



Intergovernmental Oceanographic Commission

Working Committee on International Oceanographic Data Exchange

25 MAY 1985

IODE Handbook Revised edition, 1984

Unesco

INTERGOVERNMENT OCEANOGRAPHIC COMMISSION

1984

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INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
(of Unesco)

WORKING COMMITTEE ON INTERNATIONAL
OCEANOGRAPHIC DATA EXCHANGE

IODE HANDBOOK
(Revised edition, 1984)

This document is an up-dated version of the IODE Handbook published in 1982, IOC/INF-434 rev. This publication is issued every two years and lists information on the composition of the International Oceanographic Data Exchange System.

It contains also practical information relating to the WC/IODE and its subsidiary bodies. Member States participating or wishing to participate in IODE activities are invited to keep the Secretariat of IOC informed of all changes in the Handbook's content, particularly in so far as NODC's National Co-ordinators and members of the WC/IODE subsidiary bodies are concerned.

TABLE OF CONTENTS

<u>Section I</u>	<u>Pages</u>
A. Historical background and Terms of Reference of Working Committee on International Oceanographic Data Exchange	1 - 2
B. Guidelines for the structure and responsibilities of the subsidiary bodies of the Commission	3
C. Chairman, Vice-Chairman of Working Committee on IODE	3
D. List of Sessions of the IOC Working Committee on IODE	3
<u>Section II</u>	
A. List of Recommendations and Resolutions adopted by IODE-XI (UN Headquarters, New York, 9-18 January 1984)	4
B. Resolutions and other Decisions related to the IOC Working Committee on IODE adopted by the Seventeenth Session of the IOC Executive Council (Paris, 31 January - 9 February 1984)	5 - 12
<u>Section III</u>	
A. National Co-ordinators for International Oceanographic Data Exchange and Oceanographic Data Centres	19 - 20
B. Geographical Distribution of Oceanographic Data Centres	
<u>Section IV</u>	
A. Membership of IODE System	21
B. Groups of Experts on	
Format Development	22 - 24
Responsible National Oceanographic Data Centres (RNODC)	25 - 26
Marine Information Management	27 - 28
C. Task Teams on	
Exchange of Airborne and Satellite Remotely Sensed Data	29 - 31
Marine Pollution Data Exchange	32 - 34
Marine Biological Data	35 - 37
Measured Waves Data Management	38 - 40
Development of IODE Data Centre Services	41 - 43
Review of DNP/NOPs Announcements	44 - 45
Ocean Data Management for Climate Studies	46 - 48
Exchange of Marine Geological and Geophysical Data	49 - 52
Training and Mutual Assistance in Marine Data and Information Management	53 - 55
D. Rapporteur on Standard Criteria for Physical Oceanographic Data	56

A. Historical Background and Terms of Reference of Working Committee on International Oceanographic Data Exchange

During the Intergovernmental Conference on Oceanographic Research, 1960, at which the setting up of an Intergovernmental Oceanographic Commission was recommended certain initial tasks for the new Commission were outlined and amongst these was included the requirement for a structure to co-ordinate international oceanographic data exchange. The first formal establishment of a working group on exchange of oceanographic data was made by IOC Resolution I-9 adopted at the First Session of the Commission in October 1961, which also prescribed that:

"The mission of this working group shall be facilitating of exchange of oceanographic data, the standardization of forms for reporting and coding data, the encouragement of the preparation of data catalogues, and the assistance of development of national oceanographic data centres."

The Commission authorized the continuation of the Working Group at its Second Session (September 1962).

At its Fifth Session (September 1967) the Commission (Resolution V-20A) amended the terms of reference of the Working Group by adding the following:

"(a) to review and re-appraise the whole international oceanographic data exchange system as recommended by Section 8 of the report 'International Ocean Affairs' (IOC/V-INF.111), and as reaffirmed Recommendation (IX) of the summary of the recommendations of the Working Group meeting in The Hague in September 1967 (IOC/V-4);

(b) to continue and encourage the present work leading towards format standardization for use with automated techniques for data input, storage, retrieval dissemination and exchange, but recognizing the considerable financial implications inherent in such automation;

(c) to continue the development of means whereby geological, geophysical, biological, special air-sea interaction data and data from 'continuously recording' sensors are incorporated into the international oceanographic data exchange system."

The Eighth Session of the IOC Assembly decided that the Working Group for International Oceanographic Data Exchange be renamed Working Committee (Resolution VIII-31) and it also amended its Terms of Reference (Report of the Eighth Session of the IOC Assembly, Doc SC/MD/39, Annex V, page 8, Item II).

