

Intergovernmental Oceanographic Commission
Reports of Meetings of Experts and Equivalent Bodies



**Joint CCOP-IOC Working Group
on Post-IDOE Studies
of East Asian Tectonics
and Resources**

Thirteenth Session

Bangkok, 30 October - 2 November 1987

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Unesco

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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

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1. OPENING

1 The Chairman of the Joint CCOP-IOC Working Group on Post-IDOE Studies of East Asian Tectonics and Resources (SEATAR), Dr. John A. Katili, CCOP and Principal Co-ordinator for SEATAR, opened the Thirteenth Session in Bangkok (Thailand) on 31 October 1987. The Chairman welcomed the participants. He stressed the great importance of the fourteen years of intensive SEATAR research in east and south-east Asia, now approaching its final phase with the publication of the synthesized SEATAR Transects and a scientific review volume.

2 The Session was attended by representatives from the following countries: Canada, France, Indonesia, Japan, Republic of Korea, Malaysia, the Netherlands, Norway, Papua New Guinea, Philippines, Thailand, United Kingdom, USA and USSR., Representatives of ESCAP, IOC, the United Nations and the Global Geoscience Transects Project of the International Lithosphere Programme (GGT/ILP) also attended the session, as well as the staff of the CCOP Secretariat and the UNDP/ESCAP Technical Support Team to CCOP. The List of Participants is given in Annex II, hereto.

2. ADOPTION OF THE AGENDA

3 The Joint Working Group adopted the Agenda for the Session as it appears in Annex I.

3. REVIEW OF CCOP AND IOC INTERSESSIONAL ACTIVITIES

4 Dr. Peter Cook, the Vice-Chairman of the IOC-UN(OETB) Guiding Group of Experts on Ocean Sciences in Relation to Non-Living Resources (OSNLR), outlined some of the IOC activities relevant to CCOP that had taken place during the intersessional period. These included the holding of the IOC Symposium on Marine Science in the Western Pacific: the Indo-Pacific Convergence, in Townsville (Australia), in December 1986 and the Fourth Session of the IOC Regional Committee for the Western Pacific in Bangkok in June 1987. A number of proposals arising from these two meetings could provide the basis for future co-operation between CCOP and IOC. However, he stressed that IOC considered the successful completion and publication of the SEATAR Transects as the most important task at the present time. Dr. Cook also mentioned the Workshop on Coastal Processes in the South Pacific Island Nations held in Lae (Papua New Guinea) from 1 to 8 October 1987, under the auspices of CCOP(SOPAC) and IOC. He also outlined the main points arising from the Second Session of IOC-UN(OETB) Guiding Group of Experts on OSNLR (Document: IOC-UN(OETB)/GGE-OSNLR-II/3).

4. REVIEW OF PROGRESS ON SEATAR TRANSECT COMPILATION AND PLANS FOR THEIR PUBLICATION

5 The Team Leader of the UNDP/ESCAP Technical Support to CCOP, Dr. John Ringis, pointed out that this was the fourth meeting of Transect Co-ordinators; previous meetings having been held in October 1985 (Bangkok), August 1986 (Singapore) and July 1987 (Jakarta).

6 He introduced to the Joint Working Group, for its consideration and endorsement, the Report and Recommendations of the most recent ad-hoc meeting of the SEATAR Transect Co-ordinators and other concerned participants in the SEATAR programme, held in Jakarta, Indonesia, on 10 July 1987. The Report and Recommendations are attached as Annex III.

7 The Joint Working Group expressed its deep appreciation to Dr. Joseph Curray for his service as the Consultant/SEATAR Transect Co-ordinator during the past two years, and noted with regret that he will not be able to continue this work in the CCOP member countries. The Joint Working Group also expressed its appreciation to the United States of America for having provided the services, on a non-reimbursable basis, of Dr. Frank Wang as the Interim SEATAR Transect Co-ordinator.

