Intergovernmental Oceanographic Commission
Reports of Meetings of Experts and Equivalent Bodies

IOC Editorial Board for the International Bathymetric Chart of the Caribbean Sea and the Gulf of Mexico

Second Session

Boulder, Colorado, USA, 20-22 July 1988

Unesco

In this Series, entitled

Reports of Meetings of Experts and Equivalent Bodies, which was initiated in 1984 and which is published in English only, unless otherwise specified, the reports of the following meetings have already been issued:

1. Third Meeting of the Central Editorial Board for the Geological/Geophysical Atlases of the Atlantic and Pacific Oceans
2. Fourth Meeting of the Central Editorial Board for the Geological/Geophysical Atlases of the Atlantic and Pacific Oceans
3. Fourth Session of the Joint IOC-WMO-CPPS Working Group on the Investigations of «El Niño» *(Also printed in Spanish)*
4. First Session of the IOC-FAO Guiding Group of Experts on the Programme of Ocean Science in relation to Living Resources
5. First Session of the IOC-UN(OETB) Guiding Group of Experts on the Programme of Ocean Science in relation to Non-Living Resources
6. First Session of the Editorial Board for the International Bathymetric Chart of the Mediterranean and Overlay Sheets
7. First Session of the Joint CCOP(SOPAC)-IOC Working Group on South Pacific Tectonics and Resources
8. First Session of the IODE Group of Experts on Marine Information Management
9. Tenth Session of the Joint CCOP-IOC Working Group on Post-IDOE Studies in East Asian Tectonics and Resources
10. Sixth Session of the IOC-UNEP Group of Experts on Methods, Standards and Intercalibration
11. First Session of the IOC Consultative Group on Ocean Mapping *(Also printed in French and Spanish)*
12. Joint IOC-WMO Meeting for Implementation of IGOSS XBT Ships-of-Opportunity Programmes
13. Second Session of the Joint CCOP/SOPAC-IOC Working Group on South Pacific Tectonics and Resources
14. Third Session of the Group of Experts on Format Development
15. Eleventh Session of the Joint CCOP-IOC Working Group on Post-IDOE Studies of South-East Asian Tectonics and Resources
16. Second Session of the IOC Editorial Board for the International Bathymetric Chart of the Mediterranean and Overlay Sheets
17. Seventh Session of the IOC-UNEP Group of Experts on Methods, Standards and Intercalibration
18. Second Session of the IOC Group of Experts on Effects of Pollutants
19. Primera Reunión del Comité Editorial de la COI para la Carta Batimétrica Internacional del Mar Caribe y Parte del Océano Pacífico frente a Centroamérica *(Spanish only)*
20. Third Session of the Joint CCOP/SOPAC-IOC Working Group on South Pacific Tectonics and Resources
21. Twelfth Session of the Joint CCOP-IOC Working Group on Post-IDOE Studies of South-East Asian Tectonics and Resources
22. Second Session of the IODE Group of Experts on Marine Information Management
23. First Session of the IOC Group of Experts on Marine Geology and Geophysics in the Western Pacific
24. Second Session of the IOC-UN(OETB) Guiding Group of Experts on the Programme of Ocean Science in relation to Non-Living Resources *(Also printed in French and Spanish)*
25. Third Session of the IOC Group of Experts on Effects of Pollutants
26. Eighth Session of the IOC-UNEP Group of Experts on Methods, Standards and intercalibration
27. Eleventh Session of the Joint IOC-IHO Guiding Committee for the General Bathymetric Chart of the Oceans *(Also printed in French)*
28. Second Session of the IOC-FAO Guiding Group of Experts on the Programme of Ocean Science in Relation to Living Resources
29. First Session of the IOC-IAEA-UNEP Group of Experts on Standards and Reference Materials
30. First Session of the IOCARIBE Group of Experts on Recruitment in Tropical Coastal Demersal Communities *(Also printed in Spanish)*
31. Second IOC-WMO Meeting for Implementation of IGOSS XBT Ship-of-Opportunity Programmes
32. Thirteenth Session of the Joint CCOP-IOC Working Group on Post-IDOE Studies of East Asia Tectonics and Resources
33. Second Session of the IOC Task Team on the Global Sea-Level Observing System
34. Third Session of the IOC Editorial Board for the International Bathymetric Chart of the Mediterranean and Overlay Sheets
35. Fourth Session of the IOC-UNEP-IMO Group of Experts on Effects of Pollutants
36. First Consultative Meeting on RNODCs and Climate Data Services
37. Second Joint IOC-WMO Meeting of Experts on IGOSS-IODE Data Flow
38. Fourth Session of the Joint CCOP/SOPAC-IOC Working Group on South Pacific Tectonics and Resources
39. Fourth Session of the IODE Group of Experts on Technical Aspects of Data Exchange
40. Fourteenth Session of the Joint CCOP-IOC Working Group on Post IDOE Studies of East Asian Tectonics and Resources
41. Third Session of the IOC Consultative Group on Ocean Mapping
42. Sixth Session of the Joint IOC-WMO-CPPS Working Group on the Investigations of « El Niño » *(Also printed in Spanish)*
43. First Session of the IOC Editorial Board for the International Bathymetric Chart of the Western Indian Ocean.
44. Third Session of the IOC-UN (OALOS) Guiding Group of Experts on the Programme of Ocean Science in Relation to Non-Living Resources
45. Ninth Session of the IOC-UNEP Group of Experts on Methods, Standards and Intercalibration
46. Second Session of the IOC Editorial Board for the International Bathymetric Chart of the Caribbean Sea and the Gulf of Mexico

