

**Council**

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Report of the Chairman of the Legal and Technical Commission on the work of the Commission during the tenth session

1. The Legal and Technical Commission met from 17 to 28 May 2004. Mr. Shahid Amjad, Mrs. Frida Armas Pfirter, Mr. Helmut Beiersdorf, Mr. Arne Bjørlykke, Mr. Galo Carrera Hurtado, Mr. Walter De Sá Leitão, Mr. Baïdy Diène, Mr. Miguel Dos Santos Alberto Chissano, Mr. Mohammed M. Gomaa, Mr. Ivan F. Glumov, Mr. Albert Hoffmann, Mr. Yoshiaki Igarashi, Mr. Jung-Keuk Kang, Mr. Jean-Marie Auzende, Mr. Lindsay Murray Parson, Mr. Giovanni Rosa, Mr. Alfred Thomas Simpson, Mr. Rodrigo Miguel Urquiza Caroca, Mr. Yuwei Li and Mrs. Inge K. Zaamwani attended the meeting. Mr. Ferry Adamhar, Mr. Sami Ahmad Addam, Mr. Mohammed M. Gomaa, Mr. Samuel Sona Betah, and Mr. Ravindran were unable to attend the session. Mr. Jean-Pierre Lenoble resigned from the Commission. Mr. Jean Marie Auzende was elected by the Council for the remainder of Mr. Lenoble's term.

2. The Commission noted with satisfaction that the informal session it held during the week preceding the formal tenth session accommodated an effective discussion on the drafting of documents. The Commission recommends a continuation of this working style.

3. The Commission re-elected Mr. Albert Hoffmann as Chairman and Ms. Frida Maria Armas Pfirter as Vice-Chairman. During the tenth session, the Commission considered the following items:

(a) The annual reports of the contractors submitted pursuant to the Regulations on Prospecting and Exploration for polymetallic nodules in the Area;¹

(b) The draft regulations for prospecting and exploration for polymetallic sulphides and cobalt-rich ferromanganese crusts in the Area;

(c) Discussion on the role of the International Seabed Authority in relation to the management of biodiversity in the Area;

¹ ISBA/6/A/18.annex.

(d) Update on progress with the geological model of the Clarion-Clipperton Fracture Zone;

(e) Recommendations of the workshop on standardization of environmental data and information.

4. At the outset, while welcoming Mr. Auzende as a new member, the Chairman, on behalf of the Commission, expressed his deep appreciation of the work of Mr. Lenoble and for his outstanding contributions and requested Mr. Auzende to convey the sentiments of the Commission to him.

I. Annual report of contractors

5. The Commission considered and evaluated the annual reports of contractors submitted pursuant to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (“the Regulations”). The Commission was provided with a status report prepared by the secretariat on the annual reports received from contractors. The third set of annual reports by contractors was due to be received at the end of March 2004. As of 19 April 2004, annual reports had been received from all the seven contractors, namely Deep Ocean Resources Development Ltd. (DORD), the Government of the Republic of Korea, China Ocean Mineral Resources Research and Development Association (COMRA), State Enterprise Yuzhmorgeologiya (Russian Federation), Interoceanmetal Joint Organization (IOM), l’Institut français de recherche pour l’exploration de la mer/l’Association française pour l’étude et la recherche des nodules (IFREMER/AFERNOD), and the Government of India.

6. China Ocean Mineral Resources Research and Development Association (COMRA), the Government of the Republic of Korea, and State Enterprise Yuzhmorgeologiya (Russian Federation) had also submitted to the Secretary-General of the Authority additional data and information which were not contained in their annual reports for 2002.

7. A subcommittee, composed of Mr. Arne Bjørlykke, Mr. Helmut Beiersdorf, and Mr. Rodrigo Miguel Urquiza Caroca, carried out a preliminary study of the annual reports and prepared a draft evaluation for consideration by the full Commission.

8. The Commission noted with appreciation that, in comparison with the two previous sets of annual reports for 2001 and 2002, most of the contractors followed the format and structure for annual reports recommended by the Commission during the eighth session and submitted data and information as required under the contracts for exploration. The Commission recommended that all contractors follow the format and structure for annual reports, as contained in the annex to ISBA/8/LTC/2, and requested the Secretary-General to write to the contractors accordingly.

9. The Commission noted that in certain contractors’ annual reports, important data and information were not included, especially the financial statements, and recommended that the contractors be requested to submit this data and information as soon as possible. The Commission recommended that the Secretary-General request the contractors concerned to fulfil their contractual obligations in terms of annual reports. The report and recommendations of the Legal and Technical

Commission on the evaluation of the annual reports of the contractors are contained in document ISBA/10/LTC/3 dated 26 May 2004.

10. The Commission expressed its appreciation to the Subcommittee for the expeditious preliminary evaluation of annual reports, which facilitated the consideration of the reports by the Commission.

