



Report on the Third Session of the Working Committee
for IGOSS, and on the Committee's Third Joint
Session with the WMO EC Panel on Meteorological
Aspects of Ocean Affairs

by

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The IOC Working Committee for an Integrated Global Ocean Station System (IGOSS) held its 3rd session in the WMO Secretariat, Geneva on 9-10 and 14 November 1970.

The WMO Executive Committee (EC) Panel on Meteorological Aspects of Ocean Affairs also met at 9-10 November, and afterwards the two bodies met in their 3rd Joint Session (11-14 November).

Items of purely oceanographic interest were dealt with in the session of the Working Committee whereas those of interest to both groups were taken up in the joint session. Your observer attended both sessions and will report on them together.

Both sessions were chaired by the Chairman of the Working Committee for IGOSS, Dr. N.J. Campbell.

Mr. R.C. Junghans, in the report of the IOC Secretariat emphasized progress in IGOSS development. He presented the first issue of the IGOSS Programme Information Circular which contains information on progress in implementing IGOSS.

The Committee noted that the IGOSS programme was now reaching the stage in its development where implementation and evaluation functions must be added to the work involved in system design, and recognized that the establishment of a permanent planning and management staff to support the further development of IGOSS would be necessary. It urged therefore, IOC to establish the appropriate support without delay.

Mr. Junghans, who would terminate his service to the IOC at the end of the meeting, was warmly thanked for the outstanding effort he had made as the Assistant Secretary for IGOSS.

The meeting agreed that there was a clear need for an IGOSS Prospectus, also because there obviously was a general misunderstanding of the objectives of IGOSS. It was left to the Chairmen of the Working Committee for IGOSS and the WMO EC Panel together with selected members of the IOC and WMO Secretariats to develop an outline for the Prospectus.

The meeting examined proposals from the IGOSS Executive Co-ordination Meeting regarding restructuring of the international mechanisms for the further development of IGOSS and decided to set up a Joint IOC/WMO Planning Group for IGOSS.

With respect to the operational planning system the meeting agreed to establish a Joint IOC/WMO ad-hoc Task Team for the Determination of User Applications of Ocean Analyses and Prediction Services, with Emphasis on Oceanographic Aspects. The IGOSS Working Committee, the WMO EC Panel and FAO were requested to designate one co-leader each for the Task Team. In addition, ICES, IAEA and IMCO were invited to designate representatives to co-operate with the Task Team. The members of the Task Team will serve as the focal point for each body or organization involved, and will also take steps to acquire the necessary information which will be amalgamated by the Team into a report. The Team was established on the understanding that it would complete its work within one year or less and submit progress reports, within that year, to the Chairman of the IGOSS Working Committee.

In view of the fact that ICES is invited to be represented on this Task Team its terms of reference are quoted here:-

- "(a) To establish what user application and prediction services already exist in the world and to determine their degree of effectiveness;
- (b) to specify those additional application and prediction services which could have a potential benefit and to predict their effectiveness, and in particular to determine the types and forms of products which will give maximum benefit to the users;
- (c) to identify the users which would benefit from existing and projected services and their level of interest. In particular the group should address itself to determining the reasons why full use is not made of IGOSS type services in fields where apparent potential benefit exists;
- (d) to assign priorities to the applications and geographical areas for the consideration of appropriate bodies.

The group should take note of the papers being written for the preparation of the IGOSS prospectus and other relevant literature.

It should solicit maximum assistance from Member States in the performance of its duties and encourage their individual participation."

There was general opinion that the rôle of the Joint IOC/WMO Group of Experts on Coordination of Requirements in the present stages of IGOSS development had been completed. The Group was disbanded, and a Joint IOC/WMO Group of Experts on IGOSS Technical Systems Design and Development and Service Requirements was established instead. With a view to the implementation of IGOSS, both for Phase I and particularly for Phase II, this Group will

- (a) consider requirements and system characteristics for data acquisition, collection and processing and for product services for user application, (as collated by the Secretariat from information submitted by Member States, by interested inter-

national Organizations and as recommended by subsidiary bodies involved in the development of IGOSS);

- (b) consider existing resources available for employment in the IGOSS programme as well as new technological developments that might be applicable;
- (c) maintain liaison, as appropriate, with other bodies, particularly those in IOC and WMO, whose work relates to IGOSS or which might have an impact on IGOSS Technical System Design and Development;
- (d) examine requirements for prediction services and user application and to consider the international arrangements needed to meet these requirements.

With respect to research the meeting agreed with the opinion expressed by the Group of Experts on Ocean Variability that the present terms of reference of the Group did not properly address IGOSS research interests. In light of this the meeting revised the terms of reference and renamed the Group as the Group of Experts on Oceanographic Research as it relates to IGOSS, with the following terms of reference:-

- "(a) To further the development of IGOSS by reviewing, fostering, and integrating relevant research with specific emphasis on:
 - (i) understanding of oceanic processes and their interactions
 - (ii) ocean network design criteria
 - (iii) mathematical and laboratory model development
 - (iv) improvements in methods of observation and analysis
 - (v) consumer research
- (b) Collaborate closely with other groups concerned with various aspects of IGOSS under guidelines set forth by the Working Committee for IGOSS."

With regard to oceanographic experiments associated with the GARP Tropical Experiment the meeting adopted a resolution which is quoted here in extenso, in view of the possible connexion between the GARP Tropical Experiment and CINECA.