Terms of Reference

The Working Committee on International Oceanographic Data Exchange shall:

- (i) facilitate exchange of oceanographic data, the standardization of forms for reporting and coding data, the encouragement of the preparation of data catalogues and the assistance of development of national oceanographic data centres;
- (ii) facilitate exchange of, and access and referral to, information resulting from, or relating to marine programmes emanating from related activities (ASFIS, MEDI, UNISIST, UNEP, IRS, CODATA, etc.);
- (iii) review and re-appraise the whole international oceanographic data exchange system, recommending changes to the Commission, as appropriate;
- (iv) continue and encourage format standardization for use with automated techniques for data input, storage, retrieval dissemination and exchange;
- (v) continue the development of means whereby geological geophysical, biological, special air-sea interaction marine pollution data and data from "continuously recording" and remote sensors are incorporated into the international oceanographic data exchange system;
- (vi) take action as necessary to give effect to the Commission's policy decisions, within its prescribed terms of reference;
- (vii) make recommendations to the Commission on policy matters within its terms of reference, and on the need for Consultants and/or temporary Groups of Experts to deal with special scientific and technical matters connected with the Commission's programmes;
- (viii) report regularly and make recommendations to the Commission of the work accomplished and on future action required and prepare with the assistance of the Secretary, a draft two-year programme of the work and financial requirements for submission to each Assembly;
- (ix) maintain close collaboration with World National, Regional and Responsible Data Centres, with the other Working Committees with the International Co-ordination Groups for the Co-operative Investigations, and with international organizations, within its terms of reference;
- (x) have the right to form ad hoc task teams to carry out specific parts of the work of the Committee during intercessional periods provided no costs fall on the Commission;
- (xi) make recommendations to the Assembly and the Executive Council regarding the provision of technical guidance and for the formulation and execution of the marine science programmes of Unesco relating to marine data and information management, and, when appropriate, to facilitate co-ordination with related programmes of other ICSPRO agencies.

B. Guidelines for the Structure and Responsibilities of the Subsidiary Bodies of the Commission

The general Terms of Reference of the IOC Working Committees and other IOC subsidiary bodies and their membership, as presented in IOC Manual-Part I, Section 5, of 15 July 1982.

C. Chairman, Vice-Chairman of Working Committee on IODE

At the Tenth Session of the Working Committee on IODE (August 1981) Mr. D. Kohnke (Federal Republic of Germany) was elected Chairman and Mr. E. Ridley (USA) was elected Vice-Chairman of the Working Committee on IODE. Their addresses are:

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D. List of Sessions of the IOC Working Committee on International Oceanographic Data Exchange (IODE)

<u>Session</u>	<u>Date</u>	<u>Place</u>	<u>Chairman</u>
1st	07 - 10 Aug 1962	Washington	Dr. W.C. Jacobs, USA
2nd	27 - 30 Jan 1964	Paris	Mr. Ch. Sauar, Canada
3rd	31 Mar - 2 Apr 1966	Rome	Mr. Ch. Sauar, Canada
4th	23 - 26 Sep 1968	Paris	Dr. T. S. Austin, USA
5th	21 - 25 Sep 1970	Geneva	Dr. T. S. Austin, USA
6th	20 - 24 Sep 1971	Rome	Dr. T. S. Austin, USA
7th	09 - 13 Jul 1973	New York	Dr. T. S. Austin, USA
8th	12 - 17 May 1975	Rome	Dr. T. S. Austin, USA
9th	15 - 19 Jan 1979	New York	Mr. T. Winterfold, USA
10th	05 - 13 Aug 1981	Hamburg	Mr. T. Winterfold, USA
11th	09 - 10 Jan 1984	New York	Mr. D. Kohnke, FRG
12th	end of 1986	Paris*	

* Date and place are given tentatively

A. LIST OF RECOMMENDATIONS AND RESOLUTIONS ADOPTED BY IODE-XI*
(UN Headquarters, New York, 9-18 January 1984)

<u>Resolution number</u>	<u>Title</u>
IODE-XI.1	Exchange of Marine Biological Data
IODE-XI.2	Wave Data Management
IODE-XI.3	Data Centre Services
IODE-XI.4	DNP/NOP Announcement
IODE-XI.5	Marine Pollution Data
IODE-XI.6	Exchange of Marine Geological and Geophysical Data
IODE-XI.7	Ocean Data Management for Climate Studies and Applications
IODE-XI.8	Training in Marine Data and Information Management

<u>Recommendation</u>	<u>Title</u>
IODE-XI.1	Group of Experts on RNOEC's
IODE-XI.2	MEUI Enhancement
IODE-XI.3	IGOSS and IODE Co-operation in the Field of Oceanographic Data Archiving and Exchange
IODE-XI.4	IODE's Role in Marine Information Management

* See document IOC/IODE-XI/3, Summary Report of the Eleventh Session of the Working Committee on International Oceanographic Data Exchange

B. Resolutions and other Decisions related to the IOC Working Committee on IODE adopted by the Seventeenth Session of the IOC Executive Council (Paris, 31 January - 9 February 1984).

