

Distribution : limited

IOC/INF-405
Paris, 6 July 1979
Original : English

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION

(of Unesco)

SCIENTIFIC ADVISORY BOARD REPORT
ON THE
REVIEW OF INTERNATIONAL OCEANOGRAPHIC DATA EXCHANGE
Executive Summary and Recommendations

This document which was adopted by the Scientific Advisory Board at its fourth session (Unesco, Paris, 26-30 March 1979) contains an Executive Summary and recommendations.

The Board started a review of international oceanographic data exchange at its third session (SAB-III, Unesco, Paris, 29 May - 2 June 1978) and set up a review group under Dr. N. Nasu (discussion leader) and Dr. A. Ramirez-Flores. The full text of the review undertaken by the Board has been attached as an Appendix.

Executive Summary and Recommendations
of the
Scientific Advisory Board's Review of International
Oceanographic Data Exchange (IODE)

The Scientific Advisory Board (SAB) has completed its review of International Oceanographic Data Exchange (IODE) which was initiated at its third session (SAB-III, Unesco, Paris, 29 May - 2 June 1978), upon request of the Chairman IOC.

The Board's review group under Dr. N. Nasu (discussion leader) and Dr. A. Ramirez-Flores in correspondence with all Members of the Board, started its work by commenting on the document "Status of International Oceanographic Data Exchange" (doc. IOC/EC-XI/14) and later by considering the Executive Summary of the ninth session of IODE (doc. IOC/IODE-IX/3S).

At its fourth session (SAB-IV, Unesco, Paris, 26-30 March 1979), the Chairman SAB invited Mr. T. Winterfeld, Chairman WC/IODE, to present his views on the current status of oceanographic data exchange activities following the considerations and recommendations of IODE-IX (UN, New York, 15-19 January 1979).

The Board in particular took note of resolutions EC-XI.13 and 14 adopted by the Executive Council at its eleventh session (Mexico City, 26 February - 3 March 1979) on matters related to the Commission's programmes co-ordinated by the Working Committee on IODE.

In summarizing the discussion at SAB-IV, the Board recognized the efforts carried on within the IODE programme for its own internal evaluation and critical assessment of progress and expressed its concurrence with the aims, objectives and specifics of the Commission's ongoing activities on data exchange and information management. The Board further recommended to the Executive Council to assign a high priority status to all IODE activities and emphasized the need to strengthen and intensify three programme elements of the IODE in adopting relevant recommendations on ASFIS, TEMA and CLIMATE as follows.

RECOMMENDATION SAB-IV (IODE).1 - ASFIS

Realizing that the IOC's primary mechanism for fulfilling its obligation to Member States in the provision of information on and resulting from marine science and international oceanographic programmes is through participation in ASFIS of which FAO is the lead agency,

Calls upon the IOC Secretariat and IOC Member States to continue to strengthen support to the ASFIS in order to:

- a) further increase the scope of subject matter coverage responding to the needs of the oceanographic community and to encompass a greater spectrum of available information sources;
- b) broaden the range of services available from the ASFIS.

Recommendation SAB-IV (IODE).2 - TEMA

Being convinced that developing countries can reap the full benefits and potential of IODE and its services only through a comprehensive TEMA programme,

Requests the Member States who require training in data processing, data management and information services to specify their needs in regard to IODE;

Calls upon the WC/IODE to seek ways and means by which such training can be provided as a contribution to the IOC's overall TEMA activities.

RECOMMENDATION SAB-IV (IODE).3 - OCEANOGRAPHIC DATA REQUIREMENTS FOR CLIMATE STUDIES

Anticipating the broad-scale implementation over the coming decade of studies of the world's climate,

Being convinced that a wide variety of oceanographic data will be essential for the conduct of these studies,

Acknowledges with appreciation the efforts by France and the United States of America in establishing a RNODC for oceanographic data collected during the FGGE (RNODC-FOY), and in particular noting the Global Ocean Data Inventory and Global Ocean Climate Data Base activities in support of climate research by the RNODC-FOY,

Requests the WC/IODE to :

- a) work closely with SCOR and WMO to determine what kinds of data are required (and in what form) from data banks and ongoing programmes;
- b) identify all available long-time series of various types of marine data including both oceanic and coastal data and to make such an index available through the WDC system (noting also in this regard the information contained in the IOC's continuing maintenance of the International Catalogue of Ocean Data Stations);
- c) review the experience of the RNODC-FOY towards these objectives, and consider establishing this as a longer term activity.