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IOC/EB-IBCCA-II/3
Paris, 22 May 1989
English only

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ANNEXES

1. OPENING

1 The Second Session of the IOC Editorial Board for the International Bathymetric Chart of the Caribbean Sea and the Gulf of Mexico (IBCCA)* was called to order by its Chairman, Dr. Nestor Duch Gary, at 8:40 a.m. on July 20, 1988, in the Conference Hall of the Holiday Inn Hotel in Boulder, Colorado, United States of America.

2 The Chairman welcomed the members of the Editorial Board and, on their behalf, thanked the hosts for the fine organization that made it possible to hold the second meeting of the IBCCA Editorial Board and the Workshop on Data Sources and Map Compilation that preceded the meeting, in Boulder.

3 Dr. Viktor Sedov, the Senior Technical Assistant Secretary of the IOC for Ocean Mapping, informed the participants of the particular interest of Dr. Mario Ruivo, Secretary of the IOC, in the work of this Editorial Board and his best wishes for a successful meeting. In addition, he noted that for the Second Session, there were some changes in the make-up of the Board and the participation of some experts who, for reasons beyond their control, were absent from the First session. Captain S. Velandia of Colombia replaced Captain F. Camacho and Captain P.O. Leon of Venezuela joined the Committee. A List of Participants at the Session appears in Annex II.

4 The Chairman expressed regret over the absence of Professor Michel Vigneaux of France and Mr. Sergio Hernandez Figueroa of Guatemala at this session.

5 The Chairman requested the Board to consider the appointment of a rapporteur, a position for which he proposed Professor J.M. Diaz, who was accepted unanimously.

2. ADOPTION OF THE AGENDA

6 The Chairman submitted the proposed Agenda for consideration, which had been sent in advance to the participants. The Provisional Agenda was adopted after some amendments (Annex I).

3. ADMINISTRATIVE ASPECTS OF THE SESSION AND DOCUMENTATION

7 The local organizer of the Session, Dr. T. Holcombe explained the administrative arrangements.

8 Dr. V. Sedov, the Technical Secretary of the Session, presented the working documents, which had been sent to the members of the Editorial Board in advance. He indicated that one document remained to be distributed which summarized aspects of the IOC regulations and manuals that were relevant to the Session. This document was distributed during the course of the Session.

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*A list of acronyms and abbreviations is given in Annex V.

9 In view of the composition of the Editorial Board and the time limitations for the drafting work, it was agreed that the original version of the Summary Report of the Session would be drafted in Spanish, for subsequent official translation into English, for which Dr. T. Holcombe would be responsible.

4. UPDATING OF THE SPECIFICATIONS OF IBCCA

10 The Chairman called attention to the fact that, after the First Session of the Editorial Board of the IBCCA, the CGOM approved a document whose recommendations should be considered for the IBCCA Specifications. This document was entitled "Specifications for International Bathymetric Charts Produced Under Regional Mapping Projects" (IOC/CGOM-II/3, Annex IV). Specifically, the Chairman referred to the annex to this document. During the period between sessions, in cooperation with geographer Mr. J.L. Frias, a version of such specifications adapted to the IBCCA and entitled "Recommendations for the preparation of compilation sheets for the bathymetric chart produced by the Editorial Board of the IBCCA" was prepared and sent to the members of the Editorial Board for approval. Such recommendations, once approved, were considered an addendum to the Specifications approved at the First Session. In view of the fact that only some of the members of the Board responded to the request, on this occasion the approval of such an addendum to the IBCCA Specifications was submitted for consideration.

11 Dr. T. Holcombe proposed that item 201 of the agreed specifications be reviewed, which referred to the chart datum. In 1986, it was agreed to use WGS-72, although another one of more recent definition, WGS-84, could now be used. Mr. I. Ruiz noted that both proposals seemed very apt but emphasized the need to comply with the specifications of the British Admiralty's grid for the charts with a 1:250,000 scale as well as the data defining the horizontal datum selected by the Board. After some discussion, it was agreed unanimously to modify point 201 of the "Specifications for the IBCCA", agreed upon during the First Session of the Editorial Board. The ellipsoid of reference WGS-72 would be replaced by WGS-84 (World Geodetic System-1984). In addition, it was agreed to incorporate as an addendum to the Specifications, the proposal from Dr. N. Duch Gary, which appears in Annex IV of this report, together with its Appendix.