Resolution EC-XVII.1

IOC PROGRAMME AND BUDGET FOR 1986-87

The Executive Council,

Having been informed that the Twenty-Second General Conference of Unesco responded favourable to the request of the Twelfth Session of the IOC Assembly (Res. XII-11) that the Commission's Programme and Budget for 1984-85 be considerably strengthened, based on recommendations made by the Fourteenth Session of the Executive Council,

Noting that, at the Twenty-Second General Conference of Unesco, strong support was given to ensuring the continued growth of the IOC programme during the next two biennia of the Unesco Medium-Term Plan,

Recalling the concern expressed by the IOC Assembly in Resolution XII-10, and by the Twenty-Second General Conference, regarding the possible dispersal of the Unesco marine science programme between Programmes X.4 and X.5, which might lead to an artificial separation of coastal and offshore marine scientific research,

Expresses its appreciation to the Director-General of Unesco for his understanding of the growing needs of the Commission, and of the role that IOC can play in strengthening international co-operation in marine science and in assisting Member States in their efforts to improve their marine sciences capabilities;

Invites the Director-General of Unesco, when preparing the Draft 23 C/5, to consider measures to strengthen the IOC Programme of Work and Budget, including the necessary staff adjustments, and to consider possible adjustments in the formulation of the overall marine science programme of the Organization, as contained in the Medium-Term Plan for 1984-89, so as to ensure that its implementation be facilitated through an integrated approach to the study of the ocean, both coastal and offshore, and its resources;

Draws the attention of the Director-General to Resolution XII-10 of the IOC Assembly at its Twelfth Session, recommending that the Unesco Programme on the ocean and its resources be treated as a Major Programme of Unesco in the next Unesco Medium-Term Plan;

Urges Member States to ensure that national response to requests made by the Director-General of Unesco for their views on formulation of the Draft 23 C/5 reflect that a high priority should be accorded to the programme and budget of the Commission, so as to maintain its momentum,

Further urges Member States to continue their support to the Commission, especially through the commitment of national resources to IOC projects and activities of particular relevance to them,

Instructs the Secretary to take into account the guidelines found in the Annex to this Resolution when preparing the draft IOC Programme and Budget for 1986-87, to be submitted to the Thirteenth Session of the Assembly, with information regarding the status of preparation of the Unesco Programme and Budget for 1986-87 (Draft 23 C/5),

Further instructs the Secretary likewise to take into account the relevant decisions of the governing bodies and to consult with the Chairman and Vice-Chairmen of the Commission and with the Chairman of major technical and regional subsidiary bodies of the Commission.

Resolution EC-VII.5 *

MARINE INFORMATION MANAGEMENT UNDER IODE

The Executive Council,

Recalling decisions of its Fifteenth Session and of the Twelfth Session of the IOC Assembly to the effect that the role of the Working Committee on International Oceanographic Data Exchange (IODE) in information management needs to be expanded and co-operation with other international organizations increased;

Noting with satisfaction the acceleration in the development of the Marine Environmental Data Information Referral System (MEDIR) by IOC, with the support of other international bodies, and of ASFIS jointly by FAO, UN (OETB) and IOC,

Recognizing the positive role the subsidiary bodies of the Commission have been playing in marine information,

Decides to disband two IOC Groups of Experts: the Joint FAO-IOC-UN (OETB) Panel of Experts on the Aquatic Sciences and Fisheries Information System (ASFIS); and the Group of Experts on Marine Environmental Data Information (MEDIR) Referral System, dealing with marine information;

Decides further to establish a Group of Experts on Marine Information Management, with the Terms of Reference contained in the Annex to this Resolution, consisting of no more than eight experts;

Instructs the Secretary to bring this Resolution to the attention of ICSPRO members and UNEP, and to invite them to be represented on, and collaborate closely with this Group of Experts,

Further instructs the Secretary to explore with international funding agencies their possible support for development activities relevant to marine information.

* See Terms of Reference in Section IV page 7.

Extracts from the Summary Report of the Seventeenth Session of the IOC Executive Council relevant to the IOOE activities (Doc. IOC/EC-XVII/3)

The Chairman of the IOC Working Committee on IOOE, Mr. Dieter Kohnke, introduced the Executive Summary of the Eleventh Session of the Working Committee (Document IOC/EC-XVII/8 Add.2) and highlighted the main activities of the Committee during the last two years. He emphasized that the major requirements for new initiatives which had emerged during the interessional period were:

- a new approach to co-ordinating the various marine-information activities of IOOE;
- new capabilities to provide large-scale data and information services in support of global international scientific programmes, such as WCRP;
- continued development of the RNODC system;
- standardization, expansion and acceleration of the international exchange of oceanographic data;
- an increased level of support of training activities through the IOC Training, Education and Mutual Assistance in the Marine Sciences (TEMA).

The Chairman of the Working Committee informed the Council that the WDCs A and B, Oceanography operating in Washington and Moscow, respectively, continued to acquire substantial volumes of marine scientific data. During the report period, data were received from 33 countries, the total number of stations exceeding 160,000; the operational system of RNODCs assisting the WDCs in quality control and preparation of products was steadily developing with 13 RNODCs now in operation. Some of these will accomplish their specific tasks within the next interessional period and new RNODCs will be required to serve such programmes as Southern Oceans, El Nino, the World Climate Research Programme and MARPOLMON. The publication of the Guide for RNODCs in 1982, in which the procedures for the accreditation of a new RNODC were described, will facilitate the nomination of new Responsible National Oceanographic Data Centres.