5. CO-OPERATION WITH GLOBAL GEOSCIENCE TRANSECT (GGT) PROGRAMME

8 The Chairman of the Global Geoscience Transect, Dr. J. W. H. Monger, informed the Joint Working Group of the detailed background and guidelines for the Global Geoscience Transect Project (GGT).

9 The Joint Working Group thanked Dr. Monger for his advice and assistance to the Transect Co-ordinators in improving their compilation and synthesis work. The Joint Working Group considered that the final products of SEATAR Transects would contain more resource data than those of GGT.

10 The Joint Working Group recommended that the SEATAR Transects continue to follow its previously agreed guidelines, but that it should consider adopting some of the features of GGT as appropriate.

6. TRAINING COURSES ON OCEANOGRAPHIC DATA MANAGEMENT

6.1 JAPAN OCEANOGRAPHIC DATA CENTER (JODC)

11 Dr. John Ringis outlined the results of his discussions with the Japan Oceanographic Data Center (JODC) on a recent visit to Japan. The Director of JODC indicated that they were prepared to consider providing a training course that would stress marine geological and geophysical data management. Dr. Cook informed the Joint Working Group that, at the present time, the existing JODC course can cater for up to six participants of whom three are nominated and supported through IOC. CCOP could, if it wished, nominate additional participants to the existing course over and above the three IOC nominees but would need to provide the funding for them. If CCOP wished to have a new course aimed at the marine geosciences, this should be discussed with IOC. A major revision of the existing course could take JODC some time to develop and probably could not be held before 1989.

6.2 ASIAN INSTITUTE OF TECHNOLOGY (AIT)

12 An additional IOC Course on Marine Data Management was brought to the attention of the meeting. This Course is to be held at the Asian Institute of Technology (AIT) in Bangkok in mid-to-late 1988. It will have a "hands-on" format and will be concerned particularly with the application of

microcomputers to data management. Contacts in Thailand include Dr. Porida Thimakorn and Professor Absornsuda Siripong of the Chulalongkorn University; further details can be obtained from the Head, IOC Ocean Services Unit, Dr. Yuri Ollionine.

- 13 Professor Paepe informed the meeting of some of the courses on Quaternary geology presented at the University of Brussels on behalf of Unesco.

7. REVIEW OF PROGRESS ON SEATAR TRANSECTS AND PUBLICATION PLANS

- 14 The Joint Working Group was informed that the Government of Japan would print Transect VI, which will be completed in the near future. The Joint Working Group agreed that individual transects accompanied by explanatory texts should be published in a timely manner as soon as they are completed. However, it may be appropriate to have an appropriate overall publisher and/or distributor for the map series in order to gain wider circulation of the Series and worldwide recognition by geoscience communities. The Joint Working Group believed that a comprehensive volume synthesizing one and a half decades of SEATAR research is also highly desirable and that this would require some months of work by a compiler editor with extensive knowledge of this region.

- 15 The SEATAR Transect Co-ordinators presented progress reports.

The latest compilation of the data along the Transect II (shown in the Regional Map in Annex IV) is shown on the strip map, cross section in the pattern recommended by SEATAR Co-ordinators. However, there are several points which need to be improved, such as section and geophysical profiles (e.g., gravity, magnetics, heat flow and seismics). More data, such as mineral locations, are going to be included in the strip map. Most of the interpretations on the displayed sheet are postulated by correlation between onshore and offshore geology.

- 16 The Malaysian part of Transect III has now been completed and a preliminary interpretation was made and presented at the GEOSEA-VI in July 1987. The Transect VII joining the onshore geology of Sarawak with the offshore section of Sulu Sea was also completed with a continuous section.

- 17 Compilation work on the Transect V has been completed and the data combined into five sheets. The bathymetric and control maps were combined; seismicity, marine magnetics and palaeomagnetism were incorporated into the tectonic map. Aside from these maps which are at a scale of 1:2 M, an additional map at 1:1 M scale was prepared showing the geology and resources of Luzon Island including mineral, hydrocarbon and geothermal resources. The interpretation is nearing completion and is expected to be finished soon.

