

**Intergovernmental Oceanographic Commission**  
*Reports of Meeting of Experts and Equivalent Bodies*

**IODE Group of Experts on  
Marine Information Management**

**Second Session**

Moscow, 8-9 December 1986

**UNESCO**

**Intergovernmental Oceanographic Commission**  
*Reports of Meeting of Experts and Equivalent Bodies*

# **IODE Group of Experts on Marine Information Management**

## **Second Session**

Moscow, 8-9 December 1986

**UNESCO**

In this Series

**Reports of Meetings of Experts and Equivalent Bodies** , which was initiated in 1984, the reports of the following meetings have already been issued:

- Third Meeting of the Central Editorial Board for the Geological/ Geophysical Atlases of the Atlantic and Pacific Oceans
- Fourth Meeting of the Central Editorial Board for the Geological/ Geophysical Atlases of the Atlantic and Pacific Oceans
- Fourth Session of the Joint IOC-WMO-CPPS Working Group on the Investigations of “El Niño”
- First Session of the IOC-FAO Guiding Group of Experts on the Programme of Ocean Science in relation to Living Resources
- First Session of the IOC-UN(OETB) Guiding Group of Experts on the Programme of Ocean Science in relation to Non-Living Resources
- First Session of the Editorial Board for the International Bathymetric Chart of the Mediterranean and Overlay Sheets
- First Session of the Joint CCOP (SOPAC)-IOC Working Group on South Pacific Tectonics and Resources
- First Session of the IODE Group of Experts on Marine Information Management
- Tenth Session of the Joint CCOP-IOC Working Group on Post-IDOE Studies in East Asian Tectonics and Resources
- Sixth Session of the IOC-UNEP Group of Experts on Methods, Standards and Intercalibration
- First Session of the IOC Consultative Group on Ocean Mapping
- Joint IOC-WMO Meeting for Implementation of IGOSS XBT Ships-of-Opportunity Programmes
- Second Session of the Joint CCOP/SOPAC-IOC Working Group on South Pacific Tectonics and Resources
- Third Session of the Group of Experts on Format Development of the Working Committee on International Oceanographic Data Exchange
- Eleventh Session of the Joint CCOP-IOC Working Group on Post-IDOE Studies of South-East Asian Tectonics and Resources
- Second Session of the IOC Editorial Board for the International Bathymetric Chart of the Mediterranean and Overlay Sheets
- Seventh Session of the IOC-UNEP Group of Experts on Methods, Standards and Intercalibration
- Second Session of the IOC Group of Experts on Effects of Pollutants
- Primera Reunión del Comité Editorial de la COI para la Carta Batimétrica Internacional del Mar Caribe y Parte del Océano Pacífico frente a Centroamérica
- Third Session of the Joint CCOP/SOPAC-IOC Working Group on South Pacific Tectonics and Resources
- Twelfth Session of the Joint CCOP-IOC Working Group on Post-IDOE Studies of South-East Asian Tectonics and Resources

## TABLE OF CONTENTS

<b>SUMMARY REPORT</b>		<b>Page</b>
<b>1.</b>	<b>ORGANIZATION OF THE SESSION</b>	<b>1</b>
1.1	OPENING OF THE SESSION	1
1.2	ELECTION OF RAPPORTEUR	1
1.3	ADOPTION OF THE AGENDA	1
1.4	ARRANGEMENTS FOR THE SESSION	1
<b>2.</b>	<b>REPORT ON INTERSESSIONAL ACTIVITIES</b>	<b>1</b>
<b>3.</b>	<b>REVISION OF THE MEDI SYSTEM</b>	<b>2</b>
<b>4.</b>	<b>FUTURE DEVELOPMENT OF THE FAO-IOC-UN(OETB) ASFIS SYSTEM</b>	<b>3</b>
4.1	EXPANSION AND PROMOTION OF THE ASFIS SYSTEM	3
4.2	PRODUCTION OF ASFIS INFORMATION DATABASES	3
<b>5.</b>	<b>PROGRAMME DEVELOPMENT PLAN FOR MARINE INFORMATION AND RELATED MATTERS</b>	<b>4</b>
<b>6.</b>	<b>FUTURE TEMA ACTIVITIES IN SUPPORT OF MARINE INFORMATION MANAGEMENT</b>	<b>5</b>
<b>7.</b>	<b>OTHER MIM ACTIVITIES IN IOC</b>	<b>5</b>
<b>8.</b>	<b>REVIEW OF TERMS OF REFERENCE OF THE GROUP OF EXPERTS</b>	<b>8</b>
<b>9.</b>	<b>ELECTION OF OFFICERS</b>	<b>8</b>
<b>10.</b>	<b>DATE AND PLACE OF NEXT MEETING</b>	<b>8</b>
<b>11.</b>	<b>ADOPTION OF THE SUMMARY REPORT</b>	<b>8</b>
<b>12.</b>	<b>CLOSURE</b>	<b>8</b>

