Sea"

A.L. Makovsky, "International Treaty Unification of Maritime Law: Some Trends and Perspectives"

TOPIC 5

ECONOMIC ASPECTS OF SHIPPING

K-H. Breitzmann, "Transnational Corporations and Bulk Fleets of Developing Countries"

E.S. Bregman, and A.A. Tkachenko, "Freight Market and Developing Countries"

V.P. Gruzinov, "Shipping: Economic Aspects"

C. Mitchell, "Seaborne Trade in Regional Development: The Case of the Commonwealth Caribbean"

P.J. Slot, "EEC Shipping Policy"

V.P. Topalov, and V.Ye. Stetsyuk, "Some Problems Relating to Quality Increase of Transport Services"

V.P. Fyodorov, "The Role of Insurance in the Activities of the Soviet Merchant Fleet"

TOPIC 6

PROTECTION AND PRESERVATION OF THE MARINE ENVIRONMENT IN RELATION TO SHIPPING

I.I. Bergholtsas, "Exaction of Damage and Losses Owing to Marine Environment and Coastal Territory Pollution by Crude Oil Spilled During Naval Disasters and Incidents"

M. Bruce, "The London Dumping Convention, 1972: First Decade and Future"

E. Gold, "Presentation of the Hellenic Marine Environment Protection Association (HELMPEPA)"

S.P. Golovaty, "Cooperation in Combating Marine Pollution in Cases of Emergency and International Law"

M.I. Drel, "Some Problems of Enforcement of International Rules and Standards on Prevention of Pollution from Vessels in the 1982 United Nations Convention on the Law of the Sea"

A.G. Kalpin, "On Liability for Damage in Carriage of Dangerous Goods and Oil by Sea (Results of the 1984 International Conference on Liability and Compensation for Damage in Connection with the Carriage of Some Substances by Sea)"

V.A. Kisselev, and P.V. Savas'kov, "United Nations Convention on the Law of the Sea (1982): Protection of the Marine Environment and International Navigation"

K.S. Nweihed, "The International Maritime Organization (IMO and Venezuela) The Problems of Maritime Development in an Oil-Exporting Developing Country as Reflected in the Adaption of its Legal and Administrative Organs to the Standards and Requirement of IMO"

S.M. Nunuparov, "Marine Environment Problems and Shipping"

V.S. Sakvarelidze, R.M. Levina, and D.I. Oshmarin, "Marine Pollution Prevention While Operating Maritime Transport"

L.V. Speranskaya, "The Principles of Marine Environmental Protection and Freedom of Navigation in International Law and Their Relationship"

N.G. Shcherbina, "Regional Trends in Marine Environmental Protection"

TOPIC 7

THE CONVENTION ON A CODE OF CONDUCT FOR LINER CONFERENCES

C.R. Mahalu, "The Implications of the United Nations Convention on the Code of Conduct for Liner Conferences for the Eastern African States"

M.N. Leborgmo, "Liner conferences and Just Regulation of Competition in merchant Shipping"

P.J. Slot, "The Code of Conduct for Liner Conferences: Some Important Issues in the Present Implementation"

M.S. Khanin, "The International Liner Conference System and the Convention on a Code of Conduct for Liner Conferences"

K.O. Tuchapsky, "Some Problems of Fulfilment by States of Obligations Under the Convention on a Code of Conduct for Liner Conferences"

TOPIC 8

FLAGS OF CONVENIENCE AND THE UNITED NATIONS CONFERENCE ON OPEN REGISTRY

R. Vogel, "The Open Registry Issue"

M.Je. Volosov, and G.S. Eguiyan, "Nationality of Marine Merchant Ships: Solution Through Convention"

R.A. Vargas, "Panamanian Laws and the Problem of Convenience Flags in Contemporary International Law"

M. Fielder, "United Nations Conference on Conditions on Registration of Ships"

TOPIC 9

INTERNATIONAL LAW ASPECTS OF SHIPPING

P.D. Barabolya, "Changes in the Juridical Status of the Sea and Their Influence on Shipping"

V.I. Andrianov, "Freedom of Navigation on the United Nations Convention on the Law of the Sea"

R.V. Dekanozov, "Some Problems of Legal Classification of Sea Areas and International Navigation"

V.F. Tsarev, "The Juridical Nature of the Exclusive Economic Zone and the Legal Regime of Navigation of Foreign Vessels Therein"

G. Haffner, "Land-Locked States and International Law Aspects of Shipping"

N.D. Karolyova, "Several Aspects of the Right of Hot Pursuit in the United Nations Convention on the Law of the Sea"

T.S.S. Rao, "New Developments in Research Ships and Their Use Under the New Law of the Sea"

T.I. Spivakova, "On the Navigation of Fishing Vessels in the Economic (Fisheries) Zones"

