

composed of active marine scientists and hydrographers and its activities would replace those of the present GEBCO committee,

- (9) recommends a small, full-time geoscience unit consisting of two experienced marine geologists or geophysicists with a draughtsman and secretarial support be set up to handle the task of preparing an acceptable final compilation of bathymetry for subsequent cartographic drawing, printing and distribution,
- (10) recommends this core unit should be internationally funded and based at a centrally located oceanographic institution with an active group in oceanic geology where good map collections and library facilities would also be available,
- (11) recommends that where appropriate, ad hoc consultant groups of marine scientists knowledgeable in particular areas, should be set up to assist the core unit and guiding committee,
- (12) recognizes that the task of draughting for reproduction and printing will need to be considered as a separate stage in the publication of the world chart. We appreciate that funds have been previously made available by the Monegasque government at the comparable stage of the GEBCO 1 in 10 million series but understand that considerable additional funding will be required to implement this new project,
- (13) notes the long association of the world bathymetric chart with the IHO and wishes to continue the association of the final product with the IHO,
- (14) recommends that rapid publication is essential and that revision should be undertaken at frequent intervals on a continuing basis; intervals of revision of any particular chart would be determined by the acquisition or generation of significant quantities of new soundings,
- (15) recommend that wide publicity be given to the new charts produced under the proposed system.

ANNEX VII

SCOR WORKING GROUP 42 (WITH ICES) ON THE STUDY OF THE POLLUTION OF THE BALTIC Report from the Chairman - I. Hela

The Working Group has continued its work in the frame of the following meetings and other undertakings:-

- (1) The Working Group had its first meeting in Lund 3-5 May 1972, an ad hoc meeting in Copenhagen 30 September 1972 and will have its second actual meeting in Kiel 28-29 June 1973.

(2) An effort has been made to secure as close connections as possible with the concerned bodies:-

- ICES with its Committees and Working Groups
- International Hydrological Decade
- Conference of Baltic Oceanographers
- Baltic Marine Biologists.

(3) An ad hoc Working Group, with Professor K. Grasshoff, FRG, as convener, was created on the sampling and analytical capacities of the laboratories of the region.

Several non-commercial laboratories have submitted their replies to the prepared questionnaire on their sampling and analytical capacities and have thus showed their goodwill to participate and even to expand their capacities provided funds were available. The greatest problem for many of these laboratories was the lack of appropriate research vessels of their own.

In this approach the following guidelines will be followed:-

- A detailed account of preferred analytical procedures.
- Exchange of analytical expertise.
- Workshops for the working analysts.

In this work close collaboration with the ICES Working Group on Study of Pollution of the North Sea has been advanced through participation of Baltic laboratories in an intercalibration exercise in the second half of 1973.

(4) Another ad hoc Working Group, with Professor H. J. Brosin, GDR, as convener, was created on the sources of waste input to the Baltic Sea. The Questionnaire prepared by that ad hoc Working Group was submitted through the members of the Working Group to all the States of the region. The replies received so far do not cover all the States, however, the outstanding replies are expected to arrive in the near future. A detailed inventory on the waste inputs will then be prepared.

In this work guidelines have been followed which are analogous, whenever feasible, to those applied in the North Sea region.

(5) According to its terms of reference, paragraph (a), one of the tasks of the Working Group is "to identify from the point of pollution the need for further basic hydrographical, biological, biochemical and biogeochemical studies". To this end the Working Group created an ad hoc Report Drafting Group, with Professor B. Bolin, Sweden, as rapporteur, to prepare a long-term programme: "The International Pollution Baltic Year 1975; Protection and Use of the Baltic Sea: a Model for the Future". The Draft Report to cover this programme was prepared in a preliminary manner by the ad hoc Group in Askö, 3-5 January 1973 and finalized thereafter for presentation to the Working Group meeting in Kiel in June 1973 for further debate.

(6) During this development it has become obvious that a special effort is needed in order to organize the immediate input and baseline studies in an effective manner, on the one hand, and to find out how it will be most convenient during the years to come to introduce to the studies of the Baltic Sea and its pollution the most advanced scientific approaches, on the other.

The ad hoc Action Plan Group, with Professor K. Grasshoff as convener, has been created to prepare for the Working Group the first plan how this goal eventually can be achieved. Also it is expected that the Baltic Marine Biologists will pay particular attention to the immediate needs of the baseline studies, as requested by the Working Group.

- (7) The urgency of the input and baseline studies has become most obvious through the new needs of scientific-technical advice on the different aspects of marine pollution at the intergovernmental level.

The needed scientific-technological advice has to cover (1) technological problems, such as the continuous inventory of waste input, and the introduction of new solutions to the waste treatment problems, (2) "Limnological-hydrological" studies for understanding of the inland and immediate coastal problems, and (3) problems of the actual marine pollution. To this last end advice will be available for instance as follows:

- (1) The ICES through its Advisory Committee on Marine Pollution is the inter-governmental advisory body on the problems of the actual marine pollution in the region.
 - (2) The ICES/SCOR Working Group on the study of the Pollution of the Baltic, re-organized and with revised terms of reference, could be the scientific machinery to collect scientific data and results in its field of competence for the ICES Advisory Committee.
- (8) The members of the joint ICES/SCOR Working Group unanimously hope that the role of SCOR be maintained also in the future since this gives access to a greatly expanded source of scientific expertise.

ANNEX VIII

AN INTERNATIONAL OCEANOGRAPHIC PROGRAMME FOR GATE

Introduction and recommendations from the report of the first meeting
of SCOR WG 43, Miami, 5 - 10 February 1973

1. Introduction

The primary objective of GATE, an improved understanding of tropical convection in cloud clusters and its interaction with the large scale circulation, is strongly dependent on accurate determination of the heat, moisture, and momentum fluxes across the air-sea interface on the B-scale (GARP Special Report No. 6 - GATE). An oceanographic program in GATE would be highly desirable for the independent - and in many cases more accurate - determination of these fluxes from appropriate budget measurements in the mixed layer. At the same time GATE will provide a unique opportunity for investigating the response of the oceans to atmospheric forcing on various scales. Although less directly related to the main atmospheric program, it should be recognized that oceanic response studies are central to the GARP objective of developing coupled ocean-atmosphere models for extended forecasting and investigations of climate. It is, of course, also the primary motivation for the oceanographic involvement in GATE.