## ANNEXES

- I. Agenda**
- II. Recommendations**
- III. List of Participants**

## 1. ORGANIZATION OF THE SESSION

### 1.1 OPENING OF THE SESSION

The Chairman of the Group, Dr. J. Watson opened the Second Session of the Group of Experts on Marine Information Management (MIM) at 10.00 a.m. on 8 December 1986 in the International Trade Centre, Moscow.

The Chairman of the Local Organizing Committee, Dr. V.I. Smirnov, welcomed participants on behalf of the USSR State Committee for Hydrometeorology and Natural Environment Control, and of its All-Union Research Institute of Hydrometeorological Information, responsible for hosting the Session. Over two decades the study of the oceans had attracted increasing interest because of the potential food, energy and mineral resources they could provide and the need to understand such hazards as hurricanes and tsunamis. In the face of an explosion of marine information from many countries and from international experiments there was a need for improved management and the Group's work in advising on the development of international systems was very important. Dr. Smirnov explained that in the USSR an overall scientific and technological information system had been developed comprising 10 All-Union bodies, 14 bodies in the Republics and 100 Agency systems. Increasing emphasis is now being given to user services including online remote access to information. Finally, he wished the Group every success in its work and hoped that participants would find time to enjoy Moscow.

In welcoming the Group on behalf of the Chairman and the Secretary of the IOC, the Assistant Secretary IOC, Mr. T. Sankey thanked the Government of the USSR and the State Committee for Hydrometeorology and Natural Environment Control for hosting the Session and for the support they were providing to it. He emphasized the importance of marine information management in the conduct and application of marine scientific research, and pointed out the need for IOC to have a sound and workable strategy in this field, both to guide its own direct activities and to assist in wider co-ordination. By holding the Session just before IODE-XII, only 2 days were available and the Group would need to concentrate on the key issues. Recommendations would go straight to IODE-XII and the many MIM experts present would help IODE when considering this topic.

### 1.2 ELECTION OF RAPPORTEUR

**It was agreed** that Dr. J. Caponio would act as Rapporteur for the Session.

### 1.3 ADOPTION OF THE AGENDA

**The Group adopted** the Agenda as given in Annex I.

### 1.4 ARRANGEMENTS FOR THE SESSION

The Technical Secretary for the Session, Mr. T. Sankey introduced the List of Documents, identified changes and informed the Session of the proposed time schedule and arrangements for the preparation of the Summary Report. Dr. Melnikov, of the Local Organizing Committee, gave information on local arrangements.

## 2. REPORT ON INTERSESSIONAL ACTIVITIES

In introducing his report (Document IOC/IODE-XII/13), the Chairman highlighted the Workshop on Marine Information Management at National and Regional Levels (Williamsburg, Virginia and Washington DC, USA, 14 October to 1 November 1985), the Regional Seminar on Handling and Dissemination of Oceanographic Information and Data (Goa, India, 17-21 March 1986) and the El Nino/Humboldt Current Marine Information Workshop (Cartagena, Colombia, 28-30 July 1986). These had been significant steps in meeting training requirements identified by the Group. However, it was

emphasized that development of well designed courses in various aspects of marine information management with complementary printed and audiovisual materials was now needed to enable developing countries to take advantage of available information tools.

Further important steps had been the establishment of the Chinese ASFA Centre and UNEP's desire to become an ASFIS sponsoring agency. The ASFA database and printed journal continued to be used by the scientific community as the major archive and source of marine bibliographic information. An exciting development was the provision of the ASFA database on compact disk (CD-ROM). This was available in a number of countries, including China and Sri Lanka, and its implementation was planned in India, Mexico and the Philippines. Finally, the Chairman expressed his gratification over the recent publication of the revised and expanded ASFIS Thesaurus.