Y. Jakoba, "The Regime of Merchant Ships in Foreign Maritime Ports in the Light of Contemporary International Law"

D. MacDonald, "Legal Regime of Ships in Foreign Ports: Immunity of Soviet Vessels from Pre-Judgement Arrest or Attachment in United States Ports: the Changing Law"

TOPIC 10

CIVIC LAW ASPECTS OF SHIPPING

H.R. Williamson, "International Maritime Arbitration: Dispute Settlement Without Recourse to the Courts"

J.M. Lassez, "Sovereign Immunity"

V.G. Platov, "General Average in Marine and Inland Shipping"

E.V. Ryabova, "Legal Regulation of a Sea Cruise"

V.S. Petukhov, and G.P. Pilipenko, "The Passenger Fleet and Peace on the Sea"

TOPIC 11

MULTIMODAL SYSTEMS AND THEIR IMPACT ON DEVELOPING COUNTRIES

V.G. Kolesnikov, and Z.V. Plakhov, "Construction and Utilization of Intermodal Rail-cum-Sea Transportation Systems to Transport Cargoes Between the Countries of the South-East Asia and Western Europe"

V.S. Goryainov, "Multimodal Transportation: Some Aspects"

R. Vogel, "Multimodal Transport: Impact on Developing Countries"

G.A. Levikov, "Problems of Developing Model Tariff Rules for Multimodal Transport of Containers"

TOPIC 12

CONTAINERIZATION IN SEA-BORNE TRADE. INTRODUCTION OF PROGRESSIVE FREIGHT HANDLING AND TRANSPORTING SYSTEMS AND THE IMPACT ON DEVELOPING COUNTRIES

V.A. Yatsenko, "Sea Port Industrial Zone Development"

TOPIC 13

SAFETY AT SEA AND THE PROTECTION OF HUMAN LIVES. RESCUE AND RENDERING ASSISTANCE AT SEA

T.B. Vandanov, "International Law Rules Concerning the Protection of Human Life at Sea"

H. Jamos, "Health Care in the Maritime Environment"

K.A. Bekyashev, and T.D. Rozina, "International Law Problems Related to the Safety of Commercial Harvesting on the High Seas"

A.N. Vylegzhanin, "Traffic Separation Systems (Schemes): Some International Law Problems"

M. Valenzuela, "Conventions on Maritime Safety, with Particular Reference to SOLAS, as Amended"

CONCLUSIONS AND RECOMMENDATION OF THE XIV INTERNATIONAL CONFERENCE
"PACEM IN MARIBUS", USSR, 27 MAY-5 JUNE, 1985



International Ocean Institute

P.O. Box 524 Valletta - Malta

Cables: Interocean

Vol. 2

FRAMEWORK FOR VOLUME II OF PROCEEDINGS OF PACEM IN MARIBUS
XV

PROJECT I

THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA IN
PERSPECTIVE AND DEVELOPMENT

1. S.P. Jagota, "The United Nations Convention on the Law of the Sea in Perspective and Development," pp. 61
2. N.S. Koroleva, "Legal Exemptions from the Principle of the Exclusive Jurisdiction of the Flag State in the High Seas," pp. 14.
3. G.G. Shinkaretsaya, "Legal Order in the World Ocean and Peaceful Settlement of International Disputes," pp. 22.
4. A. Kolodkin, V. Andrianov, V. Kisilev, "The Legal Implications of Participation or Nonparticipation in the UNCLOS," pp. 8.
5. Jens Evenson, "Working Methods and Procedures of the Third United Nations Conference on the Law of the Sea," pp.
6. Arvid Pardo, "The UN Convention on the Law of the Sea in Perspective and Development," pp.

PROJECT II

THE IMPACT OF THE NEW LAW OF THE SEA ON NATIONAL
LEGISLATION, INSTITUTIONS AND POLICY AND ECONOMIC
DEVELOPMENT

7. D.J. Attard, "Some Legal Aspects of the Impact of the EEZ on National Legislation," pp. 12.
8. V.F. Tsarev, "National Legislation on the Regime of International Navigation in 200-Mile Economic Zones," pp. 31
9. Hellenic Republic, Ministry of Foreign Affairs, "Summary

of Shelf Delimitation Agreements," pp. 5.

10. Ana Luiza Cortez, "Exclusive Economic Zones and Economic Development," pp. 14.

11. Anton Vratusa, "Focal Points: Experience of the International Centre for Public enterprises in Developing Countries," pp. 15.