- 18 Although the compilation of various available maps and profiles along the Transect VI was virtually completed, minor adjustments on some profiles and strip maps should be made between the Korean Institute of Energy and Resources (KIER) and the Geological Survey of Japan. KIER will re-examine various maps and profiles of the Korean peninsula and provide

supplementary data including magnetics. The explanatory text will be prepared when the prospects for the publication of the maps and profiles becomes clearer.

19 The data compilation for the Transect VIII is essentially complete, except if there are new or unpublished data on the Sangihe-Molucca Sea - Halmahera segment that need to be incorporated. The interpretation of the data and the drafting of the accompanying text have started.

20 In most cases, there has been considerable progress over the past years. In some cases Transect Co-ordinators indicated that transects, including explanatory notes, are close to the publication stage. However, pressure of work has resulted in one or two of the transects making little progress. The Joint Working Group expressed its concern over these delays, but it recognized that they were unavoidable. However, this should not be allowed to slow down the publication of Transects.

21 In conclusion, the Transect Co-ordinators made the following specific points:

- Transect I is making good progress, particularly with the recent provision of new data by Viet Nam. However, the sparsity of geophysical data still presents some problems. The legend proposed by Dr. Curray was appropriate for this transect.

- Transect II. Much of the available data has now been compiled; however, the lack of geophysical data again presents a problem. It is hoped to add additional mineral deposits data.

- Transect III. The major difficulty is resolving differences of interpretation. It would also be desirable to have further information from the oil companies in order to provide as complete a picture as possible. However, progress continues to be made and the writing of parts of the explanatory notes have commenced.

- Transect IV is well advanced with most of the data now compiled and maps and sections drawn. However, the Banda Sea is a complex area and it is difficult to develop a widely acceptable interpretation of the geology. Also, because of the nature of the area, it is necessary to resort to maps of the area rather than transects.

- Transect V is well advanced with the writing of the accompanying notes.

- Transect VI is now virtually complete and is likely to be the first to be published. Some minor difficulties have yet to be resolved on the interpretation of the cross sections, especially in Palaeozoic and Precambrian areas.

- Transect VII continues to make progress; a manuscript is currently being prepared.

- Transect VIII. Data compilation for this Transect is essentially complete and writing of the explanatory notes have commenced.

- Transect IX is nearing completion; the profiles have yet to be drawn-up but this should not take a great deal of time.

- Transect X. There has been no progress on this Transect and a considerable amount of work remains to be done.

The Joint Working Group then spent some time inspecting each transect.

22 The Chairman of the Joint Working Group expressed his satisfaction with the progress that had been made with most of the Transects, but stressed how essential it was that an overall co-ordinator and/or editor be appointed at the earliest opportunity. He expressed the hope that UNDP, IOC and other bodies would assist with this.

8. FUTURE OPTIONS

23 The Vice-Chairman of the IOC-UN(OETB) Guiding Group of Experts on OSNLR introduced this Item; he stressed once more that the first priority was to bring the existing SEATAR project to a successful conclusion. However, because of the long lead times required to plan new projects and develop budgets, it was necessary to give some consideration to future projects even at this early stage. With this in mind, IOC has developed preliminary project proposals as a basis for regional co-operative studies. No plans have yet been developed for their actual implementation.

8.1 PALAEOGEOGRAPHIC MAPPING PROJECT

24 An Australian palaeogeographic project is nearing completion and a similar project could be developed for the east Asian region. It is hoped to initiate some preliminary work in the region within the next few months; Dr. Mavita Bradshaw of the Australian Bureau of Mineral Resources (BMR) visited number of CCOP countries to discuss palaeogeographic maps. Such maps provide an excellent resource data base and will contribute to the aims of the resource assessment project proposed for the region.