5. CONSIDERATIONS ON THE TITLE OF THE CHART

12 The Chairman noted that during the First Session of the Board, it was agreed to consult the Secretary of the IOC on the possibility of including "Gulf of Mexico" in the official name of the IBCCA. The proposal was accepted by the Fourteenth Session of the Assembly of the IOC, and the Editorial Board was asked to suggest a name that included "Gulf of Mexico". At the same time, it was required that the name be as short as possible. After discussion, the Committee agreed to suggest to the IOC that it assign

as the official name of the chart, the "International Bathymetric Chart of the Caribbean Sea and Gulf of Mexico", since those were the two most prominent geographical characteristics included in the chart, and it was not possible to describe the entire area it covered with a shorter name. It was also agreed to recommend, despite the name change, keeping the acronym IBCCA to designate the chart.

6. THE CARTOGRAPHICAL BASE FOR THE COAST LINES AND TOPOGRAPHIC INFORMATION

13 The Technical Secretary presented aspects of the progress achieved by the Digital Data Base Project for Environmental Sciences, the results of which could be used as a source for the coast lines and topographic information that should be included in the IBCCA. He proposed that if the Committee considered it appropriate, it could make a recommendation to the IOC that a way be found to provide the IBCCA Project with the information from that data base.

14 The Editorial Board, after a long discussion on alternative sources providing this information, agreed that for the compilation of sheets on a 1:250,000 scale, each institution in charge of this work should use the information that, in the opinion of the Scientific Coordinator of the respective publication sheet, best satisfies the requirements of precision and availability. With regard to the use of the WDDES data base, the Editorial Board decided to ask Dr. V. Sedov, Senior Technical Secretary of the IOC, to continue his démarches to allow the IBCCA to use the data base for the chart's terrestrial information.

7. PRIORITIES IN THE CHART'S PRODUCTION PROCESS

15 The Chairman noted that as progress was made towards the stages of producing the chart, a decision must be made on the way to proceed with publication. He stated that there were two options: (1) to wait until all the compilation work at a scale of 1:250,000 was finished and thus have the opportunity to reconcile the margins of all the publication sheets and then proceed with the printing of all the sheets, or (2) to print the material each time a publication sheet was completed, taking care to reconcile its margins with the adjacent compilation sheets. After assessing the situation, the Editorial Board agreed that the second option should be followed.

16 Next, the Chairman requested a definition of the priorities for publication. Mr. I. Ruiz proposed that instead of prioritizing the publication by sheets, it be done by groups of sheets. Mr. Ruiz's proposal was accepted and the definition of a first block was begun. Taking into consideration that the sheets that were the responsibility of the United States, 01, 02, 03, 04 and 09, and Mexico, 05 and 06, were the ones at the most advanced stage in terms of compilation, Dr. Duch Gary proposed that this block of sheets be the first to be published. Mr. I. Ruiz indicated that Cuba could, if it received the additional information it required, complete the compilation of sheets 07 and 08, for which it was responsible, whithin a short period. The representative of the International Hydrographic

Organization suggested that sheet 10, which covers a large part of the archipelago of the Lesser Antilles, be included in the high priority block in order to have at least that section of the Caribbean published in time for the celebration of the 500th anniversary of the discovery of America. Since there was no opposition, the Editorial Board agreed to give priority to the publication of sheets 1 through 10.

8. CRITERIA FOR THE DRAWING OF CONTOURS ON THE CONTINENTAL SHELF

17 The Chairman noted that the Specifications for the IBCCA approved in 1986 could be approved with regard to additional isobaths and intervals in areas of very little slope, such as the continental shelf and abyssal plains. In this respect, the Editorial Board agreed that the contour intervals in such areas should be decided on by the Scientific Coordinator of the respective publication sheet, even though the Chief Editor, in consultation with the respective coordinator, may make subsequent corrections or additions to make the charts more consistent.

9. MECHANISMS TO PROVIDE DATA TO THE ORGANIZATIONS IN CHARGE OF COMPILATION

18 Dr. T. Holcombe noted that with regard to the NGDC it would be more advisable to deal with the supply of data from the Center through a single regional organization rather than bilaterally through the various national organizations involved in the compilation. Dr. N. Duch Gary noted that Mexico was in a position to become a storage center for the information necessary for the project.

19 After an extensive discussion of the situation, the Editorial Board agreed that , without prejudice to bilateral agreements to be reached by the national organizations involved, all the information connected with the project would be sent to the Chief Editor, who in turn would take charge of the distribution among the national entities involved in the compilation of the chart. The Board considered it particularly important to point out that the national entities should send their own data pertinent to the chart to the Chief Editor, in order to be able to establish an appropriate base for exchange with the NGDC.

10. SITUATION REPORTS ON THE PROGRESS ACHIEVED IN THE PREPARATION OF THE COMPILATION SHEETS

20 The Chairman invited the members of the Editorial Board and the invited experts to report briefly on the progress of the compilation work in the respective areas under their responsibility.