PROJECT III

THE NEW LAW OF THE SEA AND INTERNATIONAL INSTITUTIONS

12. Naylor, FAO

13. Busha (to be taken from tape)

14. Ruivo, (to be taken from tape)

15. Brown, (to be taken from tape)

16. E. Ganjushkina, "Inmarsat and Cospas-Sarsat Satellite systems on Guard of Savety of Life at Sea," pp.9

17. Lee A. Kimball, "Nongovernmental Organisations," pp. 24.

PROJECT IV

THE IMPACT OF THE CONVENTION ON REGIONAL COOPERATION AND DEVELOPMENT

18. Joseph Morgan, "Marine Regions: Myth or Reality," pp 19.

19. Aldo E. Chircop, "Participation in Marine Regionalism: an Appraisal in a Mediterranean Context," pp. 26.

20. Noel Brown (to be taken from tape)

21. Satya Nandan (to be taken from tape)

22. John Donihee, David Vanderzwaag, Mads Faegteborg,
"Towards Regional Ocean Management in the Arctic: From Icy
Co-existence to the Floes of Co-operation," pp. 61.
PROJECT V

THE IMPACT OF THE CONVENTION ON SCIENTIFIC/INDUSTRIAL
COOPERATION

23. Anthony Bromley, "Marine Technology" (to be taken from
tape.

24. Krishan Saigal, "Marine Technology in the context of
High Technology," (he will write it up)

25. Georges Léger, "Prometheus^S Revisited: Industrial
Cooperation for Offshore Petroleum Development in the
Non-Opec Third World," pp.

26. Uwe Jenisch, "Geomar," pp.

27. Elisabeth Mann Borgese, "Report on the Possibility of
Establishing Regional Centers for Research and Development
in Marine Industrial Technology," pp 11.

PROJECT VI

RESERVATION FOR PEACEFUL PURPOSES

28. F.W. Crickard, H.R. Williamson, and P.G. Boyer, "A
Background Brief on Technology and Maritime Strategy,"
pp.23.

29. Nancy E. Wright, "Peacekeeping in the Maritime
Environment: Questions and Prospects," pp.13.

30. Boleslav Adam Boczek, "The Peaceful Purposes Reservation
of the United Nations Convention on the Law of the Sea," pp.
67.

31. V.F. Tsarev and N.D. Koroleva, "Contents and the

Mechanism of Action of the Principle of Peaceful Uses of the Seas as Stated in the 1982 U.N. Convention on the Law of the Sea and Certain Problems of Navigation," pp. 16.

32. Gerd Leiphold, "Denuclearized Zones "(to be taken from tape)

33. Michael McGuire, "The End of Mutual Deterrence: Structuring the Future," (to be taken from tape)

PROJECT VII

THE COMMON HERITAGE OF MANKIND: SHRINKING OR EXPANDING?

34. Anatoly Kolodkin, "The Common Heritage of Mankind in International Law," pp. 17.

35. Nicolas M. Matte, "The Common Heritage of Mankind and Outer Space," pp. 38.

36. Elisabeth Mann Borgese, "Some Preliminary Thoughts on a World Space Organisation, pp. 60

37. Peter Serracino Inglott, "The Common Heritage and the Rights of Future Generations (to be taken from tape.)

PROJECT VII (BIS)

ANTARCTICA

38. Maxwell Bruce, "The Future of Antarctica," pp. 9.

39. Abdul G. Koroma, "Perspective of Non-Parties to the Antarctic Treaty, pp 9.

40. Sudhir K. Chopra, "Antarctica - Political Crisis vs. Environmental Problems: Rethinking the Problems and Prospects," pp.11.

41. Sidney Holt, "Antarctica and the Living Resources of the Southern Ocean," pp. 48.

42. Christopher C. Joffe, "The Antarctic as a Zone of Peace," pp.26.

UNCLOS in Perspective & Development

Ambassador Jose Luis Torales ✓

Vol. III

INTRODUCTION

John Vandermeulen, Canada,
Conference Co-Ordinator

MESSAGE

Federico Major,
Director-General, UNESCO

MESSAGE

Satya Nandan, Special Re-
Representative of the
Secretary-General,
United Nations

INAUGURAL ADDRESS

THE Hon. Tom Siddon,
Minister, Fisheries &
Oceans, Canada

CONCLUSIONS AND RECOMMENDATIONS

PANEL 1: FISHING TECHNOLOGY

Fishing Technology

J. Fitzpatrick, Chief,
Fishing Technology Service,
FAO

Aquaculture in the Maritimes

S. Scott Coffen, Canada

Strategies to Develop Aquaculture

Li Si-Fa,, PR of China

Marine Fisheries in China

Zhou Ying qi, PR of China

Panel 2: Technology Development: Nonliving Resources

Some thoughts on the development
and management of offshore
technology

Anil K. Malhotra, World Bank

Promoting an International R&D
co-operative effort in OTEC
applications

Michel Gauthier, IFREMER

Importation of Technology: Policy implications for the developing countries

Hira L. Kaul India

Deep Sea Minerals Exploration and exploitation

S.Z. Qasim, Secretary, Dept. of Ocean Development, India

Exploitation of Polymetallic Nodules: Availability of Technology. Economic Feasibility

Jan Magne Markussen, Fridtjof Nansen Institute, Norway

Marine High-Technology Development & Management in Japan and International Cooperation