8.2 MARGINS OF ACTIVE PLATES

25 At the First Session of the IOC Group of Experts on Marine Geology and Geophysics in the Western Pacific held at Townsville (Australia) from 4 to 6 December 1986, a research project was proposed to examine the various types of plate boundaries and microplates in the Western Pacific region, (Document IOC/GEMGGWP-I/3). The project would seek to co-ordinate research into these various types of plates, publish a bibliography and hold research seminars and field workshops. The first such workshop is planned to be held in Papua New Guinea in 1988.

8.3 MAPPING OF STRAND LINES

- 26 The 18 000 BP and 125 000 BP strand lines are scientifically and economically important. There is great merit in pursuing a global project to map these strand lines. Data from the east Asian area is considered to be critical to any such global programme.

8.4 OTHER POSSIBILITIES

- 27 Other potential projects are studies of the nature and distribution of Cenozoic reefs in space and time. Also modification of the coastal zone, through, for example, the damming of rivers, (this subject is of concern to CCOP and IOC and therefore represents a potential area for co-operation); Unesco proposed a project on Quaternary Geology for Human Survival which was discussed at the recent GEOSEA-VI Conference in Jakarta, and should include studies of sea-level change, geological correlation between onshore and offshore areas, and coastal processes.

- 28 The Joint Working Group agreed that, whilst it was too early to decide on priorities for areas of future co-operation between IOC and CCOP, it strongly supported continuing joint projects even if it was most unlikely that they would be as large as the current SEATAR Transects project.

9. ADOPTION OF THE REPORT AND CLOSURE

- 29 In summarizing the outcome of the Session, Dr. Peter Cook, acting as Chairman for the closing session, pointed out that the Meeting had been very valuable in enabling the Joint Working Group to see the latest transect compilations. It was evident that a great deal of progress had been made on many of the transects. Dr. Monger's input, based on his experience with GGT, was most valuable to the Transect Co-ordinators. Whilst it was obviously desirable for Transect Co-ordinators to have some latitude to deal with the special requirements of their traverse, it was also necessary to aim at the maximum level of standardization of presentation, scales, colours, etc.

- 30 In order to minimize publication costs the transect sheets should not be too large. This may mean decreasing the width of transects for example, and showing geophysical data in either profile or map form, but not both. It was entirely feasible to have several of the transects, including the accompanying notes, finalized for publication, by the time of the next SEATAR meeting in 1988.

- 31 The United States has generously offered the services of Dr. Frank Wang as an interim SEATAR Co-ordinator. The financial implications of this and additional options for the editor, would be investigated by the CCOP Secretariat, but there were grounds for optimism that a full-time Co-ordinator/Editor would be appointed to bring the project to a speedy and successful conclusion.

32 The Chairman noted that the Joint Working Group had also reached the following specific conclusions regarding the transects:

- (i) Each transect would be published as a separate map folio with an accompanying set of notes. Potential publishers may include AAPG, the Circum-Pacific Council and AGU.
- (ii) An additional separate overview volume would be published but this would need to wait until more of the transects were close to completion. Potential publishers may include CCOP, IOC, AAPG, or commercial publishers.
- (iii) A SEATAR bibliography should be compiled and published, possibly by IOC or CCOP.
- (iv) The appointment of a Co-ordinator should proceed as quickly as possible to ensure that several of the transects will be available for publication within the next year.
- (v) There was general support for the idea of developing future areas of co-operation between IOC and CCOP, for implementation following the conclusion of SEATAR, but that discussions on this are required with the member countries.

33 The Joint Working Group adopted the Summary Report of the Session.

34 The Chairman thanked the Transect Co-ordinators for all the efforts that they had obviously put into their Transects over the past year; he also thanked participants at the Session for their constructive comments and obvious interest in SEATAR.