II. Regulations for prospecting and exploration for polymetallic sulphides and cobalt-rich ferromanganese crusts

11. In 2003, the Legal and Technical Commission requested the secretariat to prepare a consolidated and comprehensive draft of the regulations on prospecting and exploration for polymetallic sulphides and cobalt-rich ferromanganese crusts in the Area based on discussions and draft regulations developed by working groups of the Legal and Technical Commission convened during the ninth session. Accordingly, the Commission had before it the draft regulations on prospecting and exploration for polymetallic sulphides and cobalt-rich ferromanganese crusts in the Area, ISBA/10/LTC/WP.1, dated 30 January 2004, and also the annotated draft regulations on prospecting and exploration for polymetallic sulphides and cobalt-rich ferromanganese crusts in the Area, ISBA/10/LTC/CRP.2 dated 28 January 2004. In addition the secretariat also provided document ISBA/10/LTC/CRP.1, dated 28 January 2004, containing the consolidated text of the reports of the meetings of the informal working groups of the Legal and Technical Commission held during the ninth session of the Authority.

12. During its deliberations of the draft regulations at the tenth session, the Commission also had the benefit of advice from three internationally renowned experts, Dr. James R. Hein,² Dr. Peter Herzig³ and Dr. Kim Juniper.⁴ The experts had reviewed the draft regulations on prospecting and exploration for polymetallic sulphides and cobalt-rich ferromanganese crusts in the Area, ISBA/10/LTC/WP.1, dated 30 January 2004, and participated during the first week in the deliberations of the Commission which met a week prior to the opening of the tenth session.

13. Dr. James R. Hein described the main properties and distribution of the cobalt crusts. He emphasized that the important properties of crusts are: very high porosity; extremely high surface area; extremely slow rate of growth; very high endemism making any generalization of species distribution impossible. Professor Peter Herzig presented the main characteristics of the seafloor polymetallic sulphides occurring on mid-ocean ridges. Potentially, hydrothermal vent systems can be expected to occur at approximately 10 kilometre intervals along ridges, but at our present state of knowledge, only 6 to 10 percent of these have been explored. Concerning environmental impact of polymetallic sulphide exploitation, Professor Herzig stated that it would be better to explore/mine only inactive sites to avoid destruction of hydrothermal vent fauna; it would be better to mine deposits that are sediment-free or have only a thin sediment cover; and sulphide debris formed as a consequence of mining has a high density and will settle close to the mine site. Dr. Kim Juniper suggested that any regulation should leave room to incorporate new knowledge on

² President, International Marine Minerals Society/United States Geological Survey.

³ Institute of Marine Sciences, University of Kiel, Germany.

⁴ Director, GEOTOP-UQAM-McGill Research Centre, University of Québec, Montréal, Canada.

hydrothermal vent systems. He recalled the intimacy between vent fauna and mineral deposits. He also referred to the Canadian exclusive economic zone (EEZ) Endeavour Hydrothermal Vents Marine Protected Area devoted only to scientific research. He pointed out that any environmental statement should take place at a scale appropriate to the size of the deposit.

14. Specifically, the Commission exchanged views and solicited advice on matters relating to the size of the exploration area, the system of exploration to be recommended in the light of the experience with the system for polymetallic nodules, and the related option.

15. Discussions on environmental considerations indicated lack of adequate knowledge of seamount and vent communities. Biological communities vary according to position on the seamount, the depth of the oxygen minimum zone in reference to the seamount and the substrate on which they live. There is also a great deal of variation between seamounts that makes it difficult to predict impacts on one seamount from research on another. While environmental considerations were discussed at length, there was agreement that greater attention is required when granting exploitation licenses rather than when granting exploration licenses and that, as such, some of the more critical questions could be addressed at a later date.

16. In the light of the advice provided by the experts, the Commission reviewed the draft regulations, which were based on the existing regulations on prospecting and exploration for polymetallic nodules and the model clauses developed by the secretariat in 2001, together with the elements that emerged from the discussions in the Commission during 2002 and 2003. Intensive discussions followed on key issues concerning the definition of blocks, size of the area for exploration and relinquishment. Furthermore, because of the different distribution of these resources, in addition to the site-banking system, it is proposed that a contractor could elect to participate in an equity interest, joint venture or production sharing arrangements. Based on these discussions, the Commission felt that, despite the differences in geometry and dimensions of the two types of deposits, estimations of the likely mineable ore indicated that the total size of exploration area would be the same for each deposit. Accordingly, the Commission proposes a size of exploration area for both resources of 10,000 square kilometres, consisting of 100 contiguous blocks, each of approximately 10 by 10 kilometres. This would have the potential for localizing a mineable area with at least 40 million tons of ore for each resource and a mining operation lasting 20 years. It was further recognized that the likelihood of large areas of poor resources within an exploration area would suggest that a high relinquishment percentage is appropriate.

17. The Commission completed its deliberations of the draft regulations on the general understanding that, as far as practicable, the new regulations should follow the framework of the regulations for polymetallic nodules and be in conformity with the provisions of the Convention and the Agreement relating to part XI. The set of regulations on prospecting and exploration for polymetallic sulphides and cobalt-rich ferromanganese crusts in the Area proposed for consideration by the Council are contained in document ISBA/10/C/WP.1. The text of that document indicates in bold where new regulations are proposed. In particular these relate to regulation 1(3)(a) on definition of "block", regulation 12 on the total area covered by the application, regulation 16 on applicant's election of a reserved area contribution of equity interest or joint venture or production sharing participation, regulation 19 on

equity interest, joint venture or production sharing participation, and regulation 27 on size of area and relinquishment. Consequential changes in respect of other regulations have also been indicated in bold.