Kazuo Sumi, Japan

The Japanese Manganese Nodule Mining System

Metal Mining Agency of Japan

Ocean energy: Prospects of Multifunctional wave energy systems for small-scale applications

V.S. Raju, IIT, India

Ocean Structures: New Possibilities for Industrial Development

Ascensio C. Lara, UNIDO

Ocean Technologies Development & Pollution Prevention in Regional Conventions on the Protection of the Marine Environment

Marina Drel, USSR

PANEL 3: TRANSPORT

Shipping and Maritime Technology: Information Document submitted by

IMO Secretariat

Further Opportunities for East-West
Cooperation in the Field of Mari-
time transport

Boris A. Volkov, USSR

Modern Communications for the Modern
Mariner

John Davidson, INMARSAT

Shipping Technologies in Europe

D. Mitratsos, Greece

The Port of Rotterdam

Jan van Ettinger, Netherlands

PANEL 4: INFORMATION, DATA HANDLING

Information Technologies and their
Application to Data Management

Martha B. Stone, IDRC, Canada

A Concept for Ocean Data Management
Systems of the Future

J.R. Wilson, Dept. Fisheries
& Oceans, Canada

Marine Science Libraries: Active
Partners in the Information
Transfer Continuum

C. Boyle, Dept. fisheries
& Oceans, Canada

Information Management

Geoffrey Watson, ICOD
Canada

PANEL 5: QUESTIONS FOR THE FUTURE

Technology for Development

Margaret Catley-Carlson,
CIDA, Canada

The Wealth of the Oceans and their
Resources: The Economics of the
Common Heritage

Orio Giarini, Italy

Marine Environmental Impacts of
Industrial and Technological
Developments

Velimir Pravdic, Yugoslavia

Optimising Science/Industry Re- lations as a Contribution to Development	J.G. Richardson, UNESCO
Data Accumulation, Non-linear Dy- namics, and Uncertainty	B. Loncarevic, BIO, Canada
PANEL 6: TRANSFER OF TECHNOLOGY	
Marine Fisheries Technology Transfer: the Case of Western Africa	Vlad M. Kaczynski, University of Washington, USA
EUROMAR Opportunities: the Italian Approach	V. Barale, and V. Damiani, ENEA, Italy
Technology Transfer and Joint Ventures	Choon-Ho Park, South Korea
PANELS 7&8: TRANSFER OF TECHNOLOGY, cont'd	
Legal Aspects of North/South Transfer of Marine Technology	M.C.W. Pinto, Sri Lanka
Acquisition and Development of Techno- logy: the Indian Experience	Ashok Parthasarathi, Add. Secretary, Ministry of Science & Technology, Indi
Certain Political and Legal Aspects of International Transfer of Technology	Artemy A. Sagurian, Inst. of World Economy & Internatio Relations,, USSR
Some Conditions and Problems of Marine Technology Transfer: General Aspects	Raphael V. Vartanov, Inst. of World Economy & Internatio Relations, USSR

ANNEX 1



International Ocean Institute

P.O. Box 524
VALLETTA, MALTA

Telephone: 226596
Cables: INTEROCEAN
Telex: 1946 OCEANS MW

DISTANT LEARNING MATERIALS

The above title covers a large-scale media project, conceived by the National Film Board of Canada (Atlantic Studio) and the International Ocean Institute -- designed to make people more aware of the need for long-term international policies of good management of the earth's oceans and resources. The project should be carried out in close cooperation with the IOI Training Programme in Marine Resource Management and Conservation and utilise the materials and experience accumulated within that programme over the past nine years.

I. Content

The project breaks down into two main areas. What follows is a very brief synopsis of the aims and intended audience of each.

1. A long (90-120 minute) documentary film designed for world-wide TV distribution. We envisage this film being available in several different language versions. Based on the trilogy by Elisabeth Mann Borgese, The Drama of the Oceans; Seafarm; and The Mines of Neptune (New York: Harry Abrams, 1976, 1982, 1986) it could include such varied sequences as tectonic plate movements; the design and construction of the most advanced computerized fishing boats and gear; the collapse of commercial fisheries; the devastation of oyster beds by oil spills; the returning tide of garbage dumped by cities like Tokyo, New York, or Trieste; aquaculture practices in South East Asia and China; fresh-water fish farming in North America; the development of kelp farms and the extraction of valuable chemicals for commercial purposes; deep seabed mining; the military use of the submarine environment; futuristic visions of marine habitations (e.g., Tange; Perugini and Benedetti, Fuller; Solieri, Kikutake, etc.)

New energy production from the sea including tidal and thermal power; offshore fusion reactors; wave and current plants and the recovery of hydrogen. We would also explore the use of the oceans as diaposal grounds for nerve gas and nuclear wastes; the illegal transport of such toxic wastes to developing countries, as well as the interactions between oceans and atmosphere in determining the earth's climate and the possibilities and consequences of sea-level rises.