35 The Chairman closed the Session at 1700 hours on 2 November 1987.

ANNEX I

AGENDA

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 - 8.3 Mapping of Strand Lines
 - 8.4 Other Possibilities
9. ADOPTION OF THE REPORT AND CLOSURE

ANNEX II

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ANNEX III

REPORT AND RECOMMENDATIONS OF SEATAR
CO-ORDINATORS MEETING

Jakarta, Indonesia, 10 July 1987

1. OPENING OF THE MEETING AND ADOPTION OF THE AGENDA

An ad-hoc meeting of SEATAR Transect Co-ordinators and other concerned participants in the SEATAR Programme was held in Jakarta, Indonesia, on 10 July 1987. The meeting was chaired by Mr. Foo Khong Yee of Malaysia and the Rapporteur was Dr. John Ringis, UNDP/ESCAP Technical Support Project to CCOP.

The Agenda adopted for the Meeting is given in Appendix 1 and the List of Participants is given in Appendix 2.

2. REVIEW OF STATUS OF SEATAR TRANSECT COMPILATIONS

Detailed presentations on the transect studies had been given prior to this meeting by the following transect co-ordinators, at a special session on SEATAR, during the GESEA VI conference, on 10 July 1987.

Transect I	- Chongpan Chonglakmani
Transect II	- Cnamrat Mahawat
Transect III	- Fred Hehuwat (Indonesia) - Foo Khong Yee (Malaysia)
Transect IV	- H. M. S. Hartono
Transect V	- Ramon D. Quebral
Transect VI	- Yoji Teraoka Jiro Hirayama
Transect VII	- M. Untung

Maps and sections along those transects were also displayed, as well as the compilations along transect VIII. No presentations or displays were made of the results of work along transects IX and X.

Based on the presentations and displays, Dr. Ringis reviewed the status of the transect compilations as follows:

- (i) a great deal of additional work had been done on most of the transects since the last SEATAR meeting at Singapore in August 1986. Compilation of available data along several of the transects, notably VI and VII was essentially complete with only minor additional work needed to finalize it.

Transects IV, V and VIII were also about 90% complete, although it appeared that not all of the data, particularly geophysical, which were known to have been collected in the Banda Sea area by many organizations, had been fully incorporated into the compilation.

Compilation of data along transects I, II and III had also progressed, but it was obvious that for some of these a considerable amount of work still remained to be done.

No data were presented for the Indochina part of transect I. However, the meeting was informed by the Vietnamese delegate that the maps and sections of this segment would be forwarded to the CCOP Technical Secretariat by September/October 1987.

- (ii) Strip maps and sections or profiles of geophysical data (gravity, magnetics, heat flow, seismic) were either totally lacking (e.g., transects I and II) or incomplete for several of the transects. It was not clear whether this was due to lack of data or difficulties in obtaining it from the concerned organizations. Nevertheless, it was felt that all possible efforts should be made to obtain any available data in order to complete the compilations.
- (iii) Data from the offshore areas of several of the transects were totally lacking or very incomplete (e.g., transects II and parts of III and VII). Since it was known that extensive surveys had been conducted over these areas, it was assumed that there were some difficulties in obtaining the data from the organizations concerned. Again however, it was felt that every effort should be made to obtain and incorporate this data into the compilations.
- (iv) Some of the transect compilations included strip maps showing the location and types of mineral deposits (e.g., transects V, VI, VII, VIII and parts of III), but for the others such information was totally lacking, or incomplete. Since one of the main aims of the SEATAR programme was to obtain a better understanding of the relationship between the tectonics and occurrence of mineral and hydrocarbon deposits along the transects, it was felt that preparation of such maps for all of the transects was essential.
- (v) It was obvious that there was great variability in the compilations, including map projections and scale, legends, etc. While it was recognized that complete standardization may not be possible (or even desirable in some cases), it was nevertheless felt that, to facilitate direct comparisons of features along different transects an attempt should be made to "standardize" the maps and sections as much as possible.

Once more, this also emphasized the need to obtain the services of an overall co-ordinator to work with individual transect co-ordinators on finalizing the compilations and, as far as possible on "standardizing" them.