Dr. J. Caponio recalled the death, earlier this year, of Mr. A.J. (Kit) Woolcot. The Group joined Dr. Caponio in paying tribute to Mr. Woolcot's pioneering work in the setting up of ASFA.

### 3. REVISION OF THE MEDI SYSTEM

The Group reviewed a paper on the status and future development of the MEDI Referral System (Document IOC/IODE-MIM-II/6).

**The Group recognized** the strong interest in "information about data" within oceanographic data centres and noted the emergence of new systems such as the NASA Global OnLine Data (GOLD) inventory. They noted that the problem of keeping the information up-to-date made it difficult to maintain a very detailed central inventory of data sets. A distributed inventory had more chance of success and MEDI might act as the top level of a multilevel system.

**The Group agreed** that the concept of an overall data referral system was valid but **considered** that MEDI requires major revision to take account of the experience gained in developing the system over more than a decade, the growth in the volume and variety of oceanographic data holdings and recent advances in computer technology.

**The Group noted** that the present system did not appear to meet user demands and that many potential users, for example, within the ASEAN Coastal Resources Management Project, did not know about MEDI.

Mr. Broadbent informed the Group of a user survey recently made for the INFOTERRA system of UNEP.

**The Group agreed** that any future work on MEDI should be based on an evaluation of the needs of potential users in the IODE system, in ASFIS and in their respective user communities.

**The Group agreed** that a coherent strategy is needed within the IODE system on the co-ordination of the many inventory systems that exist to describe oceanographic data holdings and called on the Working Committee for IODE to formulate such a strategy as a first step in MEDI revision. The strategy should take account of the existing co-ordination of MEDI with the INFOTERRA and INFOCLIMA systems. Dr. B.N. Shechkov offered the assistance of the USSR in preparing a model of a comprehensive register (inventory) including descriptions of all catalogues of WDCs, RNODCs and those of international referral information systems. **The group welcomed** this offer.

**The Group stressed** that for the MEDI system to be effective, it was dependent on the quality, amount and timeliness of the information it contained and that therefore adequate resources must be sought to support collection of input as an ongoing activity. User friendly design of both input and output is essential.

In view of the substantial effort that will be needed to develop MEDI and the limited resources currently available within the IOC Secretariat, the Group suggested that alternative means of operating MEDI, such as the establishment of an RNODC-MEDI, should be considered by the Working Committee.

#### **4. FUTURE DEVELOPMENT OF THE FAO-IOC-UN(OETB) ASFIS SYSTEM**

##### **4.1 EXPANSION AND PROMOTION OF THE ASFIS SYSTEM**

Mr. R.R. Freeman, the Representative of FAO, presented a preliminary proposal on the Future Development of the Aquatic Sciences and Fisheries Information System: Mission, Structure, Functions and Governance, which would be complementary to the proposal to develop a strategy for marine information management considered under Agenda item 5. The proposal will be put to the ICSPRO Information Management Officers Meeting scheduled for February 1987, the FAO Committee on Fisheries and the 1987 ASFA Advisory Board. The proposal is intended to encourage Member States and regional and international organizations to participate in all aspects of ASFIS, not just the production of ASFA and to ensure that both the benefits and responsibilities involved in this participation are clearly defined.

**The Group recognized** the potential benefits to ASFIS in receiving additional information input on a regular basis and in the better dissemination of its products in Member States. The Group noted the need to consider the proposal carefully in relation to existing IOC and FAO structures, including their regional entities.

**The Group drew attention** to the need for adequate funding both to ensure central co-ordination and to undertake expanded ASFIS activities in regions and Member States, including the provision of support materials and training to new centres, noting that extrabudgetary funding may be obtained for this if suitable project proposals are prepared.

**The Group recommended** that the proposed expansion of ASFIS should be regarded as an integral element in the strategic Programme Development Plan for MIN to be generated in 1987-88.