21 Dr. T. Holcombe showed bathymetric charts already published by his country, the United States of America, at a 1:1M scale, covering a large part of the IBCCA area, sheets 01 through 04. These charts were compiled at scales larger than 1:250,000 and, although they are in UTM projection, the data base, including the isobaths, had been digitalized and therefore, their transformation to the IBCCA scale and projection did not present a major problem. However, he considered that it would be highly efficient to allow

delivery of the material to the Editor directly in a scale of 1:1M; he mentioned moreover that they faced certain restrictions upon releasing the information at a 1:250,000 scale, established by sources that had provided data base information. With regard to sheet 09, Dr. Holcombe noted that it was in the process of being compiled. With some reservations, since the original agreement was that the compilation sheets would be submitted to the Editor at a 1:250,000 scale, the Board agreed to accept delivery of the compilation from the United States at a scale of 1:1M, but with the understanding that it be the product of an original compilation at a scale equal or greater than 1:250,000. In addition, a compilation would be delivered at this last scale for the zones near the margins of the sheets assigned to it, so that these could connect appropriately with the adjacent compilation sheets.

22 Geographer J.L. Frias of Mexico noted that the Mexican DGG (Direccion General de Geografia - Geography Administration) of INEGI (Instituto Nacional de Estadistica, Geografia e Informatica - National Institute of Statistics, Geography and Computer Science) was committed to the compilation of sheet 06 and, given Mexico's strong interest in the IBCCA project, stated that his country had also accepted responsibility for sheets 05 and 12. In addition, he noted the progress in the compilation work for the areas of interest to his country, stating that for sheet 06, detailed bathymetric data were available at a scale of 1:200,000 and greater that covered 80 percent of the sheet. For 05, they had detailed data at a scale of 1:200,000 for bathymetric surveys that cover the entire continental shelf area and up to 400 meters in depth equivalent fo 60 percent in the coverage of the sheet. With regard to sheet 12, there was enough information in accordance with the IBCCA specifications for 20 percent. He indicated that for the rest of the sheets there was digital information available at a scale of 1:1M. Finally, he noted that they were working on gathering all possible information from the oceanographic research institutions in his country to incorporate it into the sheets of interest.

23 Dr. N. Duch Gary, Chairman and Editor of the IBCCA, proposed that, in cases where it was impossible to obtain data that agreed with the specifications within a reasonable amount of time, the use of less precise data should be permitted, which would be explained on the same sheet by way of a diagram in the margin.

24 After discussing Dr. Duch Gary's proposal, the Board agreed that in certain very specific situations, in the judgment of the Board itself, less precise data than that specified by the IBCCA could be used. In such cases, among the information in the margin of the publication sheet, a diagram would be included that would break down the areas of the sheet in accordance with the source and precision of the data on which they were based.

25 Dr. G. Samaniego of Cuba went on to report on the progress made on sheets 07 and 08 under his responsibility. They had bathymetric charts, for purposes of navigation, at a scale of 1:150,000, that covered all the island's coasts and they also had the data that served as a basis for their production. If they were provided with data for the rest of the IBCCA

sheets, they could be in a position to compile them within a short time.

26 Professor J.M. Diaz reported on the area under his responsibility, sheet 14. The Instituto Geografico de Costa Rica (Geographical Institute of Costa Rica) was willing to take charge of the compilation of the sheet but did not have the necessary materials. He also reported that the data Costa Rica had was scanty and limited to the harbor areas. Colombia had the majority of the information for sheet 14.

27 In this regard, Dr. Duch Gary stated that Mexico could supply the materials required by the Instituto Geografico de Costa Rica to undertake the compilation work.

28 Captain S. Velandia reported on the progress of sheets 15 and 21. He stated that eight nautical charts had been collected from the DMA at a scale of 1:300,000 and one at 1:800,000. He also discussed the completion and publication of the nautical chart for San Andrés y Providencia that covered approximately 40 percent of sheet 15. There were also some DMA publications available for sheet 21 with a coverage of five percent.

29 Captain P. Leon reported that Venezuela had agreed to compile sheets 16 and 17, although the latter in coordination with France and Trinidad and Tobago. With regard to the availability of the information, Captain Leon stated that there was data for charts at a 1:300,000 scale for coastal areas, the result of their own hydrographic surveys and the compilation of charts by the hydrographic offices of the United States of America and the United Kingdom.

30 Having heard the reports, the Chairman asked the members of the Board and invited experts to state whether they have encountered any obstacles, particularly ones that would be difficult to overcome in order to undertake or pursue the compilation work as agreed. None of the participants present had any comments in this regard.

11. ADOPTION OF THE ASSEMBLY DIAGRAM FOR THE PLOTTING SHEETS

31 The Chairman invited geographer J.L. Frias to discuss the situation of the Assembly diagram for the IBCCA compilation sheets. Mr. Frias explained that when the Assembly diagram for the Chart's sheets at a 1:1M scale was approved during the Editorial Board's First Session, the information for the assembly of the 1:250,000 sheets from the British Admiralty, which was adopted for the Chart's compilation sheets, had not been available. When the two assemblies were superimposed, the edges of the sheets from one assembly hardly ever coincided with the edges of the sheets from the other, which made it necessary to consider the advisability of: (i) maintaining the IBCCA assembly of the sheets and compiling some of the 1:250,000 sheets partially or (ii) modifying the IBCCA assembly to adapt it to the Admiralty sheets.