- (vi) Good progress had been made in the production of "interpreted" crustal sections. For two of the transects this work was completed more than 90%. Most of the others completed 70% or more, with only one or two requiring greater efforts.
- (vii) At the time of the SEATAR meeting in Singapore in August 1986, preparation of summary manuscripts for most of the transects had not yet been commenced. During the presentations on 10 July 1987, several co-ordinators read extensively from such summary manuscripts and it was clear that good progress had also been made in preparing such drafts.

During discussion of this item, Dr. Hilde recommended that serious consideration be given to contacting Dr. James W. J. Monger, Global Geosciences Transect (GGT) Co-ordinator, with the proposal that the SEATAR transects be formally recognized as the CCOP/IOC contribution to the Global Transect Programme. He pointed out that this would in no way affect full accreditation of the work to the SEATAR group on all maps, sections and reports.

It was further pointed out by both Dr. Hilde and Dr. Terman, that such formal co-operation with the Global Transect Programme may help in obtaining assistance to complete the transect syntheses and manuscripts, and in their publication. In order to pursue this matter further, they recommended that a CCOP representative should attend the ILP co-ordinating committee (CC-7) meeting on Global Geoscience Transect (GGT) Guidelines, scheduled for 14 August in Vancouver, Canada, in conjunction with the IUGG Meeting from 9 to 22 August.

The meeting was informed that the CCOP Technical Secretariat would take this matter up with Dr. Monger.

3. DISCUSSION OF SCHEDULE FOR COMPLETION OF SEATAR
TRANSECT COMPILATIONS AND REPORTS AND OF THE
NEED FOR AN OVERALL TRANSECT CO-ORDINATOR

The following is a summary of the main points covered in the extensive discussions under this item:

- (i) It was estimated that completion of all the compilations and manuscripts to the stage where they would be ready for printing would require approximately 18 months, providing that the services of an overall co-ordinator were obtained at an early date to assist individual transect co-ordinators. Some transect compilations were, however, very near to

completion and could therefore be ready for publication much sooner. A decision would therefore have to be made in the near future (most likely during the planned SEATAR Meeting in November 1987), on whether to publish transects as they are completed, or wait until all are ready, as previously proposed.

The question of who was to print the compilations and how the costs involved were to be covered was left in abeyance at this stage, pending the recruitment of an overall co-ordinator and discussions between the Technical Secretariat and Dr. Monger.

In this regard, the meeting was informed by Dr. Terman that the Circum Pacific Council had, at a recent meeting, discussed the request of the CCOP-IOC SEATAR Working Group, to consider publishing the transect syntheses. However, in order to make any such commitment, the CPC would need to be able to review at least one complete set of draft transect maps, sections, etc., so as to assess the technical feasibility of publishing them and the costs involved. He therefore strongly recommended that a copy of the maps and sections of one of the almost completed transects be sent to the CPC at the earliest possible date for this purpose.

The Meeting took note of this information and recommended that the CCOP Technical Secretariat pursue this matter with the concerned organizations.

- (ii) The Meeting was informed that, although the CCOP Technical Secretariat had made strenuous efforts to recruit an overall transect co-ordinator, so far those efforts had not been successful, mainly due to lack of sufficient funds to cover the fees required by some consultants or unavailability of others. IOC, which was a co-sponsor of the SEATAR Programme, had not been able to provide any funding to share the costs of engaging a consultant. Nevertheless, the Secretariat was still actively endeavouring to find ways of recruiting a suitable Consultant before CCOP's annual session in October/November 1987.
- (iii) There was agreement that the services of an overall co-ordinator were definitely needed, although not necessarily full-time for a period of 18 months. Several alternative suggestions were made regarding suitable scientists to undertake this work, the duration of their involvement and possible sources of funding. It was also agreed that, if at all possible, the overall co-ordinator should be engaged before CCOP's annual session in October/November 1987, even if it was only for a limited period, so that he could discuss the compilations with individual transect co-ordinators before, during and possibly after the meeting.

The CCOP Technical Secretariat advised the meeting that it would continue to explore all possibilities to obtain the services of a suitable consultant before October/November 1987.