Several members of the Group expressed concern about the overlap between ASFIS and the FAO AGRIS, both of which collect and hold bibliographic information for fisheries. This causes confusion in some countries. As AGRIS wished to cover all the work of FAO, overlap was inevitable but the two systems had different user communities and AGRIS was very widely known.

**The Group agreed** that co-operation between the two systems is essential in order to avoid duplication of effort by AGRIS and ASFIS centres that cover the same documents.

Mr. Freeman assured the Group that this topic is already under discussion between the ASFIS and AGRIS officers at FAO. He would keep the Group informed on the progress of these discussions.

Mr. Freeman raised the question of microcomputer software for bibliographic information management. The UNESCO Micro-CDS/ISIS system provided adequate facilities, was widely known and distributed free of charge. There was much interest in it among marine information management specialists but it could not be adopted as a standard for ASFIS unless it could be made available to noncommercial participants in ASFIS in all Member States of the United Nations system.

**The Group considered** this issue as being of great importance and **adopted** Recommendation MIM-II.1

##### **4.2 PRODUCTION OF ASFIS INFORMATION DATABASES**

The Technical Secretary and the Representative of FAO reviewed the status of, and needs for, the ASFIS information registers and reference tools.

**The Group recognized** that the Institutions Register is the most important, as it contains information that is used in other registers such as those of experts, projects and research vessels. The FAO Representative informed the Group that FAO hopes to convert the present collection of regional institutional files, which were developed under UNEP sponsorship into a single database using a database management system within one year.

**The Group also recognized** the value of a continuously up-to-date International Directory of Marine Scientists and recommended that IOC should seek resources to undertake regular production of it.

The FAO Representative informed the Group of the status and progress of work to prepare an updated version of the World List of Aquatic Sciences and Fisheries Serials.

**The Group recommended** that priority be given to this tool as it is much needed.

The Group then reviewed the need for information on ongoing marine science research and development projects and noting that several such systems exist for other subject matter and purposes **the Group decided** to review these systems in more detail before making any recommendations to IOC.

Mr. Hou Wenfeng reported in the favourable experience of his centre in China with the ASFA database on CD-ROM. He suggested that the distribution of ASFIS registers via this medium should be investigated. **The Group referred** this suggestion to the IOC Secretariat, recognizing that it was an idea for the longer term.

**The Group noted** that both adequate resources and a carefully planned and continuing data collection effort are needed to create and maintain the ASFIS registers and reference tools. **The Group urged** the Secretary IOC to seek additional resources to meet priority needs and to call attention to these needs in meetings of ICSPRO.

## **5. PROGRAMME DEVELOPMENT PLAN FOR MARINE INFORMATION AND RELATED ACTIVITIES**

The Group reviewed Document IOC/IODE-XII/13 Suppl. 1, "New Approach to the Development of a Programme Development Plan for Marine Information Management". The Chairman briefly reviewed the history of the Plan and noted that circumstances had led the Secretary IOC to propose this new pragmatic approach.

**The Group recommended** that the establishment of regional networks be included within the plan, but recognized that more than one network model is needed in view of variations from one region to another.

**The Group emphasized** that such a plan was essential to provide a strategy for further advances and to attract extrabudgetary funding and **recognized** the urgent need to provide a sense of direction to IOC's MIM activities. **The Group considered** that the Group itself should play a major role in the development of the strategy

**The Group adopted** Recommendation MIM-II.2.

**The Group noted** the need to provide for future updating of the strategy to adapt to changing situations and technological innovations.



## 6. FUTURE TEAM ACTIVITIES IN SUPPORT OF MARINE INFORMATION MANAGEMENT

In reviewing the Document IOC/ODE-XII/24, Report of the Task Team on Training, Education and Mutual Assistance, the Chairman noted the importance of adequate preparation time and proper planning of all training events. Imposed time constraints for the Regional Seminar on Handling and Dissemination of Oceanographic Information and Data at Goa, India, 17-21 March 1986 had caused problems in organization. **The Group was also of the view** that to intensify and to organize training activities commensurate with the requirements of developing countries in this domain, there is a need to mobilize additional sources of support, both from extrabudgetary sources and in kind, with the IOC playing a catalytic role as well as providing seed money for these activities.

**The Group strongly supported** the recommendation in this document that the Group itself should be responsible, under the Working Committee on IODE, for the formulation of guidance and promotion of TEMA activities in the field of marine information management.