The Delegate of the Federal Republic of Germany informed the Council of the intention to establish a data centre for BIONASS data in the United Kingdom or his own country.

The Observer from the Ukrainian Soviet Socialist Republic stated that his Republic will be ready to provide facilities for RNODC-MARPOLMON, starting in 1986.

The Observer from Cuba stressed the importance his country attaches to the IOOE and informed the Council of his country's intention to establish a National Oceanographic Data Centre; he sought IOC's co-operation in this endeavour. He also expressed his country's concern over the difficulties encountered by the Delegate of Cuba to the Eleventh Session of the Working Committee on IOOE in obtaining a U.S. visa in time to attend the Session in New York.

The Executive Council welcomed the information on the BIODIASS data centre.

The Executive Council strongly supported the concept of the existing system for international oceanographic data exchange. It expressed its concern, however, over the fact that, although the number of NODCs and Declared National Agencies (DNAs) is increasing, the geographical distribution of the NODCs is far from being adequate, with big gaps in Africa, Asia and Central America.

The Executive Council thanked the Observer of the Ukrainian Soviet Socialist Republic for his offer related to an RNODE for HARPOLMON.

Considerable progress has been achieved in the development of the IOC standard exchange format (GF-3). Standard subsets have been completed and deposited with the RNODE-Formato (ICES, Copenhagen) for moored-current-meter data, sea-surface level data, drifting-buoy data, and non-directional wave spectra. Guides on the use of GF-3 have been published in the IOC Manuals and Guides series. GF-3 has reached the stage where it can be widely used for the exchange of a variety of data types. An important effort has been made in the preparation of portable software for GF-3 which will facilitate reading and writing GF-3 formatted tapes. This comprehensive progress could not be achieved without expertise provided by Canada and the British Marine Information and Advisory Service. The first issue of a Newsletter on Formato for Oceanography has been published by RNODE-Formato and a popular brochure on GF-3 is in preparation.

Ten Task Teams worked during the intercessional period to meet specific requests for different types of oceanographic data and to deal with other matters related to IODE. The Chairman of the Working Committee on IODE referred to the progress in meeting the requirements of the Joint SCOR-IOC Committee on Climatic Changes and the Ocean (CCCCO) for ocean climate data; of the Working Committee for GIPME, for pollution data; of the programme of Ocean Science in Relation to Non-Living Resources (OSNLR), for geological data; and of the programme of Ocean Science in Relation to Living Resources (OSLR), for biological data; etc. Special emphasis has been put on the co-operation with the Joint IOC-WMO Working Committee for IGOS because of the great difficulties in the establishment of practical operational data flow between IGOS and IODE data-management systems; the archiving procedures and RNODE responsibilities for OATHY/IESAC data need to be reviewed and up-dated.

The Executive Council expressed concern over the fact that a big volume of OATHY/IESAC data does not yet reach the RNODE-IGOS, and instructed the Secretary to arrange a meeting of IGOS and IODE experts to study means of improving the functioning of the IGOS/IOE interface, particularly with respect to the provision of a complete service to the ICRP.

The Executive Council emphasized the value of the guidance provided by the Working Committee to deal with new types of marine data. However, it stressed the need to be very careful in including and handling large volume data sets such as remotely sensed data.

The Executive Council recommended that the Working Committee on IODE strengthen the links with international organizations having experience in the management of specialized oceanographic data, such as biological data (FAO), bathymetric data (IHO), non-living marine resources data (UN/OETB and regional programmes), and mineral data (ICES).

The IOC Assistant Secretary Dr. I. Oliouline, informed the Executive Council of the major findings of an inter-agency consultation held at UN Headquarters immediately prior to the Eleventh Session of the Working Committee on IODE, in response to the recommendations of the IOC governing bodies. Representatives of more than ten international agencies participated. This meeting identified the principles of co-operation between international agencies which should be borne in mind in the conduct and further development of oceanographic data and information activities; these principles include, inter alia:

- Collaboration in sharing information on plans for data activities, so as to avoid unnecessary duplication of effort and to make activities in data management complementary;
- Making maximum use of existing mechanisms for data exchange and archiving, such as the International Oceanographic Data Exchange system and the World Data Centre system;
- Assisting in informing governments of these mechanisms and advising governments of the advantages of providing data to these systems;
- Co-operation in ensuring effectiveness and comprehensiveness of international data referral services such as MEDI, INFOCLIMA, and the CODATA Directories;
- Promoting the better use of existing information systems such as ASFIS.

The Executive council noted with interest the outcome of the meeting and recommended that the practice of having inter-agency meetings on information and data management be continued, with at least one meeting being held during the intersessional period to discuss further development of co-operation in this field.

The Executive Council noted with satisfaction the reference to the importance of improving co-operation between UNEP and IOC in data and information management contained in the Aide-memoire on Co-operation between IOC and UNEP. The Executive Council instructed the Secretary IOC to continue efforts in that direction.