Recommends the IOC Executive Council to :

- i) take note of the great importance and unique service rendered by the Permanent Service for Mean Sea Level (PSMSL), a specialized Data Centre in the ICSU World Data Centre system, in providing monthly sea level data on a global basis;
- ii) recall the repeated requests of the PSMSL for supplemental financial support in order to continue, expand and modernize its holdings and publications;
- iii) take positive steps to identify additional sources of funding for the PSMSL;
- iv) publicize the role and functions of the PSMSL among IOC Member States.

REVIEW OF THE INTERNATIONAL OCEANOGRAPHIC DATA EXCHANGE (IODE)

In noting the excellent summary of the development of the international oceanographic data exchange as presented in document IOC/EC-XI/14, attached hereto, the Scientific Advisory Board fully concurs with the Working Committee for International Oceanographic Data Exchange. This document, entitled "Status of international oceanographic data exchange", was prepared by the Director of WDC-A, in consultation with the Chairman WC/IODE and the Secretariat in response to resolution EC-X.13.

This document, attached hereto, is extremely useful to an understanding of the development of the World Data Centres in relation to the Commission's programmes, the current status of oceanographic data exchange, the anticipated demands and the future trends in this important field of the Commission's activities.

In resolution I-9 (October 1961), the Commission recognised the WDC (Oceanography) as focal points for the international exchange of oceanographic data, and recommended the continuation of the WDC data-exchange system, which had been established during the International Geophysical Year (IGY, 1957-58). At the first session, the Assembly also recommended the establishment of an IOC Working Group on the Organization of Data Exchange (now the Working Committee for International Oceanographic Data Exchange). This subsidiary body of the Commission has held nine sessions (1962, 1964, 1966, 1968, 1970, 1971, 1973, 1975 and 1979), and, among other things, recommended a series of manuals and guides, as well as new concepts, within the international system of oceanographic data exchange.

At the ninth session (UN, New York, 15-19 January 1979), the WC/IODE adopted ten recommendations which the Executive Council, in resolution EC-XI.14, decided to act upon.

The Scientific Advisory Board, in reviewing the scientific aspects of international oceanographic data exchange, wish to commend the WC/IODE on its thorough preparation of the ninth session, and its critical assessment of progress in this field based upon its own internal evaluation. Therefore, SAB agrees with the Recommendations and Resolutions contained in document IOC/IODE-IX/3S, and wishes to summarize its comments only briefly:

(i) USE OF EXISTING IODE SYSTEMS AND PROCEDURES

Attention should be called to the need to optimize the distribution of documents and reports on IODE procedures, activities and services. It is hoped that this measure will increase the use of IODE systems and procedures by IOC subsidiary bodies and international organizations, and improve their co-operation.

(ii) FORMAT DEVELOPMENT AND IMPLEMENTATION

The extensive acceptance and use of the General Format for Exchange of Oceanographic Data (GF-3) by all Member States and international organizations should be reinforced. Recommendation IODE-IX.6 is of special importance in this context. It is also important to note the need for standardization of data formats and procedures for magnetic data storage and retrieval.

On this subject, the establishment of the recommended Group of Experts could be a most effective step.

(iii) **PILOT PROGRAMME FOR RESPONSIBLE NATIONAL OCEANOGRAPHIC DATA CENTRES (RNODC's)**

Special attention and emphasis should be given to the recommendations and resolutions on RNODC's. The increase in number under the pilot programme, and the diversification of the orientation of these Centres, should be considered in future developments.

(iv) **AQUATIC SCIENCES AND FISHERIES INFORMATION SYSTEM (ASFIS), AND MARINE ENVIRONMENTAL DATA INFORMATION REFERRAL SYSTEM (MEDI)**

Attention should be called to the importance of both ASFIS and MEDI systems in the development of international oceanographic data exchange. IOC activities should be strengthened and Member States should be encouraged to provide regular input, particularly into MEDI.

(v) **RAPORTEURS AND CO-ORDINATORS**

In several recommendations and resolutions, the appointment of Rapporteurs and co-ordinators is requested for the various IODE activities and disciplines. After their appointment, it would be convenient to print a directory of them, and to distribute it widely among Member States.

(vi) **DECLARED NATIONAL PROGRAMMES (DNP's)**

The developing countries should be actively encouraged to prepare Declared National Programmes (DNP's), and to use the WDC's, since the latter are an important source of valuable information accessible without recourse to expensive facilities or techniques.

(vii) **TEMA COMPONENTS WITHIN IODE**

The importance of TEMA in IODE has been often emphasized. It is desirable that Member States in need of specific expertise to enable them to make use of IODE systems and services be encouraged to propose specific training and exchange programmes.

(viii) **It appears that IODE will be important in the development of future programmes on both climate and ocean climate, and the Working Committee on IODE should ascertain the requirements of these programmes.**