32 The Board carefully evaluated the situation. It thought that the Chart's sheet assembly approved in 1986 should not be changed without an appropriate study of the technical and political implications thereof and yet was it was very desirable to do the Chart's compilations in accordance

with the Admiralty's assembly for the 1:250,000 sheets in order to give the IBCCA a more universal significance. Therefore, the Board agreed to maintain the Chart's sheet assembly decided upon during the Board's First Session for the purposes of assigning compilation work. The compilation would be done in accordance with the Admiralty's assembly, while an assembly for the Chart's sheets was considered, that adapted as far as possible to both the Admiralty's assembly sheets at a 1:250,000 scale and the particular conditions of the region covered by the IBCCA.

12. **ELECTION OF A CHAIRMAN AND VICE CHAIRMAN**

33 In accordance with the IOC manual, the Chairman and Vice-Chairman of the Editorial Board were elected to serve during the period between sessions and the next regular meeting, the date and location of which would be decided later.

34 Prof. J.M. Diaz proposed the reelection of Dr. Nestor Duch Gary as Chairman. The motion was seconded by Messrs. I. Ruiz and P. Leon. By acclamation, the Board reelected Dr. Duch Gary as Chairman of the Editorial Board for the next period.

35 For the position of Vice-Chairman, Captain Leon proposed Dr. Troy Holcombe, who declined the offer because of his many commitments. Prof. Diaz then proposed Inocente Ruiz Martinez and the motion was seconded by Captain Leon. The Board agreed unanimously to elect Mr. Ruiz Martinez as Vice Chairman of the Editorial Committee for the next period.

36 Dr. N. Duch Gary proposed, out of regard for Dr. Holcombe for his valuable contribution to the achievement of the Project's objectives, and in view of the fact that Dr. Holcombe unfortunately was unable to accept a position in the Committee's hierarchy, that he be appointed honorary Vice-Chairman of the IBCCA's Editorial Board until the next regular meeting. The motion was approved by acclamation.

13. **APPOINTMENT OF AN EXECUTIVE SUB-COMMITTEE FOR THE IBCCA**

37 The Chairman noted the problem of making certain decisions during the period between sessions, some of which were fundamental to the progress of the Project. For this reason, during the 1986 meeting in Aguascalientes, Mexico, the Committee agreed to create a "Group of Officials", composed of the Chairman, the Executive Technical Secretary of the IOC for the IBCCA, and the Assistant Secretary of the IOC for IOCARIBE. This group did not operate, primarily because the latter two officials were prohibited from participating in groups of officials from Expert Committees such as the IBCCA's. For this reason, the Chairman considered it necessary to appoint an Executive Sub-Committee within the Editorial Board, which would facilitate decision-making that could not await the convocation of a plenary session of the Committee. After discussing the matter, the Board agreed to form an Executive Sub-Committee composed of the Chairman, the Vice-Chairman, Dr. T. Holcombe as honorary Vice-Chairman, and geographer J.L. Frias in his capacity as Assistant to the Chief Editor.

38 The Committee was aware that Mr. Frias was not currently a member of the Board. But considering that the position of Chief Editor and Chairman was filled by a single person and in view of the interest and abilities demonstrated by Mr. Frias, in the two Sessions he had attended as well as in his capacity as assistant to the Chief Editor, the Board asked the Chairman to propose to the IOC the appointment of Mr. José Luis Frias Salazar as a full member of the Editorial Board.

39 In view of the fact that the Board was not clear as to whether such a structural element touched on some IOC guideline, the Board asked the Chairman to consult with the Secretariat of the IOC and, if there were no objections, to proceed with the installation of the above-mentioned Sub-Committee.

14. PLACE AND DATE OF THE NEXT SESSION

40 The Chairman asked the delegates for suggestions regarding the place and date of the next Session of the IBCCA's Editorial Board.

41 Captain P. Leon indicated that in the Second Session of the IOC Sub-Commission for the Caribbean and Adjacent Regions, the Venezuelan delegation had offered to organize the Second Session of the Editorial Board in Caracas. It was not held there, however, so Venezuela was renewing its offer to host the Third Session, which would coincide with the third session of IOCARIBE, during the last quarter of 1989 or the first quarter of 1990. After listening to Captain Leon, the Chairman thanked the Venezuelan delegation for its kind offer and submitted the matter to the Board's approval. The Board agreed that the next meeting would be held in Caracas during the last quarter of 1989 or the first quarter of 1990, making sure that it would coincide with the third Session of IOCARIBE.

42 Mr. I. Ruiz offered to proceed with the preparations for the session in his country, Cuba, should Venezuela find itself unable to organize the next Session of the Board for any reason. The Chairman, on behalf of the Board, thanked Mr. Ruiz for his offer and, having submitted the matter to consultation, the Board agreed to designate Havana as the alternative seat of the next Session.