At its Fifteenth Session the Executive Council expressed its belief that the role of the Working Committee on IODE in information dissemination needs to be expanded and co-operation with other international organizations to be increased. The Chairman of the Working Committee on IODE reported on the numerous actions that have been undertaken during the last intersessional period in this respect. As a result of this the Working Committee on IODE, in unifying its various activities in the field of marine information management and in aiming at a concentration and strengthening of its efforts, decided to disband its Task Team on IODE's Role in Marine Information Management (MIM). The Working Committee also recommended the disbandment of the Group of Experts on MEDI and the Joint IOC-FAO-UN (OETB) Panel of Experts on ASFIS, and the formation of a new Group of Experts on Marine Information Programmes.

The Executive Council instructed the Secretary to consult with FAO and the UN(OETB) on the Working Committee's recommendation regarding the Joint Panel.

The Chairman of the Working Committee informed the Council of the Training activities in the framework of data and information management. The Working Committee continued to consider training of marine information and data specialists as one of the most important parts of the development of marine infrastructure in developing countries. To meet these needs the Working Committee decided to establish a Task Team to deal with IODE training projects and will make every effort to ensure that the membership of the Task Team will represent various geographical areas so that information on training needs of these areas can be defined and communicated to the Task Team Chairman who is also the Vice-Chairman of the Working Committee. Training courses have been and will be arranged in France, Japan, UK and USA. Argentina and China have also offered to arrange training courses in data processing and preparation of products.

The Executive Council thanked the Delegates of Argentina and China for their generous offers to arrange training for experts from developing countries.

The Executive Council urged Member States to second Associate Experts to the IOC Secretariat to deal with marine information programmes.

The Executive Council requested the Working Committee on IODE to develop a programme plan for marine information management.

Recognizing that experience in the development of all similar information plans has shown that a consultant needs about one year to finalize the draft of a programme development plan, the Executive Council instructed the Secretary to engage a consultant to prepare this plan as it was outlined in Annex VI of the Summary Report of the Eleventh Session of the Working Committee on IODE. The Executive Council agreed that the funds for hiring a consultant should be sought from extrabudgetary sources.

The Executive Council, receiving with appreciation the information from the Delegate of Canada that a contribution to the IOC Trust Fund has been agreed by the International Development Research Centre (IDRC), to cover the costs of engaging a consultant to prepare a Handbook on Marine Scientific and Technical Information, and the costs of publication, thanked the Government of Canada for this generous offer,

The Executive Council also thanked the USA for having hosted the Fourth Session of the IODE Group of Experts on RNODCs, the USSR for a kind invitation to host the Fifth Session, and the United Kingdom for having hosted the Second Session of the IODE Group of Experts on Format Development.

The Executive Council expressed its appreciation of the efforts, dedication and achievements of the Working Committee on IODE and its subsidiary bodies and approved the Summary Report and Recommendations of the Eleventh Session.

A. NATIONAL CO-ORDINATORS FOR INTERNATIONAL OCEANOGRAPHIC DATA
EXCHANGE AND OCEANOGRAPHIC DATA CENTRES

	NODC or DNA	Date founded
Capitan A.J. Gil Villaverde Director Argentine Oceanographic Data Centre (CEADO) Avenida Montes de Oca 2124 (1271) Buenos Aires Argentina	NODC	1974
The Director Australian Oceanographic Data Centre (AODC) Hydrographic Office, R.A.N. P.O. Box 1332 North Sydney, N.S.W. 2060 Australia	NODC	1964
Capitao-de-Fragata P.R. Valgas Lobo Encarregado do Banco Nacional de Dados Oceanograficos Diretoria de Hidrografia e Navegacao 1 Distrito Naval - Ilha Fiscal 20091 Rio de Janeiro, RJ Brazil	NODC	1971
Marine Environmental Data Service Marine Sciences Directorate 240 Sparks Street, 7th. Floor Ottawa, Ontario K1A 0E6 Canada	NODC	
Mr. R.E. Montaner Chief, Centro Nacional de Datos Oceanograficos de Chile Instituto Hidrografico de la Armada Casilla 324 Valparaiso Chile	NODC	1968
Mr. L. Chuanwei Institute of Marine Scientific and Technological Information National Bureau of Oceanography P.O. Box 74 Tianjin People's Republic of China	NODC	1979
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NODC 1965 IGOS
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1972

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Pakistan

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1962

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NODC

1968
RNODC for
instrumented
and Remote-
sensed wave
data

Mr. E.L. Ridley
Director
National Oceanographic Data Center
National Oceanic and Atmospheric
Administration
2001 Wisconsin Avenue N.W.
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NODC

1961
IGOSS RNODC
RNODC for
MARPOLMON-P
RNODC for
IGCARIBE
RNODC-FOY

WDC-A (Oceanography)
National Oceanic and Atmospheric
Administration
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WDC-B (Oceanography)
Molodezhnaya 3
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International Council for the
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RNODC-
Formato