The Group then reviewed Document IOC/IODE-XII/8 Annex 5, "Marine Information in the Developing World - A Perspective". In order to give a complete view when this document was considered by the Working Committee, **the Group agreed** that the following additional points needed to be made.

Firstly, the ability to access referral systems to numerical data should be added to the list of needs for an effective marine information service.

Secondly, an important type of training is by individual visits of library and information professionals from developing countries to selected ASFIS centres. These provide the opportunity to receive practical training and experience by working with the staff of the centre visited.

**The Group stressed** the value of this type of training and agreed that after the forthcoming publication of a list of centres able to accept visiting specialists in the ICLARM newsletter, NAGA, the Group will review this list and prepare an updated version.

Thirdly, the encouragement of universities to provide courses specifically for marine information specialists is an approach to consider. The Group was informed that the Leningrad Hydrometeorological Institute is considering the possibility of preparation of a course of this type.

**The Group stressed** the importance of information management training as a module in all marine science curricula and suggested that the possibility of preparing standard teaching material for this should be studied.

The Group noted that ICOD is now providing up to 20 scholarships a year to one year postgraduate marine affairs courses in Canada, one in English at Dalhousie University, Halifax and the other in French at the University of Quebec, Rimouski. Both ICOD and IDRC are ready to consider proposals for training projects for MIM from developing regions.

**The Group stressed** the importance of training the trainers, especially those operating in developing regions.

## 7. OTHER MIM ACTIVITIES IN IOC

The Chairman noted that the Working Committee on IODE would be considering a proposal to change its name to reflect the part that marine information management now plays in its activities, and invited the Group to express its view. Some participants wished the word 'international' to be retained in the title, as they felt the international character of the system should be emphasized.

**The Group strongly supported** the proposal that the name of the Working Committee be changed to include the word 'information'.

The Chairman briefly outlined the history of the MASTIR project and reported that following the receipt of comments on the draft circulated in February 1986, the consultant had concluded her work on the project in producing a further draft which was available to the Session. First reviews indicated a substantial improvement but comprehensive editing would be required.

**The Group agreed** that there should be a review of the new draft by Members of the Group co-ordinated by the new Chairman and that outstanding commitments to provide additional information should be fulfilled by March 1987. Subject to results of this review being favourable, **the Group recommended** that the Handbook be reproduced cheaply during 1987 and circulated widely, especially to potential users in developing countries, on a trial basis for a period of a year, at which time a decision on publication can be taken. **The Group requested** that, following initial review by the Group, the Secretary IOC should seek reviews of the Reference Sources section of the Handbook from the ocean science community.

The Chairman outlined several ideas for MIM publications that might be prepared either by Members of the Group or by consultants:

- (I) Annotated bibliography on Marine Information Management,
- (ii) Manual on how to establish and maintain a marine information centre,
- (iii) Volume of key papers in MIM.

**The Group agreed** to study these ideas further, noting also that the need for them should be assessed and priorities assigned within the framework of the proposed strategic plan for MIM.

Mrs. Temprosa presented an outline of the proposed Tropical Fisheries Information Sourcebook to be produced by ICLARM. The Group was informed that possible new serial publications being considered within ASFIS are Marine Technology Contents Tables, a Marine Information Newsletter and a Marine Affairs part of ASFA.

At the 1985 MIM Training Workshop which included attendance at the IAMSLIC Annual Meeting, the idea of a worldwide network for marine librarians had been suggested. One possibility was for IAMSLIC to develop itself to fulfill this role.

**The Group rejected** this idea, however, noting that IAMSLIC served mainly as a regional organization for North America and could serve as an additional resource base for MIM projects. Nonetheless **the Group welcomed** the interest of some IAMSLIC members in international aspects of marine information management and the setting up of an International Co-operation Committee within IAMSLIC following exchanges between Members of the Group and IAMSLIC Officers.

**The Group agreed** that a worldwide grouping was desirable following the model of the International Association of Agricultural Librarians and Documentalists, but recognized that much time, effort and enthusiasm would be needed to establish it.