III. Updated on progress with the geological model of the Clarion-Clipperton Fracture Zone

18. The Commission was provided with a report on the status of the development of the geological model for the Clarion-Clipperton Zone (ISBA/10/LTC/5). The document included a summary of a meeting of the Secretary-General with the contractors, which was held in New York on 20 and 21 November 2003, to discuss contributions of the contractors and participation in the development of the model. The report also contained information on data acquired from the public domain to be used a proxy data for the development of the model, as well as on a computerized basis developed to facilitate spatial data analysis, data integration, modelling and mapping of the different parameters of the geological model. The report includes information on the future activities to be carried out by the secretariat in relation to the development of the model. The Commission noted the contents of the report and wished to clarify the procedures of the secretariat in facilitating the development of the model and also concerning the future direction of the project. The Commission was of the view that a more detailed plan of work from the Secretariat should be presented on the development of the model and further that the members of the commission should be kept informed during the intersessional period.

IV. Recommendations of the workshop on standardization of environmental data and information

19. The report of the workshop on standardization was presented to the Commission, ISBA/10/LTC/4. The Commission took note of the document and wished to be clear as to the next step to be taken in view of additional recommendations contained therein as compared to the previous recommendations issued by the Legal and Technical Commission in document ISBA/7/LTC/1/Rev.1. After some discussion it was felt that since the proceedings of the workshop were available in the public domain, due account of the proceedings should be taken, while formal review should be undertaken within the time frame of the next two years, in accordance with the provisions for review contained in ISBA/7/LTC/1/Rev.1.

V. Discussion on the role of the International Seabed Authority in relation to the management of biodiversity in the Area

20. It may be recalled that during the ninth session, the Commission held a preliminary discussion in open session, on issues relating to biodiversity of the Area, and further agreed that Ms. Frida Maria Armas Pfirter would coordinate preparation of a paper on the legal issues associated with biodiversity in the Area at the tenth session. At an open session on 27 May 2004, Ms. Armas Pfirter presented a personal paper on legal implications related to the management of seabed living

resources in the Area. The purpose of the open session was to gather information and improve understanding of seabed biodiversity, the management and legal status of the living organisms in the Area. The paper confined its analysis of the provisions of the Convention according to the mandate of the Legal and Technical Commission. The discussions revealed a need to address relevant issues taking into account the work of other organizations.

21. At the ninth session, the Legal and Technical Commission had also asked Mr. Beiersdorf to write a proposal for a seminar related to the protection of the marine environment and high seas biodiversity during prospecting and exploration of mineral resources in the Area, using lessons learned from scientific research programmes. The Commission took note of the fact that the proposal was taken as a basis for planning a workshop by the secretariat to be held from 6 to 10 September 2004. The Commission requested to have further input during finalization of the plan.

VI. Other matters

22. The Commission requested an exchange of views with the Secretary-General on certain matters relating to wider participation of members of the Commission in the development of workshop programmes of the Authority, the sourcing of the experts for technical advice and the choice of experts and consultants when required by the Authority. In response to the issues raised by the members, the Secretary-General pointed out that the practice has been to utilize the expertise available with the Commission and to invite members depending on the subject of the workshop. He welcomed the idea of wider participation of the members of the Legal and Technical Commission in workshops and other technical matters, while pointing out that financial support may not be always available. The Secretary-General invited the members of the Commission to suggest names of experts whose expertise could be utilized by the Authority in different technical areas. The Secretary-General welcomed the idea of having intersessional communication on various matters with members of the Commission through the password protected LTC web page, in particular, on the programmes relating to workshops and the implementation of geological models of the Clarion-Clipperton Zone. He also assured members that the relevant information on these subjects would also be available on the Authority's web site.

23. Concerns were raised regarding certain members of the Commission who have not attended the session in the past two years. The Commission recommended that the Secretary-General should write to the members concerned for explanation. According to paragraph 10 of document ISBA/5/C/11, in the case of members who had not attended consecutive meetings of the Commission, the Council requested the Secretary-General to ascertain whether such members intended to maintain their seats on the Commission.

24. The Commission raised the subject of the annual report of the Secretary-General. Since the report of the Secretary-General covers several important matters that relate to the work of the Commission, members wished to have an opportunity to discuss it in the Commission with a view to being more proactive in their work. It was decided to include the report of the Secretary-General for exchange of views as a regular feature on future agendas of the Commission.

25. In concluding the deliberations, the chairman reiterated that the Legal and Technical Commission is a technical body and a resource of the Authority. Whereas the mandate of the Commission, in accordance with the Convention and the Agreement, covers specific areas, as the Council may request, the Commission, as an expert body, should also take initiatives to engage in constructive dialogues on a regular basis.

26. The Commission wished to express its deep gratitude to Michael Lodge for his guidance and expert advice throughout all stages of its work.