Dr. D. Pugh
Director
Permanent Service of Mean Sea Level
(PSMSL)
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Bidston Observatory
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8. GEOGRAPHICAL DISTRIBUTION OF OCEANOGRAPHIC DATA CENTRES

EUROPE

Finland	DNA
France	NODC
FRG	NODC
Iceland	NODC
Italy	NODC
Netherlands	NODC
Norway	NODC
Poland	NODC
Romania	DNA
Spain	NODC
Sweden	DNA
USSR	NODC
United Kingdom	NODC

ASIA

People's Republic of China	NODC
India	NODC
Japan	NODC
Republic of Korea	NODC
Pakistan	NODC
Philippines	NODC
Turkey	DNA

NORTH AMERICA

Canada	NODC
USA	NODC

CENTRAL AMERICA

Guatemala	NODC
Mexico	NODC
Trinidad and Tobago	DNA

SOUTH AMERICA

Argentina	NODC
Brazil	NODC
Chile	NODC
Colombia	NODC
Ecuador	NODC
Peru	NODC

AFRICA

Arab Republic of Egypt	NODC
Ghana	DNA
Morocco	NODC
Tanzania	DNA

AUSTRALIA

Australia	NODC
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A.

MEMBERSHIP OF IODE SYSTEM

Chairman: Mr. D. Kohnke (Federal Republic of Germany)

Vice-Chairman: Mr. E.L. Ridley (U.S.A.)

GROUP OF EXPERTSChairman

Format Development	Mr. J. Crease (U.K.)
Responsible National Oceanographic Data Centres (RNODCs)	Mr. K. Hughes (U.S.A.)
Marine Information Management	Dr. J. Watson (Canada) (interim)

TASK TEAMS

Exchange of Airborne and Satellite Remotely Sensed Data	Mr. P. Geerdens (Netherlands)
Marine Pollution Data Exchange	Dr. M. Porttilla (Finland)
Marine Biological Data	Mr. H.A.C. Jones (Canada)
Measured Wave Data Management	Dr. J.H. Wilson (Canada)
Development of IODE Data Centre Services	Mr. R. Lockerman (U.S.A.)
Review of DNP/NOP Announcements	Mr. P. A. Bolduc (Canada)
Ocean Data Management for Climatic Studies	Mr. J. Crease (U.K.)
Exchange of Marine Geological and Geophysical Data	Dr. M. Loughridge (U.S.A.)
Training and Mutual Assistance in Marine Data and Information Management	Mr. E. Ridley (U.S.A.)

RAPPORTEUR

on Standard Criteria for Physical Oceanographic Data	Dr. M.T. Jones (U.K.)
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D. GROUP OF EXPERTS ON FORMAT DEVELOPMENT

Chairman: Mr. J. Croooo (U.K.)
Date of establishment: January 1979
IODE-IX, Rec. 6
IOC EC-XI. 14 (March 1979)

Terms of reference:

- Keep format under review and recommend enhancements;
- In conjunction with IODE Task Teams from the various disciplines develop the parameter code system;
- In conjunction with the IODE Task Teams from the various disciplines develop standard discipline-oriented subsets of the General Format;
- Establish a mechanism to provide advice and guidance in the use of GF-3.

Composition of

Group of Experts on Format Development

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Federal Republic of Germany

GROUP OF EXPERTS ON RESPONSIBLE NATIONAL
OCEANOGRAPHIC DATA CENTRES (RNODCs)

Chairman: Mr. K. Hughes (U.S.A.)

Date of establishment: May 1975
Rec. IODE-VIII.12
Res. IX-28
Res. IODE-X.2

Terms of reference

- Refine guidelines necessary for the development of effective relationships between RNODCs and other components of IOC;
- Further develop functions and obligations of participants in the RNODC scheme, including data processing, exchange, services and training;
- Review and advise to the extent practicable the operational status of the RNODC system including discussions with newly proposed RNODCs screening of applicant RNODCs general oversight and co-ordination of the system and advise the Chairman of the Working Committee and the Secretary of IOC on the numbers and kinds of participating RNODCs;
- Maintain close and continuing working relationships as necessary, with Directors of accredited Responsible National Oceanographic Data Centers and World Data Centers.

Composition of
Group of Experts on Responsible National
Oceanographic Data Centres (RNODCs)

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GROUP OF EXPERTS ON MARINE INFORMATION MANAGEMENT

Chairman: Dr. J. Watson (Canada)
(interim)

Date of establishment: January 1984
Rec. IODE-XI, 4
Res. EC-XVII.5

Terms of Reference:

(i) Advise the Working Committee on IODE on the policy, development and further implementation of an effective international system for scientific and technical information relating to the marine environment by keeping user requirements under continuing review and ensuring that these requirements can be met adequately;

(ii) Identify the policy, technical and financial problems involved in the development and implementation of marine information management systems, and make recommendations concerning solutions of those problems;

(iii) Develop programmes to improve the ability of Member States, particularly developing countries, to benefit from, and participate in, marine information management systems and keep Member States informed on how they might best gain access to such systems;

(iv) Report to the Working Committee on IODE on matters related to marine information and services of the UN and the specialized agencies with special emphasis on ASFIS and MEDI;

(v) Advise the Secretary of IOC on the technical aspects of marine information management, particularly ASFIS and MEDI maintained or co-ordinated by ICSPRO Members and UNEP.