The Group was informed of a number of current regional initiatives in marine information management, as follows:

#### **IOCARIBE Region**

A Workshop to set up a marine information network (MARNET) in the Caribbean is being held

at the University of Miami, sponsored by the Mellon Foundation and Dr. J. Sears of CSA, the publisher of ASFA is attending.

The Group was informed of aims of the recent UNESCO/PGI mission to selected Caribbean island states. The IOC Secretariat had taken the lead in the definition of the objectives and the selection and briefing of the consultant for this mission.

The Second Session of the IOC Sub-Commission for the Caribbean and Adjacent Regions is being held, Havana, Cuba, 8-13 December 1986, and is considering MIM. Mr. P. Galvan of CICH, Mexico is visiting Havana to provide information on ASFA to the Session and to follow up the Cuban request to participate in that system.

### **E1 Nino Region**

Following the successful workshop held in Cartagena, Colombia, 28-30 July by IDRC with IOC support and attended by the Chairman of the Group, a proposal is being developed to build a marine information network with a particular emphasis on fisheries needs that will complement the work of the regional CPPS organization. This would be based on a parallel project in the 4 countries to set up 4 national centres with the Chilean centre acting as the regional lead centre.

### **IOCEA (West Africa) Region**

Ms. P. Gra expressed the need for a regional network in this region for basic research information but noted that there were few active centres and that national priorities were oriented to practical fisheries management. She suggested that a regional mission to investigate development possibilities in marine information management would be an effective approach to the problems of her region.

### **ROPME**

A ROPME Meeting of Experts on Review of Kuwait Action Plan projects' data is being held in Kuwait, 11-14 January 1987 for countries of the region. Through UNEP, Mr. P. Geerders, Director NCOD, has been invited to attend as an expert in oceanographic data and information management.

### **WESTPAC Region (South Pacific)**

A Workshop on needs for Fisheries Information Systems in the South Pacific will be held in Noumea, New Caledonia on 23-28 March 1987 with a view to examining the possibility of a regional network or centre. A consultant will spend 3 weeks assisting the preparation and follow up of the Workshop. Dr. Watson informed the Group that he would be attending on behalf of ICOD, but would be glad to present the work of IOC and ASFIS in Marine Information Management.

### **General aspects of regional co-ordination co-ordination**

**The Group noted** that co-ordination is needed between the many different bodies now concerned with scientific and technical information in regional contexts and urged the IOC Secretariat to pass to the Group all information received concerning planned missions, workshops and other TEMA events in the MIM field well in advance. **The Group requested** the Secretary IOC to publicize more widely the co-ordinating role that IOC can take in MIM in drawing on the expertise of the Group. In this regard the Technical Secretary pointed out the value of links with the Regional Marine Science Officers for East Asia in Jakarta, for Africa in Nairobi and for the Arab States in Doha, Qatar, and with Fernando Robles, IOC Senior Assistant Secretary for IOCARIBE in Cartagena, Colombia.

**The Group noted** the potential for co-ordination with general scientific and technological information systems implemented through the UNESCO General Information Programme (PGI) and

**requested** the Secretary IOC to maintain close co-operation with UNESCO/PGI to identify opportunities for profitable collaboration, and to invite UNESCO/PGI to participate at the sessions of the Group.

## 8. REVIEW OF TERMS OF REFERENCE OF THE GROUP OF EXPERTS

**The Group agreed** to keep its present Terms of Reference.

## 9. ELECTION OF OFFICERS

**The Group elected** Dr. J. Caponio as Chairman and Dr. B.N. Shechkov as Vice-Chairman to serve for the Intersessional Period and the next Session.

The retiring Chairman welcomed Dr. Caponio and Dr. Shechkov to their new roles.

Dr. Caponio expressed his pleasure at returning to the MIM field with which he had such a long association. The MIM community had come a long way even though slowly during that time. He looked forward to working with the Group and stressed the need for input from the developing countries during the intersessional period, if the Group was to bridge the divide between the information-rich and the information-poor. Dr. Shechkov thanked the Group; he hoped that, working as a team, the Group could move ahead towards its aims.

## 10. DATE AND PLACE OF NEXT MEETING

On behalf of the Secretary IOC, the Technical Secretary invited the Group to hold its next Session at UNESCO, Paris.