15. APPROVAL OF THE SUMMARY REPORT AND ADJOURNMENT OF THE SESSION

43 During the Session, the summary report was discussed and approved. Subsequently, Annex III was also adopted after the Session by mail. The Chairman adjourned the meeting at 16:00 p.m. on Friday, July 22, and thanked the rapporteur and interpreters for their assistance.

ANNEX I

AGENDA

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ANNEX II

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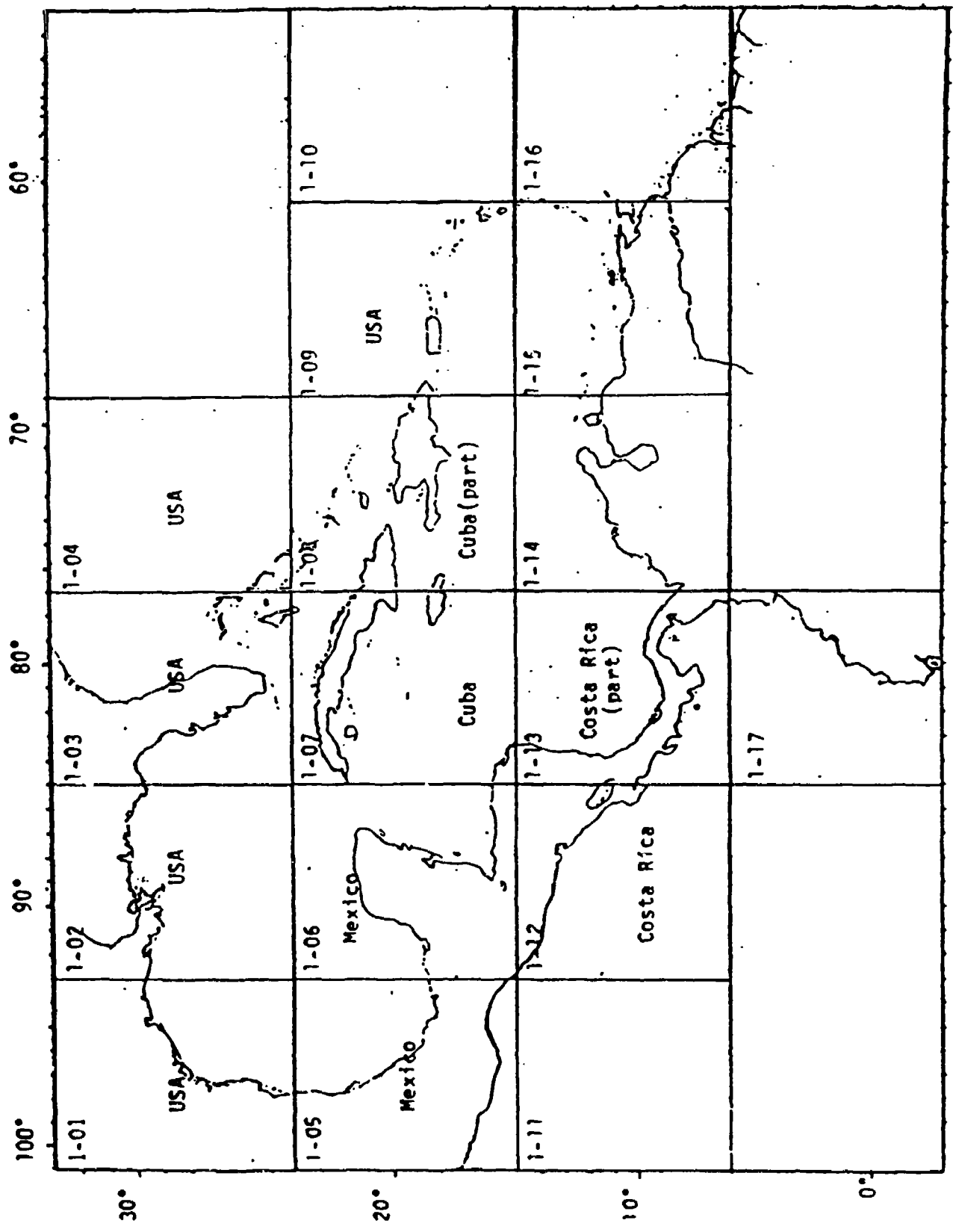
ANNEX III

ASSEMBLY DIAGRAM FOR THE INTERNATIONAL BATHYMETRIC CHART OF THE CARIBBEAN SEA AND GULF OF MEXICO (IBCCA) SCALE 1:1,000,000 AT 15°N



ANNEX IV

SPECIFICATIONS FOR THE INTERNATIONAL BATHYMETRIC CHART FOR THE INTERNATIONAL BATHYMETRIC CHART OF THE CARIBBEAN SEA AND THE GULF OF MEXICO

SECTION 100 - GENERAL

101 - Introduction

A. The International Bathymetric Chart of the Caribbean Sea and the Gulf of Mexico (IBCCA) is a regional project of the Intergovernmental Oceanographic Commission (of Unesco). The Chart shall be prepared and published primarily with the cooperation of hydrographic and cartographic Offices or scientific groups in the member states of the IOCARIBE Sub-Commission.