The above are just some of the areas that might be treated in the long film. There are many others, but all would be presented in as dramatic, poetic and stimulating a way as possible, since we are convinced that such a film could and should play an activist role in enlarging people's vision of our future usage of the planet. Sustainable development: development based on the conservation of the marine environment, would be the leitmotif of the film.

A great deal of existing footage could be utilised: for this film as well as for the films described below. A bibliography of such films is available at Dalhousie University.

2. A series of twelve teaching units (either film or video tape) that would explore many areas in much greater depth than was possible in the introductory unit, and be designed to form part of a larger package of instructional materials (books, pamphlets, still photographs, graphs, audio tapes, etc.) for use specifically in developing countries, more or less for the same target groups addressed by the IOI training programme (civil servants and teachers, age 25-35, who are likely to be the decision-makers of tomorrow so as to better inform them about the full implications of integrating the new Law of the Sea and ocean development into their national policies.

We would like to point out that Unit #12 (The Law of the Sea) has already been produced by the National Film Board and used successfully with such target audiences.

The units proposed can be summarized as follows:

1. Introduction to the Oceans.

This could be the above film - or a shortened version of the same.

2. The Marine Sciences

Scientific break-throughs since World War II - Technologies employed -- Economic implications of the new ocean sciences: Plate tectonics and the exploration for oil, minerals and metals -- the marine-biological foundation of the fishing industry -- meteorology and the forecasting of Tsunamies -- Satellite technology and navigational aids; information and communication technologies -- Ecology and coastal management -- instrumentation -- manpower training -- the management of marine-scientific projects -- International cooperation in marine scientific research.

This material could be produced in cooperation with the Open University. Their programme on oceanography can provide useful inputs. Also the Intergovernmental Oceanographic Commission (IOC) of UNESCO should be associated in a consultative capacity.

3. The Management of Living Resources

The role of fisheries in the national economy: food, employment; subsidiary industries; foreign exchange earnings; the structure of the industry. - Stock assessment: life history of harvestable species; reproduction, development and growth; concepts of recruitment and growth potential. Population structure and dynamics. Concepts of abundance, accessibility and vulnerability; fluctuations in these characteristics. - Inshore fisheries: boats: building and maintenance; gear; fish processing, storage and conservation;

transport; marketing. -- Offshore fisheries: Trawling; factory ships.

Licensing; joint ventures,. Monitoring, surveillance and enforcement. - The role of international organisations (FAO; Regional commissions, etc.) -

Migratory species: Salmon, Tuna, Eel.

4. The management of multi-species systems

The krill of the Southern Ocean -- interdependence with other species. Types of research required for the conservation of the whole eco-system. Technological aspects of harvesting and processing krill. Impact on world nutrition. Participation of developing countries.

The conservation and management of marine mammals. Biology and ecology. Marine mammal intelligence: Intra-species communication; learning in dolphins. - The history of whaling. the International Whaling Commission. Conservation and management.

This unit could be produced in cooperation with the International Union for the Conservation of Nature.

5. Aquaculture

Potential importance of transition from economy based on hunting and gathering to one based on cultivation of aquatic plants and husbanding aquatic animals.

Various stages of algae farming, from manipulation of environment to full control of reproductive cycle. Scenes from Japan, Philippines, North America. Genetic engineering of aquatic plants.

Technologies of fish farming: induced spawning; fish nutrition; fish veterinary medicine; fish behavioural studies.

Pond preparation; cage cultures; sea-ranching.

Hybridization and acclimatization; transplantation of species and ecosystems.

Case studies: molluscs; crustacians; finfish.

6. Offshore Oil and Gas

The geology of oil: Where future oil and gas will be found. Technological aspects of exploration, exploitation and refining.

The petro-chemical industries. - OPEC, the Multinationals. The petroleum market and the developing countries. Environmental impact of the oil industry. Social impact and coastal communities. The future of natural gas.

7. Mining Nearshore Minerals

Sediment distribution on the ocean floor. Placers and Aggregates. Worldwide distribution of placer mineral deposits: North America; Africa; South-East Asia; Australasia; North-west Europe. Zeolites, Barite, Feldspars; Phosphorites; continental shelves and lakes; exploration and exploitation technologies; economic aspects: the mineral market. Environmental impact.

8. Deep seabed mining

The metalliferous muds in the Red Sea. The mining of polymetallic nodules in the Pacific and Indian Oceans; polymetallic sulphides and cobalt crusts. Scientific aspects; technological aspects; economic aspects. International cooperation under the new Law of the Sea.

Excellent footage is available from the Red Sea Commission; Preussag AG; Dr. Alexander Malahoff,

Hawaii, etc.