"Considering that the GARP Tropical Experiment provides an unprecedented opportunity for carrying out oceanographic studies within the framework of a controlled meteorological network over an extensive oceanic region;

Noting that the twenty-second session of the WMO Executive Committee had encouraged co-operative developments of that section of LEPOR relating to air-sea interaction and ocean circulation with GARP;

Observing that an organized plan for oceanographic participation in the GARP Tropical Experiment has not yet been initiated;

Recognizing the need for timely establishment of a co-ordination framework for oceanographic participation;

Recommends to the IOC Bureau with the Consultative Council that it considers the establishment of a scientific planning board for oceanographic participation in the GARP Tropical Experiment within the framework of interested international organizations, and further notes the interest in such planning towards the long-range development of the scientific basis for IGOSS of the IOC Group of Experts on Oceanographic Research as it relates to IGOSS."

The chairmen of the various IOC Working Groups and the joint IOC/WMO Groups involved in IGOSS work presented their reports. Also the chairmen of CMM Working Groups with relation to IGOSS briefly reviewed the work of their groups.

The meeting went over the work plans for groups of experts and other working groups concerning IGOSS. In considering the recommendation on regional contributions to the global oceanographic data system, set forth by the Joint WMO/IOC Group of Experts on Co-ordination of Requirements (cf. C.M.1970/C:11) the Meeting noted that the subject had been taken up with ICES and ICNAF and that agreement had been reached for ICES and ICNAF machineries to review annually the progress of IGOSS in order to specify requirements for data and product services for IGOSS.

Your observer stressed the interest which ICES takes in IGOSS. He spoke on CINECA, explaining that IGOSS might provide material useful in the planning of these multiship surveys. On the other hand, some results of CINECA might be available for the planning of the GARP Tropical Experiment. He summed up in stating that ICES was prepared to help with regard to coordination of observations in the ICES region if that should be desirable, and would be looking forward to obtain such data and products from IGOSS which might be of use for the ICES activities.

A closer connexion between IGOSS and CINECA was touched upon by the Delegate from USA who stated that an IGOSS Service utilizing research vessels, ships-of-opportunity, satellite observations and buoys and operated during the course of CINECA might give demonstrations of visible benefits, particularly in new products such as upwelling predictions.

The meeting requested that full consideration be given to the opportunities for involvement of regional data acquisition networks as contributions to the global system.

In considering the report of the IOC Group of Experts on Ocean Variability the meeting placed particular emphasis on the need to treat marine pollution monitoring as an urgent subject of a serious nature, and decided that pollution monitoring should be a primary item for review and study by the Group.

The meeting noted, furthermore, the evidence of fisheries interest in IGOSS indicated by FAO, ICES and ICNAF and urged the Group to take information provided by such and other organizations into consideration in all aspects of its work.

The meeting approved the recommendation by the IOC Working Group on International Oceanographic Data Exchange, on IGOSS non-real-time data exchange. With a view to the Group's setting up a task team for preparing a manual for non-real-time exchange and storage of IGOSS data, the meeting called upon the Secretary to arrange for the development of a draft manual on data acquisition, method of observation and real-time data handling, so that a Manual on IGOSS Data Handling Procedure and Exchange could be formulated. The Secretary was requested to ensure that collaboration was maintained with the Secretariats of WMO, FAO and ICES with respect to the final formulation of the amalgamated contents of the Manual.

The meeting warmly supported the proposal from the Joint WMO/IOC Group of Experts on Telecommunication for a pilot project for the collection, exchange and evaluation of bathythermograph data, and agreed to the following guidelines for the development of a detailed plan for the project:-

- "(a) Identify Members which have bathythermal observations available for exchange, and are willing to take part in the Pilot project;
- (b) Identify points of entrance of BT data and satellite sea surface temperature data into the GTS;
- (c) Locate data processing centres which will accept BT data and satellite sea surface temperature data and prepare products and to identify products to be produced (i.e. depth of mixed layer, etc.);
- (d) Identify Members who want to receive BT data and satellite sea surface temperature data in the form of:
 - (i) Raw data
 - (ii) Processed data;
- (e) Prepare an operational schedule of the Pilot project;
- (f) Prepare a preliminary manual on the use of the BATHY code form;
- (g) Take all appropriate action to insure implementation of the operational Pilot project;
- (h) Invite experts from Member countries to assist the Secretariats in the evaluation of the operation and formulation of recommendations for improvements."

The Meeting was informed that the BATHY and TESAC code forms (cf.C.M.1970/C:11) had been approved by WMO and that the Working Group on International Oceanographic Data Exchange had, in consultation with ICES, developed criteria for selecting significant depths for the reporting of sub-surface temperatures and salinities. These criteria were approved by the Working Committee, and a method for indicating bottom temperatures in BATHY and TESAC reports was suggested for consideration by WMO.

The meeting was informed that WMO's Commission on Maritime Meteorology (CMM) had established a Working Group on Requirements for Marine Meteorological Services after noting the great expansion of marine activities and the desirability of studying present and future user requirements. The Group would hold its first session on November 16-20, 1970 to consider, inter alia:-

- (i) the identification of the requirements of various marine user groups for marine meteorological and sub-surface information. These user groups include shipping, fisheries, coastal and off-shore activities, recreation and marine pollution;
- (ii) analysis of the present state of the provision of information to marine user groups.

The IGOSS Working Committee asked your observer to represent the oceanographic interest on the subjects to be discussed at the above mentioned session of the WMO CMM Working Group. For a report on the session see C.M.1971/C:19.

The Working Committee suggested that part of its next session, the date for which was not specified, be devoted to reports on the national implementation of IGOSS. It was also strongly urged that a part of the session be devoted to a seminar on ocean research as it relates to IGOSS.