Composition of

Group of Experts on Marine Information Management

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Mr. Guo Fengyi
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C. TASK TEAM ON EXCHANGE OF AIRBORNE AND SATELLITE
REMOTELY SENSED DATA

Chairman: Mr. P. Goeders (Netherlands)

Date of establishment: January 1979
Rec. IODE-IX.5
Res. EX-XI.14

Terms of reference

- Identify the needs of present and future users for remote sensed oceanographic data and for formats for the exchange of such data.
- Identify the types of data available for real and non-real time modes and make recommendations concerning exchange and archiving;
- Working in close co-operation with appropriate intergovernmental activities and their scientific advisory bodies, will act, between sessions of the Working Committee, as the focal point of the Working Committee for matters relating to remote sensed oceanographic data;
- Provide the Secretariat with advice and assistance in the implementation of recommendations of the Working Committee on IODE on this matter.

Composition of
Task Team on Exchange of Airborne and Satellite
Remotely Sensed Data

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TASK TEAM ON MARINE POLLUTION DATA EXCHANGE

Chairman: Dr. M. Perttilla (Finland)

Date of establishment: August 1981
Res. IODE-X.4

The Tenth Session of the Working Committee on IODE recommended that the role of IODE Rapporteur for Marine Pollution Data be expanded and assigned to a Task Team on Marine Pollution Data Exchange for the next interessional period with the Terms of Reference of the Rapporteur to be kept in force pending revision by the Chairman of the Task Team.

Terms of reference (modified by IODE-XI, January 1984)

- Study the different existing data formatting systems for reporting and exchange marine pollution data in biotransfer, water and sediments, and make recommendations on their use;
- Study ways of ensuring the quality control and documents of chemical data submitted for international exchange in collaboration with the GIPME Group of Experts on Methods, Standards and Inter-calibrations;
- Study ways of providing access to information on pollution data, in collaboration with the Group of Experts on Marine Information Management and the Group of Experts on Format Development;
- Develop guidelines for the recording and archiving of marine pollution data and act as an advisory group on matters in this field.

Composition of
Task Team on Marine Pollution Data Exchange

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Mr. Joanny
~~Centre Oceanologique de Bretagne~~
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29273 Brest Cedex
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TASK TEAM ON MARINE BIOLOGICAL DATA

Chairman: Mr. H.A.C. Jones (Canada)

Date of establishment: August 1981
Res. IODE-X.5

Terms of reference (modified by IODE-XI, January 1984)

- further investigate the general need for the international exchange of marine biological data and information;
- identify significant marine biological data sets to be forwarded to the Group of Experts on Format Development to be converted to GF-3 format as test data sets, to demonstrate the ability of GF-3 to handle diverse biological data;
- develop more specific guidelines for the recording, documenting and exchange of marine biological data for eventual incorporation in IOC Manuals and Guides 9; and consider mechanisms (including Groups of Experts, RNOEC's etc.) which could be established to facilitate the international exchange of biological data;
- study the various biological taxonomic coding schemes currently in use nationally, internationally or regionally, with a view to recommending on their suitability for IODE;
- act as the focal point of the Working Committee on IODE for matters relating to marine biological data management working in close co-operation with appropriate intergovernmental and non-intergovernmental bodies and programmes (such as OSLR, BIOMASS, IABO, the Baltic Monitoring Programme, etc.);
- design promotional material explaining the merits of archiving and exchanging marine biological data.

Composition of
Task Team on Marine Biological Data

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TASK TEAM ON MEASURED WAVES DATA MANAGEMENT

Chairman: Dr. J.R. Wilson (Canada)

Date of establishment: August 1981
Res. IODE-X.7

Terms of reference (modified by IODE-XI January 1984)

- Finalize and distribute through the RNO DC Formats the "User Guide for the Exchange of Measured Wave Data";
- Complete the development and documentation of GF-3 standard subsets for wave directional spectral data and for data digitized from synoptic wave charts;
- Continue to provide a focal point for contact with WMO/CMM for questions in regard to data management, data within the IODE system which would be important to a wave forecasting programme;
- Further develop and describe the mechanisms to acquire and effect the exchange of measured wave data and of wave data products and presentations of use to programmes and end users of the IODE system;
- Continue to assist, as necessary during the intersessional period with the resolution of problems that occur in the exchange of measured wave data;
- Continue to review and assess the use and suitability of the wave data subsets and report to the next meeting of the Working Committee.

Composition of
Task Team on Measured Wave Data Management

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TASK TEAM ON DEVELOPMENT OF IODE DATA CENTRE SERVICES

Chairman: Mr. R. Lockerman (U.S.A.)