9. Energy from the Oceans

Power generation from tidal energy: the Rance River Dam. Large projects and small-scale projects in China. Wave energy; ocean currents; Ocean Thermal Energy Conversion in Hawaii, Nauri, Sri Lanka; Power generation from salinity gradients (Scripps) Biomass (California)

Multipurposes applications of installations (Hawaii). Impact on development of small island states and small coastal communities. Environmental implications.

10. Shipping and Navigation

Quantitative and qualitative changes in the transportation of goods and passengers; cruise ships (USSR); tankers and containers. Multimodal systems of transport and their impact on land-transport systems. Noxious cargoes; ship-borne pollution and its regulation. Traffic control and navigational aids. The Europort in Rotterdam; the port of Singapore Ports and undedevelopment.

The economics of shipping: flags of convenience, open registration and substandard vessels. Maritime fraud.

Excellent material is available from UNCTAD (TRAINMAR), ICOD, Dalhousie.

11. Coastal Zone Ecology and Coastal Management

Salt marches and mangrove swamps in the ecosystem. Urbanisation and industrialisation: impact on water quality.

Tourism (Mediterranean; Caribbean). Multiple uses of water; interactions between fresh-water and sea-water

systems. Integrated water management: a systems-analytical approach.

Three areas of concern: Coastal rivers (Rhine; Rhone; Nile; Congo) Coastal Systems (marshes; mangroves; coral reefs, bays); Offshore (New York Bight).

Types of pollution. The cost of pollution.

The Regional Seas Programme: The Mediterranean Action Plan.

12. The Law of the Sea and the New International order in the Oceans.

The background of the Third United Nations Conference on the Law of the Sea. Analysis of the main parts of the Convention. A few illustrative case histories: problems and conflicts, and how they are dealt with under the new Law of the Sea. The role of the U.N. system of organisations. national legislation and the building of national infrastructure.

The Law of the Sea and Disarmament. the Law and the Sea and world order.

This film runs 78 minutes and is available on both 1/2 and 3/4" videotape. The "Presenter" is Ambassador Tommy Koh, President of the Third United Nations Conference on the Law of the Sea. This vtr could serve as a model for the others. It is deliberately designed as a teaching unit and, as such, has stop points; questions and title references to the relevant sections of the L.o.S. Convention superimposed where this is considered appropriate.

This tape has already been used at the IOI Training Programmes and at Dalhousie University.

III. Project Organisation

1. close cooperation with the IOI Training Programme will reduce the need for manpower and administrative infrastructure.
2. Basically, there should be one Editor-in-Chief, one Chief Producer, and one Organisational Director. Each one of these may appoint an assistant or assistants as needed.
3. There will be one or more Authors for each book, assisted by technical Consultants as needed. An Educational Technologist and an Audio-visual Technologist will be associated with each unit.
4. The Editor in Chief will be responsible for the series of books: their over-all style and the cohesion of the whole set. The Chief producer will be responsible for the production of the films. The organisational Director will be responsible for the over-all organisation and coordination of the project. This team of Directors will work together closely, in cooperation with the Chairman of the Planning Council and the Academic Director of the IOI. The Authors will be assisted by technical consultants in their respective subjects, as well as by the Educational and Audio-visual Technologists.

The Educational and Audio-visual Technologists will follow each IOI Training Programme. They will video-tape lectures, organise and videotape interviews and group discussions, and film field trips, which can be utilized both for books and films in each unit.

5. A list of possible names for the Directors, Authors, Consultants, etc. has already been compiled and is available.

ANNEX 2



Dalhousie University

International Ocean
Institute



I.O.I. - Malta

Annex 2

Memorandum Proposal + Feasibility Study

ANNEX 3

DALHOUSIE UNIVERSITY ARCHIVES DIGITAL SEPARATION SHEET

Separation Date: August 15, 2016

Fonds Title: Elisabeth Mann Borgese

Fonds #: MS-2-744

Box-Folder Number: Box 322, Folder 5

Series: Administrative records of the International Ocean Institute

Sub-Series: Administrative records

File: Plan for publication of three textbooks on the implementation and progressive development of the law of the sea

Description of item:

File contains a copy of

Vanderbilt, C.F. "Training Ocean Managers: Seeing the Need and Meeting It," in *Ocean Technology, Development, Training, and Transfer : Proceedings of Pacem in Maribus XVI, August 1988*, eds. J.H. Vandermeulen, and Susan Walker (Oxford, England; Elmsford, N.Y., U.S.A.: Pergamon Press, 1991).

Reason for separation:

22 pages removed from digital copy due to copyright concerns.

ANNEX 4

ANNEX 1



International Ocean Institute

P.O. Box 524
VALLETTA, MALTA

Telephone: 226596
Cables: INTEROCEAN
Telex: 1946 OCEANS MW

DISTANT LEARNING MATERIALS

The above title covers a large-scale media project, conceived by the National Film Board of Canada (Atlantic Studio) and the International Ocean Institute -- designed to make people more aware of the need for long-term international policies of good management of the earth's oceans and resources. The project should be carried out in close cooperation with the IOI Training Programme in Marine Resource Management and Conservation and utilise the materials and experience accumulated within that programme over the past nine years.