- (iv) It was agreed that, pending the arrival of an overall co-ordinator, individual transect co-ordinators would continue work on the map and section compilations, to fill in the gaps identified during the present meeting. They would endeavour to complete this work before October/November 1987 so that at the planned November SEATAR meeting virtually final drafts would be available for review. Transect co-ordinators would also endeavour to complete at least draft manuscripts of the notes to accompany the maps and sections, for review during the meeting.

4. DISCUSSION OF FORMAT AND AGENDA FOR PROPOSED 2-DAY SEATAR MEETING DURING CCOP'S 24TH ANNUAL SESSION IN BANGKOK, THAILAND, IN NOVEMBER 1987

After some discussion it was agreed that the major part of the planned two-day SEATAR meeting in November 1987, should be a working meeting of transect co-ordinators and other key scientists involved in the SEATAR Programme. Its aim should be to try and finalize formats, legends, scales, etc., of the maps and sections, reach agreement on the "fit" of transect segments from different countries and review any completed drafts of notes to accompany the maps and sections.

Approximately one and a half working days could be devoted to such a meeting, half a day would be required for the 13th Meeting of the Joint CCOP-IOC Working Group on SEATAR.

Transect co-ordinators were requested to advise the CCOP Technical Secretariat what data, particularly from the offshore areas, they needed to complete their compilations and which organizations had that data. The Secretariat would then try to help obtain that data so as to ensure that as complete as possible compilations could be presented for review at the November meeting.

5. OTHER BUSINESS

Dr. Terman reminded the meeting that during past SEATAR meetings it had been suggested that there should be some "fill-in" between Transects I and V and an extension of Transect 7 across the South China Sea to the Chinese coastline. He therefore suggested that China should be officially invited to participate in, and contribute to, the SEATAR Transect Programme.

6. CLOSURE OF THE MEETING

The meeting was adjourned at 17.30 hours on 10 July 1987.

Appendix 1

AGENDA

1. OPENING OF THE MEETING AND ADOPTION OF THE AGENDA
2. REVIEW OF STATUS OF SEATAR TRANSECT COMPILATIONS
3. DISCUSSION OF SCHEDULE FOR COMPLETION OF SEATAR TRANSECT COMPILATIONS AND REPORTS AND OF THE NEED FOR AN OVERALL TRANSECT CO-ORDINATOR
4. DISCUSSION OF FORMAT AND AGENDA FOR PROPOSED TWO DAY SEATAR MEETING DURING CCOP'S 24TH ANNUAL SESSION IN BANGKOK, THAILAND, IN NOVEMBER 1987
5. OTHER BUSINESS
6. CLOSURE OF THE MEETING