Date of establishment: August 1981
Res. IODE-X.8

Terms of reference (modified by IODE-XI, January 1984)

- Examine the data products and services provided by different oceanographic data centres, and make recommendations to the WC on IODE on the publication of a catalogue of typical data products, with indications of their typical uses and users;
- Review and collate the requirements already expressed by CCCO, SCOR, and the IODE Task Team on Ocean Data Management for Climatic Studies, in order to identify the principle oceanographic variables, parameters, presentation methods spatial and temporal resolution, interpolation techniques, gridding, and other specifications to define data products which will meet their needs. To identify a small number of data types which could be considered for the most urgent attention within the capabilities of the IODE system;
- Report to the WC on IODE on the technical and resource implications of preparing standard data products and their scientific usefulness;

Composition of

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TASK TEAM ON REVIEW OF DNP/NOPs ANNOUNCEMENTS

Chairman: Mr. P.A. Bolduc (Canada)

Date of establishment: August 1981
Res. IODE-X.9

Terms of reference (modified by IODE-XI, January 1984)

- Examine the usefulness of planned and realized DNP/NOPs;
- Investigate and make recommendations with regard to increasing the number of Member States submitting DNP/NOPs;
- Investigate and make recommendations with regard to increasing the percentage of data from DNPs being submitted to the WDC system;
- Review, in close co-operation with the Group of Experts on Format Development, the form used in declaring planned and realized national programmes, and the use of ROSCOP forms;
- Conduct a questionnaire survey of National Co-ordinators, scientific organizations and other appropriate groups to study these issues;
- Make recommendations to the Working Committee on ways to improve the DNP/NOP system.
- Prepare revised text of the brochure on NOP and DNP announcement;
- Write a chapter containing new descriptions of the procedure of NOPs and DNPs announcements in the new edition of the IOC Manuals and Guides No. 9 on International Oceanographic Data Exchange.
- Study the possibilities of maintaining DNP/NOP information on a computer file.

Composition of

Task Team on Review of DNP/NOPs Announcements

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TASK TEAM ON OCEAN DATA MANAGEMENT FOR CLIMATIC STUDIES

Chairman: Mr. J. Crease (U.K.)¹

Date of establishment: August 1981
Rec, IODE-X.9

Terms of reference (modified by IODE-XI January 1984)

- Keep itself informed of WCRP-Oceanography (WCRP-O) Programme development;
- Study the use of the IODE System and identify new elements required in the data management of WCRP-O;
- Provide expert advice as requested to CCCO and other bodies on ocean data management working closely with colleagues in IGOS;
- Assist in defining the objectives of those NODCs which wish to establish RNODCs in climate-related areas by approved procedures;
- Supervise the production of the catalogue of long time-series.

Composition of

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TASK TEAM ON EXCHANGE OF MARINE GEOLOGICAL AND GEOPHYSICAL DATA

Chairman: Dr. M. Loughridge (U.S.A.)

Date of establishment: August 1981
Rec. IODE-X.10
Res IODE-IX.6

Terms of reference (modified by IODE-XI, January 1984)

- Identify the most pressing needs of the international community for marine geological and geophysical data exchange;
- Review the status of existing data management systems, including inventories, with regard to marine geological and geophysical data, including resource oriented data, needs within the IODE systems and in other relevant international organizations;
- Consider data exchange formats related to newly developed technology (e.g., multi-beam echo sounders);
- Advise the Committee and the Group of Experts on Format Development, as necessary on parameters to be included in additional standard GF-3 marine geological and geophysical data subsets;
- Advise the Committee on ways to encourage and increase the international exchange of such data;

Composition of

Task Team on Exchange of Marine Geological and Geophysical Data

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IOC/INF-600
Section IV - page 32

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TASK TEAM ON TRAINING AND MUTUAL ASSISTANCE IN MARINE DATA
AND INFORMATION MANAGEMENT

Chairman: Mr. E. Ridley (U.S.A.)

Date of establishment: January 1984
Res. IODE-XI,8

Terms of reference:

- Provide a focal point for assessing in co-operation with the IOC regional offices, regional needs for training, education and mutual assistance for developing countries in order that they can actively participate in the IODE programme;
- Solicit assistance from developed countries in establishing programmes to meet identified training and assistance needs;
- Provide advice to the Chairman of the WC/IODE and the Secretary of IOC regarding future TEMA activities;
- Provide expertise and assistance to all subsidiary bodies of the Committee in all activities pursuant to TEMA requirements.

Composition of

Task Team on Training and Mutual Assistance in Maritime Data
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D. RAPPORTEUR ON STANDARD CRITERIA FOR PHYSICAL OCEANOGRAPHIC DATA

Rapporteur: Dr. M.T. Jones
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Date of establishment: January 1984
Decision of IODE-XI

Terms of reference:

- Consider the problems arising from the exchange of CTD data within the IODE system;
- Advise the Group of Experts on Format Development, as necessary, on the content of further standard subsets;
- Consider more generally the impact of new systems with large data flow on the IODE exchange mechanism.