I. Content

The project breaks down into two main areas. What follows is a very brief synopsis of the aims and intended audience of each.

1. A long (90-120 minute) documentary film designed for world-wide TV distribution. We envisage this film being available in several different language versions. Based on the trilogy by Elisabeth Mann Borgese, The Drama of the Oceans; Seafarm; and The Mines of Neptune (New York: Harry Abrams, 1976, 1982, 1986) it could include such varied sequences as tectonic plate movements; the design and construction of the most advanced computerized fishing boats and gear; the collapse of commercial fisheries; the devastation of oyster beds by oil spills; the returning tide of garbage dumped by cities like Tokyo, New York, or Trieste; aquaculture practices in South East Asia and China; fresh-water fish farming in North America; the development of kelp farms and the extraction of valuable chemicals for commercial purposes; deep seabed mining; the military use of the submarine environment; futuristic visions of marine habitations (e.g., Tange; Perugini and Benedetti, Fuller; Solieri, Kikutake, etc.)

New energy production from the sea including tidal and thermal power; offshore fusion reactors; wave and current plants and the recovery of hydrogen. We would also explore the use of the oceans as diaposal grounds for nerve gas and nuclear wastes; the illegal transport of such toxic wastes to developing countries, as well as the interactions between oceans and atmosphere in determining the earth's climate and the possibilities and consequences of sea-level rises.

The above are just some of the areas that might be treated in the long film. There are many others, but all would be presented in as dramatic, poetic and stimulating a way as possible, since we are convinced that such a film could and should play an activist role in enlarging people's vision of our future usage of the planet. Sustainable development: development based on the conservation of the marine environment, would be the leitmotif of the film.

A great deal of existing footage could be utilised: for this film as well as for the films described below. A bibliography of such films is available at Dalhousie University.

2. A series of twelve teaching units (either film or video tape) that would explore many areas in much greater depth than was possible in the introductory unit, and be designed to form part of a larger package of instructional materials (books, pamphlets, still photographs, graphs, audio tapes, etc.) for use specifically in developing countries, more or less for the same target groups addressed by the IOI training programme (civil servants and teachers, age 25-35, who are likely to be the decision-makers of tomorrow so as to better inform them about the full implications of integrating the new Law of the Sea and ocean development into their national policies.

We would like to point out that Unit #12 (The Law of the Sea) has already been produced by the National Film Board and used successfully with such target audiences.

The units proposed can be summarized as follows:

1. Introduction to the Oceans.

This could be the above film - or a shortened version of the same.

2. The Marine Sciences

Scientific break-throughs since World War II - Technologies employed -- Economic implications of the new ocean sciences: Plate tectonics and the exploration for oil, minerals and metals -- the marine-biological foundation of the fishing industry -- meteorology and the forecasting of Tsunamies -- Satellite technology and navigational aids; information and communication technologies -- Ecology and coastal management -- instrumentation -- manpower training -- the management of marine-scientific projects -- International cooperation in marine scientific research.

This material could be produced in cooperation with the Open University. Their programme on oceanography can provide useful inputs. Also the Intergovernmental Oceanographic Commission (IOC) of UNESCO should be associated in a consultative capacity.

3. The Management of Living Resources

The role of fisheries in the national economy: food, employment; subsidiary industries; foreign exchange earnings; the structure of the industry. - Stock assessment: life history of harvestable species; reproduction, development and growth; concepts of recruitment and growth potential. Population structure and dynamics. Concepts of abundance, accessibility and vulnerability; fluctuations in these characteristics. - Inshore fisheries: boats: building and maintenance; gear; fish processing, storage and conservation;

transport; marketing. -- Offshore fisheries: Trawling; factory ships.

Licensing; joint ventures,. Monitoring, surveillance and enforcement. - The role of international organisations (FAO; Regional commissions, etc.) -

Migratory species: Salmon, Tuna, Eel.

4. The management of multi-species systems

The krill of the Southern Ocean -- interdependence with other species. Types of research required for the conservation of the whole eco-system. Technological aspects of harvesting and processing krill. Impact on world nutrition. Participation of developing countries.

The conservation and management of marine mammals. Biology and ecology. Marine mammal intelligence: Intra-species communication; learning in dolphins. - The history of whaling. the International Whaling Commission. Conservation and management.

This unit could be produced in cooperation with the International Union for the Conservation of Nature.

5. Aquaculture

Potential importance of transition from economy based on hunting and gathering to one based on cultivation of aquatic plants and husbanding aquatic animals.

Various stages of algae farming, from manipulation of environment to full control of reproductive cycle. Scenes from Japan, Philippines, North America. Genetic engineering of aquatic plants.