B. In 1985, the Assembly of the IOC, by its resolution XIII-3, created an Editorial Board to produce and publish the Chart. This Board was set up and began its work in 1986.

102 - Definition of the area

This Chart shall cover the area defined in the Assembly Diagram included as Annex III.

SECTION 200 - BASIC SPECIFICATIONS

201 - Projection

The chart shall be prepared on the Mercator projection, using WGS-84 (World Geodetic System 1984) as the reference ellipsoid.

202 - Scale

The scale for publication will be 1:1,000,000 (at the 15° North).

203 - Graticule

A. The sealed border of each sheet shall be shown subdivided into 1 minute increments of latitude and longitude.

B. The parallels and meridians shall be drawn every two degrees.

C. Labelling of the graticule shall be every one degree.

D. The Tropic of Cancer shall be drawn.

204 - Size

The neat size of each sheet shall not exceed 740 x 1000 mm.

205 - Numbering

A. The sheets constituting the chart shall be identified through a consecutive numbering from west to east and north to south.

B. This number shall be printed in 8 mm arabic figures in the lower right-hand and top left-hand corners of each sheet and shall be arranged horizontally.

206 - Date of publication

The date of publication indicated on each sheet shall correspond to the date of its acceptance by the Editorial Committee.

207 - Units of measurement

Depths and topographic heights shall be indicated in meters. The depths shall be corrected based on the last edition of the Echo-Sounding Correction Tables published by the Hydrographic Department of the United Kingdom.

208 - Marginal information

A. All marginal information shall be bilingual, in English and Spanish.

B. It shall include:

1. General title of the chart;
2. Sheet number;
3. Projection, ellipsoid and scale (see 201 and 202);
4. Unit of measurement used for depths and heights;
5. Code color used to portray hypsometry;
6. Code color used to portray bathymetry;
7. An index of areas and names of countries whose Hydrographic offices or scientific groups prepared the plotting sheets for the chart;
8. The names of the scientific coordinators of the series of charts and of the scientists responsible for the scientific content of the sheet;
9. The logo of the Intergovernmental Oceanographic Commission (IOC) of Unesco;
10. Number of the edition and publication date (see 206) followed by the statement:
"Published by ... (name of printer) under the authority of the IOC".
11. List of sources of data used (for the series of charts).

SECTION 300 - TOPOGRAPHY

301 - For the land part, topographic maps shall be used.

302 - The best available source shall be used for the coast line. The coast line shall be shown as a firm line in black.

303 -

A. The contours on land shall be at 200 m. intervals.

B. The thicker lines shall be at 200, 1000, 2000, 3000 m. etc m. intervals.

C. Additional contours which may be required by the data must be shown.

D. The color change for hypsometry shall be used at the following intervals: 0-200, 200-1000, 1000-2000, 2000-3000 m. etc.

E. The glaciers shall be shown by contours or symbols.

F. Relevant heights shall be indicated.

304 - **Hydrology of the land**

On the chart shall be shown:

- Rivers and channels that are longer than 5 cm. in the scale of the chart;
- Lakes with surface areas of over 1 cm^2 in the case of isolated ones, and 0.5 cm^2 in the case of those forming part of a group;
- Coastal lagoons that are longer than 1 cm. in the scale of the chart.

305 - Cities and towns appearing in the chart shall not be distinguished on the basis of administrative rank.

306 - The borders and names of countries shall not be indicated.

SECTION 400 - BATHYMETRY

401 - The compilation shall be done at a scale of 1:250,000, taking into account the recommendations included in the addendum to the Specifications for IBCCA IOC/IBCCA-III/6.

402 - **Soundings**

A. In order to indicate the reliability of the isobaths on the master sheets, all soundings used shall be shown either as points, to represent discrete soundings, or as lines, to represent transects of continuous soundings. The areas of detailed surveys where the soundings are of great density may be indicated with squares referenced in the margin.

B. The maximum, minimum, or relevant depths of the principal undersea features may be indicated in numbers stating depth in a disperse way in order not to move away from the primary objective of indicating the

marine relief through isobaths.

C. The exact position of the numerical soundings shall be indicated by a point. The value of the depth shall be indicated with a 1.5 mm "sans-serif" type. In cases where space does not allow the inclusion of numbers, they shall be connected to the point by a fine line.

403 - Isobaths and colours

A. The basic isobaths shall be drawn at 200 m. intervals.

B. The 200 m. isobath and those at 1000 m. intervals shall be drawn using thicker lines.

C. When necessary, additional isobaths may be used.

D. Color changes for bathymetry shall be used in the following intervals: 0-200, 200-1000, 1000-2000, 2000-3000 m., etc.

SECTION 500 - NOMENCLATURE AND GEOGRAPHICAL NAMES

501 -

A. A list with the names proposed for inclusion in each chart shall be forwarded to the GEBCO Sub-Committee on Geographic Names and Nomenclature of Ocean Bottom Features for review. In the preparation of this list, the guidelines contained in the GEBCO publication "Standardization of Undersea Feature Names" shall be taken into account.

