



## Council

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### Thirteenth session

Kingston, Jamaica

9-20 July 2007

## Report of the Chairman of the Legal and Technical Commission

1. During the thirteenth session of the Authority, the Legal and Technical Commission met from 2 to 10 July 2007. The following 20 members of the Commission attended the meetings: Frida Armas Pfirter, Jean-Marie Auzende, Laleta Davis-Mattis, Walter De Sá Leitão, Baïdy Diène, Miguel Dos Santos Alberto Chissano, Elva Escobar, Serguey Fyodorov, Kennedy Hamutenya, Said Hussein, Yoshiaki Igarashi, Asif Inam, Woong-Seo Kim, Eusebio Lopera Caballero, Andrzej Przybycin, Mahmoud Samy, Sudhakar Maruthadu, Sandor Mulsow, Adam Tugio and Hongtao Zhang. David Billet, Michael Wiedicke-Hombach, Elena Sciso and Isikeli Mataitoga indicated that they would not be able to attend the meetings.

2. On 3 July, the Commission elected Mahmoud Samy as Chairman of the Commission. Sandor Mulsow was elected as Vice-Chairman.

3. The Commission considered the following items on its agenda (ISBA/13/LTC/3):

(a) Annual reports of contractors submitted pursuant to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (“the Regulations”);

(b) Report of the Secretary-General on the periodic review of implementation of plans of work for exploration;

(c) Progress report on the geological model on polymetallic nodule deposits in the Clarion-Clipperton fracture zone;

(d) Draft regulations on prospecting and exploration for cobalt-rich ferromanganese crusts in the Area.

### I. Annual report of contractors

4. The Commission carried out an evaluation of the annual reports of the eight contractors for 2006 submitted pursuant to the Regulations. For this purpose, the

Commission divided itself into three informal working groups. The working groups examined the annual reports and prepared a draft evaluation for consideration by the full Commission. The work of the Commission was facilitated by a preliminary assessment prepared by the Secretariat (ISBA/13/LTC/CRP.2).

5. The Commission noted that the annual reports were due by 31 March 2007. As of 30 June 2007, annual reports had been received from all eight contractors: Deep Ocean Resources Development Co. Ltd. (DORD), Yuzhmoregeologiya, the Government of the Republic of Korea, China Ocean Mineral Resources Research and Development Association (COMRA), Interoceanmetal Joint Organization (IOM), the Government of India, Institut français de recherche pour l'exploitation de la mer (IFREMER) and, for the first time, Bundesanstalt für Geowissenschaften und Rohstoffe (BGR) on behalf of the Government of Germany.

6. The Commission stressed the importance of structuring the annual reports in the format recommended in 2002 (ISBA/8/LTC/2, annex) and recalled that annual reports had to be submitted by the end of March each year. Furthermore, it was sometimes difficult to make out from the reports the actual work carried out during the reporting year. Reports should therefore clearly indicate the work done during the reporting period. The reports should also briefly indicate the work proposed to be carried out in the next year.

7. The Commission recommended that the units used in the annual reports be those of the International Systems of Units.

8. Most of the reports highlighted the work carried out, methods and results. The Commission had on several occasions requested that actual raw data be provided wherever possible, but most of the contractors still did not provide such data.

9. The Commission suggested that baseline meteorological data should be collected on all expeditions to contract areas.

10. Contractors should clearly indicate where there were changes in the programme of activities compared to what had been agreed in the contract.

11. The Commission noted that there were very large disparities in the amounts reported as being spent on exploration by each contractor. Furthermore, in the case of some contractors, the expenditure reported was greatly in excess of the amount that had been proposed in the original programme of activities. The Commission recommended that the Secretary-General take steps to clarify with individual contractors whether there was a need to adjust the programme of activities to take account of a higher level of expenditure than originally envisaged. The Commission also emphasized the need for reported expenditure to be properly itemized and to relate only to the actual and direct costs of exploration as established in section 10.2 (c) of annex 4 to the Regulations.

12. The evaluation by the Commission is contained in document ISBA/13/LTC/4.

## **II. Report of the Secretary-General on the periodic review of implementation of plans of work for exploration**

13. The Secretary-General provided the Commission with a report on his consultations with contractors relating to the periodic review of the implementation

of their plans of work for exploration. It was noted that periodic review of the plans of work at intervals of five years is a requirement of the Regulations. As part of the review, the contractor shall indicate its programme of activities for the following five years, making such adjustments to its previous programme of activities as are necessary. The Secretary-General is required to report on the review to the Legal and Technical Commission and the Council.

14. The Secretary-General informed the Commission that each of the contractors had submitted a five-year summary of the work carried out by them in their exploration areas and the results obtained, as well as a review of the expenditure incurred during the five-year programme. Each of the contractors had also submitted a programme of activities for the next five-year period and these had been made available to the Commission. Although all of the contractors had adhered to the programmes of work as originally indicated, the focus of their work had been on preparatory work and evaluation of data already collected during the pioneer phase. There was little evidence that any of the contractors had made much progress in the development of mining and processing technology.

15. The Commission noted that there were very large disparities in the amounts being spent on exploration by each contractor. In some cases, the expenditure reported was greatly in excess of the expenditure proposed in the original programme of activities. The Commission requested the Secretary-General to take steps to clarify any discrepancies with individual contractors.