Technologies of fish farming: induced spawning; fish nutrition; fish veterinary medicine; fish behavioural studies.

Pond preparation; cage cultures; sea-ranching.

Hybridization and acclimatization; transplantation of species and ecosystems.

Case studies: molluscs; crustacians; finfish.

6. Offshore Oil and Gas

The geology of oil: Where future oil and gas will be found. Technological aspects of exploration, exploitation and refining.

The petro-chemical industries. - OPEC, the Multinationals. The petroleum market and the developing countries. Environmental impact of the oil industry. Social impact and coastal communities. The future of natural gas.

7. Mining Nearshore Minerals

Sediment distribution on the ocean floor. Placers and Aggregates. Worldwide distribution of placer mineral deposits: North America; Africa; South-East Asia; Australasia; North-west Europe. Zeolites, Barite, Feldspars; Phosphorites; continental shelves and lakes; exploration and exploitation technologies; economic aspects: the mineral market. Environmental impact.

8. Deep seabed mining

The metalliferous muds in the Red Sea. The mining of polymetallic nodules in the Pacific and Indian Oceans; polymetallic sulphides and cobalt crusts. Scientific aspects; technological aspects; economic aspects. International cooperation under the new Law of the Sea.

Excellent footage is available from the Red Sea Commission; Preussag AG; Dr. Alexander Malahoff,

Hawaii, etc.

9. Energy from the Oceans

Power generation from tidal energy: the Rance River Dam. Large projects and small-scale projects in China. Wave energy; ocean currents; Ocean Thermal Energy Conversion in Hawaii, Nauri, Sri Lanka; Power generation from salinity gradients (Scripps) Biomass (California)

Multipurposes applications of installations (Hawaii). Impact on development of small island states and small coastal communities. Environmental implications.

10. Shipping and Navigation

Quantitative and qualitative changes in the transportation of goods and passengers; cruise ships (USSR); tankers and containers. Multimodal systems of transport and their impact on land-transport systems. Noxious cargoes; ship-borne pollution and its regulation. Traffic control and navigational aids. The Europort in Rotterdam; the port of Singapore Ports and undedevelopment.

The economics of shipping: flags of convenience, open registration and substandard vessels. Maritime fraud.

Excellent material is available from UNCTAD (TRAINMAR), ICOD, Dalhousie.

11. Coastal Zone Ecology and Coastal Management

Salt marches and mangrove swamps in the ecosystem. Urbanisation and industrialisation: impact on water quality.

Tourism (Mediterranean; Caribbean). Multiple uses of water; interactions between fresh-water and sea-water

systems. Integrated water management: a systems-analytical approach.

Three areas of concern: Coastal rivers (Rhine; Rhone; Nile; Congo) Coastal Systems (marches; mangroves; coral reefs, bays); Offshore (New York Bight).

Types of pollution. The cost of pollution.

The Regional Seas Programme: The Mediterranean Action Plan.

12. The Law of the Sea and the New International order in the Oceans.

The background of the Third United Nations Conference on the Law of the Sea. Analysis of the main parts of the Convention. A few illustrative case histories: problems and conflicts, and how they are dealt with under the new Law of the Sea. The role of the U.N. system of organisations. national legislation and the building of national infrastructure.

The Law of the Sea and Disarmament. the Law and the Sea and world order.

This film runs 78 minutes and is available on both 1/2 and 3/4" videotape. The "Presenter" is Ambassador Tommy Koh, President of the Third United Nations Conference on the Law of the Sea. This vtr could serve as a model for the others. It is deliberately designed as a teaching unit and, as such, has stop points; questions and title references to the relevant sections of the L.o.S. Convention superimposed where this is considered appropriate.

This tape has already been used at the IOI Training Programmes and at Dalhousie University.

III. Project Organisation

1. close cooperation with the IOI Training Programme will reduce the need for manpower and administrative infrastructure.
2. Basically, there should be one Editor-in-Chief, one Chief Producer, and one Organisational Director. Each one of these may appoint an assistant or assistants as needed.
3. There will be one or more Authors for each book, assisted by technical Consultants as needed. An Educational Technologist and an Audio-visual Technologist will be associated with each unit.
4. The Editor in Chief will be responsible for the series of books: their over-all style and the cohesion of the whole set. The Chief producer will be responsible for the production of the films. The organisational Director will be responsible for the over-all organisation and coordination of the project. This team of Directors will work together closely, in cooperation with the Chairman of the Planning Council and the Academic Director of the IOI. The Authors will be assisted by technical consultants in their respective subjects, as well as by the Educational and Audio-visual Technologists.

The Educational and Audio-visual Technologists will follow each IOI Training Programme. They will video-tape lectures, organise and videotape interviews and group discussions, and film field trips, which can be utilized both for books and films in each unit.

5. A list of possible names for the Directors, Authors, Consultants, etc. has already been compiled and is available.