**The Group welcomed** this invitation but **reiterated** the view, expressed at its First Session, that it would be most valuable to hold the Session in a developing region and **noted with appreciation** the invitation from the ICLARM observer to hold the Session at ICLARM, Manila, Philippines.

**The Group recommended** that its Third Session be held at least 6 months before the Thirteenth Session of the Working Committee on IODE.

## 11. ADOPTION OF THE SUMMARY REPORT

**The Group adopted** the Draft Summary Report of its Second Session and **instructed** the Secretary IOC, in consultation with the Chairman of the Group, to make editorial corrections as necessary in producing the final version.

## 12. CLOSURE

Dr. J. Caponio expressed the thanks of the Group to Dr. J. Watson for his guidance and leadership as Chairman both during the Session and since the inception of the Group.

Dr. Watson replied that he had welcomed the opportunity to chair the Group over its initial stages and hoped to maintain links with it in his new role with ICOD. He added that the Members of the Group had made it a pleasure to work with. The retiring Chairman expressed the thanks of the Group to the Local Organizing Committee and the Technical Staff for the excellent arrangements made and for their help during the Session. The retiring Chairman closed the Session at 4.00 p.m. on Tuesday 9 December 1986.

**ANNEX I**

**AGENDA**

**1. ORGANIZATION OF THE SESSION**

- 1.1 OPENING OF THE SESSION
- 1.2 ELECTION OF RAPPORTEUR
- 1.3 ADOPTION OF THE AGENDA
- 1.4 ARRANGEMENTS FOR THE SESSION

**2. REPORT ON INTERSESSIONAL ACTIVITIES**

**3. REVISION OF THE MEDI SYSTEM**

**4. FUTURE DEVELOPMENT OF THE FAO/IOC/UN(OETB) ASFIS SYSTEM**

- 4.1 EXPANSION AND PROMOTION OF THE ASFIS SYSTEM
- 4.2 PRODUCTION OF ASFIS INFORMATION DATABASES

**5. PROGRAMME DEVELOPMENT PLAN FOR MARINE INFORMATION AND RELATED ACTIVITIES**

**6. FUTURE TEMA ACTIVITIES IN SUPPORT OF MARINE INFORMATION MANAGEMENT**

**7. OTHER MIM ACTIVITIES ON IOC**

**8. REVIEW OF TERMS OF REFERENCE OF THE GROUP OF EXPERTS**

**9. ELECTION OF OFFICERS**

**10. DATE AND PLACE OF NEXT MEETING**

**11. ADOPTION OF THE SUMMARY REPORT**

**12. CLOSURE**

## ANNEX II

### RECOMMENDATIONS

#### Recommendation MIM-II.1

##### SOFTWARE AVAILABILITY FOR ASFIS

###### **The IODE Group of Experts on Marine Information Management,**

**Stressing** the value of using common computer software for information management and retrieval throughout the centres participating in worldwide exchange of marine information through the Aquatic Sciences and Fisheries Information Systems,

**Recognizing** the contribution of UNESCO in developing and making available a microcomputer version of its CDS/ISIS software,

**Emphasizing** that numerous ASFIS centres are prepared to proceed immediately with the use of Micro-CDS/ISIS if it is adopted as the common software for ASFIS,

**Requests** the Secretary IOC to determine expeditiously whether and under what conditions the Micro-CDS/ISIS software could be made available in the ASFIS system.

#### Recommendation MIM-II.2

##### STRATEGY FOR MARINE INFORMATION MANAGEMENT

###### **The IODE Group of Experts on Marine Information Management,**

**Having studied** the Document "New Approach to the Development of PDP", (IOC/IODE-XII/13 Suppl. 1) and the views expressed therein regarding the procedures to be followed in developing an expanded outline of a strategy for the IOC to follow in its marine information management endeavours,

**Endorses** the proposal that an ad hoc experts consultation be held as early as possible in 1987, drawing on the expertise available within the Group of Experts on MIM itself as well as the Secretariats of IOC and the Organizations Members of ICSPRO,

**Requests** the Secretary IOC to approach relevant funding sources to solicit their collaboration in formulation of the strategy and support for its implementation.