Appendix 2

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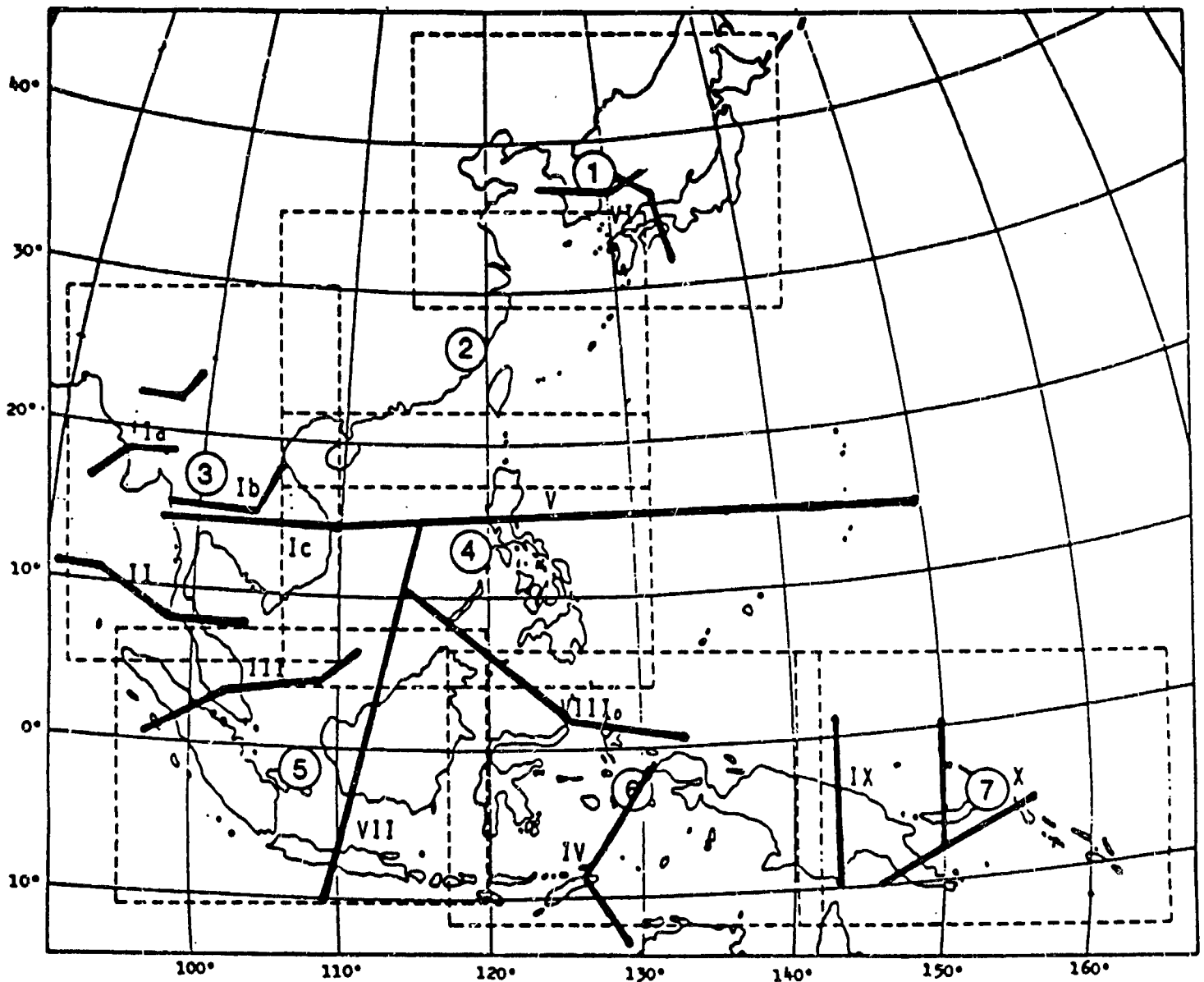
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ANNEX IV

SEATAR TRANSECTS



SEATAR Transects(I to X) for strip maps and sections,
and maps(1 to 7) of CCOP Programme on East Asia Basin
Evaluation/Resources Assessment

ANNEX V

LIST OF ACRONYMS

AAPG	American Association of Petroleum Geologists
AGU	American Geophysical Union
AIT	Asian Institute of Technology
BMR	Bureau of Mineral Resources (Australia)
BP	Before Present (years)
CCOP	Committee for Co-ordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas
CCOP(SOPAC)	Committee for the Co-ordination of Joint Prospecting for Mineral Resources in South Pacific Offshore Areas
ESCAP	Economic and Social Commission for Asia and Pacific
GEOSEA	Geology in Southeast Asia Conference
GGT	Global Geoscience Transects Project
IDOE	International Decade of Ocean Exploration
ILP	International Lithosphere Programme
IOC	Intergovernmental Oceanographic Commission
JODC	Japan Oceanographic Data Center
KIER	Korean Institute of Technology
OSNLR	IOC-UN(OETB) Programme on Ocean Science in Relation to Non-Living Resources
SEATAR	Joint CCOP-IOC Working Group on post IODE Studies on East Asia Tectonics and Resources
UNDP	United Nations Development Programme
UN(OETB)	United Nations, Ocean Economics and Technology Branch