16. With regard to the programmes of activities for the second five-year period, the Commission noted that all the contractors planned to continue to work at the same pace. There were no significant changes to the types of activities that are proposed. The emphasis remained on the analysis of existing data and the opportunistic collection of environmental baseline data through scientific research cruises. None of the contractors appeared to be moving towards the stage of identifying a first-generation mine site.

17. The Secretary-General informed the Commission that he would in due course write to each contractor so that the revised programme of activities could be duly incorporated into the exploration contract, in accordance with the Regulations.

18. The Commission recommended that, where appropriate, the Secretary-General should seek further clarification from contractors on the compliance of the programme of activities with the original plan of work for exploration.

### **III. Progress report on the geological model on polymetallic nodule deposits in the Clarion-Clipperton Fracture Zone**

19. On 4 July 2007, a consultant, Charles Morgan, presented a progress report of work on the geological model on polymetallic nodule deposits in the Clarion-Clipperton Fracture Zone (ISBA/13/LTC/CRP.1). His report addressed the initial predictions of nodule grade and abundance for the entire Zone using currently available model algorithms, nodule data sets and the available data sets for chlorophyll, the carbonate compensation depth and distance from the East Pacific Rise as proxies for nodule grade and abundance.

20. The Commission was informed that the project to establish a geological model had entered its final phase. It was explained that the geological model was conceived as an ongoing process. It would be subject to peer review by September 2007 and updated as more data became available, for instance, benthic current data and more sedimentary data would be of significant value for the model. A final draft of the model, reflecting the suggestions from peer reviewers and internal reviews, would be available by the end of 2007. The final outputs of the project, including a prospectors' guide and a geological model, would be presented at an international workshop to be convened prior to the fourteenth session of the Authority in 2008.

#### **IV. Draft regulations on prospecting and exploration for cobalt-rich ferromanganese crusts in the Area**

21. The Commission began examination of the draft regulations on prospecting and exploration for cobalt-rich ferromanganese crusts (ISBA/13/LTC/WP.1), noting that the Council had requested it to review the draft in the light of the discussions held in the Council in 2005 and 2006 and in particular the Council's decision in 2006 to separate the draft regulations dealing with cobalt-rich ferromanganese crusts from those dealing with polymetallic sulphides. While considering the draft, the Commission had available to it a note by the Secretariat setting out the background to the draft regulations (ISBA/13/LTC/1) as well as the technical information papers prepared by the Secretariat for the Council in 2006 (ISBA/12/C/2 and ISBA/12/C/3) and the report and papers prepared for the Authority's 2006 workshop on the technical and economic considerations relating to mining of polymetallic sulphides and cobalt-rich crusts.

22. The Commission focused its consideration of the draft regulations on two sensitive issues: the size of the area to be allocated for exploration and the progressive fee system. It was noted that the central issue with respect to the draft regulations was the system for allocation of exploration areas to potential contractors with the Authority. The establishment of a system for allocation depends on adequate knowledge of the nature of the resources. For cobalt-rich crusts, the state of knowledge remains poor. For example, the technical study prepared by the Secretariat in 2006 was based on detailed knowledge of only 34 seamounts. Some members of the Commission considered that the assumptions in that study relating to crust thickness, ore grade and recoverability were too optimistic. Others noted that the information in the study was the best evidence currently available to the Authority.

23. It was emphasized that the Commission should continue to proceed cautiously and in a logical manner towards the development of the regulatory system, with due regard to the precautionary approach. The consequences of making decisions at the current stage might lead to monopoly by one or two potential contractors or otherwise constrain future development of the resources of the Area. It was suggested that any scheme for prospecting and exploration should be subject to review after an initial period. There was also a need to ensure that the Authority received adequate data and information to enable it to make properly informed decisions on the basis of scientific advice, particularly with regard to the protection and preservation of the marine environment.

24. The Commission also addressed the issue of the applicant's election of a reserved area contribution or offer of an equity interest in a joint venture arrangement. Some concerns were expressed about the impossibility for the Authority to discuss the choice of the applicant. Others observed that it would be unrealistic to require future contractors to carry out expensive studies to provide data enabling the contribution to a reserved area if the applicant preferred to offer an equity interest in a joint venture arrangement. Moreover, the Authority would not have the means to assess those data. The Commission expressed its satisfaction with the system of options as set out in draft regulation 16. However, the need was expressed to add an acceptance clause. Some members of the Commission also considered that there was a need to review the fee system. In that regard, it was noted that the application fee had been set at \$250,000 in 1982 and there was now a need to review the amount. In addition, some members of the Commission felt that it was necessary to consider a progressive fee system in order to provide an incentive for contractors to carry out exploration work.

25. The Commission felt that the background information available to date was not sufficient to provide a recommendation to the Council on any given system for site allocation for prospecting and exploration. Thus, the Commission suggested that the Secretariat prepare a more specific economic assessment for its consideration. The assessment should take into account not only that the Area represents natural capital accruing to mankind as a whole but that its resources carry out ecological functions and provide ecosystem services which have an economic value. The loss of those ecosystems services would entail a high environmental cost. Therefore, such a cost should also be borne in mind at the time of providing more detailed advice on a market for exclusive exploration rights.

## **V. Other matters**

26. For the efficient exercise of its functions, the Commission requested to hold an intersessional meeting of one week for the purpose of preparing its meetings during the annual session. This would be cost-effective since at the same time the meetings of the Commission during the annual session would last only one week instead of two.

27. The Commission felt that it could contribute more actively in advising the Authority on the selection of the consultants.

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