B. As a general policy, local names (cities, towns, mountains, ranges, rivers, etc.) shall be in exact agreement with the form prescribed by the most authorized national source. However in those cases where the national names differ substantially from the normal English usage, the English version shall be shown alongside in parenthesis.

C. The nomenclature of undersea features shall be shown in Spanish in accordance with the definitions appearing in the Spanish-English version of the document entitled "Standardization of Undersea Feature Names", prepared by the GEBCO Committee. When there are various alternatives or the term has not been defined, the term decided by the Editorial Committee shall be adopted.

SECTION 600 - VALIDATION PROCEDURES

601 - Each sheet shall have a scientific coordinator appointed by the Editorial Board of the IBCCA, with the responsibility for validating the scientific quality of the sheet, prior to its being sent to the Chief Editor. The Chairman of the Editorial Board shall be informed one month in advance of the date on which the sheet will be sent to him.

602 - The Editorial Board of the IBCCA through its Chief Editor shall prepare a color proof of the sheet in question, which shall be sent to the person responsible for his validation prior to final printing.

APPENDIX TO ANNEX IV

RECOMMENDATIONS FOR THE PREPARATION OF PLOTTING SHEETS FOR THE INTERNATIONAL BATHYMETRIC CHART PRODUCED BY THE EDITORIAL BOARD OF THE IBCCA

1. The plotting sheets should have the format (of the divisions scale 1.250,000) of the British Admiralty.

2. Soundings should be in meters corrected using the last edition of the "Echo-Sounding Correction Tables" published by the Hydrographic Department of the United Kingdom.

3. The position of the sounding should be the central point of the group of figures representing it. But the position may also be indicated by a dot with the sounding figure alongside and, if necessary, by a thin line drawn to connect the two.

4. The sounding figures should be inscribed across the track; the figures should be easily readable, the recommended average size being 1,5-2 mm in height.

5. The greatest number of soundings shall be indicated on the plotting sheets to the extent that they are legible.

6. The margin of each plotting sheet should contain the following legend:
   "Compiled by ..."
   "Last brought up to date on ..."
   "Prepared under IOC ..." (Name of regional project)

7. Each plotting sheet should be accompanied by two overlays:

   A. Overlay contour lines with contouring made through one superimposed sheet of isobaths with intervals each 100m., additional contours may be drown through 50 m. and 10 m. where warranted (on continental shelves and abyssal plains).

   B. Overlay source materials on which should be shown the following:

   - Areas of soundings and positions of isolated soundings with the appropriate legends required to indicate the source and date of such soundings;

   - Information on the navigation method and its precision;

   - Information on the type of echo-sounder and its precision and any information related to the additional material used in the drawing of isobaths.

8. The primary bathymetric data can be registered in various sources and different presentations. Of course, in this case only those in medium and larger scales will be considered for charts, and those that can be considered equivalent in terms of precision if they are in digital form. In terms of the presentation, it is possible to have the values of the measured bathymetric points or of the isobaths drawn on the charts in highly detailed surveys.

9. After all the available information, in the above-mentioned register sources, has been gathered and its quality has been assessed and accepted, it shall be transferred to the compilation sheets, scale 1:250,000.

10. In the case of areas where it is necessary to draw isobaths on the basis of data with low density, the coordinator in charge of the sheet may use complementary information of various types on geological analyses, geomorphological interpretations, or indirect data from other techniques (seismic reflection, lateral scanning).

11. On each plotting sheet and overlay the date of completion of compilation should be indicated.

ANNEX V

LIST OF ACRONYMS AND ABBREVIATIONS

CGOM	Consultative Group on Ocean Mapping
CIOH	Centro de Investigaciones Oceanograficas e Hidrograficas (Colombia)
DGG	Direccion General de Geografia (Geography Administration)
DMA	Defense Mapping Agency
ECOPETROL	Empresa Colombiana de Petroleos
EEZ	Exclusive Economic Zone
GEBCO	General Bathymetric Chart of the Oceans
GLORIA	Geological Long-range Inclined ASDIC
IBCCA	International Bathymetric Chart of the Caribbean Sea and the Gulf of Mexico
IBCM	International Bathymetric Chart of the Mediterranean
IFREMER	Institut Français de Recherche pour l'Exploitation de la Mer
INEGI	Instituto Nacional de Estadistica, Geografia e Informatica (National Institute of Statistics, Geography and Computer Science)
IOC	Intergovernmental Oceanographic Commission
IOCARIBE	IOC Sub-Commission for the Caribbean and Adjacent Regions
NAVOCEANO	Naval Oceanographic Office (USA)
PEMEX	Petroleos Mexicanos
UNESCO	United Nations Educational, Scientific and Cultural Organization
WGS-84	World Geodetic System 1984
WDDES	World Digital Database for Environmental Sciences