ANNEX III

**LIST OF PARTICIPANTS**

**1. MEMBERS OF THE GROUP**

Ms. M. Almada de Ascencio  
Director  
Centro de Informacion Cientifica y Humanistica  
Universidad Nacional Autonoma de Mexico  
A.P. 70-392, 04510 Mexico D.F.  
MEXICO  
Tel: 5480858  
Tlx: 1774523 UNAMME

Dr. J. Caponio (**Rapporteur**)  
Director, National Technical Information Service  
Dept. of Commerce  
Washington D.C.  
USA  
Tel: (703) 487-4636

Dr. B.N. Shechkov  
Chief, Information Centre  
A11-Union Research Institute of  
Hydrometeorological Information  
World Data Centre  
Korolev Str. 6,  
249020 Obninsk  
USSR  
Tel: 136-36-20

Mr. A. Varley  
Head of Library and Information Services  
Marine Biological Association of the United  
Kingdom  
Citadel Hill,  
Plymouth PL1 2PB  
UNITED KINGDOM  
Tel: (0752) 221761

Dr. J. Watson (**Chairman**)  
Director, Information Division  
International Centre for Ocean Development  
5670, Spring Garden Road, 9th Floor  
Halifax, Nova Scotia B3J 1H6  
CANADA  
Tel: (902) 426-1515  
Tlx: 21670 ICOD Halifax

Ms. P. Gra  
Librarian  
Centre de Recherches Oceanographiques  
B.P. V18,  
Abidjan  
COTE D'IVOIRE  
Tel: 35-50-14/35-58-80

Mr. Hou Wenfeng  
Director  
Institute of Marine Scientific and Technological  
Information  
State Oceanic Administration  
118, Qiwei Road,  
Hedong District  
Tianjin  
CHINA  
Tel: 244161  
Tlx: 23138 NODC CN

Ms. L. Nunes  
Chief, Information and Documentation Centre  
Instituto Nacional de Investigacao das Pescas  
Av. Brasilia,  
1400 Lisbon  
PORTUGAL  
Tel: 610814  
Tlx: 15857 INIP-P

**3. REPRESENTATIVES AND OBSERVERS  
OF INTERNATIONAL ORGANIZATIONS**

**FAO**

Mr. R. Freeman  
Chief  
Fishery Information, Data and Statistics Service  
FAO  
Via della Terme di Caracalla  
00100 Rome  
ITALY  
Tel: 5797-6414  
Tlx: 610181 FAO 1

**2. OBSERVERS FROM MEMBER STATES**

**WMO**

Dr. V. Loguinov  
World Climate Programme  
WMO  
Case Postale No. 5  
CH - 1211 Geneva 20  
SWITZERLAND  
Tel: +41 (22) 34 64 00  
Tlx: 23260 OMM CH

**CCOP/SOPAC**

Dr. L. d'Ozouville  
Head, Data Management  
C/o Mineral Resource Department  
CCOP/SOPAC  
P.M. Bag  
Suva  
FIJI  
Tel: 381139  
Tlx: 2330

**ICES**

Dr. H. Dooley  
Hydrographer  
ICES  
Palaegade 2  
Copenhagen  
DENMARK  
Tel: 1 15 42 25  
Tlx: 22498 ICES DK

**ICLARM**

Ms. R.N. Temprosa  
Chief Librarian  
International Centre for Living Aquatic  
Resources Management (ICLARM)  
MC, P.O. Box 1501  
Makati, Metro Manila  
THE PHILIPPINES  
Tel: 818-0466  
Tlx: (ITT) 45658 ICLARM PM

**IDRC**

Mr. K. Broadbent  
Associate Director  
Information Services Division  
IDRC  
60, Queen St  
Ottawa K1G 3H9  
CANADA  
Tel: 598 0584  
Tlx: 053-3753

**4. SECRETARIAT**

Dr. I. Oliounine  
Senior Assistant Secretary  
IOC (UNESCO)  
7, Place de Fontenoy  
75007 Paris  
FRANCE  
Tel: +33 (1) 45-68-39-78  
Tlx: 204461 F

Mr. T. Sankey (**Technical Secretary**)  
Assistant Secretary  
IOC (UNESCO)  
7, Place de Fontenoy  
75007 Paris  
FRANCE  
Tel: +33 (1) 45-68-40-08  
Tlx: 204461 F

[end of document]